

The Chinese Aesthetic Feature in Modern Chinese Music Composition (1919–2000)

Viewed Through the Lens of Traditional Chinese Music

by

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DISSERTATION ABSTRACT

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Title: The Chinese Aesthetic Feature in Modern Chinese Music Composition (1919–2000)

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As an essential component of world music, Chinese music, with its developmental trajectory fundamentally different from that of Western music, has provided important inspiration for contemporary musical creation. Scholarship in the English-speaking world has primarily focused on the historical context of Chinese music, Chinese aesthetic philosophy, and the intersection of music and philosophy. In contrast, Chinese-language scholarship has tended to emphasize the Chinese modal system, pentatonic harmonic systems, and twelve-tone techniques derived from the pentatonic scale. Only a limited number of studies propose systematic analytical frameworks that examine traditional Chinese music in relation to tonal and post-tonal music from the perspective of compositional technique, while also explaining how Chinese aesthetic characteristics are concretely manifested in musical works.

Building on this foundation, this study seeks to systematize analytical methods for Chinese music. From the perspective of traditional Chinese music, it examines the realization of Chinese aesthetic characteristics through four dimensions: the Chinese modal system (with particular emphasis on the concept of “*One Yun Sharing Three Gong Systems*”), rhythm and meter in traditional Chinese music, the definition of single tones, and the relationship between music and text. Selected concepts of Chinese modality and musical form are also compared with Western theoretical frameworks in order to explore fundamental differences between Chinese

and Western musical systems. This approach aims to assist scholars without a background in Chinese music theory in developing a clearer and more comprehensive understanding of Chinese music.

The study then analyzes representative works composed between 1919 and 2000 to elucidate Chinese aesthetic characteristics in twentieth-century Chinese composition and their dialogue with Western compositional techniques. As the twentieth century marks the formative period of professional music in China, examining this repertoire helps clarify the origins of modern Chinese art music and establishes a foundation for further research.

Finally, the study addresses pedagogical approaches to teaching Chinese music, focusing primarily on Western undergraduate students. Drawing on both traditional and modern Chinese music, it proposes classroom-applicable teaching strategies and provides representative musical examples.

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To all who are navigating challenges, may we ultimately reach the places we seek.

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Chapter 1: Introduction

As an integral part of world music, Chinese music provides significant inspiration for the creation of contemporary musical compositions, thanks to its entirely distinct music development compared to Western music. Research on Chinese music in English has predominantly explored its historical background, Chinese aesthetics, and the intersection of music and philosophy. Conversely, research conducted in Chinese has primarily focused on the Chinese modal system, Chinese pentatonic harmony, and the pentatonic 12-tone method. A few scholars have provided a systematic analytical method to explore the relationship between traditional Chinese music and tonal, or post-tonal music, and to elaborate in detail on the specific manifestations of Chinese aesthetic features from the perspective of compositional technique theory.

Building upon this foundation, I will systematize Chinese musical analysis methods. From the perspective of traditional Chinese music, I will systematically summarize the specific manifestations of Chinese aesthetic features through four perspectives: the Chinese modal system, especially the concept of “One Yun Sharing Three Gong Systems”, rhythms and beat in traditional Chinese music, the definition of single tone in traditional Chinese music, and the relationship between music and lyrics in traditional Chinese music. Also, I will compare certain concepts of Chinese mode and musical form with western musical concepts and explore the underlying differences between Chinese and western music. This aims to assist scholars lacking a background in Chinese music theory in achieving a deeper and more comprehensive understanding of Chinese music. Finally, I will analyze representative musical works from 1919 to 2000 to illustrate the Chinese aesthetic feature of twentieth-century Chinese composition, as well as its dialogue with Western compositional techniques.

This approach will combine both Chinese and English literature to create a comprehensive framework. Also, I will use certain concepts of Chinese linguistics when I analyze traditional Chinese song and explore the relationships between musical form, melodic contour, rhyme and tone. Finally, I will incorporate analytical methods of Western music theory when appropriate to help scholars without a background in Chinese music theory gain a deeper and more comprehensive understanding of Chinese music. These will include form theory, prolongational theory, pitch-class set theory, and referential connection, etc.

This research will integrate Chinese and English literature to construct a comprehensive framework. When analyzing the Chinese modal system, I will employ the concept of “ One Yun Sharing Three Gong Systems ” (同均三宫). For the relationships of lyrics and music, I will employ concepts from Chinese linguistics to explore connections between musical form, melodic contours, rhythm, and language tone. Also, I will incorporate Western music analytical methods where appropriate; these methodologies include formal theory, prolongational theory, pitch-class set theory, and referential collection, etc.

Chapter 2: A Historical and Contemporary Overview of the Development of Western musical theories in China

The Revolution of 1911 overthrew the feudal autocratic system that had persisted for thousands of years,¹ yet Chinese society remained profoundly influenced by traditional ideologies and outdated structures. The 1919 May Fourth Movement marked the climax of the New Culture Movement, initiating China's intellectual enlightenment. It propelled the nation into a new era of modern nationalism and democratic consciousness, fostering recognition of the importance of democracy and science while calling for opposition to outdated moral codes and traditional constraints. This intellectual awakening carried profound political significance, regarded as a crucial prelude to China's New Democratic Revolution², while also driving cultural reforms. For instance, vernacular Chinese replaced classical Chinese as the dominant language in literature, education, and journalism; Xun Lu's *Diary of a Madman* (1918) is widely acknowledged as the first true vernacular novel. In literature, creative concepts gradually shifted from "serving politics" to focusing on individual and social realities.³ In music, Chinese composers began adopting Western compositional techniques, initiating over a century of professional musical creation. Western twelve-tone compositional techniques and tonal theories were also introduced to China during this period.⁴

Wenci Feng notes that in the long history of cultural exchange between ancient China and the West, two significant peaks can be identified. The first occurred from the Northern and Southern Dynasties to the mid-Tang Dynasty (420-756), while the second peak took place in the

¹ Editorial Committee of *Outline of Modern and Contemporary Chinese History*, *Outline of Modern and Contemporary Chinese History*, 9th ed. (Beijing: Higher Education Press, 2023), 68.

² *Ibid.*, 97.

³ Zhouju Lü, "The Foundational Work of Chinese Modernist Literature: A New Interpretation of *Diary of a Madman*," *Guangdong Social Sciences*, no. 1 (2008): 140–146.

⁴ Zhenya Wang, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004).

early 20th century.⁵ The first peak centered primarily on the early to mid-Tang Dynasty, a period marked by political consolidation, economic prosperity, cultural flourishing, and heightened national confidence. The most significant development during this period was China's absorption of musical influences from the Western Regions (Xinjiang and the Central Asian regions). Chinese music underwent a transformation in many aspects: musical instruments became more diverse, Western Region instruments like the pipa gained popularity, narrative music began to emerge, and the musical system further expanded. The second peak, in stark contrast, occurred in the early 20th century. Under the rule of the late Qing government, China faced bullying by foreign powers, national decline, and the end of the feudal system. Amidst this turmoil, a wave of progressive intellectuals emerged, guiding scholars to turn their gaze toward "Western learning" and inspiring the people to strive for strength. This second wave catalyzed the modernization of Chinese musical culture. During this second phase of Sino-Western musical exchange, Chinese musical traditions absorbed Western influences, experiencing both conflict and synthesis. The resulting musical achievements were either discarded or gradually integrated into the fabric of Chinese national music. Undeniably, the inherent traditions of Chinese national music achieved significant development in the modern era.

By the 20th century, scholars have categorized the exchange between Chinese and Western music into three periods: In the first chapter, "Historical Description: The Encounter between the Indigenous and the Western," of Shiyuan Li's book *Modern Chinese Music: A Dialogue between the Indigenous and the Western*, the author divides the entire course of Chinese musical development into three stages based on the interaction between Chinese and Western music: before 1949, "the encounter between the indigenous and the Western"; from

⁵ Wenci Feng, *A Chinese-Foreign Exchange History of Music*, Changsha: Hunan Education Press, 1998, 220.

1949 to 1979, “the estrangement between the indigenous and the Western”; and after 1979, “the integration between the indigenous and the Western.”

Similarly, although Wei Zhang’s series of articles, *A Study on the Sinicization of Serial Music Techniques: The Development of Twelve-Tone Composition Techniques and Theories*, does not explicitly propose a chronological division, Zhang discusses the trajectory of China’s engagement with Western twelve-tone music, from its initial introduction in 1928, when Zhenghe Ke published “The Music of Schoenberg” (*Shenboke de yinyue*) in *New Musical Trends* (*Xin yue chao*), through the historical transformations surrounding 1949 and 1979, which profoundly influenced the development of twelve-tone techniques in China.

In her article “Serialism in East Asia,” Nancy Rao classifies the evolution of Chinese serial music into four periods: (1) the liberation of dissonance (traced back to 1919); (2) the emergence of modern music in Shanghai (beginning in the 1930s); (3) the period of coming to prominence (1980–1990 and 1990–2000); and (4) the phase of structurally coherent approaches (2000–present).

Drawing upon both the above Chinese and Western scholarship, I categorize the development of music theory (tonal and post-tonal) in modern China into the following three stages: 1919–1949, 1949–1979, and 1979–2000.

The Initial Exploration of Western Music Theory (1919–1949)

Political context and the folk song research Boom. The period from 1919 to 1949 was an exceptionally turbulent and pivotal three decades in Chinese history. It witnessed the May Fourth Movement and warlord factionalism in the 1920s, the collaboration and subsequent split between the Chinese nationalist and the Communist Party in the 1930s, the War of Resistance Against

Japan, and the civil war culminating in the founding of the People's Republic of China in the 1940s. This politically unstable environment fostered the development of literary and artistic activities, leading to an exceptionally vibrant period for professional music composition. A group of Western-trained musicians, led by Youmei Xiao, Zi Huang, and Xinghai Xian,⁶ advocated for the creation of musical works embodying the distinctive characteristics of the Chinese nation. In his 1938 essay "On Our New Music Movement," Youmei Xiao stated the need to "create a new style capable of representing the unique features of the Chinese nation and distinguishing it from the music of other nations."⁷ Zi Huang, in his 1934 essay "How to Produce Our Nation's Ethnic Music," mentioned "producing new music with national characteristics."⁸ Xinghai Xian, in "On the National Form of Chinese Music," emphasized the need to "create Chinese emerging music."

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Alongside advocating for music with Chinese characteristics, these musicians also championed the critical importance of studying folk songs. In "Lu Yi and Chinese New Music—Written for the First Anniversary of 'Lu Yi'," Xinghai Xian stated: "Emerging music holds great promise. We must continue diligently studying folk songs, critically adopting advanced foreign

⁶ Youmei Xiao, Zi Huang, and Xinghai Xian were among the earliest Chinese composers to study in the West and receive systematic Western composition training. Zi Huang (1904–1938), born in Jiangsu, studied in the United States early in his career, graduating from the Yale University School of Music. Upon returning to China, he taught at the National Conservatory of Music (later Shanghai Conservatory of Music), dedicating himself to music education and composition. He is regarded as a founder of early Chinese art songs. Xinghai Xian (1905–1945), born in Macau, studied at the Paris Conservatoire but did not formally graduate due to financial constraints. After leaving school, he returned to China to compose music for the anti-Japanese war effort and was hailed as the "People's Musician." Youmei Xiao (1884–1940), born in Panyu, Guangdong, studied in Japan and Germany (Leipzig Conservatory). He was China's first composer to receive comprehensive training in German-Austrian music. After graduating, he helped establish the National Conservatory of Music (now Shanghai Conservatory of Music), laying the foundation for systematic music education in China.

⁷ Youmei Xiao, "On the New Music Movement in China," in *Collected Writings on Music by Xiao Youmei*, edited by Lingqun Chen, Yuyi Qi, and Penghai Dai (Shanghai: Shanghai Music Publishing House, 1990), 466.

⁸ Zi Huang, "How Can Chinese National Music Be Created?" *Music Art* (1984), no. 4: 15.

⁹ Xinghai Xian, "On the National Form of Chinese Music," in *The Complete Works of Xian Xinghai*, vol. 1, edited by the Editorial Committee of *The Complete Works of Xian Xinghai* (Guangzhou: Guangdong Higher Education Press, 1989), 50.

techniques and theories to create new forms of music.”¹⁰ Sicong Ma, in “The Direction of Chinese New Music,” proposed: “Chinese musicians must not only learn techniques from the West but also learn from our common people, who embody our land, mountains, plains, and rivers.”¹¹ On the political front, Zedong Mao’s pivotal speech at the Yan’an Forum on Literature and Art in May 1942 served as the programmatic document for the Communist Party of Chinese cultural policy. Mao asserted that “literature and art should serve the workers, peasants, and soldiers.” Against this backdrop of “folk song fever,” students at the former National Conservatory of Music in Qingmuguan, Chongqing, formed the student society “Mountain Song Society.” On March 5, 1945, these students spontaneously pooled funds to publish the first volume of Chinese Folk Songs, primarily compiling folk songs from major magazines alongside their own field recordings. Notably, their teacher Yinliu Yang wrote the preface for this collection. Yang stated: “Several students in the composition department of the Conservatory, having reached a certain stage in their studies, gradually realized that merely mastering Western compositional techniques was not a viable path for national music. They therefore turned inward to seek compositional materials within their own country’s musical traditions. Their first step was to begin collecting and organizing folk songs. Their aspiration was that by analyzing these folk songs, they could uncover issues not specially addressed in Western compositional studies. Attempting to resolve these issues would guide them toward the path of national music.” Concurrently, students renamed the original academic journal *Jikan* to *Shangge* (Mountain Songs) to better facilitate folk song activities. Notably, the first article in the inaugural issue,

¹⁰ Xinghai Xian, “Lu Yi and New Chinese Music: Written for the First Anniversary of ‘Lu Yi,’” in *The Complete Works of Xian Xinghai*, vol. 1, edited by the Editorial Committee of *The Complete Works of Xian Xinghai* (Guangzhou: Guangdong Higher Education Press, 1989), 39–41.

¹¹ Sicong Ma, “The Direction of New Chinese Music,” in *The Complete Works of Ma Sicong*, vol. 7, edited by the Editorial Committee of *The Complete Works of Ma Sicong* (Beijing: Central Conservatory of Music Press, 2007), 33.

titled “On the Question of ‘Catering to the Audience or Ignoring Them’,” stated: “Only by organically integrating Western techniques with indigenous folk artistry can one adequately undertake the creation and performance of nationalistic works.”¹²

This demonstrates that regardless of the political environment, both teachers and students at the time exhibited a strong desire to create characteristic Chinese musical works, with folk songs becoming a pathway to “Sinicization.” It was during this same period that western tonal theory and twelve-tone technique was introduced to China.

The Introduction and Practice of the chromatic tonal system, two-voice framework theory and Twelve-Tone Technique. Against this historical backdrop, following the establishment of the Shanghai National Conservatory of Music in November 1927, Youmei Xiao (1884–1940), Zi Huang (1804–1938), Zhu Qing (1893–1959), and other pioneering Chinese music scholars educated in the West began systematically introducing Western compositional theories to Chinese students. This mainly included the modal-chromatic system (Mahler, Stravinsky, Debussy), the two-voice framework theory of Hindemith, and twelve-tone techniques. Integrating these with Chinese modal traditions, they sought to create musical works with distinctive Chinese characteristics.¹³

Regarding the modal chromatic system, a compositional technique that became widespread in the West during the latter half of the nineteenth century, it disrupted the traditional tonal-functional harmonic structure of European music and expanded the conceptual horizon toward harmonic chromaticism. For the Chinese national schools of that time, such a technique

¹² Gongcheng Xie, “The Founding of the ‘Mountain Song Society’: Remarks at the Conference on Modern Chinese Music History,” *Music Research* (1992): 6.

¹³ Shiyuan Li, *Chinese Modern Music: A Dialogue between the Indigenous and the Western—The Influence of Western Modern Music on the Composition of Mainland Chinese Music* (Shanghai: Shanghai Conservatory of Music Press, 2004), 49.

primarily served the purpose of nationalizing harmony, allowing the chromatic tones within the harmonic language to acquire modal significance rooted in national modes, rather than functioning merely as chromatic notes within the major-minor tonal system. This compositional approach provided a theoretical foundation for Chinese composers seeking to create works with distinct national characteristics and laid the groundwork for the later development of the theory of “pentatonic harmony.” For instance, composers such as Zi Huang in *Song of Spring Thoughts* (1932), Zhu Qian in *I Live Upstream of the Yangtze River* (1929), and Yuanren Zhao in *Spring Morning, Autumn Morning* (1924) extensively employed modal alternation to explore the nationalization of harmony (pentatonic harmony).¹⁴

Regarding Hindemith’s two-voice framework theory, it was introduced to China by Xiaolin Tan, who had studied under Hindemith. Between 1946 and 1948, Tan taught this modern compositional technique at the Shanghai Conservatory of Music, enabling contemporary Chinese composers to become acquainted with and understand this compositional system.¹⁵ The linear conception, the notion of modal centers, and the use of harmonies not stacked in thirds in Hindemith’s theory collectively created the conditions for the Sinicization of musical composition.

Specifically, first, traditional Chinese music, particularly folk song, is primarily monophonic in nature. Second, the concept of a tonal center in Hindemith’s theory parallels the determination of the tonic in Chinese modal theory: in both systems, the modal center is established by the pitch’s structural prominence or its duration, rather than by the root of a tonic triad. Third, the non-third-stacked harmony in Hindemith’s theory provided a theoretical

¹⁴ Ibid., 34.

¹⁵ Ibid., 45.

foundation for the development of pentatonic harmony, which is largely based on fifth relations and thus breaks away from the conventions of third-stacking.

During this period, Xiaolin Tan's art song *Farewell* (analyzed in detail in Chapter 3) exemplifies the application of the two-voice framework in composition. His students, Zhongrong Luo and Xixuan Qin also created numerous works using this approach. Xixuan Qin even authored a book titled *The Practical Application of Hindemith's Harmonic Theory*, which offers a detailed exposition of Hindemith's two-part theory along with analytical examples of musical works by both Chinese and Western composers that are based on this theoretical framework.

Regarding the twelve-tone technique, in 1934 Qing Zhu published an article titled "Reactionary Music?"¹⁶ in *The Music Magazine* (Shanghai), in which he expressed his support for Schoenberg's use of the twelve-tone method, asserting that "sooner or later it will have its day." He also criticized the German view that regarded music composed with this technique as "reactionary".¹⁷ This is the earliest Chinese article evaluating the twelve-tone compositional concept and its techniques, demonstrating that Schoenberg's twelve-tone technique resonated with the professional circle of composers active in China at the time, both in its compositional philosophy and conceptual approach. Beyond the introduction of twelve-tone techniques by Chinese scholars educated in the west, some western composers who came to China due to historical circumstances also promoted this technique. For instance, the German composer Wolfgang Frankel (1897–1982),¹⁸ who was also a conductor and music educator, fled to

¹⁶ Qing Zhu, "Reactionary Music?" in *Twentieth-Century Chinese Musical Aesthetics: Documentary Volume, 1900–1949*, edited by Wang Ningyi and Yang Heping (Beijing: Modern Publishing House, 2000).

¹⁷ Zhang Wei, "The Sinicization of Serial Music Techniques: The Development of Twelve-Tone Compositional Techniques and Theory (1980–1990)," *Music Research*, no. 32 (2017): 24.

¹⁸ Wolfgang Fortner (1897–1982), German composer, conductor, and educator. To escape persecution by the Nazi regime, he fled to Shanghai in 1941. From 1941 to 1947, he was employed by the National College of Music (now Shanghai Conservatory of Music), teaching composition and compositional technique theory. He not only held a significant position in the development of modern German music but also exerted a direct influence on modern Chinese music education.

Shanghai to escape Nazi persecution. From 1941 to 1947, he served as a professor of composition and compositional technique at the National Conservatory of Music in Shanghai.¹⁹ His earlier works reveal a compositional style characterized by typical features of atonality and twelve-tone technique. Notably, archival evidence indicates that in 1945 he composed *Three Two-Part Preludes* (KV. V80-82) for piano, a small twelve-tone piano piece, evidently written for pedagogical purposes to demonstrate the principles of the twelve-tone method to his students. Sang Tong was among his pupils at that time.²⁰

It was under Frankel's direct supervision that Sang Tong composed his first major work, *Night Scene* (for violin and piano), in February 1947. Later that same year, under the guidance of another German composition professor, Hanns Hlorz, Sang composed his piano piece *At a Place Faraway*. These two works represent the earliest examples of atonal composition by a Chinese composer. However, unlike the traditional Western twelve-tone technique, Sang Tong's two compositions do not strictly adhere to a twelve-tone sequence. Instead, to maintain melodic fluidity and a Chinese national style, certain pitches are repeated (see Example 1a). Furthermore, the piano part employs non-third-stacked pentatonic chords (see Example 1b).²¹ This demonstrates that even during the exploratory phase of early 12-tone technique in China, elements of Chinese folk style were consciously or unconsciously integrated. This phenomenon is clearly inseparable from the historical context of the Folk Song Research Boom prevalent at the time. Although composers like Xinghai Xian also engaged in corresponding experiments

¹⁹ Shanghai National Conservatory of Music: originally named the National Conservatory of Music in Shanghai, it was founded in 1927 and was one of the earliest institutions of higher music education in China. In 1956, it was renamed the Shanghai Conservatory of Music.

²⁰ Zhang Wei, "The Sinicization of Serial Music Techniques," 24.

²¹ *Ibid.*, 25.

with atonal music in China during the 1930s and 1940s,²² Sang Tong's works undoubtedly stand as the most significant representative in terms of regional character and technical maturity.

Example 1a: The twelve-tone series in Sections A and B of Sang Tong's *Night Scene*; transcribed by the author based on an example in Wei Zhang, "The Sinicization of Serial Techniques: The Development of Twelve-Tone Composition and Theory (1980–1990)," *Music research* 32 (2017): 25.

Section A mm.8-10

Melody

12-tone series

Section B mm.31-32

Melody

12-tone series

Example 1b: The pentatonic chords in Section A and C in Sang Tong's *Night Scene*; transcribed by the author based on an example in Wei Zhang, "The Sinicization of Serial Techniques (II): The Development of Twelve-Tone Composition and Theory (1980–1990)," *Music research* 32 (2017): 26.

(4) (5) (13) (14) (17) (24) (28) (51) (57) (62-65)

Section A

Section C

²² During his studies in France in the mid-1930s, Xinghai Xian also composed songs such as "Old Horse" and "Fragment" using twelve-tone technique. Quoted in *Ibid.*, 27.

The Gradual Evolution of Western Music Theory (1949-1979)

The period from 1949 to 1979 marked a pivotal era of profound reshaping in China's political, economic, and cultural landscape. During this phase, China completed its transition from a new democratic system to socialism, driving comprehensive societal transformation under a highly centralized political structure. In the early years of the People's Republic (1949–1956), a new social order gradually took shape through land reform and the “Three Major Transformations.” Concurrently, the state adopted the Soviet model in education and culture, establishing specialized art academies and a unified literary and artistic creation system that emphasized music's social function and its role in serving the masses.²³

The “Great Leap Forward” of 1958 and the subsequent “Three Years of Difficulties” dealt a severe blow to economic and social life, also restricting cultural and artistic activities.²⁴ Entering the Cultural Revolution from 1966 to 1976, the state further intensified ideological control over literary and artistic creation, demanding that it emphasize “revolutionization” and “popularization.”²⁵ During this period, traditional and Western musical forms were criticized, and musical composition and education focused increasingly on political propaganda and mass mobilization.

Against this historical backdrop, professional music composition in China exhibited a strong political orientation, while Western modernist music was largely excluded. Any tendencies in modern music deemed “formalistic”, whether in conceptual approach or technical content, were labeled pejoratively and subjected to criticism. For instance, the inaugural issue of

²³ Chongji Jin, *Outline of Twentieth Century Chinese History* (Beijing: CCP Party History Press, 2001), 747-773.

²⁴ Editorial Committee of *Outline of Modern and Contemporary Chinese History*, *Outline of Modern and Contemporary Chinese History*, 9th ed. (Beijing: Higher Education Press, 2023), 225.

²⁵ Ezra F. Vogel, *Deng Xiaoping and the Transformation of China* (Cambridge, MA: Belknap Press of Harvard University Press, 2011), 1-2.

People's Music (1956) featured Huang Hui's translation of Soviet musician G. Snelson's essay "Against the Twelve-Tone System," which criticized Schoenberg and his followers' twelve-tone music as an artificial construct disregarding the objective laws of musical language.²⁶ Overall, from 1949 to the late 1970s, Chinese musical composition primarily focused on themes celebrating the revolution and portraying the images of workers, peasants, and soldiers. Genres included large-scale choral works, revolutionary operas, model operas, mass songs, dance music, and instrumental pieces reflecting industrial, agricultural, and military life. These compositions closely aligned with state policies in both subject matter and form, emphasizing simplicity, clarity, and singability in musical language to serve educational and mobilization purposes.

Although the social context at the time was unfavorable for the dissemination of Western music theory in China, Chinese composers during this period continued to explore ways to Sinicize musical works. This was primarily manifested in the use of nationalized pentatonic harmony (which had already emerged before 1949) and the integration of certain modern compositional techniques with traditional Chinese musical language. The application of nationalized pentatonic harmony was most evident in composers who provided piano accompaniments for folk songs during the 1950s and 1960s. Works like Sang Tong's "Gada Meilin" and Huang Anlun's "Overture and Dance" were created upon the foundation of traditional folk songs.²⁷ They infused new meaning by integrating modern compositional techniques, such as non-third-stacked chord stacking, high chord voicings, and the nine-note scale, with Chinese modes. In addition to musical works, numerous books, articles, and scholarly

²⁶ Wei Zhang, "The Sinicization of Serial Techniques (II): The Development of Twelve-Tone Composition and Theory (1990–2000)," *Chinese Musicology* 2 (2002): 90–91.

²⁷ Shiyuan Li, *Chinese Modern Music: A Dialogue between the Indigenous and the Western—The Influence of Western Modern Music on the Composition of Mainland Chinese Music* (Shanghai: Shanghai Conservatory of Music Press, 2004), 58.

activities concerning national pentatonic harmony were published. For instance, Zhenya Wang's *The Pentatonic Scale and Its Harmony* (1919),²⁸ Shande Ding's 1950 article "On the Harmonization of Chinese-Style Melodies and Folk Songs,"²⁹ and the lectures delivered in 1959 by the Soviet scholar B. Arapov in China, which addressed "the combination of modal and functional elements in harmony and certain issues of modulation." In the same year, the Central Conservatory of Music held an academic symposium on the national style of harmony, at which the "basic principle of integrating modal function with modal color" was proposed. Since then, a series of theoretical writings and musical works exploring the nationalization of harmony have emerged.³⁰ It can thus be observed that before 1949, the exploration of pentatonic national harmony was still in an experimental stage, but after 1949, with the publication of numerous works, the theoretical system of pentatonic national harmony began to take shape. However, composition using twelve-tone technique virtually stagnated during this period. Only composer Luo Zhongrong continued experimenting with twelve-tone techniques in 1962, creating fragments of the art song "Song of the Prisoner". However, this work was rewritten in 1982.³¹

²⁸ Zhenya Wang, *The Pentatonic Scale and Its Harmony* (Shanghai: Wenguang Bookstore, 1949); see also Wang Anguo, ed., "A Bibliography of Chinese Publications on Harmony: Monographs, Translations, and Scholarly Articles," in *The National Style of Harmony and Modern Techniques* (Beijing: People's Music Publishing House, 1996), 681–710.

²⁹ Shande Ding, "On the Harmonization of Chinese-Style Melodies and Folk Songs," *Shanghai Music*, nos. 1–4 (1950); see also Lin Hua, "The Aesthetic Characteristics of Ding Shande's Musical Compositions," *Art of Music* (Shanghai Conservatory of Music), no. 2 (total issue no. 45, June 8, 1991): 30–37.

³⁰ Shiyuan Li, *Chinese Modern Music: A Dialogue between the Indigenous and the Western—The Influence of Western Modern Music on the Composition of Mainland Chinese Music* (Shanghai: Shanghai Conservatory of Music Press, 2004), 56.

³¹ Chunfu Wu, *Zhongrong Luo's Late-Period Modern Style in Music Composition* (Changsha: Hunan Literature and Art Publishing House, 2005), 5.

*The Flourishing and Sinicized Reconstruction of western compositional techniques in China
(1979–2000)*

The Third Plenary Session of the 11th Central Committee of the Communist Party of China held in 1978 is widely regarded as a fundamental turning point in China's political development strategy. The session established the basic national policy of centering on economic development and designated "reform and opening up" as a long-term development principle. This decision ended the political line of "making class struggle the central task" and ushered in a new historical era.³² Subsequently, China achieved breakthroughs through dual paths of domestic reform and opening up to the outside world: the formal establishment of diplomatic relations between China and the United States in 1979 symbolized China's new positioning within the international political system; simultaneously, the government implemented a series of measures to rectify the miscarriages of justice from the Cultural Revolution era, restore the college entrance examination system, rebuild the legal framework, and advance cultural exchanges with other countries.³³

At the cultural policy level, the state gradually relaxed direct ideological control over artistic creation. Although the principle of "Let a hundred flowers bloom, let a hundred schools of thought contend" was first proposed in 1956, its true institutional implementation occurred only after 1979.³⁴ The establishment of special economic zones and the advancement of market-oriented reforms in the early 1980s further facilitated the alignment of cultural production mechanisms with international standards; music composition and performance gained greater institutional autonomy. Deng Xiaoping's Southern Talks in 1992 explicitly proposed building a

³² Ezra F. Vogel, *Deng Xiaoping and the Transformation of China* (Cambridge, MA: Belknap Press of Harvard University Press, 2011), 85–90.

³³ Jin Chongji, *Outline of Twentieth Century Chinese History* (Beijing: CCP Party History Press, 2001), 458–465.

³⁴ *Ibid.*, 472–475.

“socialist market economy,” driving improvements in the rule of law and cultural industry policies, thereby providing artists with a relatively more permissive environment.³⁵ Thus, the political and cultural transformations since 1979 have not only reshaped China’s social structure but also laid the institutional foundation for the diversification of Sino-Western musical exchange, music theory research, and compositional practice. Many key theoretical frameworks and methodologies directly related to western modern compositional techniques were introduced, understood, and interpreted, systematically integrating into the knowledge structure of compositional pedagogy.³⁶ Therefore, many younger composers have engaged passionately with Western musical traditions and have taken them as points of reference for exploration and innovation. For example, in Issue No. 11 of *People’s Music* (a Chinese music journal) published in 1992, Dun Tan articulated the concept of the “sound field” in his essay *Silent Shock*, a notion inspired by John Cage (this will be discussed in detail in Chapter 3).³⁷ Xiaosong Xu’s *Mong Dong* (1984)³⁸ likewise employs numerically controlled modern rhythmic structures, which he integrates with traditional Chinese rhythmic practices. The twelve-tone technique, previously restricted in the early years of the People’s Republic, flourished during this period. Twelve-tone composition became the dominant style in professional music creation during the 1980s, emerging as the “new wave music” of the era. It is worth noting that Chinese composers and theorists’ creative work and research on the twelve-tone technique is not merely an imitation of Western twelve-tone practices. Rather, it involves a process of reconstruction and reinterpretation that builds upon the strict Western twelve-tone sequence to create a distinctly

³⁵ Vogel, *Deng Xiaoping and the Transformation of China*, 310–320.

³⁶ Wei Zhang, “The Sinicization of Serial Techniques (II): The Development of Twelve-Tone Composition and Theory (1990–2000),” *Music research* (2002): 99.

³⁷ Heping Yang, *A Study of Tan Dun’s Opera* (PhD diss., Shanghai Conservatory of Music, 2009), 123.

³⁸ Shiyuan Li, *Chinese Modern Music: A Dialogue between the Indigenous and the Western—The Influence of Western Modern Music on the Composition of Mainland Chinese Music* (Shanghai: Shanghai Conservatory of Music Press, 2004), 69.

Chinese approach. In addition to 12-tone technique, the modal chromatic system also experienced vigorous development, which was primarily reflected in modal thinking characterized by horizontal alternation of modes, vertical superimposition of modes, and the interpenetration of modal structures in both horizontal and vertical dimensions.³⁹ Chinese composers have adapted twelve-tone works to suit Chinese musical traditions, endowing them with modal connotations (detailed below).

Consequently, twelve-tone technique and modal chromatic thinking achieved a successful fusion during this phase. Next, I will categorize and detail how twelve-tone techniques are integrated with the chromatic system in Chinese musical works mostly based on Wei Zhang's article "The Sinicization of Serial Techniques (II): The Development of Twelve-Tone Composition and Theory (1990–2000)," and Zhengya Wang's *The Evolution of Chinese Compositional Techniques*.

Pentatonic Twelve-Tone Series and the Pentatonic Set. The art song "Crossing the River to Pick Hibiscus," published in the third issue of *Music Creation* in 1980, is a twelve-tone work composed by Zhongrong Luo based on one of the Nineteen Ancient Poems. It also holds landmark significance as the first publicly published Chinese work employing twelve-tone serial technique.⁴⁰ To capture the poetic charm of the ancient verse, the composer pioneered a method combining twelve-tone serialism with the traditional Chinese pentatonic scale (see Example 2). The relationship between notes was informed by traditional Chinese modal systems.⁴¹ This work thus established a distinctive style of Chinese twelve-tone composition during that era, the

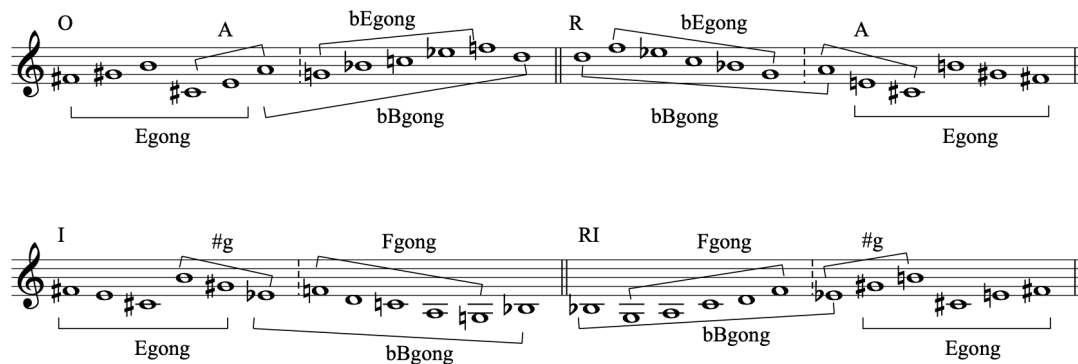
³⁹ Shiyuan Li, *Chinese Modern Music: A Dialogue between the Indigenous and the Western—The Influence of Western Modern Music on the Composition of Mainland Chinese Music* (Shanghai: Shanghai Conservatory of Music Press, 2004), 49.

⁴⁰ Zhenya Wang, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004), 266.

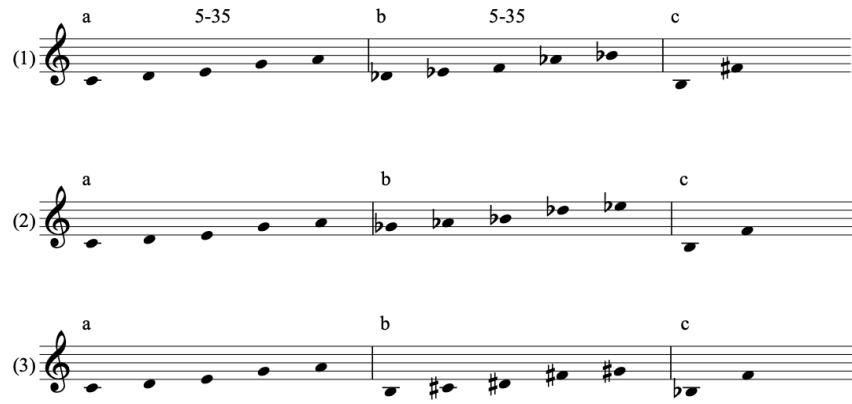
⁴¹ Wei Zhang, "The Sinicization of Serial Techniques (II): The Development of Twelve-Tone Composition and Theory (1990–2000)," *Music research* (2020): 90–91.

pentatonic 12-tone technique. Different composers employed pentatonic twelve-tone series in distinct ways. Zhongrong Luo adhered strictly to pentatonic structures. For instance, in his work *Fragrant Shadow* (1988-1989), he divided the twelve-tone row into two pentatonic scales and a pair of dyads (see Example 3). In works such as *String Quartet No. 3*, *String Quartet No. 4*, and *Luo Zheng's Canvas*, Luo adopts a compositional approach influenced by the derived-row technique, segmenting the twelve-tone series into combinatorial pentatonic and non-pentatonic aggregates organized in groups of four or three pitch classes, see Example 4. This was primarily to avoid complete pentatonic scales (5-35), achieving the effect of emphasizing “twelve-tone” while diminishing “pentatonic characteristics.” In the *String Quartet No. 2* (1985), the twelve-tone row is segmented into overlapping pentatonic scales (see Example 5).

Example 2: 12 tone series of Zhongrong Luo's *Picking Lotus Flowers at the Riverside*; transcribed by the author based on an example in Tongba Yang and Cheng Liu, eds., *Selected Research Essays on Luo Zhongrong's Works*, vol. 2 (Shanghai: Shanghai Music Publishing House, 2014), 58.



Example 3: pentatonic 12-tone series of Zhongrong Luo's *Fragrant Shadow*; transcribed by the author based on an example in Lei Jiang, "From 'Pitch-Class Sets' to 'Pentatonic Pitch-Class Sets': A Diachronic Dialogue between Allen Forte and Luo Zhongrong," *Huangzhong (Journal of Wuhan Conservatory of Music)*, no. 4 (2014): 89.



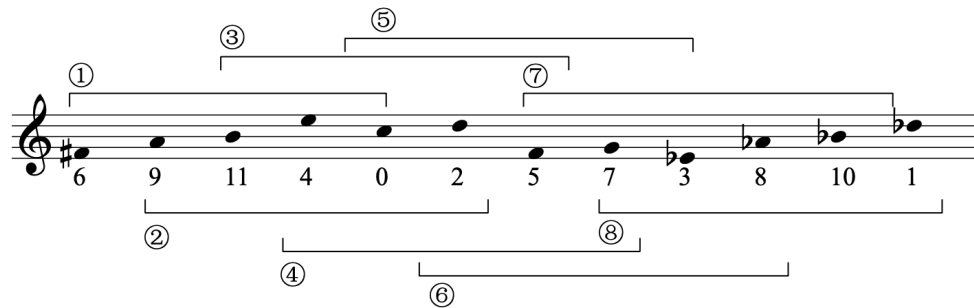
Example 4: Twenty rows for the *String Quartet No. 3*; transcribed by the author based on an example in Lei Jiang, "From 'Pitch-Class Sets' to 'Pentatonic Pitch-Class Sets': A Diachronic Dialogue between Allen Forte and Luo Zhongrong," *Huangzhong (Journal of Wuhan Conservatory of Music)*, no. 4 (2014): 93.

1)Pentatonic Trichords 2)Pentatonic Tetrachords

a	3-6	A	4-22
b	3-7	B	4-23
c	3-9	C	4-26
d	3-11		

Order#	Label	Row	Trichords	Tetrachords	x and X
1	a-1	02475t81639e	abcx	ACX	3-8,4-27
2	a-2	02475t398e16	abxc	AXB	3-5,4-16
3	a-3	02475t9e3681	abxc	AXB	3-8,4-5
4	a-4	02475t39e681	abxc	AXB	3-8,4-16
5	b-1	02574e68139t	bdcx	BAX	3-5,4-Z15
6	b-2	02574e39t681	bdcx	BXA	3-5,4-16
7	b-3	02574e39168t	bdxa	BXA	3-8,4-16
8	b-4	02574e18369t	bdcx	BCX	3-3,4-18
9	b-5	02574e18639t	bdcx	BCX	3-5,4-18
10	b-6	02597e4t6138	baxc	CXB	3-8,4-18
11	b-7	02597e46t138	baxc	CXB	3-8,4-14
12	b-8	02597e3t4681	baxc	CXA	3-5,4-19
13	b-9	02597e34t681	baxc	CXA	3-5,4-19
14	c-1	0279e136t458	caxd	BAX	3-3,4-Z15
15	c-2	0279e145836t	caxd	BXA	3-3,4-Z15
16	c-3	027946te8135	cbxa	BXA	3-2,4-16
17	d-1	037t684e9125	daxc	CAX	3-3,4-19
18	d-2	037t681549e2	daxb	CXB	3-3,4-14
19	d-3	037t1859e246	dbxa	CXA	3-8,4-19
20	d-4	037t18e59246	dbxa	CXA	3-8,4-19

Example 5: pentatonic 12-tone series for the *String Quartet No. 2*, these following overlapping brackets indicate various subsets that correspond to forms of the Chinese pentatonic scale; transcribed by the author based on an example in Lei Jiang, “From ‘Pitch-Class Sets’ to ‘Pentatonic Pitch-Class Sets’: A Diachronic Dialogue between Allen Forte and Luo Zhongrong,” *Huangzhong (Journal of Wuhan Conservatory of Music)*, no. 4 (2014): 91.



Beyond the aforementioned applications of pentatonic 12-tone techniques, Luo also introduced the additional notes, specifically the seven-tone scale, from Chinese modal systems into the pentatonic 12-tone series. For example, Luo’s 2011 trio ensemble work *One Yun Sharing Three Gong Systems*, applies the traditional Chinese modal concept of “One Yun Sharing Three Gong Systems” to twelve-tone technique, dividing the twelve tones into 5+7 segments (see Example 6). The 5-tone segment represents a Gb pentatonic scale, while the 7-tone segment can be interpreted as either the G, C, or F seven-tone scale according to the “One Yun Sharing Three Gong Systems” principle.

Example 6: 12-tone series for *One Yun Sharing Three-Gong System*; transcribed by the author based on an example in Ting Yang, “Ancient Techniques Applied to Modern Creations, Unique Craftsmanship — A Musical Analysis of Luo Zhongrong’s Work ‘One Yun Sharing Three Gong Systems’,” *Journal of Tianjin Conservatory of Music*, no. 1 (2018): 79.

The image displays three staves of musical notation for a 12-tone series. The first staff, labeled '12 tones' and '7-35', shows notes 7, 9, 11, 2, 4, 5, 0. The second staff, labeled '5-35', shows notes 6, 8, 10, 1, 3, 0, 2, 4, 7, 9, 5, 11. The third staff, labeled 'pentatonic scale' and 'seven-tone scale', shows notes 5, 7, 9, 0, 2, 4, 11. Red arrows point to 'G gong system', 'C gong system', and 'F gong system' on the third staff. Other labels include 'gong shang jue zhi Yu', 'qing-jue', 'Run', 'bian-gong', and 'bian-zhi'.

In addition to the ordered pentatonic groups mentioned above, some compositions feature disordered pentatonic groupings. In Guoping Jia’s art song “Beginning of Autumn”, the pentatonic groups within his 12-tone sequence do not present as ordered triads or tetrachords, nor as complete pentatonic scales as previously seen. Instead, they appear in a free pentatonic scale format, as demonstrated in Example 7 below.

Example 7: 12-tone series for *Beginning of Autumn*; transcribed by the author based on an example in Wei Zhang, “The Sinicization of Serial Techniques (II): The Development of Twelve-Tone Composition and Theory (1990–2000),” *Music research* (2020): 103.

The image displays a single staff of musical notation for a 12-tone series. Four pentatonic scales are highlighted with brackets and labels: 'bB gong pentatonic scale', 'D gong pentatonic scale', 'F gong pentatonic scale', and 'bG gong pentatonic scale'.

During this period, we observe that Chinese composers integrated the seemingly contradictory concepts of “pentatonicism” and “sequence.” Zhenya Wang posits that such a connection possesses inherent relevance and inevitability. In his paper “The Extension of National Scales in Modern Musical Composition (Nine-Tone Scale and Twelve-Tone Sequences

Incorporating Pentatonic Elements),” Wang argues that the pentatonic scale can be integrated into twelve-tone sequences for two reasons: first, any note within the pentatonic scale can serve as the “tonic” for a modal system; second, the flexible combinations of pentatonic triads and tetrads complement the combinatorial nature of twelve-tone sequences. Thus, “infusing the pentatonic scale into the twelve-tone row in various ways” became the focal point for Chinese composers employing pentatonic twelve-tone techniques. This demonstrates that the generative logic of the row technique itself and the characteristics of atonal style were not adhered to or preserved in contemporary Chinese composition or theoretical research according to Western theoretical logic. Instead, they underwent development in a completely different, even opposite, direction.

Tonal and regionally inflected 12-tone series. In addition to the above twelve-tone compositional techniques, some twelve-tone compositions often conceal tonal and regionally inflected elements. For example, Chen Mingzhi (1925–2009) utilizes the traditional harmonic technique, “fixed bass”, in his “Eight Piano Pieces”. In Example 8), the repetition of bass note F# (left hand) and accented F#, C# and G# imply f# minor scale.

Also, Chen employs specific rhythmic patterns and textures to emulate the characteristics of mountain songs and dance music in traditional Chinese music, which embody distinctive regional characteristics. In Example 9 “Dance”, syncopated rhythms mimic folk gong and drum patterns, employing rhythmic counterpoint to express the dance’s character. In Example 10 “Mountain Song”, he employs contrapuntal techniques combined with twelve-tone serialism, while abundant dotted rhythms further mimic folk mountain songs.

Example 8: Eight Piano Pieces – “fixed bass”; transcribed by the author based on an example in Wei Zhang, “The Sinicization of Serial Techniques: The Development of Twelve-Tone Composition and Theory (1980–1990),” *Music research* (2017): 35.

Lento $\text{♩} = 56$

assai astinato

mp *mf* *f* *p*

Example 9: Eight Piano Pieces – “Dance”; transcribed by the author based on an example in Wei Zhang, “The Sinicization of Serial Techniques: The Development of Twelve-Tone Composition and Theory (1980–1990),” *Music research* (2017): 33.

Animato $\text{♩} = 120$

mp *mf* *f* *sf* *p* *mf*

Example 10: Eight Piano Pieces – “Mountain song”; transcribed by the author based on an example in Wei Zhang, “The Sinicization of Serial Techniques: The Development of Twelve-Tone Composition and Theory (1980–1990),” *Music research* (2017): 33.

Cantando

In Xu Shuya’s *Violin Concerto*, the pentatonic chords following each sequence emphasize the tonal centers B and Ab. See Example 11, in mm. 5 and mm. 10, the blocked fifth-stacked chord is B-F#-C#-G#, which implied central tone B. In mm. 15, the blocked fifth-stacked chord Ab-Eb-Bb implied central tone Ab. This kind of pentatonic chord had already been employed by Sang Tong in *In That Faraway Place* before 1949 and was later widely used in the national pentatonic harmony that prevailed between 1949 and 1979. It is evident that pentatonic harmony persisted throughout the twentieth century.

Example 11: Xu Shuya's *Violin Concerto*; transcribed by the author based on an example in Wei Zhang, "The Sinicization of Serial Techniques: The Development of Twelve-Tone Composition and Theory (1980–1990)," *Music research* (2017): 37.

The image displays three staves of musical notation, likely for piano accompaniment, illustrating a 12-tone series. The notation is in 3/4 time. The first staff shows a sequence of notes with fingerings 1 through 12. A red box highlights the 12th measure, which contains a B note. The second staff continues the sequence, with a red box highlighting the 10th measure, which contains a C# note. The third staff shows the final measures, with a red box highlighting the 12th measure, which contains a B note. The notes are written in a way that suggests a specific pitch organization, likely a 12-tone series.

Atonal and regionally inflected 12-tone series. Beyond these approaches to regionalization achieved through Chinese pentatonic modes, rhythms, and textures, some composers pursued Sinicized expression by deliberately avoiding pentatonic sonorities. For works of this period, many composers were evidently constrained by the inherent demands of national style while simultaneously seeking to circumvent overly obvious stylistic markers. Instead, they sought to reinforce national character through alternative stylistic elements. Daqun Jia's *String Quartet* (1988) exemplifies this approach. The composer isolated stylistically distinctive materials, such as Suona music (a Chinese double-reed instrument) from the Yellow River basin, boatmen's chants from the Yangtze River basin, and temple music from the Wutai Mountain region, and incorporated them as symbolic melodies through collage within the overall pitch organization.

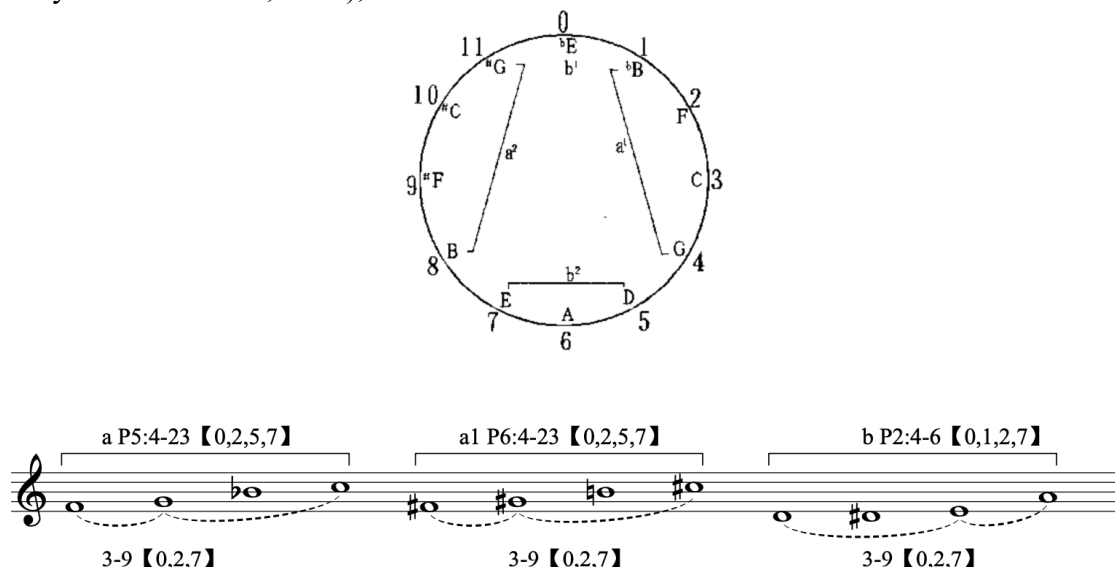
However, the sequential pitch material itself was structured using three sets of four pitches: the pitch-class sets {0,1,6,7}, {0,1,2,7}, and {0,1,3,6}. These three sets of four notes are decidedly non-pentatonic in character, with their triadic subsets particularly emphasizing the minor second and tritone, intervals that starkly conflict with pentatonic principles.

Weijie Gao's 12 tone field. Weijie Gao combines the concept of the fifth chain from Chinese modal music with the twelve-tone row. He treats the twelve semitones of equal temperament, arranged in a pentatonic cycle, as a twelve-tone field. Designating any semitone as 0, he ascends in fifths, assigning each subsequent note values from 1 to 11. A segment of this pentatonic cycle forms a pitch set. The greater the numerical difference between notes in the sequence, the stronger the tonal tension. In composition, only the interval content within the pitch set is preserved, disregarding the specific order of note arrangement.⁴² (see Example 12).

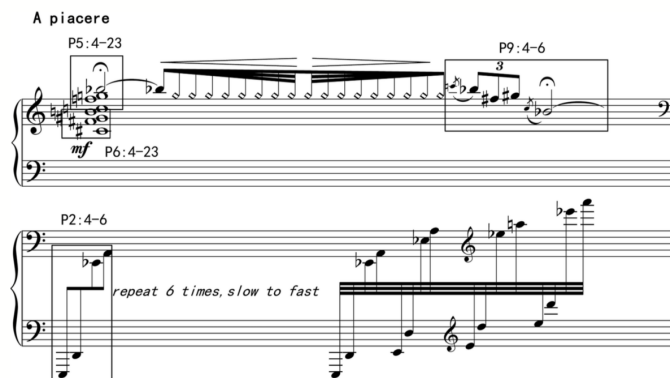
Weijie Gao's piano piece *Autumn Fields* (1987), see Example 13, employs twelve-tone set-based techniques. As shown in the example from *Autumn Fields*, the work opens with a tetrachord from the 12-tone field. The opening eight-note chord is not a traditional tonal statement but rather the superposition of two isomorphic sets, both belonging to 4-23. The subsequent trichords motif, bearing motivic characteristics, is the contrasting set 4-6 of the preceding set. Only when set 4-6 appears in the second measure does it combine with the two earlier isomorphic sets 4-23 to form a complete twelve-tone sequence, this is what the composer refers to as the "twelve-tone field."

⁴² Zhenya Wang, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004), 271.

Example 12: Tetrachords in 12-tone field; transcribed by the author based on an example in Zhenya Wang, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004), 272.



Example 13: *Autumn Fields* (Opening, mm. 1–2); transcribed by the author based on an example in Zhenya Wang, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004), 272.

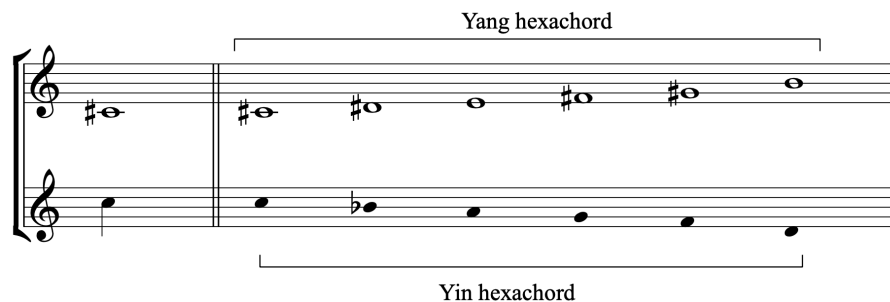


Xiaosheng Zhao's Taiji Compositional System. Xiaosheng Zhao employed the *Taiji* concept from the *Book of Changes (I Ching)*, the idea that the *Taiji* gives rise to the *Two Forms* (Yin and Yang), and that the interaction of Yin and Yang generates all things, to redefine the principles of chords, scales, and various musical parameters.⁴³ He divided the twelve-tone aggregate into a *yin*

⁴³ Wang, Zhenya, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004), 273-276.

hexachord and a *yang* hexachord (see Example 14) and arranged the tones of these two polar sets horizontally to form the *Taiji scale* (see Example 15). By superimposing the two hexachords, Zhao created the *Taiji chord* (see Example 16).

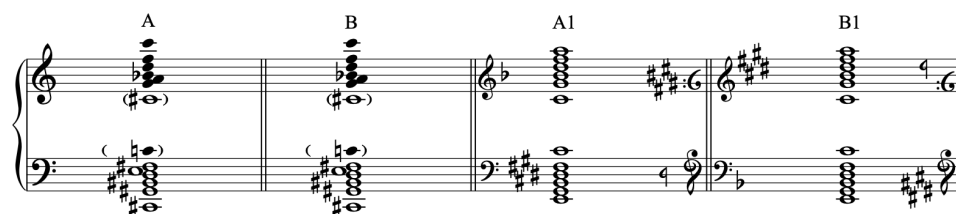
Example 14: *yin* hexachord and *yang* hexachord; transcribed by the author based on an example in Zhenya Wang, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004), 273.



Example 15: *Taiji Scale*; transcribed by the author based on an example in Zhenya Wang, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004), 274.



Example 16: *Taiji Chords*; transcribed by the author based on an example in Zhenya Wang, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004), 274.



The difference between the *Taiji twelve-tone row* and the Western twelve-tone series lies in its method of application: only the intervallic content between the two hexachords is preserved, while the fixed order of pitches is not. The two hexachords may be used

independently, and the complete twelve-tone set need not appear in its entirety at once. Pitches may be repeated horizontally or vertically, and tonal references are not excluded.⁴⁴

Chapter Summary

Between 1919-1949, a group of composers who had studied abroad, led by Xiao Youmei and Zi Huang, introduced Western compositional techniques into China, most notably the chromatic tonal system, two-voice framework theory, and twelve-tone technique. Chinese composers reinterpreted and reconstructed these Western techniques by integrating them with traditional Chinese musical idioms, in an effort to create works with distinctive national characteristics.

Between 1949 and 1979, Sino-Western musical exchange was primarily centered on the exploration of tonal music. Composers drew inspiration from the chromatic tonal system and initiated extensive discussions on the “nationalization of harmony.” Although such discussions had already emerged before 1949, they became much more vigorous thereafter, leading to the publication of numerous studies on pentatonic-based national harmonic theory. This period reflected the influence of nineteenth-century Western Romanticism and nationalism in music. However, compositions deliberately employing modern twelve-tone techniques remained exceedingly rare.

Following the economic reform and opening up of 1979, a flourishing diversity of musical styles emerged. After three decades of relative silence, twelve-tone composition reemerged with unprecedented vigor, becoming a hallmark of the new musical avant-garde. Luo Zhongrong’s 1979 art song “Picking Lotus Flowers at the Riverside” marked the beginning of a new era of twelve-tone composition in China. Under Luo’s influence, many composers began to

⁴⁴ Zhenya Wang, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004), 276.

reshape twelve-tone serialism in diverse ways, seeking a distinctly Chinese stylistic expression. They experimented with various integrations of twelve-tone technique, the chromatic tonal system, two-voice framework theory, and other modern compositional methods. The twelve-tone idiom thus transcended the category of atonality; the term post-tonality may better capture its aesthetic orientation during this period. The following chapters will illustrate through analysis some of the ways Western and Chinese ideas have been combined in modern Chinese compositions.

Chapter 3: Characteristics of Traditional Chinese Music

Chinese modal system

I will summarize the Chinese modal system from the *Yun*, *Gong* and *Diao* perspective, mainly according to Tong, Gu, Zhou, and Sun's *Chinese Traditional Music* (中国传统乐学) Chapter 5,⁴⁵ and compare it with the western modal system to explore the fundamental differences between Chinese and Western modes.

In 1986, the concept of *One Yun Sharing Three Gong Systems* was proposed by a Chinese musical historian and theorist, Xiangpeng Huang (1927-1997).⁴⁶ This concept is foundational to understanding the Chinese modal system. According to the concept, the Chinese modal system can be divided into a three-leveled hierarchy: *Yun*, *Gong* and *Diao*.⁴⁷

12 absolute pitches based on chain of fifths. *Yun*, *Gong*, and *Diao* are based on 12 absolute pitches created as a chain of fifths and fourths in the ratios 3:2 and 4:3 (See Example 17). Among the 12 absolute pitches, the odd-numbered ones (*Huangzhong*, *Taicu*, *Guxian*, *Ruibin*, *Yize* and *Wuyi*) are called the six *Yang* pitches, while those of the even number (*Dalu*, *Jiazhong*, *Zhonglv*, *Linzong*, *Nanlv*, and *Yingzhong*) are called the six *Yin* pitches (See Example 18).⁴⁸ The two words “*Yin*” and “*Yang*” are two well-known philosophical concepts in Chinese. Zhang Dainan's article *Key Concepts in Chinese Philosophy* explained that “*Yin* and *yang* are universal forces that manifest as dialectical opposites (e.g., earth and heaven, moon and sun, cold and hot, dim and

⁴⁵ Zhongliang Tong, Jie Gu, Yun Zhou, and Xiaohui Sun, *Chinese Traditional Music* (Fuzhou: Fujian Education Press, 2004), 129–55.

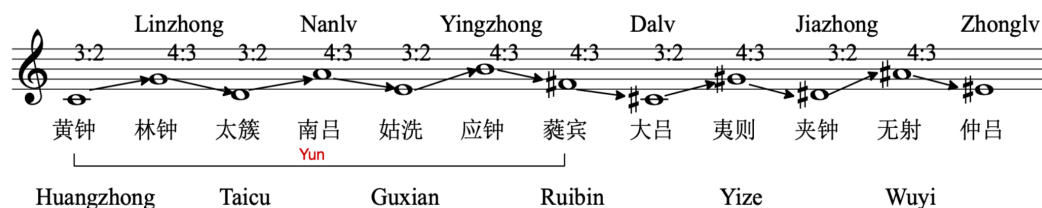
⁴⁶ Xiangpeng Huang, “A Brief Discussion of the Foundations of Chinese Traditional Music Theory,” *National Music*, no. 2 (1986).

⁴⁷ Tong et al., *Chinese Traditional Music*, 131.

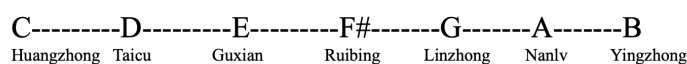
⁴⁸ Tong et al., *Chinese Traditional Music*, 14–16.

bright, wet and dry, female and male).⁴⁹ ” Like ancient Greek theory, in ancient Chinese theory, music reflects the truth of the universe.

Example 17: 12 absolute pitches



Huangzhong Yun:



Example 18: The six *Yang* and six *Yin* pitches in the 12 absolute pitches



Six *Yin* Pitch

Based on the 12 absolute pitches, the first level *Yun* is created as seven continuous tones in the chain of fifths. “Huangzhong” can be supposed as the starting pitch, like C, and the other six pitches are created with continuous ascending fifths: “Linzong (G), Taicu (D), Nanlv (A), Guxian (E), Yingzhong (B), and Ruibin (F#)⁵⁰”. These seven pitches contained in an octave make up one *Yun*, such as “Huangzhong-Taicu-Guxian-Ruibin-Linzong-Nanlv-Yingzhong (C-D-E-F#-G-A-

⁴⁹ Anna Yu Wang, “Philosophizing Time in Sinitic Opera,” *Music Theory Online* 29, no. 3 (2023).

⁵⁰ Rehding’s *Fine-Tuning a Global History of Music Theory: Divergences, Zhu Zaiyu, and Music-Theoretical Instruments* (2022) introduced the process of generating the Chinese 12 lǜ 律 (pitch) calculated using the method of Sanfen Sunyi (三分损益).

B)” (See Example 17). The starting pitch of each *Yun* is considered as the “*Yun* owner”. The whole *Yun* is named after the name of the starting pitch. For example, the starting pitch of the *Yun* we are discussing is Huangzhong, which means that Huangzhong is the “*Yun* owner” and this *Yun* is called “Huangzhong *Yun*”. Each pitch of the twelve can be used as the starting pitch, based on which a *Yun* can be created with six ascending fifths. Since there are 12 different pitches, there are also 12 different Yuns as well as *Yun* owners. To help with the following explanation, I have changed Huangzhong *Yun* to C *Yun*.

The second level is the *Gong* system, which is an interval structure (see Example 19). It is similar to the notion of “key” in the West. Every *Gong* system derives from a major third in a *Yun*; therefore, there are three *Gong* systems in a *Yun*, which explains the title of Huang’s book: “one *Yun* sharing three gong systems.” For example, in C *Yun*, we have the C gong system growing out of the major third C and E, the D gong system coming from D and F#, and the G gong system is based on G and B. The two scale degrees *gong* and *jue* that decide major thirds are very important for identifying the gong system of a melody, usually occurring on strong beats and long durations in musical examples.

Example 19: C *Yun*, *gong* systems

The image displays four musical staves illustrating the gong systems within the C Yun. The first staff shows the sequence of pitches: Gong (C), Gong (E), M3 (F#), Gong (G), and M3 (B). The subsequent three staves show the development of specific gong systems:

- C gong system:** The sequence is M2 (C), M2 (D), M3 (F#), and M2 (G). A bracket labeled M3 connects the first two notes (C and D).
- D gong system:** The sequence is M2 (D), M2 (E), M3 (F#), and M2 (G). A bracket labeled M3 connects the first two notes (D and E).
- G gong system:** The sequence is M2 (G), M2 (A), M3 (B), and M2 (C). A bracket labeled M3 connects the first two notes (G and A).

The third level is *Diao*, which refers to rotations. In the C *gong* system, see Example 20, there are C *gong Diao*, D *shang Diao*, E *jue Diao*, G *zhi Diao* and A *yu Diao*. Also, each *Diao* can be understood as a group of three kinds of scale---pentatonic, six-tone scale and seven tone scale. Therefore, *Diao* can contain five notes, six notes or seven notes. Example 20 includes the five-note *Diaos* in C *Gong*. These five rotations are called *gong*, *shang*, *jue*, *zhi*, *yu* respectively in Chinese.

Example 20: C *Gong* system, five *Diaos*

The image displays musical notation for the C Gong system and its five rotations. The first staff, labeled 'C gong system', shows a sequence of notes with intervals marked as M2, M2, M3, and M2. Below this are five staves, each representing a different *Diao* rotation. Each staff contains five notes, with the names of the notes written below them. The rotations are as follows:

- C gong diao**: gong, shang, jue, zhi, yu
- D shang diao**: shang, jue, zhi, yu, gong
- E jue diao**: jue, zhi, yu, gong, shang
- G zhi diao**: zhi, yu, gong, shang, jue
- A yu diao**: yu, gong, shang, jue, zhi

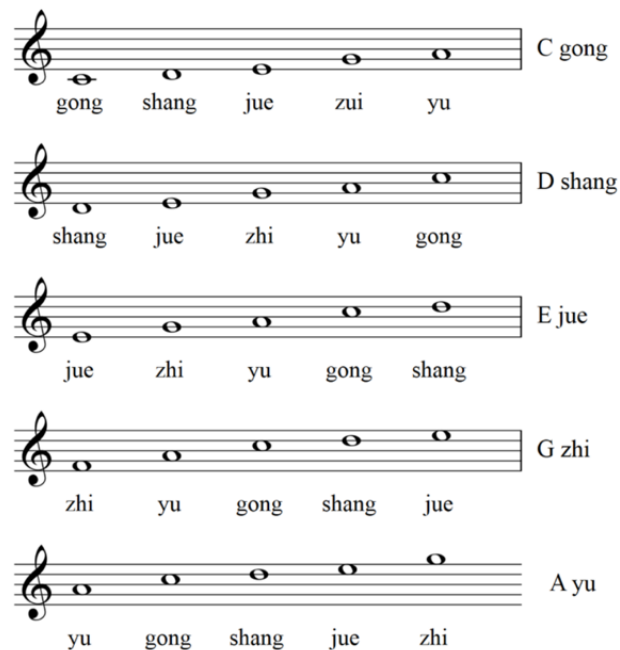
Three kinds of scale and four kinds of additional notes. I just mentioned that each *Diao* contains three kinds of scale: the pentatonic scale, six-tone scale and seven-tone scale. The pentatonic scale is the basic one. By adding one or two additional notes to the pentatonic scale, the six-tone scale and seven-tone scale are formed. In musical examples, these additional notes usually occur very rarely and on weak beats. Sometimes, these three kinds of scale in the same *Diao* occur in one

musical piece, the six-tone scale serving as a transition between pentatonic and seven-tone scales⁵¹. Therefore, the relationship of the pentatonic, six-tone and seven-tone scales in the same *Diao* are like parallel major and minor modes in western music theory. The transition between scales in the same *Diao* cannot be thought of as modulation, just as mode changes without alteration of tonic are not thought of as modulation in Western theory.

Pentatonic Scale and its Omission Form. As mentioned above, the pentatonic scale contains five scale degrees, which are named five Zheng Sheng: Gong, Shang, Jue, Zhi, and Yu. It should be emphasized that these five tones are the basis of the Chinese traditional scale, so they are named “Zheng Sheng”, where “Zheng” means “basic or fundamental” in Chinese. Among the five scale degrees, Gong and Jue form the only major third, which can help to classify the Gong system of a specific scale (as mentioned above), and to analyze the pentatonic mode of a Chinese traditional piece.

⁵¹ Other books offer different explanations of the six-tone scale. Yan and Tong (2006), Chapter 7 of *Chinese modal system* emphasized that the pentatonic scale is the foundation, and the six-tone scale and seven-tone scale are extensions of the pentatonic scale. Tong, Gu, Zhou, and Sun (2004) Chapter 4 of *traditional scales* treats the six-tone scale as the omission of seven-tone scale. However, it is certain that all materials introduce the Chinese pentatonic and seven-tone scale in an independent chapter and treat six-tone scale as the extension of pentatonic scale or omission of seven-tone scale. Since both the pentatonic scale and the seven-tone scale have specific names, such as the C Gong pentatonic scale or Yan-yue, but the six-tone scale is only described as the pentatonic scale plus a specific additional note, I believe the six-tone scale can be considered a transition between the pentatonic and seven-tone scales.

Example 21: Pentatonic scale based on C *Yun*, C *Diao*



It is worth noting that in musical practice, there do exist some scales of less than five scale degrees, i.e. the two-tone scale, three-tone scale or four-tone scale. These types of scale can be considered as special forms of pentatonic scale created by omission. However, such omission should not be considered as a law or pattern, because a certain scale structure is formed naturally. In musical practice, the pentatonic scale has an undeniable structural integrity, which means that it should be of unique significance in practice. However, it is inevitable that people will need to seek various possibilities or innovations in practice, thus choosing to delete (or omit) certain tones from the tune for more flexibility. Therefore, the scale of less than five tones in some tunes should be understood in terms of the pentatonic scale system. The composers whose music we will study have some segments with less than 5 notes, and I will try to treat these segments as

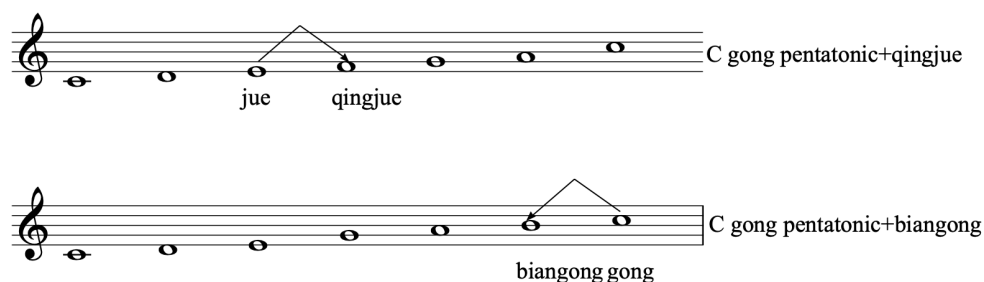
incomplete pentatonic scales and use Zhang Xiaohu's method of distinguishing gong system and mode in Chapter 3 of his book *Harmonic Techniques of the Pentatonic Scale* ⁵².

It is worth noting that in the Chinese traditional modal system, additional notes are considered scale degrees rather than decorative notes as in Western music theory, such as the passing tone or neighbor tone. However, like I mentioned before, compared to the basic five tones, additional notes appear less frequently, or appear in less important positions (off the beat) rather than the beginning or ending of a piece.

B^b----F---C--G--D--A--E--B-----F[#]
Run qingjue biangong bianzhi

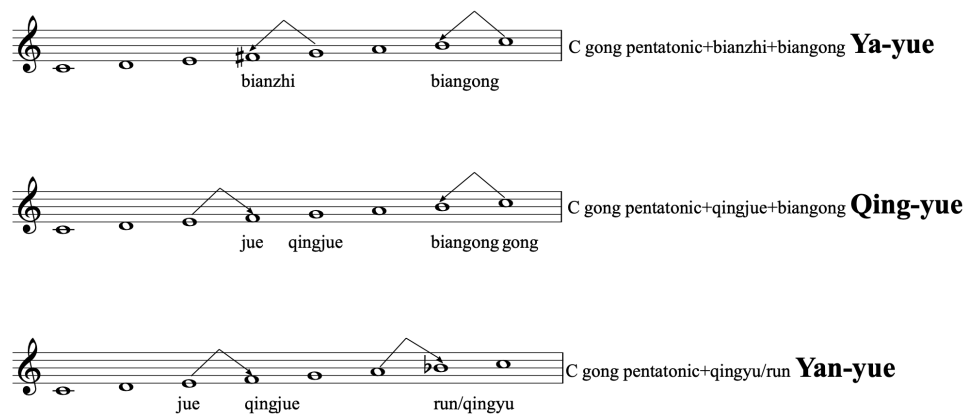
⁵² Xiaohu Zhang, *Harmonic Techniques of the Pentatonic Scale* (Beijing: People's Music Publishing House, 1987), 23–37.

Example 23: Six-tone scale (with Qing-jue added) and Six-tone scale (with bian-gong added)



The seven-tone scale is created with two additional notes added into the pentatonic scale, including three types: *Bianzhi* plus *biangong*, *qingjue* plus *biangong*, and *qingjue* plus *Run* (*qingyu*). The three additional note patterns and the pentatonic scale combine to form these three kinds of seven-tone scales called *Ya-yue*, *Qing-yue*, and *Yan-yue* respectively. In Example 24, these three kinds of seven-tone scale all belong to the C gong system, because their basic pentatonic scale includes the C-E major third. In Western terms, they are the Lydian, major, and Mixolydian scales.

Example 24: Three kinds of seven-tone scale in C gong system



In summary, *Yun* generates Gong, Gong gives rise to *Diao*. *Diao* includes three kinds of scale created from adding notes to the five rotations of the basic pentatonic scale. Every *Yun* has three Gong systems, every gong system has five *Diaos*. The concept of scale in Chinese music theory is different from western music theory. More specifically, the concepts of scale and mode

in western music are almost consistent, and besides, since scale and mode are on the same level, the first tone of the scale is the tonic of the mode. On the other hand, in China, the concepts of the scale and mode are on two different levels, which can be understood as the combination of western major or minor scale and church mode. There is a containing or subset-superset relationship between “Gong” and “Diao”.

Chinese modal relationships are numerous and varied due to this three-leveled Chinese modal system. Therefore, modal modulation in much traditional Chinese music is very frequent. Rao proposed the concept of *Shi*, saying that “*Shi* can be described as ‘dynamic configuration’ or ‘the probability and propensity that drive the process’.”⁵³ And Wang mentioned that “irregularity, the asymmetry, the inconsistency in Chinese music is another way of time, which is the driving force behind the development of musical structures.”⁵⁴ I believe that this concept of “*shi*” and “irregularity and asymmetry” closely relate to Chinese modes, since the frequent and numerous modal modulations are like the harmonies in western music that drive the music.

Approaches to the Analysis of Chinese Modes. Wu (2025) shows the combination of the pentatonic scale and the twelve-tone method horizontally in a Jia Daqun’s string quartet via prolongational analysis based on pentatonic (rather than the usual diatonic) structures, which emphasizes the notes in the 12-tone series that form the pentatonic scale⁵⁵. Michael Schachter utilizes the concepts of foreground, background, and middleground like those used in Western prolongational music theory to categorize Karnataka music, in terms of pitch fields, into *gamaka* (foreground), *Sevara* and *Prayoga* (middleground) and long-range voice leading (background or

⁵³ Nancy Yunhwa Rao, “The Concept of Shi: Chinese Aesthetics and *Happy Rain on a Spring Night* (2004),” *Music Theory Online* 26, no. 3 (2020).

⁵⁴ Anna Yu Wang, “Philosophizing Time in Sinitic Opera,” *Music Theory Online* 29, no. 3 (2023).

⁵⁵ Yi-Cheng Daniel Wu, “Pitch Orthography and Musical Hermeneutics in Jia Daqun’s *String Quartet No. 3*, Mvt. 2,” *Indiana Theory Review* 40, no. 1 (2025).

basic structure) to help western scholars understand Karnatak music⁵⁶. Wu's pentatonic framework and Schachter's application of prolongational theory in Indian music inspired me to combine prolongational theory and Zhang Huwei's method of distinguishing modes⁵⁷ to illustrate the musical development in the context of Chinese modal system.

I summarize Zhang's three ways to distinguish modes, which depend on "primary and secondary pillar tones", leading tone and additional notes (Pianyin, 偏音), and varied additional notes (Bian Pianyin, 变偏音). "Primary and secondary supporting tones" can be understood as the perfect fifth above and below tonic, which are the same as the predominant and dominant functions of western music. If "supporting tones" are additional notes in the gong system, we should ignore them and use one of the closest basic five notes instead. For example, C gong's supporting tones are G (upper fifth) and E since its lower fifth is the additional note F. The interval between the leading tone and the tonic here is either a major second or a minor third in the context of the basic pentatonic scale rather than the minor second of the major or minor scale. The leading tone is one of the basic five notes and it's usually present in the music and supports the tonic. Additional notes and varied additional notes usually serve as passing tones, neighbor tones, or other types of embellishing tone function. Passing and neighbor tones in the pentatonic scale are major seconds and minor thirds away from the five basic notes of the scale. "Varied additional note" means notes from other *gong* systems.

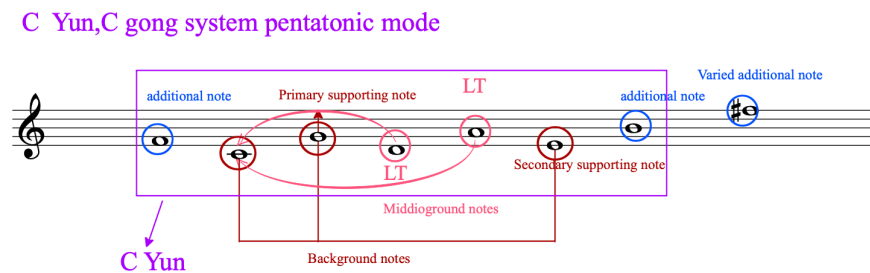
According to Zhang's theory, we can find that the identification of Chinese modes is primarily based on the emphasis of certain notes within the melody. Therefore, I divided these

⁵⁶ Michael Schachter, "Structural Levels in South Indian Music," *Music Theory Online* 21, no. 4 (2015).

⁵⁷ Xiaohu Zhang, *Harmonic Techniques of the Pentatonic Scale* (Beijing: People's Music Publishing House, 2003), 23–37. These pages discuss the fundamental methods for identifying Chinese modes.

melodies into a three-leveled hierarchy and used the three musical terms “foreground, middle ground and background” of prolongational theory to define these three levels. The background consists of the tonic and the primary and secondary supporting tones in the basic pentatonic scale, similar to the western tonic-predominant-dominant functions. The middleground consists of notes in the basic pentatonic scale including the leading tone, but not the primary and secondary supporting tones. Unlike the western major and minor scales, sometimes there is more than just one leading-tone. For example, in the C gong pentatonic scale, the leading tones are A and D. The foreground comprises all the notes of the melody, including the additional and varied additional notes (See Example 25).

Example 25: Zhang’s three modal components in the C *Yun*, C Gong system pentatonic mode



I use different colors in above example to label different parts of the hierarchy: red is background, pink is middleground, blue represents additional and varied additional notes. The combination of Zhang’s method and prolongational theory allows us to distinguish Chinese modes and musical development in an intuitive and straightforward manner.

Single tone: Qiangyin (deviated note) and Runqiang (intra-tone ornamentation)

The understanding of “single tones” differs between Chinese and Western music. In his paper “Single Tones as Musical Entities: An Approach to Structured Deviations in Tonal Characteristics,” Chinese American composer Zhou Wenzhong notes that “a single tone may exhibit physical variations or deviations during its duration, that is, ‘deviations’ in its acoustic characteristics.” He posits that “each tone possessing such ‘deviations’ inherently carries expressive potential, manifesting in variations of pitch, timbre, and dynamics.” “In Eastern musical traditions, such ‘deviations’, like the physical characteristics of sound, constitute essential components of music, possessing structural functions as significant as their expressive roles.”⁵⁸ Zhou Wenzhong particularly emphasized that in defining a single note, the concept in Eastern music differs from the simple fundamental tone in Western music, as it can undergo various changes in pitch, timbre, dynamics, and other aspects.⁵⁹ Another prominent Asian composer of the 20th century, Isang Yun, proposed the “Hauptton” theory regarding the perception of individual notes in Asian music. In his view, Westerners and Easterners have different understandings of “notes.” In Western music, a note refers to a “musical note”; a single note cannot constitute music. To become music, it must incorporate harmony and counterpoint within vertical and horizontal relationships. In contrast, Eastern music employs a broader concept of “tone,” encompassing musical notes, noise, and even inaudible frequencies. Through glissandos, trills, microtones, and dynamic variations, a single tone can be elaborated into a ‘line’

⁵⁸ Article in *Yinyue Yishu [Music Art]*, no. 1 (1985), cited in Dongmei Zhao, *The Constituent Elements of Chinese Traditional Melody* (Beijing: Modern Press, 2020), 3.

⁵⁹ Dongmei Zhao, *The Constituent Elements of Chinese Traditional Melody* (Beijing: Modern Press, 2020), 3.

structure centered around that note, a single tone capable of constituting an entire “world of sound.”⁶⁰

Dongmei Zhao’s *The Constituent Elements of Chinese Traditional Melody* categorized the forms of single tones in traditional Chinese music into four types: 直音 (zhiyin, “straight tones”), 腔音 (qiangyin, “deviated tones”), 自由音 (ziyouyin, “free tones”), and 噪音 (zaoyin, “noise tones”). *The Dictionary of Chinese Music* also introduces another category of simple tone, namely Runqiang (intra-tone ornamentation). The concept of straight tone in Chinese music is analogous to the notion of the single tone in Western music, both being grounded in stepwise motion between scale degrees. The distinction, however, lies in their tuning systems, western music is based on the twelve-tone equal temperament, whereas traditional Chinese music derives from the cycle of fifths (五度相生律). The deviated tone in Chinese music mainly involves oscillating or gliding above and below the basic core tone. Therefore, a deviated note may be understood as the ornamental modification applied to a single tone. Since the core tone is established on the basis of tonality and mode, traditional Chinese music, despite its extensive use of deviated notes, is still able to articulate the tonal and modal framework with clarity. A free tone is a freely gliding sound without clear pitch boundaries. The spoken recitative (念白 nianbai) in Chinese opera is a typical form of the free tone. Finally, the noise tone is applied in both Western and Chinese music primarily emerged in modern and experimental music after the 20th century. In traditional Chinese music, the noise tone primarily stems from instruments imitating natural sounds through friction and percussion. Among these four categories of single

⁶⁰ Peter Rieffel. “Haupttöne und Subsysteme—The Compositional Foundations of Isang Yun.” Translated and compiled by Yin Yaoqin and Zhao Zhiyang. *Journal of Yunnan Arts Institute*, no. 2 (1995), cited in Dongmei Zhao, *The Constituent Elements of Chinese Traditional Melody* (Beijing: Modern Press, 2020), 3.

tone, straight tones and deviated tones constitute the two fundamental types of single tones in traditional Chinese music, while free tones and noise tones serve as their supplementary categories. The interaction between straight and deviated single tones, creating a contrast between motion and stillness, reveal the typical characteristics of traditional Chinese music.

Runqiang (intra-tone ornamentation) is mainly applied in traditional Chinese vocal music. According to the Dictionary of Chinese Music, intra-tone ornamentation refers to the subtle embellishment and refinement of a melodic line during performance.⁶¹ There are various techniques for achieving this, and different styles of singing possess their own characteristic methods of intra-tone ornamentation. Distinctive approaches to intra-tone ornamentation often become significant stylistic features of particular vocal traditions. In Peking opera, for instance, different roles employ distinct forms of intra-tone ornamentation. It is worth noting that intra-tone ornamentation differs from the deviated note, whereas the deviated note is a group of notes centered around a core tone, whereas intra-tone ornamentation refers to internal variations within a single note. During performances, singers typically employ subtle artistic techniques, including precise breath control, dynamic variations, the release and release of vocal tail, and adjustments to oral resonance. These ornamental techniques are often accompanied by changes in timbre.

The categories of deviated tone. Deviated tones are extensively employed in both vocal and instrumental works. In vocal works, the use of deviated tones is closely tied to the tonal variations of the Chinese language, where different tones convey distinct meanings. Particularly in opera music, the application of deviated tone often adds the performer's emotional expression to the basic language, rendering the entire piece more vivid. (see Example 26). The contour of each syllable's pronunciation corresponds precisely to the contour of its deviated tone.

⁶¹ Editorial Committee of *Chinese Music Dictionary*, Chinese Academy of Arts / Music Research Institute, *Chinese Music Dictionary: Expanded and Revised Edition* (Beijing: People's Music Publishing House, 2016), 644.

Example 26: The Beijing Drum Song “*Eight Loves*” (*Ba Ai*), performed by Bai Fenglin; transcribed by the author based on an example in Dongmei Zhao, *The Constituent Elements of Chinese Traditional Melody* (Beijing: Modern Press, 2020), 9.



In instrumental works, especially those for traditional Chinese string instruments like Erhu and Zheng (see following pictures), the playing technique itself includes the function of deviated tones. Erhu and guzheng pieces frequently incorporate finger vibrato techniques. Even when vibrato is not explicitly marked in the notation, performers will add it based on their own interpretation.

Erhu:



Zheng:



Deviated tone has three categories, which are glissando, vibrato, and glissando-vibrato.⁶² The glissando tone is based on the pitch level of the core tone, and then moves among other scale degrees, chromatic notes or notes without definite intonation, thereby producing a smooth and continuous change in pitch. A glissando may manifest either as sliding into the core tone from above or below, or as departing from the core tone as the point of initiation.⁶³ The common types include upward glissando, downward glissando, looping glissando, and passing glissando.⁶⁴ Erhu

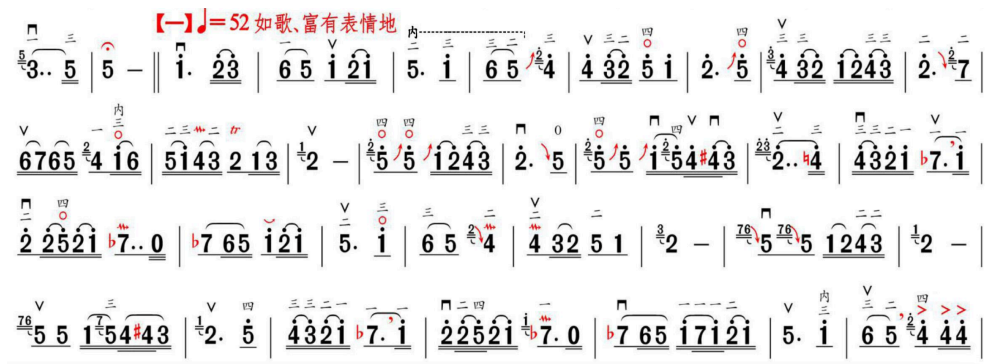
⁶² Dongmei Zhao, *The Constituent Elements of Chinese Traditional Melody* (Beijing: Modern Press, 2020), 1.

⁶³ *Ibid.*, 9

⁶⁴ *Ibid.*, 9

performance places great emphasis on subtle variations in timbre and pitch, particularly in traditional pieces where glissando techniques often serve as a crucial element in conveying the ethnic character of the entire piece. Even when glissandos are not explicitly marked on the score, performers frequently engage in secondary creation of them during live performances, incorporating extensive glissandos to better express the work's meaning. For instance, in the traditional erhu work *Qinqiang Theme Rhapsody*, a large number of glissandi are employed to convey the bold and unrestrained character of the people of the northern Shaanxi province in China (See Example 27: the glissandi are marked with curved arrows, highlighted in red, as are other ornaments).

Example 27: Erhu work: *Qinqiang Theme Rhapsody*



Vibrato centers around the core tone and embellishes it through oscillations of varying upward or downward amplitudes.⁶⁵ On the level of pitch, it forms a curve that fluctuates above and below the core tone, exhibiting a more pronounced range of motion than ordinary finger vibrato.⁶⁶ The vibrato differs not only in amplitude but also in speed, which can be faster or slower. However, in most cases, neither the frequency nor the amplitude of the vibration is explicitly notated; rather, performers interpret and execute vibrato based on their own musical

⁶⁵ Ibid., 14

⁶⁶ Ibid., 14

understanding. As a result, each performer's rendition may vary. For example, in guqin notation, the symbols yin (吟) and nao (猱) distinguish different degrees of vibrato amplitude (see Example 29); in erhu notation, the symbol *tr*~ is used to indicate vibrato (see Example 28). In most other traditional instrumental, folk, operatic, and narrative-musical notations, a simple “~” symbol is used as a general indication of pitch fluctuation. See Example 28, the erhu piece “Liangxiao” (A Beautiful Night), which employs extensive use of vibrato throughout the work.

Example 28: Erhu piece *A Beautiful Night*

良 宵
(又名《除夜小唱》)

1 = D (1 5 弦) 刘天华曲

轻快地 如歌声

下把

渐慢

D.C.

Example 29: Guqin piece *Clouds and Water of the Xiao and Xian*; transcribed by the author based on an example in Dongmei Zhao, *The Constituent Elements of Chinese Traditional Melody*, (Beijing: Modern Press, 2020), 15.



According to Zhao's description, in Box 1, the technique employed here is *chang nao* (长猱), characterized by a relatively long-duration and wide-amplitude vibrato. In Box 2, the notation indicates a vibrato that begins loosely and gradually tightens. In Box 3 is *yin*, in which the left-hand oscillation, following the attainment of the pitch, exhibits a noticeably faster rate of motion than that of *nao*.

Glissando vibrato combines glissando and vibrato techniques, where the pitch trembles during the glissando's diagonal movement, creating a vibrating glissando. The trembling within the glissando may occur during the pitch slide itself, or it may follow the slide (vibrato after glissando) or precede it (glissando after vibrato).⁶⁷ Glissando vibrato is a characteristic technique frequently employed in Henan Zheng music. The following example, *Chen Xingyuan Marries into a Foreign Tribe* uses glissando vibrato to convey a profound sense of sorrow.

⁶⁷ Ibid., 19

Example 30: Henan Zheng piece “Chen Xingyuan He Fan” (*Chen Xingyuan Marries into a Foreign Tribe*); transcribed by the author based on an example in Dongmei Zhao, *The Constituent Elements of Chinese Traditional Melody*, (Beijing: Modern Press, 2020), 16.



Chinese meter: “Elastic Rhythm” and the “Ban-Yan” System

The rhythms of traditional Chinese music are closely intertwined with the psychological structure and cultural temperament of the Chinese people. The leisurely, unhurried tempo found in ancient literati music reflects an aesthetic orientation toward “zhongyong” (Doctrine of the Mean)⁶⁸ cultivated through long-term immersion in traditional culture. Conversely, the flexible, ever-changing rhythms of folk mountain songs and pastoral ballads mirror the rhythms of labor life under natural economic conditions. As mentioned in the first chapter, through repeated cultural exchanges between China and the outside world, Chinese musical language has continuously absorbed foreign rhythmic elements, gradually enriching its own musical vocabulary.⁶⁹

Gongche notation is the most widely used system in traditional Chinese music. It records musical scores using Chinese characters such as “gong” (工) and “che” (尺) as notational

⁶⁸ The Doctrine of the Mean is a core concept in traditional Chinese Confucian thought, originating from the *Book of Rites* (*Liji*). This doctrine emphasizes maintaining balance, moderation, and harmony in all aspects of life, including interpersonal relationships, emotional expression, and conduct.

⁶⁹ Jiti Li, *An Overview of Structural Analysis in Chinese Music* (Beijing: Central Conservatory of Music Press, 2004), 50.

symbols.⁷⁰ “Ban” (板) and “yan” (眼) denote the duration occupied by each gongche notation character, serving as the two symbols used in traditional Chinese music to mark rhythmic patterns within a piece. In gong-che notation, “ban” is written as “X”, and ‘yan’ is written as “.” or a full stop.⁷¹ The number of notes within each beat is fixed, but the duration of each individual note is not explicitly specified. For example, in Example 31, each Chinese character represents an individual musical note. “X” represent strong beat, full stop represent secondary, “.” represent weak beat. The note groups 工六工尺, 工, 上上, and 尺六工尺 each constitute one beat.

However, the precise duration of each note within the beat is not fixed. In practice, the notes are typically divided evenly, though certain conventional rhythmic patterns are also observed.

Example 31: Gong-che notation; transcribed by the author based on an example in Yaxiong Du, *A Course in Traditional Chinese Music Theory* (Shanghai: Shanghai Music Publishing House, 2004), 41.

X	•	◦	•
工	工 六 工 尺	上 上	尺 六 工 尺
3	<u>3 5 3 2</u>	<u>1 1</u>	<u>2 5 3 2</u>

In *Selected Writings on Ancient Chinese Music Theory* (Zhongguo gudai yuelun xuanji), there are two statements illustrating the dialectical understanding of rhythm and duration in traditional Chinese music: “There must be stretching and contracting in order to achieve rhythmic coordination” (“you shen you suo, fang neng he pai”) and “The ban (beat or rhythmic unit) may be slightly increased or decreased” (“ban ke lüe wei zeng sun”).⁷² The literal meanings

⁷⁰ Yaxiong Du, *A Course in Traditional Chinese Music Theory* (Shanghai: Shanghai Music Publishing House, 2004), 41.

⁷¹ The “ban-yan” symbols only began appearing in musical scores during the Ming Dynasty, having undergone a long evolutionary process.

⁷² *Selected Writings on Ancient Chinese Music Theory*, compiled by the Music Research Institute of the China Academy of Art (Beijing: People’s Music Publishing House, 1981), 431, cited in Yaxiong Du, *A Course in Traditional Chinese Music Theory* (Shanghai: Shanghai Music Publishing House, 2004), 43.

of these phrases are that rhythmic values may sometimes be slightly lengthened or shortened to attain a natural sense of coordination and balance in performance, and that the ban (the basic rhythmic or metric unit) may be subject to minor adjustments.

This reveals a defining characteristic of traditional Chinese musical rhythm: it is not rigidly divided into equal parts, but rather flexible and elastic. As symbols of rhythm, “ban” and “yan” themselves possess no fixed strong/weak beat pattern or specific duration. They can be understood as individual points of articulation, whose length varies according to the melody and the length of the musical notes. When “ban” and “yan” lengthen, it is termed “relaxation”; when they shorten, it is called “tightening.” In traditional Chinese music, particularly in the vocal melodies of opera, “relaxation” and ‘tightening’ frequently occur. Also, not only are the lengths of “ban” and “yan” flexible, but as seen in the example of Gong-che notation above, the duration of each corresponding gong-che note is also not strictly precise. It is precisely this interplay of “tension and release” that imbues the music with vitality and dynamism. Elastic rhythm stands as a defining characteristic of traditional Chinese musical meter.

The categories of Chinese meter. In Chinese music, there exist both genres with highly flexible rhythms and those that emphasize strict metric organization. The rhythmic structure of traditional Chinese music is characterized by remarkable diversity, encompassing “free rhythms” of indigenous origin, “prosodic rhythms” associated with the recitation of poetry or the movement of dance, as well as various forms of regularly divided metric patterns and irregular or asymmetrical metric sequences, among others. The summary below is based on Jiti Li’s *An Overview of Structural Analysis in Chinese Music*.

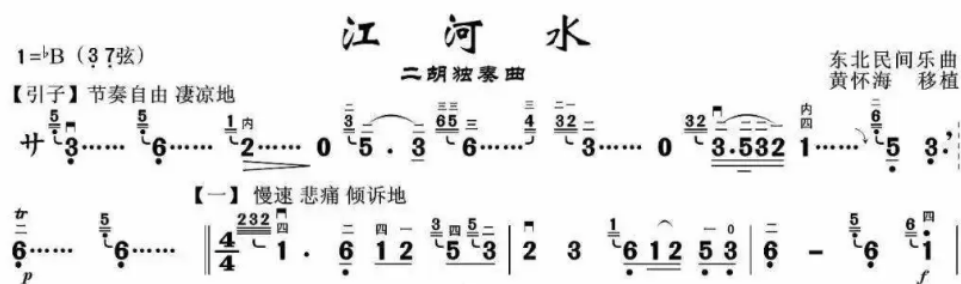
Free Rhythm. Also known as “free rhythm,” this musical structure is characterized by its free tempo, strong improvisational nature, and a relaxed, elastic quality. It lacks a clearly defined,

periodic cycle of rhythmic accents. Its treatment of musical durations allows singers ample freedom for expressive singing. It is commonly found in folk mountain songs, pastoral songs, certain opera genres, and passages of instrumental music (See example 32). In traditional erhu notation, the “grass radical” (艹) symbol is frequently employed to denote passages performed in a free and flexible rhythm, without strict metrical constraints (see Example 33).

Example 32: Hebei Folk Suona Piece “Carrying the Bridal Sedan Chair”; transcribed by the author based on an example in Jiti Li, *An Overview of Structural Analysis in Chinese Music* (Beijing: Central Conservatory of Music Press, 2004), 51.



Example 33: Erhu piece “The River Waters”



(relatively longer notes are indicated here by following a numeral with dots)

Prosodic rhythm. Prosodic rhythms refer to specific combinations of long and short, light and heavy rhythmic elements. These patterns primarily emerge from the syntactic relationships within dance and language, forming distinctive rhythmic structures. Due to their specific generative foundations, lyrical rhythms exhibit greater regularity than free rhythms, yet remain

relatively freer than mechanically divided rhythmic movements or standardized accent-based rhythmic patterns⁷³. They share a common principle with the rhythmic patterns of Western Gregorian chant, where rhythm follows the natural stresses of the lyrics. Within each basic structural unit of rhythmic meter, the rhythm may exhibit relatively free lengthening or contraction, and there may be only a single accent that is emphasized. For example, in the following Kun opera example, the duration of each syllable is only relative. The (++) symbol and dotted bar lines both suggest a relative freedom of meter. And in the following example of Korean ethnic music (from a minority culture in China, not South Korea), the rhythmic patterns and accented beat are constantly shifting. For instance, the folk song “Yangshan Road” appears to be in 9/8 time, yet its internal rhythmic subdivision is not uniformly $3/8 + 3/8 + 3/8$. While the first measure follows this pattern, measures 6 and 8 instead employ $3/8 + 2/8 + 2/8 + 2/8$.

Example 34: Kun Opera *Dian Jiang Chun*; transcribed by the author based on an example in Jiti Li, *An Overview of Structural Analysis in Chinese Music* (Beijing: Central Conservatory of Music Press, 2004), 52.

The musical score is written on a single staff in G major (one sharp) and 4/4 time. It consists of four lines of music. The lyrics are written below the notes, and drum notation is written above the notes. The lyrics are: (大台 仓. 哪 才台 仓一仓) 将 士 英 豪 (台. 大 台) 儿 郎 虎 豹 (台令台) 军 威 耀 (台. 大 台) 地 动 山 摇 (台令台) (白) 要 把 (唱) 狼 烟 扫。

注: 歌词一行的 () 内为锣鼓点读音。

⁷³ Jiti Li, *An Overview of Structural Analysis in Chinese Music* (Beijing: Central Conservatory of Music Press, 2004), 52.

Example 35: Korean ethnic music: folk song “Yangshan Road”; transcribed by the author based on an example in Jiti Li, *An Overview of Structural Analysis in Chinese Music* (Beijing: Central Conservatory of Music Press, 2004), 54.



Changing meter, mixed meter, additive meter, and regular (or equal) meter. These four types of meters are also very common in Western music, such as the music of Messiaen or Stravinsky, but also in folk music prior to the 20th century. Changing meter refers to a temporary or localized shift in meter within a musical piece that is otherwise based on a specific meter. Mixed meter refers to a relatively widespread use of mixed meters in a piece, such as a combination of duple and triple meters. Value-added rhythms are common in Western modern music and also prevalent in Xinjiang Uyghur music. Xinjiang ethnic music practitioners refer to them as “enriched rhythms.” These enriched rhythms may appear incidentally and improvisationally, or they may form cyclical rhythmic patterns with fixed enriched positions under structured rhythmic control. (See Example 36)

Example 36: Uyghur folk song from Xinjiang: *The Carter's Song*; transcribed by the author based on an example in Jiti Li, *An Overview of Structural Analysis in Chinese Music* (Beijing: Central Conservatory of Music Press, 2004), 56.



In the case of regular (or equal) meter, there are still notable differences between regular meters in Chinese music and those in Western music with regard to the placement of strong beats. In Western music, the strong beat of a regular meter typically falls at the beginning of the measure, whereas in many Chinese percussion pieces the strong beat occurs at the end. Another point of divergence lies in meter types: in Han Chinese music, most regular meters are in 4/4 or 2/4, while triple meters are quite rare. Li Xian once pointed out that this phenomenon is probably related to the linguistic structure of the Han Chinese language, in which most words consist of monosyllabic or disyllabic morphemes, and only a few dialects employ trisyllabic word forms. This linguistic-metric correlation will be further discussed later in the section on the relationship between melodic prosody and text setting.⁷⁴

⁷⁴ Dongmei Zhao, *The Constituent Elements of Chinese Traditional Melody* (Beijing: Modern Press, 2020), 116.

Arithmetic additive meter. Arithmetic additive meter employed by Stravinsky in *The Rite of Spring* had long existed in traditional Chinese music. For instance, in such pieces from the *Sunan Chuida* (Suzhou wind-and-percussion ensemble) repertoire as *Golden Olive* (*Jin Ganlan*) and *Yu He Ba*, the main sections feature rhythmic and metric structures that undergo incremental or decremental changes according to arithmetic (additive) sequences, as illustrated below.

Example 37: Arithmetic additive meter; transcribed by the author based on an example in Jiti Li, *An Overview of Structural Analysis in Chinese Music* (Beijing: Central Conservatory of Music Press, 2004), 59.

Golden Olive

七
 内 内 内
 同 同 龙 同 同 同
 王 王 一 王 一 王 王
 同 同 龙 同 同 同
 内 内 内
 七

Yu He Ba

七 七 一 七 一 七 七 扎 (7+1)
 内 内 内 一 内 内 内 扎 扎 扎 (5+3)
 同 同 同 扎 扎 扎 一 扎 扎 扎 (3+5)
 王 扎 扎 扎 扎 扎 扎 扎 扎 (1+7)

Relationship between melody and text

The unique styles and forms of each nation's music, distinct from those of other nations, stem from multifaceted causes: historical, social, geographical, ethnic, linguistic, and folkloric. Among these, the relationship between language and music is particularly close. This is because language and music share a common origin, and their mutual influence and permeation are the most direct.⁷⁵ In the *Book of Documents (Shangshu)*, the statement “Poetry expresses aspirations; song gives voice to words; sound follows the tones of the chant; and pitch regulates sound” means that “poetry” serves to express one's thoughts and emotions, “song” elevates language through melodic intonation, “sound” changes according to the rise and fall of speech tones, and “pitch” functions to regulate and harmonize sound, adjusting itself in response to tonal variations. This passage reveals the general principle governing the transformation of “sound” in traditional Chinese music.⁷⁶ The relationship between Chinese music and language manifests primarily in two aspects: first, the decisive influence of Chinese tonal variations on melody, as the tonal shifts themselves possess inherent musical beauty; second, the impact of Chinese poetic structure on musical development. China boasts an exceptionally long tradition of poetry and music. Since the *Book of Songs* established the “unity of poetry and music,” this tradition has endured for three millennia, carried forward through the Yuefu, Tang poetry, Song ci, Yuan qu, and even extant folk songs, narrative ballads, and opera; though some genres later diverged into independent literary forms or instrumental pieces. Over such an extended period, poetry and music intertwined and evolved together. Musical principles permeated every line, even every

⁷⁵ Xi'an Li and Dongmei Zhao, *Research on Han Language and Han Melodic Patterns* (Beijing: Modern Press, 2021), 21.

⁷⁶ Yaxiong Du, *A Course in Traditional Chinese Music Theory* (Shanghai: Shanghai Music Publishing House, 2004), 19.

word, of poetry; conversely, the rhythm, tone, phrasing, and structure of verse constantly inspired and shaped the development and variation of melodies.

The Relationship between Mandarin Tones and Musical Melody. Since its establishment as the capital in the first year of the Zhenyuan era of the Jin Dynasty (1153), Beijing has remained the political and cultural center of China through the Yuan, Ming, and Qing dynasties, enduring for over eight hundred years.⁷⁷ Originally a regional dialect, Beijing speech gradually evolved into the common language of the Han Chinese. Numerous folk music genres employ Beijing speech, such as Jingyun Dagum, Danxian, Beijing Qinshu, and Pingju (which originally used the Tangshan dialect). Kunqu opera and Northern Qu, rooted in Beijing dialect; Peking Opera, Kunqu, Southern Qu, and other dialect-based genres all incorporate Beijing dialect to varying degrees. This influence became particularly pronounced after the liberation, with the promotion of Mandarin, standardized on Beijing pronunciation and grounded in Northern Chinese dialects, deepening its permeation across regional musical traditions.⁷⁸ Since all of my subsequent musical analyses in the dissertation pertain to professional compositions created after 1919, all lyrics are based on Mandarin pronunciation. Thus, I will focus on explaining Mandarin pronunciation.

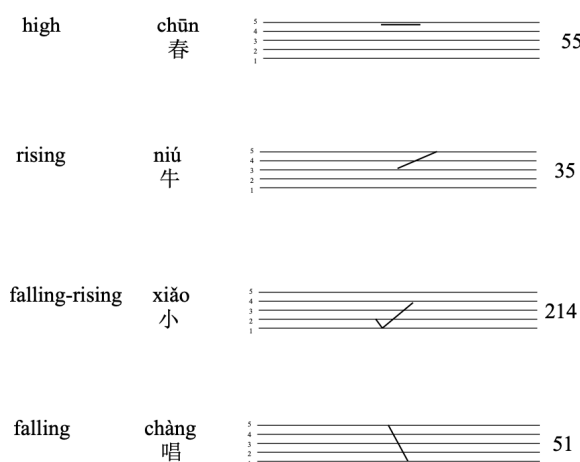
Mandarin Chinese is a tonal language, and it influences melodic structure primarily through its tone, tone sandhi, and intonation. Tone refers to the pitch contour of a single syllable and the relative pitch relationships among different syllables. In Mandarin Chinese, tones are classified into four categories: *Yin Ping* (high level), *Yang Ping* (rising), *Shang* (falling rising), and *Qu* (falling), commonly referred to as the four tones, *Yin*, *Yang*, *Shang*, and *Qu*. In modern

⁷⁷ Xi'an Li and Dongmei Zhao, *Research on Han Language and Han Melodic Patterns* (Beijing: Modern Press, 2021), 2.

⁷⁸ Ibid., 21.

linguistics, the tonal contours are typically represented using the “five-level pitch notation”⁷⁹ system. See Example 38, the five-level pitch notation for each character represents a relative pitch value, which may shift when produced in connected speech.

Example 38: Five-level pitch representation of Mandarin tones



When combining lyrics and music, the emphasis differs between language and musical expression. Mandarin pronunciation emphasizes clear articulation and distinct tones, as tonal shifts during speech can lead to ambiguity. Music, however, is an artistic medium. During composition, melodies evolve to meet various artistic demands. Melodies also fall into distinct categories, each with varying degrees of reliance on lyrics. For instance, recitative melodies, as the name suggests, convey a narrative feel where language clearly dominates, with the melody essentially mimicking and exaggerating speech. Narrative melodies can be understood as lyrical storytelling, where both language and music are crucial, yet the melody must still clearly convey the lyrics' meaning. Folk-song melodies prioritize musical expression, where the clarity of lyrical delivery becomes less critical. Here, the melody operates with relative independence.

⁷⁹ The five-tone scale system is a linguistic method that divides the entire pitch range of a language into five equal-distance intervals: low, semi-low, medium, semi-high, and high (abbreviated as 1, 2, 3, 4, 5). This system provides a scientific notation for tone pitch. Tone symbols use vertical lines of equal length on the right to represent the five-tone coordinates, while corresponding lines on the left indicate the pitch position and direction of that tone category.

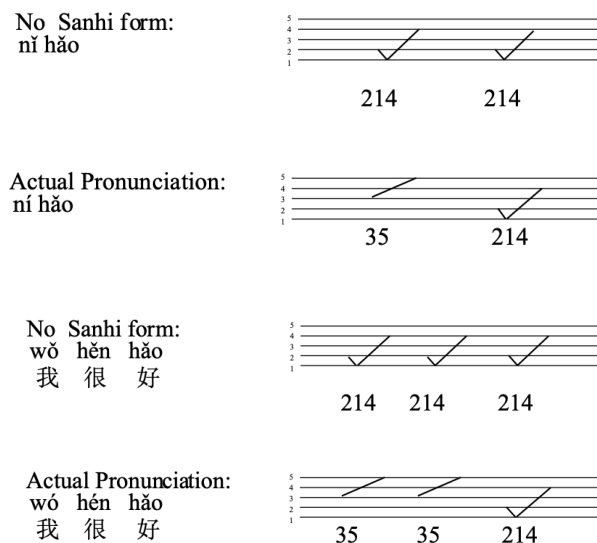
Tone Sandhi, Neutral Tone, and Melody in Mandarin Chinese. When characters combine to form words, if the tone of one or more characters changes, and their duration and intensity also shorten and weaken to varying degrees, this is collectively referred to as tone sandhi.⁸⁰ In total, Mandarin Chinese has three fixed types of tone sandhi. The first is the sandhi of the third tone. This is the most typical and systematic. When two third tones are pronounced consecutively, the preceding third tone changes to a half-third tone (similar to the second tone). For example, 你好 [ní hǎo] (not nǐ hǎo) (see Example 39). When three or more third-tone characters are pronounced consecutively, adjustments occur from the end back to the beginning. For example, 我很好 [wǒ hén hǎo] (not wǒ hěn hǎo, “我” and “很” becomes second tone) (see example 39). This prevents consecutive “low points” from stacking, making speech flow smoother. Second is the tone change of “one” (一). The character “一” (yī) is normally first tone, but its tone changes based on the following character. When “一” is followed by a fourth-tone character, its first tone becomes second tone. For example: 一次 (yí cì). When “一” is followed by a non-fourth-tone character, its first tone becomes fourth tone. For example: 一年 [yì nián]. Third, the tone change of “不” (bù). The character “不” is originally fourth tone (falling tone), but when followed by a fourth-tone character, it changes to second tone. For example, ‘不要’ (bú yào). The light tone is not strictly a “tone change,” but it is often discussed alongside tone changes. It manifests as a character losing its original tone and becoming a fixed, weakly pronounced sound. For example: 妈妈 (Māma) (the second “妈” becomes a light tone), 东西 (dōngxi). Additionally, when four consecutive words with fourth tones are read together, the second fourth tone often weakens or

⁸⁰ Xi'an Li and Dongmei Zhao, *Research on Han Language and Han Melodic Patterns* (Beijing: Modern Press, 2021), 4.

becomes less sharply inflected. This isn't a strict rule but a natural phenomenon in speech flow. For example: 大段 (dà duàn), where the latter ‘段’ isn't given as much emphasis.

When words combine with music, these tone changes manifest as distinct pitch shifts within the corresponding melody. For light tones, two primary approaches exist: one follows the natural melodic trajectory of the light tone in speech, while the other places the light tone on a rhythmically weaker position without adhering to its natural speech pattern.

Example 39: No Sanhi Form and Actual Pronunciation



Intonation and Melody in Mandarin Chinese. In Chapter 10 of *Tone: Basic Properties*, Duanmu provides a detailed discussion of intonation and distinguishes it from tone. *Tone* refers to pitch contours used to differentiate lexical meanings, such as the four tones of Mandarin mentioned earlier, and functions at the lexical level. *Intonation*, on the other hand, does not change word meaning but conveys syntactic or pragmatic meanings, such as statements, questions, exclamations, and commands; it operates at the sentence level.

Duanmu summarizes two ways in which intonation can be superimposed on tone in tonal languages such as Mandarin, where lexical tones are fixed. Drawing on the system used in non-

tonal languages such as English and Dutch, he represents intonation as a linear sequence of high (H) and low (L) pitch phonemes.

The first is successive addition, in which a rising or falling pitch is appended to the end of the utterance, similar to boundary tones in English. For instance, the syllable *nan* [LH] becomes *nan a, que shi nan!* [LHL] when followed by a final L tone expressing confirmation; likewise, *ma* [HL] becomes *ma ma?* [HLH] when a final H tone indicates a question.

The second is simultaneous addition, in which intonation is superimposed upon lexical tones by raising, lowering, or compressing the overall pitch range without altering the distinctions among individual tones. For example, in a neutral declarative sentence such as *Ni qu Beijing*. (“You are going to Beijing.”), the pitch remains within the normal range, whereas in the interrogative form *Ni qu Beijing?* (“Are you going to Beijing?”), the entire pitch contour is raised, rather than merely adding a boundary rise at the end, yet each syllable’s tonal contour remains perceptually distinct.

In music, when lyrics and melody combine, the music amplifies the range of these tonal shifts, making the melody more distinct and melodic, while emphasizing key phrases.

Chinese Poetic Rhythm and Han Melodic Tradition. Beyond the influence of Chinese pronunciation, tone, and tone sandhi on melody as mentioned above, Chinese poetic meter also exerts a significant impact on melody, and the relationship between poetry and music has evolved continuously across different historical periods. I am drawing primarily from Li Xi’an and Zhao Dongmei’s *Chinese Poetic Rhythm and Han Melody*, along with Chapter 12, “Rhythm in Poetry,” from San Duanmu’s *The Phonology of Standard Chinese*, which summarize the evolution of the relationship between Han Chinese poetry and music over the past several millennia.

Over the several millennia, from the earliest Book of Songs to the Yuefu period, poetry dominated while music served as an adjunct, lacking independence. The Tang Dynasty's regulated verse marked the zenith of poetic development, achieving full maturity through strict adherence to the "level-tone and oblique-tone" pattern (see Example 40). During this era, Chinese poetry both detached from music and achieved its own musicality. The metrical patterns of Tang regulated verse inherently formed exquisite melodies.

Example 40: Tone pattern of Wang ZhiHuan's *Ascending the Stork Tower* (Poetry of the Tang Dynasty)

Chinese and Pinyin:

《登鹤雀楼》王之涣

白(bái) 日(rì) 依(yī) 山(shān) 尽(jìn),
黄(huáng) 河(hé) 入(rù) 海(hǎi) 流(liú).
欲(yù) 穷(qióng) 千(qiān) 里(lǐ) 目(mù),
更(gèng) 上(shàng) 一(yì) 层(céng) 楼(lóu).

Tone pattern:

Level-oblique-level-level-oblique
Level-level-oblique-oblique-level
Oblique-level-level-oblique-oblique
Oblique-oblique-oblique-level-level

English translate:

The sun sinks behind the mountains;
the Yellow River flows into the sea.
To take in a thousand miles of view,

go up another story.

Chinese poetry's primary musical expression manifests in the rhythm of its melodies, the progression of pitch, and its structural framework. Rhythmically, since Chinese predominantly consists of monosyllabic and disyllabic words, with fewer trisyllabic or longer words, monosyllabic terms often pair together to convey relatively complete meanings. Consequently, the fundamental rhythmic pulse of poetry follows a "2" pattern. In musical rhythm, a multiple-based system centered on "2" has primarily developed. Triplet rhythms mainly appear in dialect regions where three-syllable words are highly prevalent (such as Shanxi), where typical triplet folk songs exist. It is worth noting that Han Chinese music operates within a singular duple-time system. As mentioned earlier, it lacks the regular strong-weak patterns found in Western music. However, Western music itself coexists with both duple and triple time systems, leading to frequent transitions between duple and triple meters within Western compositions.

The influence of poetry on music in terms of pitch primarily manifests in how the "level and oblique tones" of regulated verse affect melody. Different "level-tone/oblique-tone" relationships in poetry correspond to distinct melodic trajectories and rhythmic patterns. However, I have yet to identify any fixed rules; rather, different tone patterns simply correspond to different musical modes. For instance, level tones occur in higher registers with longer note durations, while oblique tones appear in lower registers with shorter, more abrupt rhythms.

The influence of poetry on music is also reflected in poetic structure. The structure of verse bears a close relationship to the phrasing patterns of melody, and this influence is mutual, just as I mentioned earlier regarding the interdependent relationship between music and poetry over the past three millennia.

Traditional Music Analysis

Based on the above descriptions and summaries of various aspects of traditional Chinese musical characteristics, I will analyze two examples of traditional Chinese music, a folk song and a piece from Peking Opera, focusing respectively on modality, the relationship between music and text, meter.

An analysis of Peking Opera: For the Country, never have I enjoyed leisure for half a day.

I will conduct a detailed analysis of this work from the perspectives of historical background, formal structure, the relationship between melodic formulas and text, and Chinese modal systems.

Background of Peking Opera. Peking Opera is a comprehensive stage art, which is formed with the integration of “song, speech, dance-acting and combat”. Here combat is not real fighting, they’re just performing. Each character in a Peking Opera piece is portrayed by a combination of these four aspects, of which music is only one factor. In Peking Opera, the title of each piece normally tells us three things: character type, Sheng-Qiang (which is voice technique) and Ban-Shi (which is a tune with specific speed, beat, and rhythm). Character types mainly include Sheng (a male character) and Dan (a female character). Within Sheng we have further divisions including Lao-sheng (means old male), xiao-sheng (young male), etc. Dan can be further divided into Huang-Dan (young female), Lao-Dan (old female), etc.

Peking Opera’s Sheng-qiang has two types, which are xi-pi and er-huang. Erhuang originated in the cities of southern China, characterized by the tone called southern style. The melody is relatively soothing, with a steady rhythm, and fewer large leaps in the melody and more stepwise progressions. On the other hand, Xipi originated in the cities of northern China, featuring lively melodies with more leaps and forceful passages, and a varied rhythm.

For musical form, Peking Opera has two types, which are Ban-qiang form and Qu-Pai form. Ban-Qiang form involves varying the melody based on changing the beat, rhythm, and speed. It is very similar to the Western variation form, but it is different from western variations in terms of music development. “Qu-Pai” in general refers to a piece of music with a fixed name, and a specified number of lyrics. In detail, Ban-Qiang Form also has many different types. For example, Yuan-Ban (means original basic tune), Man-Ban (means slower speed and sparser rhythm), Kuai-Ban (means faster speed and denser rhythm) etc.

It has been recognized that in Peking opera, Sheng-Qiang, character type, ban-shi and specific character are closely connected with each other. Like I mentioned before, Sheng (male character) and Dan (female character) are two main important character types. Sheng-Qiang is the basis of Dan-Qiang, while Lao-Sheng Qiang is the basis of Sheng-Qiang. Therefore, I will analyze this Lao-Sheng Er-Huang Yuan-Ban piece *For the country, never have I enjoyed leisure* for half a day as an example and try to explore its musical development in comparison to western music.

Musical form and text. There’s an important principle in Peking Opera called *yizi xingqiang* (依字行腔), which means to sing a tune following the words literally. Therefore, the melodic and musical form are affected by the format, pronunciation, and meaning of the lyrics. There are 4 phrases, each phrase structure is a very typical ten-word structure of Lao-Sheng Er-Huang Yuan-Ban piece, which can be divided into 3+3+4 (see Example 41). Therefore, I divided this piece into 4 phrases and each phrase I divided into 3 small sub-phrases (see Example 41 and 42).

Example 41: Lyrics of *For the Country*

Chinese:

为国家/那何曾/ 半日闲空,

我也曾/平服了/塞北西东.

官封到/节度史/ 皇王恩重,

身不爽/不由人/瞌睡朦胧.

Translate:

For the country, never have I enjoyed leisure for half a day,

I once pacified the lands both to the north and west.

Bestowed with official titles, honored by the emperor,

Yet weariness overtakes me, and sleepiness clouds my senses, beyond control.

Example 42: Phrase structure of *For the Country*

为国家哪何曾半日闲空
《洪羊洞》杨延昭唱段

伴奏 【小罗夺头】 6 | 2 1 2 3 6 | 5 6 5 5 6 1 | 2 3 5 3 2 7 6 | 5 3 2 1 6 1 | 5 2 3 2 7 6 |

Phrase 1

【二黄原板】

伴奏 5 6 5 6 7 6 5 6 | 1 2 3 6 | 5 6 5 5 6 1 | 2 2 5 3 2 | 3 3 2 3 | 2 5 6 1 2 | 2 2 2 3 2 1 |

Melody 唱腔 0 0 | 0 0 | 0 0 | 2 5 3 2 | 2 3 2 3 | 2 0 0 | 2 2 1 |

为 国 家 哪 何

曾 半 日 闲 空,

Phrase 2

3 3 5 6 5 6 1 | 2 3 2 3 4 3 5 | 2 3 2 1 6 5 6 1 | 5 2 3 2 7 6 | 5 6 1 3 7 6 5 6 | 1 2 3 6 | 5 6 5 5 6 1 | 3 2 3 1 2 |

0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 3 2 3 1 2 |

我 也 曾

Phrase 3

Phrase 4

稍慢

晚 (啊)。

Basic tune and Central tone. Because this piece is in the YuanBan type of the Ban-Qiang form, other related Ban-Shi are derived from this prototype. Therefore, I will examine the basic framework of its melody from two perspectives: the basic tune and the central tone. Basic tune is the emphasized tones of each phrase, central tone is the final tone of each subphrase.

Parallel phrases reflected in that Phrase 1 and 3's basic tune are both re-la-re-mi-do-re-mi-la, and the central tones are Re going to Do and then La. Subphrase “为国家” in Phrase 1 corresponds to “官封到” in Phrase 3, the central tone and basic tune of both phrases is re, but the melody of “官封到” in Phrase 3 is obviously simpler than that of “为国家” in Phrase 1, just the two notes re and do. Subphrase “哪何曾” in Phrase 1 corresponds to “节度史” in Phrase 3, the central tone of the two phrases are both do, basic tune are both la-re-mi-do. Subphrase “半日闲

空” in Phrase 1 corresponds to the “皇恩深重” in Phrase 3, the central tones are both la, basic tune are both do-re-mi-la, and word “重” in Phrase 3 is particularly expanded (see Example 43).

Example 43: Basic tune and central tone in Phrase 1 and 3

Phrase 1:

Basic tune: *re* ————— *la-re mi do*

$\frac{2}{4}$ 2 5 3 2 | $\frac{3}{4}$ 3 2 3 | 2 0 0 | 2 2 1 | 6 1 2 3 | 1 - | 0 0 | 0 0 | 0 0 |

为 国 家 哪 何 曾 do

Central tone: *re* ————— *la*

do-re-mi —————

1 2 2 1 3 | 3 0 2 3 2 | 1 2 3 1 | 1 - | 6 3 2 1 | 7 6 $\frac{5}{4}$ 6 5 | 6 - | 6 0 |

半 日 闲 空 la

Phrase 3:

Basic tune: *re* ————— *la mi re do*

$\frac{2}{4}$ 2 2 1 | 2 - | 0 0 | 6 3 2 6 1 | 1 6 1 2 3 | 1 - | 0 0 | 0 0 | 0 0 |

官 封 到 节 度 史 (嗟) do

Central tone: *re* ————— *mi* ————— *la*

re ————— mi ————— la

1 2 2 1 5 | 3 0 7 5 | 6 - | 6 6 5 6 | 7 7 2 7 6 |

皇 王 恩 重, la

5 6 7 6 2 | 6 7 6 5 3 5 | 6 7 6 5 | 6 7 6 5 | 6 - | 6 0 0 |

Phrases 2 and 4’s basic tune and central tones are different, which reflects that they are contrasting phrases. The basic tune of Phrase 2 is mi-sol-mi-re, while the basic tune of Phrase 4 is re-la-re-mi-la-sol. The central tones of Phrase 2 are do-sol-re, while central tones of Phrase 4 are mi-ti-la. Despite their contrasting basic tunes, Phrase 2 and 4 do have some similarities in the perspective of rhythmic pattern and note duration. For example, in Phrase 2, the second subphrase “平服了” and Phrase 4’s second subphrase “不由人”, these 6 words are all have the

duration of an eighth notes. “塞北” in Phrase 2 and “瞌睡” in Phrase 4 all last the length of a quarter note. (See Example 44)

Example 44: Basic tune and central tone of Phrase 2 and 4

Phrase 2:

Basic tune: *mi* *sol* *mi re*

$\frac{2}{4}$ 3 2 3 1 2 | 2 3 2 1 2 7 | 0 5 5 2 7 | 6 5 5 | 0 3 2 1 | 2 - | 2 0 0 |

我 也 曾 平 服 了 塞 北 西 东。

Phrase 4:

Basic tune: *re* *la* *re*

$\frac{2}{4}$ 3 2 1 1 6 | 3 5 3 $\frac{3}{4}$ 2 | 2 $\frac{3}{4}$ 2 1 2 7 6 0 | 0 6 5 2 7 | 6 7 6 3 5 6 | 0 2 $\frac{3}{4}$ 2 |

身 不 爽 不 由 人 瞌 睡 朦

Central tone: *mi* *mi la* *ti* *sol*

1. 2 7 $\frac{6}{4}$ 7 | 7 $\frac{6}{4}$ 7 6 7 2 | $\frac{3}{4}$ 2 3 6 3 5 | 6 $\frac{7}{4}$ 6 5 | 4 3 $\frac{5}{4}$ 3 | 5 - |

la 胧 (啊)。

Overall, Phrases 1 and 3 have the same basic tune and central tones, Phrases 2 and 4's basic and central tones are different. This kind of 4-phrase structure and the same basic tune underlying Phrases 1 and 3 remind me of a “big” parallel period. Phrases 1 and 2 together are antecedent, Phrases 3 and 4 are consequent, and the antecedent and consequent both begin with the same melody.

Chinese modal system. Let's look at these four phrases more carefully from the Chinese modal system perspective. The notes in Phrase 1 are do, re, mi, sol, la, and ti. (here do = C in C Major) There are two major thirds between do, mi and sol, ti, but obviously, ti just appears once. Sol and ti shouldn't be gong and jue (the first and third scale degrees) since gong and jue should be emphasized in the music. Do and mi, are the best choice for gong and jue, because they are important in Phrase 1. Also, la is strongly emphasized at the end of Phrase 1. Therefore, la or A

Do Re Mi Sol La Ti

Major third: Do—Mi Sol—Ti

Pentatonic scale:	Gong shang Jue Zhi Yu Do Re Mi Sol La	Additional note: Ti
	Gong shang Jue Zhi Yu Sol La Ti Re Mi	

Phrase 3 is longer than Phrases 1 and 2. There's an extension of the last word “重” in Phrase 3. Except for the extension, the mode of Phrase 3 is the same as Phrase 1, which is an A Yu six-tone scale with additional note Ti as well. But the extension part has changed from A Yu six-tone scale to the A shang pentatonic scale because of the emphasis on Ti. The gong system has changed from C gong to G gong. (see Example 47)

Example 47: Chinese mode of Phrase 3

Phrase 3:

$\frac{2}{4}$ 2 <u>2·1</u> 2 - 0 0 <u>6 3</u> <u>2 6 1</u> <u>1 6 1</u> <u>2 3</u> 1 - 0 0 0 0 0 0	Extension:
官 封 到 节 度 史 (喏)	
<u>1 2</u> <u>2 1 5</u> 3 0 <u>7·</u> <u>5</u> <u>6 -</u> 6	<u>6 5 6</u> <u>7</u> <u>7 2</u> <u>7 6</u>
皇 王 恩 重,	
<u>5· 6</u> <u>7 6 2</u> <u>6 7</u> <u>6 5</u> <u>3· 5</u> <u>6 7</u> <u>6 5</u> <u>6 7</u> <u>6 5</u> 6 - 6 0 0	

(Do) Re Mi Sol La Ti

Major third: Do—Mi Sol—Ti

Pentatonic scale:

Gong	shang	Jue	Zhi	Yu
Do	Re	Mi	Sol	La
Sol	La	Ti	Re	Mi

 Additional note: Ti

Phrase 4 has the complete 7 notes, which are do, re, mi, fa, sol, la, ti. They have three major thirds, sol and ti, do and mi, as well as fa and la. That means we have 3 kinds of gong and Jue with additional notes. In Phrase 4, ti has been emphasized a lot. So Ti shouldn't be an additional note. Gong and jue should be sol and ti (which are G and B), the additional notes are fa and do. The mode of Phrase 4 is G Gong seven-tone scale with additional notes fa and do, which is G gong system. (see Example 48)

Example 48: Chinese mode of Phrase 4

$\frac{2}{4}$ $\underline{\underline{3}}$ $\underline{\underline{2}}$ $\underline{\underline{1}}$ $\underline{\underline{6}}$	$\underline{\underline{3}}$ $\underline{\underline{5}}$ $\underline{\underline{3}}$ $\overset{\frac{3}{\text{c}}}{2}$	$\underline{\underline{2}}$ $\underline{\underline{2}}$ $\underline{\underline{1}}$ $\underline{\underline{2}}$ $\underline{\underline{7}}$ $\underline{\underline{6}}$ $\underline{\underline{0}}$	0 $\underline{\underline{6}}$ $\underline{\underline{5}}$ $\underline{\underline{2}}$ $\underline{\underline{7}}$	$\underline{\underline{6}}$ $\underline{\underline{7}}$ $\underline{\underline{6}}$ $\underline{\underline{3}}$ $\underline{\underline{5}}$ $\underline{\underline{6}}$	0 $\underline{\underline{2}}$ $\overset{\frac{3}{\text{c}}}{2}$			
身	不	爽	不	由	人	瞌	睡	朦

$\underline{\underline{1}}$ $\underline{\underline{2}}$ $\underline{\underline{7}}$ $\overset{\frac{6}{\text{c}}}{7}$	$\underline{\underline{7}}$ $\overset{\frac{6}{\text{c}}}{7}$ $\underline{\underline{6}}$ $\underline{\underline{7}}$ $\underline{\underline{2}}$	$\overset{\frac{3}{\text{c}}}{2}$ $\underline{\underline{3}}$ $\underline{\underline{6}}$ $\underline{\underline{3}}$ $\underline{\underline{5}}$	$\underline{\underline{6}}$ $\overset{\frac{7}{\text{c}}}{6}$ $\underline{\underline{6}}$ $\underline{\underline{5}}$	$\overset{\sim}{4}$ $\underline{\underline{3}}$ $\overset{\frac{5}{\text{c}}}{3}$	$\underline{\underline{5}}$ $-$
眈 (啊)。					

Do Re Mi Fa Sol La Ti

Major third: Do----Mi Sol----Ti Fa-----La

Pentatonic scale: Do Re Mi So La Additional notes: Fa, Ti

Sol La Ti Re Mi Additional notes: Do, Fa

Fa Sol La Do Re Additional notes: Mi, Ti

The layout of the modes reflects the musical form as well (see Example 49). For the Diao level, Phrases 1 and 3 are the restatement of parallel period, in that they have the same mode, A Yu Diao. Phrase 1 and 2 end on A and D respectively in C gong system, which is similar with dominant and tonic function. For the gong system level, the first two phrases and the first half of Phrase 3 are C gong system. At the beginning of the second half of Phrase 3, C gong system changes to G gong system, which reflects the deep structure of the lyrics.

Example 49: layout of modes

	“Antecedent”		“consequent”	
	Phrase 1	Phrase 2	Phrase 3	Phrase 4
	mm.1-33	mm.34-43	mm.44-71	mm.72-85
Mode:	A Yu	D Shang	A Yu	G Gong
			-----A Shang	
Gong system:	C Gong-----		G Gong-----	
Yun:	C Yun-----			

On the surface, the comma and full stop divide the whole poem into two bigger parts naturally. But when we look at the meaning of the lyrics closely, we can find the first three phrases primarily describe the author recalling his own achievements and the fourth phrase returns to the present reality. The deep structure of the poem is consistent with the gong system

layout. Another interesting point is, in Phrase 3, even A Yu and A Shang are in two different gong systems, but they still have a connection, which is sharing the same tonic note A. Also, due to the absence of harmony and counterpoint in Chinese music, the Chinese mode relies heavily on basic tunes and central tones. Consequently, at times, the Chinese mode may appear somewhat indistinct or blurred.

For the mode of Phrase 3 (see Example 47), we can say it's A Yu six-tone scale modulate to A shang pentatonic scale, or the whole phrase is A Yu six-tone scale but the extension part is not very stable, because the additional note ti has been emphasized. However, what we can say for sure is that extension serves as a transition between Phrase 3 and 4. The uncertain modulation seems to depict the idea that though the author wants to retire with success, he cannot escape the control of the emperor, represented by C gong which has been traditionally associated with emperor.

Overall, the whole piece is C Yun, which reflects the unity of the whole piece. We can find, in Chinese music, different modal relationships serve as the driving force behind the development of musical structure, like the function of harmony in western music.

The rhyme of Banqiang form. Rhyme is often implied in Chinese poem. This Peking-Opera piece uses ten-character poems, where the second, fourth, and sixth characters of each phrase need to rhyme. Also, the final character in odd-positioned phrases has an oblique tone, while in even-positioned phrases, the final character has a level tone.

Peking Opera uses Mandarin primarily. Like I mentioned, the pronunciation of each word can be categorized into level tones and oblique tones. For the language tone of the second, fourth and sixth characters in each phrase, Phrase 1 and 2's language tones are opposite, Phrase 3 and Phrase 4's language tones are also opposite, which parallel restatement and contrast within the

parallel period concept. The last characters in Phrase 1 and 2 have an oblique - level pattern. In Phrase 3 and 4, the last characters have an oblique-level pattern as well. The layout of the rhymes reflects the musical form at the higher antecedent-consequent level. (see Example 50)

Example 50: The rhyme of lyrics

为 国(guó) 家/ 哪(nǎ) 何曾(céng) /半日闲 空(Kòng),
我 也(yě) 曾/ 平(píng) 服了(liǎo) / 塞北西 东(Dōng).
官 封(fēng) 到/ 节(jié) 度史(shǐ) / 皇王恩 重(Zhòng),
身 不(bù) 爽/ 不(bù) 由人(rén) / 瞌睡朦 胧(lóng).

Tone pattern (yellow words):

Level tone—oblique tone—level tone

Oblique tone— level tone--- oblique tone

Level tone--- level tone--- oblique tone

Oblique tone--- oblique tone—level tone

Last word of each phrase (green words):

Phrase 1-2 : Oblique-level

Phrase 3-4: Oblique-level

In conclusion, I have analyzed this Peking Opera piece from multiple perspectives: basic tune, central tone, the Chinese modal relationship, the patterns created by language tone, and the rhyme schemes, and have shown some interesting parallels with parallel period: both at the antecedent and consequent level, and at the restatement and contrast level.

I found some different ways of distinguishing form between western and Chinese music. For example, western music's basic and contrasting idea are usually reflected in melodic contour, rhythm and harmony, while Chinese music conveys similar or contrasting ideas through aspects

such as basic tune, central tones, modal relationship, sub-phrase length, rhythmic pattern, melodic contour, rhyme of lyrics.

An analysis of Chinese folk song “Lady Meng Jiang”. “Lady Meng Jiang” is a folk song from Jiangsu Province, composed in four sections, spring, summer, autumn, and winter, to narrate the story of Meng Jiang longing for her husband and weeping at the Great Wall.⁸¹ Each section contains four lines of lyrics, primarily in seven-syllable verse. My analysis of the first section focuses mainly on its modes and rhythm.

Lyrics of Lady Meng Jiang

Chinese:

春季里来是新春,

家家户户点红灯.

别人家夫妻团圆聚,

孟姜女的丈夫去造长城.

English:

Spring arrives with the New Year,

Every household hangs red lanterns.

While other families enjoy reunion with their spouses,

Lady Meng Jiang’s husband has gone to build the Great Wall.

Mode of this piece. The mode of the piece is the D zhi six-tone scale, based on six-tone structure “D-E-F#- G-A-B.” Like I said before, the major third decides “Gong-Jue”, and we can find there are two “Gong-Jue” structures: D-F# and G-B. When D-F# is Gong and Jue, corresponding

⁸¹ Dongmei Zhao, *Elements of Traditional Chinese Melody* (Beijing: Modern Press, 2020), 125.

additional note is G (Qing-Jue), when G-B is Gong and Jue, corresponding additional note is F# (Bian-Gong). Like I said before, additional notes appear in weak beats and should occur very rarely. So the additional note in this piece must be F#. This then causes us to assign “Gong” and “Jue” to G and B. Therefore the mode of this piece is the D zhi six-tone scale. (See Example 51)

Musical form. The phrase structure of this folk song adopts the traditional Chinese organizational pattern called qi cheng zhuan he (起承转合), a four-part progression commonly used in classical Chinese narrative and musical forms. The second phrase is a variation of the first phrase, adding some new elements. The material and emotion of the third phrase is significantly different. The fourth phrase then summarizes the first three phrases, and is made up mostly of previous materials. This four-phrase structure also exists in western popular music as “statement, repetition, departure and conclusion”, but the method of melodic development in Chinese folk song is different from that in western music.

The similarity between the first two phrases is reflected in these ways: first, the material of the first two phrases is very concise and based on the characteristic motion “D-E-G-A” that appears at the beginning in measure 1. Second, the connection of the first two phrases is “Yu Yao Wei” (literally “fish biting its tail”) in Chinese (see the red circles in Example 51), which means the last note of the first phrase is the same as the first note of the second phrase. This connection makes the relationship between the first two phrases closer.

Example 51: Lady Mengjiang

孟姜女

江苏

The chain of fifths, with Chinese names:

G-----D-----A-----E-----B-----F#

Gong Zhi Shang Yu Jue Bian-Gong

The turning point (the point of contrast) in the first two phrases is reflected in these ways:

First, the underlying melodic patterns D-E-G-A in the first three measures are the same, but we hear something different in measure 4 (the second sub-phrase of the second phrase) (See the yellow boxes in Example 51). Second, the rhythm of the text (below the notation of the piece in Example 51) includes an eighth-dotted quarter pattern in mm. 1-3, but there are straight quarter notes in m. 4. Third, the underlying melodic motion created by starting and ending notes in measure 2, D5-A4, is opposite to that in measure 4, A4-D4. The underlying melody in the first two phrases is D5-A4-D4, the same as the harmonic progression tonic- dominant- tonic. The high-to-low melodic contour also suggests a mood shift. Third, the new tone F#4 in measure 4 is

the main turning point. F#4 evokes a sad feeling because F# is far away from tonic D, on the chain of fifths. It's worth noting that, in the analysis of Chinese folk music, sometimes a simple chain of fifths is more useful to explore the ultimate relationship between notes and phrases rather than scale degrees and typical western modulatory routines.

The sadness and distance of the third, contrasting phrase is established from the very beginning. There are three reasons for this: first, the beginning and end of the third phrase is E, which is two fifths away from D on the chain of fifths. Second, the characteristic motion "D4-E4" is placed in the lower octave. Third, from the text aspect, the rhythmic pattern of the text in Measure 5 has changed, creating a sense of urgency in the rhythm, because the number of text words increases from four (Measures 1 and 3) to five (Measure 5). In addition, the third phrase and the second phrase are connected by a stepwise motion (D4-E4), which is equivalent to two fifths. This also suggests that the third phrase is more distant from the first two phrases.

The fourth phrase summarizes the first three phrases. Measure 8 repeats measure 4. Measure 7 is a developing variation of the characteristic motion "D-E-G-A", adding three notes B4-F#4-E4. These three tones are the furthest from tonic G, and it creates a climax for the whole song. It's worth noting that the fourth phrase's first tone G suddenly turns in the opposite direction in the chain of fifths, one fifth down from D, which hints at deepening emotions.

Differences Between Chinese and Western Analytical Approaches. The melody we just discussed illustrates several differences between Chinese and western approaches to analysis: First, as I said before, the ultimate relationship between tones and phrases is dependent on the chain of fifths rather than scale degrees. For example, the last note of every phrase shows an interesting pattern: A, D, E, D, respectively (see Example 52). According to the chain of fifths, E is farther from tonic D than A, corresponding to the third phrase's contrasting function. Second,

characteristic motions in Chinese melody (such as D-E and G-A) are different from motives in western music theory. Often a characteristic motion only changes its rhythm because it includes the characteristic interval of the mode, while a motive can be developed more freely. Third, and this is the most important point, we can find that melodic developing variation in Chinese music theory is more irregular than western music theory, but at the same time it causes every phrase in the whole piece to be highly similar. For example, interval inversion is an important method of developing variation in Chinese folk songs. In the piece, D5-E4 appears at the beginning of the first phrase and is followed by multiple repetitions of D4-E4, of which one of the most prominent is the D4-E4 on the second beat of m. 5, near the beginning of the contrasting third phrase. (see Example 52)

Example 52: D–E interval pattern and phrase-final notes

孟姜女

江苏

Phrase 1
春季里来是新春,

Phrase 2
家家户户点红灯。

Phrase 3
别人家夫妻团圆聚,

Phrase 4
孟姜女的丈夫去造长城。

Chapter summary

In this chapter I have surveyed the principles of Chinese scale theory, the various understandings of how single tones can be decorated, essential features of Chinese meter, including ways in which it is similar to and diverges from Western meter, and the relationships between the spoken language of Mandarin (particularly tone, tone contours, and meter) and melody. I have also analyzed two examples of traditional Chinese music (a Peking opera excerpt and a folk song) from the perspectives of Chinese modes, rhythm, musical form, and the relationship between text and melodic patterns. I will show how all of these principles manifest themselves in various ways in the analyses to come - Chapter 3's analyses of music from 1919 to 2000.

Chapter 4: Modern Music Analysis

China, 1919-1949 period

During this period, I will conduct detailed analyses of three selected works, each illustrating a distinct compositional technique: atonality, two-voice compositional theory, and pentatonic harmony.

As discussed above, Sang Tong was the most accomplished composer of atonal musical works during 1919-49. His two atonal works, *Night Scene* (夜景) and *At a Place Faraway* (在那遥远的地方), represent the earliest examples of atonal music in China. Sang Tong (1923–2011), originally named Jingqing Zhu, was a contemporary Chinese composer, music educator, and music theorist. He entered the Composition Department of the Shanghai Conservatory of Music in 1941. At that time, the department featured Xiaolin Tan, who had studied under Hindemith in the United States for seven years before returning to teach; as well as Jewish-German composers Fraenkel and Schloss (former students of Schoenberg and Berg, respectively).⁸² It is evident that in such a teaching environment, Sang Tong studied under distinguished mentors who were well-versed in the latest compositional theories and techniques of the time, which laid the foundation for his later creative work. His representative piano compositions include *Seven Short Piano Pieces on Themes of Inner Mongolian Folk Songs* and *Three Preludes*, while his representative orchestral works include *Moonlit Night on the Spring River* (in collaboration with Gang Chen) and *Reminiscence* (in collaboration with Mingzhi Chen). Among them, the violin and piano piece *Night Scene* and the piano piece *In That Faraway Place* are significant milestones in the history of Chinese atonal works.

⁸² Zheng, Yinglie. “The Ingenious Combination of Folk Song Themes and Atonal Harmony: On the 60th Anniversary of Sangtong’s Piano Piece *In That Faraway Place*.” *Journal of Xinghai Conservatory of Music*, no. 4 (2007): 110–16.

Atonal piece: An Analysis of “In That Faraway Place”. The following analysis approaches the piece through multiple analytical lenses, including historical background, musical form, texture, pitch-class set structure, and referential collections.

Background: A letter from Sang Tong. Yinglie Zheng’s article “*The Ingenious Combination of Folk Song Themes and Atonal Harmony: On the 60th Anniversary of Sangtong’s Piano Piece In That Faraway Place*” records a letter from Sang Tong to Zheng dated July 9, 2007. This letter serves as an essential reference for my analysis of the work, as it discusses Sang Tong’s pathways to learning atonal music as well as the formal structure of the piece.⁸³

As Sang Tong explained in a letter to Zheng Yinglie dated July 9, 2007:

Pathways to learning atonal music:

“My interest in modern music composition was inspired by a remark from Fraenkel: ‘Musical composition must involve innovation.’ This remark awakened my pursuit of modern music. I had three main approaches to study: (1) *Reading books on modern and contemporary music*. Although there were not many in Chinese, there were quite a few in English, including works on modern harmony, twentieth-century music, “new music,” and modern composers such as Stravinsky, Schoenberg, and Scriabin. These also appeared in music history texts on twentieth-century new music. I borrowed these books from the Shanghai Municipal Library and from my conservatory library. (2) *Studying the scores of modern and contemporary composers*. These scores were available in the library, from my friends, and in my own collection. This was the most important source for learning how to compose modern and atonal music. Among these

⁸³ Yinglie Zheng’s article, “The Ingenious Combination of Folk Song Themes and Atonal Harmony: On the 60th Anniversary of Sangtong’s piano piece *In That Faraway Place*,” provides a broad analysis of the work’s overall musical form and texture. Building on this study, I extend the analysis through more detailed examinations of pitch-class sets, chordal structures, and referential collections.

scores were those of Schoenberg. The works that most inspired my atonal compositions were by Schoenberg, Scriabin, and Bartók. At the conservatory, in addition to Schoenberg's piano works, there were also *Pierrot lunaire*, *Verklärte Nacht*, and others. As for my decision to write atonal music, it was partly because my teacher's style was that of the New Viennese School ... and it suited my own taste. I was also interested in the musical style of Scriabin's later works. (3)

Listening to recordings of modern and contemporary music. As for how to write atonal music, there was no textbook that taught it ... to achieve atonality simply meant avoiding the establishment of tonality.

The Creative Motivation for At a Place Faraway:

"I had previously written *Night Scene* and then wanted to compose a piano solo. At that time, following the victory of the War of Resistance, folk songs attracted widespread interest, and at the conservatory some people were arranging them. ... The prevailing idea then was to pursue a path of developing folk songs, so I decided to create by combining folk songs with atonal harmony—this could also be said to have been influenced by Kodály and Bartók. At the time, this song was sung beautifully by the students in the vocal department, and it was very popular, so I chose this folk song. At the same time, I wished to express my remembrance of a distant friend, and thus I resolved to compose this piece."

—Letter from Sang Tong to Zheng Yinglie, July 9, 2007.⁸⁴

Drawing on the content of this letter, one is reminded of the "folk song fever" that swept through Chinese musical circles during the period 1919–1949. At that time, composers primarily explored pentatonic harmony, adapting harmonic language so that it better fit the style of

⁸⁴ Sang Tong, letter to Zheng Yinglie, July 9, 2007, cited in Yinglie Zheng, "The Ingenious Combination of Folk Song Themes and Atonal Harmony: On the 60th Anniversary of He Sangtong's Piano Piece *In That Faraway Place*," *Journal of Xinghai Conservatory of Music*, no. 4 (2007): 110–16.

pentatonic melodies and met the aesthetic expectations of general audiences. Sang Tong, however, took a different path: he combined chromatic atonal harmony with tonal folk song in composing the piano solo *In That Faraway Place*. This work thus pioneered an alternative approach to harmonizing folk songs and opened up a new direction for post-tonal music in China.

Musical Form. In his letter to Zheng Yinglie, Sang Tong discussed the formal structure of this work: “The inspiration I received from Kodály and Bartók in handling folk songs was the treatment of ‘strophic variation.’ That is, the folk song is repeated several times, with each repetition presenting a different variation. Thus, although it is the same folk song being repeated, the music acquires layers of development and change. I planned five repetitions, each with a different emotional development: (1) affectionate longing; (2) sincere longing; (3) passionate longing; (4) profound longing; (5) agitated longing. Accordingly, each variation of the melody and the treatment of the accompanying parts were determined by the expressive level and requirements of each stage.”

—Letter from Sang Tong to Zheng Yinglie, July 9, 2007.

Based on this letter, the five variations of the theme, together with the five distinct emotional developments, divide the work into five sections:

Section	Measures	Character of Longing
I	1–22	Affectionate longing
II	22–40	Sincere longing
III	40–55	Passionate longing
IV	56–60	Profound longing

Section	Measures	Character of Longing
V	61–end	Agitated longing

Theme material: Folk Song “In That Faraway Place”. “In That Faraway Place” is a Kazakh folk song. The Kazakhs are one of China’s 56 ethnic groups, primarily residing in Xinjiang. Located in western China, Xinjiang is a vast region. Though it features endless deserts and snow-capped peaks, it also boasts expansive grasslands, herds of cattle and sheep, fertile fields, and abundant melons and fruits. People cultivate grains and fruit trees while herding livestock. This diverse blend of production and lifestyle has nurtured a vibrant culture and artistry. Moreover, Xinjiang occupies a central position on the Eurasian continent, serving as a vital passage for ancient east-west and north-south trade routes. This unique geographical position allowed multiple ethnic cultures to converge and absorb each other's essence. The six-tone and seven-tone scales that emerged in the ancient Western Regions environment are significantly more diverse in their pitch levels and scales than Chinese music based on pentatonic scales. Thus, Xinjiang folk songs, with their exotic style, possess graceful melodies, a strong sense of rhythm, a lively and cheerful character, and well-structured forms. As most people reside in the Gobi Desert with limited contact with the outside world, the rare arrival of visitors brings immense joy. Thus, their songs and dances often overflow with tremendous enthusiasm.

From the perspective of tonality, the phrase consists of two phrases, both in the same C gong system but with modulation from A Yu mode to D Shang mode (see Example 53). This score is written in numeric notation. Based on the indication “C = 1,” I interpret the entire piece as being set against the background of C major. Phrase 1 is A Yu six-tone mode (with additional note B). Phrase 1 contains the pitches A–B–C–D, and since it lacks a major third, it would

normally be difficult to distinguish between *gong* and *jue*. However, because the score is written in numeric notation, it becomes clear that B functions as an additional note, while the final tone serves as tonic Yu. This identifies the phrase as being in *Yu* mode, as the collection C–D–E–G–A in C major represents the most commonly used basic pentatonic scale in Chinese folk songs. Therefore, even though this phrase contains only four pitches, we should still interpret it as an abbreviated form of the six-note scale. Phrase 2 is D Shang six-tone scale (with additional note F). Phrase 2 contains D–E–F–G–A–C, which includes the two major thirds C–E and F–A. But because F is on a weak beat and like I said before C–D–E–G–A in C major is the most commonly used basic pentatonic scale in Chinese folk songs. I believe that C–E are *gong* and *jue*, F is the additional note *Qing-jue*. From a Western music theory perspective, this folk song is in D Dorian mode, with the two phrases forming a half cadence leading to an authentic one. Regarding lyrics and rhythm, each syllable preceding a phrase corresponds to an eighth note, while the final one or two syllables extend in duration to eighth and half notes. Analysis of both tonality and rhythm reveals Xinjiang folk songs' frequent use of chromaticism (the two phrases both include additional notes) and lively, cheerful rhythms.

Example 53: original numbered notation: At a Place Faraway

LPDC—JCR04

在那遥远的地方

哈萨克族 民歌
王 洛 宾 编曲
岭南印象 制谱

1 = C $\frac{4}{4}$

(6 $\dot{1}$ | $\dot{2}$ $\dot{1}$ 7 6 $\dot{1}$ $\dot{2}$ $\dot{2}$ $\dot{1}$ 7 | 6 $\dot{1}$ $\dot{1}$ 7 6 - | 6 $\dot{1}$ $\dot{2}$ $\dot{1}$ 6 5 6 5 4 5 |

6 $\dot{1}$ 4 5 6 5 4 3 | 2 - -) 6 $\dot{1}$ || : $\dot{2}$ $\dot{1}$ 7 6 $\dot{1}$ $\dot{2}$ $\dot{1}$ 7 | 6 $\dot{1}$ $\dot{1}$ 7 6 - |

Phrase 1

1. 在那 遥远的地 方 有位好姑娘，
2. (她那) 粉红的小 脸 好象红太阳，
3. (我愿) 抛弃了财 产 跟她去放羊，
4. (我愿) 做一只小 羊 跟在她身旁，

Phrase 2

6 $\dot{1}$ $\dot{2}$ $\dot{1}$ 6 5 6 5 4 5 | 6 $\dot{1}$ 4 5 6 5 4 3 | 2 - - 6 $\dot{1}$:||

人们 走过 她的 帐房 都要回头留恋的张 望。 2. 她那
她那美丽 动人的 眼睛 好象晚上明媚的月 亮。 3. 我愿
每天看着 粉红的 笑脸 和那美丽金边的衣 裳。 4. 我愿
我愿她拿着 细细的 皮鞭 不断轻轻打在我身

4.
2 - - - | 6 $\dot{1}$ $\dot{2}$ $\dot{1}$ 6 5 6 5 4 5 | 6 $\dot{1}$ 4 5 6 5 4 3 | 2 - - - ||

上。 我愿她拿着细细的皮鞭 不断轻轻打在我身 上。

Five-staff version: At a Place Faraway

在那遥远的地方

哈萨克族民歌
王 洛 宾编曲

Phrase 1

1. 在 那 遥 远 的 地 方 有 位 好 姑 娘，
2. (她 哪) 粉 红 的 小 脸 好 象 红 太 阳，
3. (我 愿) 抛 弃 了 财 产 跟 她 去 放 羊，
4. (我 愿) 做 一 只 小 羊 跟 在 她 身 旁，

Phrase 2

人 们 走 过 她 的 账 房 都 要 回 头 留 恋 的 张 望。 2. 她 那
她 那 美 丽 动 人 的 眼 睛 好 象 晚 上 明 媚 的 月 亮。 3. 我 愿
每 天 看 着 粉 红 的 笑 脸 和 那 美 丽 金 边 的 衣 裳。 4. 我 愿
我 愿 她 拿 着 细 细 的 皮 鞭 不 断 轻 轻 打 在 我 身

上。 我 愿 她 拿 着 细 细 的 皮 鞭 不 断 轻 轻 打 在 我 身 上。

Text of the folk song *At a Place Faraway* (English translation mine):

Stanza 1: *At a faraway place, there lives a lovely girl; Everyone who passes by her tent, cannot help turning back with longing in their gaze.*

Stanza 2: *Her rosy smiling face, is like the crimson morning sun; And her lively, enchanting eyes; Shine like the bright moon in the night.*

Stanza 3: *I would give up all my possessions, just to herd sheep with her; To gaze each day upon her rosy smile, and her beautiful, gold-trimmed garments.*

Stanza 4: *I would willingly be a little lamb, following by her side; I would wish for her to hold a slender whip and let it fall gently upon me again and again.*

Analysis of Sang Tong's Thematic Variations. Overall, in terms of rhythm, Sang Tong rewrites the originally regular patterns into numerous triplets and syncopations, forming a complex rhythmic texture. The meter also employs frequent alternations, corresponding to the theme's affectionate yet slightly uneasy emotion (see above text), thereby completely transforming the original cheerful character. This also corresponds to the emphasis on the longing theme. Such varied rhythms share a common essence with the free and flexible Chinese rhythms we mentioned in Chapter 2. For melody, Sang Tong added chromatic notes to decorate tonal notes and also used many vibrato techniques. This also corresponds to the concept of *qiangyin* (deviated note) in traditional Chinese music.

Specifically, Section 1 (see Example 54, yellow part) appears in the inner voice, retaining all pitches from the original folk song while shifting to Ab Dorian. The cadence note of the first phrase is Eb, while the second phrase ends on Ab. From the perspective of Chinese music theory, the first phrase is in Eb Yu six-tone mode (with additional note bian-gong F), while the second phrase is in Ab Shang six-tone mode (with additional note qing-jue Cb).

Specifically, the first phrase consists of four notes: Eb, Gb, Ab, F. Gong is Gb, omitting the Jue Bb and the Zhi Db. The second phrase employs the complete six-tone scale: Eb, Gb, Ab, Db, Cb, Bb. Gong is Gb, Jue is Bb, and additional note is Cb. What is particularly interesting is that, in the process of variation, the composer continually reinforces the additional notes F and Cb on the basis of the original melody. This persistent reinforcement of additional notes blurs the sense of tonality, validating Sang Tong's interpretation of atonality: "Achieving atonality simply means avoiding the formation of tonality." In the thematic variations, Sang Tong merely diminishes tonality rather than eliminating it entirely.

For musical texture, the first thematic variation emerges in the inner voice, supported by non-third stacked blocked chords that form two layers (I think this is because Sang Tong intended to weaken the tonal identity of the theme.). However, if we combine the layers together, they do form an interesting referential collection pattern which I will discuss later in the chapter. Sang Tong deliberately places the harmony at points where the melodic notes are longer, ensuring that the melodic and harmonic points of articulation do not coincide. This technique allows the thematic melody to remain distinct against the atonal accompaniment.

Example 54: Section 1

在那遥远的地方
At a Place Faraway

作于1947年

Section 1

Lento molto

con espressivo

3-10 3-6 3-11 3-5 3-11 3-8 5-7 3-5 3-4 3-9 3-5

Section 2 returns to the modal structure of the original folk song, employing either F Dorian or C Yu six-tone mode (with additional note D) alongside F six-tone mode (with additional note G). Section 2's theme (see Example 55b, yellow part) appears mostly in the inner voice, retaining Phrase 1 of the original folk song but shortening Phrase 2. The mode of the theme moves from the C Yu seven-tone scale (with additional notes Qing-jue Ab, bian-gong D) (Phrase 1, here Sang Tong changed the original six-tone scale to a seven-tone scale through

adding an additional note) to the F Shang six-tone (Qing-jue Ab) (Phrase 2). In addition to adding one extra additional note to Phrase 1, Sang Tong also introduces several chromatic tones, such as Cb and Gb. These chromatic notes primarily serve to create a stepwise melodic structure, thereby obscuring the tonal center. In terms of texture, like Section 1, the thematic folk song also emerges in the inner voice, supported by chords that relate to the supporting 5-21s in the transition, and three hierarchical layers are articulated. In detail, see Example 55b, most chords around inner voice are 5-21 or sub or super sets of 5-21. For example, 4-17s in mm. 23,24 and 25 are subsets of 5-21, 7-27 in mm.23, 6-20 in mm.24 are supersets of 5-21 and 4-19s in mm.30,34 are subsets of 5-21.

In the transition of mm. 15–18 (between Section 1 and 2) (see Example 55a), in terms of set-class progression, Sang Tong introduces pentachords, predominantly set-class 5-21 (01458), except for the tetrachord in mm.15, which belongs to 4-17 (0347) (see Example 55b), and then continues to use these to produce a multi-layered texture in the following Section 2 (after m. 21). The top voice after m. 23 derives from the latter half of the pentachord structure, or from the tetrachord in mm.15, primarily set class 4-17 (0347), while the first note from the pentachord is replaced by rests; notably, 4-17 is a subset of 5-21. The lowest voice adopts the whole pentachord structure, the wide-leaping, triangular-shaped figuration, though it incorporates not only 5-21 (01458) but also 5-33 (02468) and 5-32 (01469) (see Examples 55a and 55b, green boxes). This triangular-shaped pentachord permeates the entirety of Section 2. Also, in mm. 21-22 (the end of the transition and beginning of Section 2), the pentachord is followed by an interval (blue boxes, Example 55a) and this continues through mm.23, 24 and 25 (Example 55b, blue boxes). This pentachord is a bridge to connect Section 1 and 2. Additionally, the accented

descending melodic progression in mm.24's inner voice corresponds to the lyric “distant”, which emphasizes the theme of Section 2, sincere longing.

Example 55a: Transition between Section 1 and 2 with tetrachord and pentachord motive

Transition
15 *più mosso*

The musical score for Example 55a is divided into two main sections. The first section, labeled "Transition" and starting at measure 15, is marked *più mosso*. It features a piano (p) dynamic and includes several musical notations: a tetrachord (4-17), a pentachord (5-21), and specific intervallic motives (3-12, 3-12, 3-12, 3-4). The second section, labeled "Section 2" and starting at measure 18, is marked *espressivo*. It features a mezzo-piano (mp) dynamic and includes a tetrachord (4-17), a pentachord (5-21), and specific intervallic motives (3-12, 3-12, 3-12, 3-4). The score is written for piano and includes various musical notations such as tetrachords, pentachords, and specific intervallic motives (3-12, 3-12, 3-12, 3-4).

18 *pp*

20 *ppp* *p* *ppp* *p* *espressivo*

Section 2

3-4

Example 55b: Section 2

Section 2

espressivo

fff *p* *fff* *p*

4-17 4-17 3-4 3-4

8va 8va

23 25

6-746 m7 5-32 5-21 3-12 m2 5-21 4-24 5-32 5-33 4-21

trill

5-21 5-33 4-21

27

3-3

pp

mp

ppp

pp

3-5

29

4-17

4-20

5-21

4-19

31

mf

f

mp

3-5

3-11

3-7

4-8

5-21

3-5

34

poco rit.

f

4-19

5-21

3-8

3-8

In Section 3 (see Example 56), the music returns to the mode of Section 1, but Phrase 2 is shortened: only the first half of Phrase 2 is used, and the phrase concludes on Db zhi.

Interestingly, Sang Tong employs a sustained natural D rather than Db in order to increase chromaticism. However, I interpret the thematic pitch center as Db, as this reading aligns more coherently with the modal logic. Consequently, from the perspective of Chinese modal theory, Phrase 2 corresponds to a six-note zhi scale on Db, and the overarching theme of Section 2 may be understood as a modulation from Eb Yu to Db zhi.

For texture, Sang Tong thickens the thematic melody by doubling it at the octave and further adding augmented fifths or thirds (in mm. 42 and 45) to produce non-third stacks. In the upper register, a chordal progression is employed to intensify the musical force which also implies the theme of Section 3, “passionate longing.” The accompaniment voice continues to draw upon the triangular pentachordal figuration (green boxes in Section 1 and 2) from Section 1, though with several modifications: first, the original pentachord is transformed into a hexachord, first set-class 6-21 and then set-class 6-20, which are created by two trichords;

second, at times the triangular pentachordal figure is presented in inversion, with the hexachord taking on an inverted-triangle shape (see the green box in Example 56). It's worth noting that, in the latter part of mm.42, the piano accompaniment reproduces the same trichord as that in the beginning of m. 1, set class 3-5 (016) (purple box), which creates a structural correspondence (see m.42 in Example 56).

Example 56: Section 3

The image displays a musical score for Section 3, spanning measures 39 to 42. The score is written for piano and features several annotations and boxes highlighting specific musical elements.

- Measure 39:** The piano part (bottom staff) has a purple box around a trichord labeled "3-5" and a red box around a trichord labeled "3-4". The vocal part (top staff) has a red box around a trichord labeled "3-4".
- Measure 40:** The piano part has a purple box around a trichord labeled "3-5" and a red box around a trichord labeled "3-4". The vocal part has a red box around a trichord labeled "3-4".
- Measure 41:** The piano part has a purple box around a trichord labeled "3-5" and a red box around a trichord labeled "3-4". The vocal part has a red box around a trichord labeled "3-4".
- Measure 42:** The piano part has a purple box around a trichord labeled "3-5" and a red box around a trichord labeled "3-4". The vocal part has a red box around a trichord labeled "3-4".

Other annotations include "Section 3" in red, "con appassionato" in red, "sfz" in black, "pp" in black, "p" in black, "mf" in black, "3-5" in red, "3-4" in red, "3-3" in red, "3-7" in red, "4-19" in red, "6-21" in green, "6-20" in green, and "4-17" in red.

4-13

51

53

3-5

3-5

3-8

5-32

Section 4

più lento

molto espressivo

In Section 4 (see Example 57), the thematic melody is presented in the lower register at a slower tempo (*più lento*), but only the first phrase of the folksong theme is employed. The tonality remains consistent with that of the original folksong, either the C six-tone Yu mode (with additional note D) or C Aeolian. The harmonic setting consists merely of detached chordal punctuations at a soft dynamic. Such a declamatory melody, combined with a simple texture, resonates with the affective character of Section 4's theme, *Profound Longing*. Mm. 60–61 is a transition between Section 4 and 5, the piano's bass voice features a diminished-fifth tremolo, while the upper voice alternates between diminished-fifth intervals and non-third-stacked trichord 3-8 (026) (which may also be understood as diminished-seventh chords omitting the third) (Example 57, m.60), creating a tremolo-like figuration that accelerates in tempo and intensifies in dynamic.

Example 57: Section 4

53 *mf* *p* *pp* *ppp* 3-5 3-5 3-8 5-32 *più lento* *molto espressivo* **Section 4**

57 *ppp* 3-10 3-12 3-6

60 *ppp* *pp* 3-8 *molto cresc. e accel.* 6 6 *D5* *D5* *D5* **Transition**

61 **Allegro brioso** **Section 5** *ff* 4-25

Section 5 (see Example 58) presents the final statement of the theme. The melody is thickened by octave and major third or augmented fifth doubling, and returns to Ab Dorian, thus recalling Section 1. The rhythm restores the regular metric pattern of the folksong, now combined with the octave-doubled melody and the left hand's octave reinforcement (which emphasizes Eb), embodying the theme of Agitated Longing. Notably, the triangular motive from

Section 1 reappears at the end of the section (Example 58, m.76 green box), thereby permeating the entire work. The concluding sonority consists of two stacked, non-third-stacked trichord (perfect octave plus fifth): E–B–E and Eb–B–Eb (Ex.6, mm. 79): set-class 4-8 (0156), seemingly a juxtaposition of chords drawn from two different modes.

Example 58: Section 5

61 Allegro brioso Section 5

65

69

73

75

76

78

4-25

4-26

3-3

3-4

3-3

3-3

4-20

4-7

4-28

4-7

P5+P8

P5+P8

Chordal Structure. I catalogued nearly all of the chords throughout the piece, focusing on trichords, tetrachords, and pentachords, three chord types that also figure prominently in tonal music. Among these, triads are the chords most frequently employed by Sang Tong. In fact, some tetrachords and pentachords are constructed upon a trichord and may be understood as combinations of triads with additional intervals (see Example 55a, mm.15-18; Example 55b, mm.23-25). Some hexachords were not included in my list, as they can be interpreted as the juxtaposition of two triads (see Example 56, mm.53). For each chord, I identified its interval vector and, in the case of triads, their chordal structures, in order to assess both consonance levels and structural characteristics. Moreover, according to Sang Tong's letter (I illustrated before), he frequently studied Schoenberg's works while composing his twelve-tone pieces, and since Schoenberg often employed trichords, it is reasonable to assume that trichords occupy a significant role in Sang Tong's music.

Table 1: Trichord in Sang Tong's *At A Place Faraway*

PC-Set	Ic vector	Structure (in the score)
3-5 (016)	<100011>	P4+D5
3-10 (036)	<002001>	A2+D5
3-6 (024)	<020100>	M2+A5
3-11 (037)	<001110>	M3+P4
3-8 (026)	<010101>	D5+M3
3-4 (015)	<100110>	M3+P5
3-3 (014)	<101100>	m3+A5
3-9 (027)	<010020>	D3+P4/P4+P4

3-7 (025)	<011010>	m3+M2
3-12 (048)	<000300>	M3+D4
3-8 (026)	<010101>	A5+D5

Table 2: Tetrachord in Sang Tong's *At A Place Faraway*

PC-set	Ic vector
4-17 (0347)	<102210>
4-23 (0257)	<021030>
4-21(0246)	<030201>
4-16 (0157)	<110121>
4-24 (0248)	<020301>
4-20 (0158)	<101220>
4-19 (0148)	<101310>
4-8 (0156)	<200121>
4-12 (0236)	<112101>
4-13 (0136)	<112011>
4-26 (0358)	<012120>
4-7 (0145)	<201210>

Table 3: Pentachord in Sang Tong's *At A Place Faraway*

PC-set	Ic vector
5-7 (01278)	<310132>
5-21 (01458)	<202420>
5-32 (01469)	<113221>
5-33 (02468)	<040402>
5-19 (01367)	<212122>

Overall, I found that regardless of whether the chords are triads, tetrachords, or pentachords, Sang Tong consistently selected sonorities that include minor seconds and tritones. In fact, in most of the chords, the first or the sixth entry of the interval vector is nonzero. According to Hindemith's classification of intervals, the minor second (or major seventh) and the tritone are the most dissonant intervals. The systematic incorporation of these intervals into the chordal design corroborates Sang Tong's own view of atonality: "in order to achieve atonality, one must simply avoid the formation of tonality." This composition represents his first attempt to transform folk songs into atonal works. While folk songs are typically based on pentatonic modes, which, unlike heptatonic scales, lack both tritones and minor seconds, Sang Tong deliberately reversed this characteristic by introducing minor seconds and tritones as markers of atonality.

Additionally, according to the table above, all triad structures contain augmented or diminished fifths (tritones) (except 3-4), and each consists of superimposed augmented/diminished fifths (tritones) with seconds or thirds. Most tritones appear in the upper position of the chord (the interval on the right side of the chord structure), resembling the first

inversion of a triad. According to Hindemith's theory, the intervals below significantly influence the sonic character of vertically stacked chord textures. Therefore, placing the highly dissonant tritone above may have been intentional to avoid creating such intense dissonance, allowing the folk song theme to emerge.

Another intriguing aspect is the application of the 3-5 (016) chord. Examining the entire score reveals that this chord almost exclusively appears at the beginning or end of thematic phrases, functioning as a cadential chord. Examining the structure of this chord reveals a superimposition of a perfect fourth and a diminished fifth (similar to Schoenberg and Webern's "Viennese Trichord" (this also aligns with the opening of the article, where Sang Tong remarks to Zheng Yinglie that his music was influenced by Schoenberg). Compared to the underlying 2nd and 3rd intervals, the perfect fourth provides greater consonance and stability, making the 3-5 (016) chord particularly suitable as a stable cadence. Moreover, this superimposition of fourth and fifth intervals is frequently observed in tonal music employing pentatonic harmony (detailed below).

Referential Collection Analysis. I use Jenn Harding's visual pitch class vector⁸⁵ to analyze the harmony of the piece. Harding applied discrete fourier transform (DFT) to analyze pitch collections, which allows visualization of harmonic qualities. In Harding's visual pitch class vector, she divided the "fourier properties" into F1, F2, F3, F4, F5 and F6. F1 can be treated as chromatic scale, F2 can be treated as tritone-based system, F3 can be treated as hexatonic, F4 can be treated as Octatonic, F5 can be treated as pentatonic and diatonic scale, F6 can be treated as whole-tone scale. I try to put all chords of this piece into these categories⁸⁶, using different colors

⁸⁶ I did not include the theme pitches when circling the pitch-class sets because my focus was on tracing the harmonic structure of the entire piece. Since the theme originates from a folk song, the composition functions

to imply dissonance and consonance degree. Green represents more consonance, therefore F3 (hexatonic)⁸⁷ and F5 (diatonic/pentatonic) are light green and dark green respectively. Red represents more dissonance, therefore F1 (chromatic), F2 (tritone-based), F4 (Octatonic) and F6 (whole-tone) are different degrees of red. (see Example 59)

essentially as a harmonization of that melody; therefore, I prioritized capturing the overall harmonic design rather than the thematic pitch content.

⁸⁷ While the F3 hexatonic collection may be perceived as either consonant or dissonant, the majority of its subsets exhibit relatively high consonance. Accordingly, the hexatonic collection is treated as consonant in this analysis.

1

127

18

5-21

6-20 F3

7-21 F3

6-20 F3

5-21

5-21

5-z18 F3

5-21 F3

Section 2

espressivo

3-4

23

4-17 F3

4-17 F3

6-z46 F5

7-27 F5

5-21 F3

6-20 F3

25

4-17 F3

4-24 F6

4-21 F6

5-32 F3

6-14 F3

5-33 F6

6-33 F6

Detailed description: This is a musical score for piano, spanning measures 18 to 28. The score is written for both hands in 4/4 time. It features various annotations including fingerings (e.g., 5, 3, 4, 5, 6, 7), dynamics (ppp, p, pp), and specific notes or chords (F3, F5, F6). The score is divided into two sections by a red line at measure 20. The first section (measures 18-20) is marked 'ppp' and 'espressivo'. The second section (measures 20-28) is marked 'p' and 'espressivo'. The score includes several green and pink oval highlights around specific notes or chords, and a yellow highlight under the right-hand melody in measures 23-25. The page number '2' is in the top left corner.

6-14 F3

27

pp

mp

ppp

pp

3-5

29

4-17 F3

4-19 F3

4-20 F3

5-21 F3

5-21 F3

5-21 F3

5-21 F3

4-19 F3

31

5-5 F2

4-8 F2

5-19 F2

7-23 F2

5-21 F3

3-7

3-5

3-11

3-5

3-3

4-19 F3

5-21 F3

5-21 F3

3-8

poco rit.

5-14 F5
 5-14 F5
 4-8 F2
 4-8 F2
 36 *p sub.*
 4-20 F3
 4-20 F3
 3-4 F3
 39 *sfz* 3-5
 5-22 F3
 4-19 F3
 3-4 F3
pp
p
con appassionato
 3-5
 5-30 F6
 4-19 F3
 41
 3-8
 6-21 F6
 3-7
 4-z15
 4-19 F3
 42
 6-20 F3
 3-12
 4-17 F3
 3-5

The musical score is for a piano piece, likely in 3/4 time. It features several systems of music with various annotations. Fingerings are indicated by numbers 3, 4, 5, and 6. Dynamics include *p* (piano), *pp* (pianissimo), *sfz* (sforzando), *p sub.* (pianissimo), and *con appassionato*. Section markers include "Section 3" and "con appassionato". The score includes a variety of musical notations such as triplets, slurs, and accidentals. The key signature is one flat (B-flat).

Musical score for piano, featuring four systems of music (measures 43-44, 45-46, 47-48, and 49-50). The score is annotated with various musical notations and chord labels.

System 1 (Measures 43-44):

- Measure 43: Treble clef has a yellow highlight. Bass clef has a pink highlight. Chord labels: 3-5, 4-9 F2, 6-z6 F2, 6-z6 F2, 6-z6 F2, 6-z6 F2.
- Measure 44: Bass clef has a pink highlight. Chord labels: 4-18 F4, 3-4, 4-19 F3, 6-z19 F3, 3-8 F6.

System 2 (Measures 45-46):

- Measure 45: Treble clef has a yellow highlight. Bass clef has a pink highlight. Chord labels: 4-18 F4, 3-4, 4-19 F3, 6-z19 F3, 3-8 F6.
- Measure 46: Treble clef has a yellow highlight. Bass clef has a pink highlight. Chord labels: 4-25 F6, 4-20 F3, 6-z11 F5, 6-z43 F2, 4-18 F4.

System 3 (Measures 47-48):

- Measure 47: Treble clef has a yellow highlight. Bass clef has a pink highlight. Chord labels: 4-25 F6, 4-20 F3, 6-z11 F5, 6-z43 F2, 4-18 F4.
- Measure 48: Treble clef has a yellow highlight. Bass clef has a pink highlight. Chord labels: 4-25 F6, 4-20 F3, 6-z11 F5, 6-z43 F2, 4-18 F4.

System 4 (Measures 49-50):

- Measure 49: Treble clef has a yellow highlight. Bass clef has a pink highlight. Chord labels: 4-25 F6, 4-20 F3, 6-z11 F5, 6-z43 F2, 4-18 F4.
- Measure 50: Treble clef has a yellow highlight. Bass clef has a pink highlight. Chord labels: 4-25 F6, 4-20 F3, 6-z11 F5, 6-z43 F2, 4-18 F4.

4-13 F4

51 *8va*

53 *mf* *p* *pp* *ppp* *3-5* *5-19 F4* *5-32 F4* *6-18 F2* *6-z50 F4* **Section 4** *più lento* *molto espressivo*

57 *ppp* *3-10 F4* *5-17 F3* *5-11 F3* *7-31 F4*

60 *ppp* *pp* *5-7* *molto cresc. e accel.*

61 **Allegro brioso** **Section 5** *ff* *4-17 F3* *6-z10* *4-17 F3* *6-z46 F5* *6-z10* *4-25 F6* *7-25 F4* *4-22 F5* *4-17 F3* *5-z18 F3*

The image displays a musical score for piano, spanning measures 51 to 61. The score is written in 2/4 time and features several key annotations and markings. At the top, measure 51 is marked with '8va' and '4-13 F4'. Measure 53 includes dynamic markings 'mf', 'p', 'pp', and 'ppp', along with fingerings '3-5' and '5-32', and chordal annotations '5-19 F4', '5-32 F4', '6-18 F2', and '6-z50 F4'. A red vertical line separates this section from 'Section 4', which begins at measure 57. Section 4 is marked 'più lento' and 'molto espressivo', and includes annotations '7-31 F4', '3-10 F4', '5-17 F3', and '5-11 F3'. Measure 60 features 'ppp', 'pp', and '5-7' markings, with the instruction 'molto cresc. e accel.'. Measure 61 is the start of 'Section 5', marked 'Allegro brioso' and 'ff'. It includes numerous annotations: '4-17 F3', '6-z10', '4-25 F6', '7-25 F4', '4-22 F5', '4-17 F3', '5-z18 F3', and '6-z46 F5'. The score is heavily annotated with purple and green circles and ovals, likely indicating specific harmonic or melodic structures. A dashed line is present between measures 60 and 61.

7

65 3-11F3 5-21F3 7-30F3 5-9F1 6-21F6 4-17F3 4-21F6 *fff*

69 4-22F5 5-35F5 3-7F5

73 4-26 4-26 3-3 3-7 3-4 3-3 3-9F5 4-26F5 4-23F5 4-12F4 4-27F4 4-12F4 4-27F4 4-12F4 4-27F4

75 4-20F3 4-7F3

76 4-20F3 4-7F3 4-20F3 4-8F3

8va

fff

E

F

fff

According to the above analysis, we can find the overall dissonance and consonance of the harmony are consistent with the emotional development of each section (at the beginning of this analysis I mentioned the letter from Sang Tong to Zheng Yingle.) For example, the transition between Section 1 and 2 and Section 2 are mostly green (more consonant), which represent Section 2's emotion: sincere longing. Section 3 used many dissonant chords (red part, including whole-tone, chromatic, octatonic, and tri-tone based), especially the transition between Section 3 and 4 are all octatonic, which represent passionate longing. Section 4 didn't use many chords (one octatonic and two hexatonic), but the simple texture represents profound longing. The transition between Section 4 and 5 is more dissonant, which foreshadow Section 5's emotion: agitated longing. Also, Section 5 used some dissonant chords focused in mm. 67, 68 and 74 to indicate agitated longing.

From the perspective of the work's overall structure, Section 1, only ten measures long, employs all types of harmony (except the octatonic collection), functioning as an introduction and foreshadowing the return in the final fifth section. The last section, Section 5, is predominantly green, with isolated areas of red concentrated in measures 67–68 and 74. From measure 75 to the end, everything returns to green, suggesting a summary in which the earlier tensions are finally resolved. It is also noteworthy that in measure 74, the right hand (the blue portion) features the triads 3-3, 3-7, and 3-4, which in earlier sections appear almost exclusively at the beginnings and endings of thematic statements, serving a structural or “tonic-like” function. Their role parallels that of set class 3-5, which I discussed previously. By placing these structural chords in the final section, Sang Tong reinforces their summarizing function and brings the entire piece to a structural conclusion. Also, Section 5 brings all harmonies together and uses consonant harmony at the end, which indicate that the conflict at the beginning is ultimately

resolved. This compositional technique appears to have been influenced by Schoenberg, and the same conceptual approach later appears in Luo Zhongrong's trio ensemble *One Yun Sharing Three-Gong Systems* around 2000.

Linear Harmonic Progression. The entire work is based on linear harmonic progression, which also serves as the developmental logic for atonal harmony. It avoids functional harmonic progression, replacing it with linear harmonic progression. See Example 54, the purple arrows in measures 1-5 show nearly all voices moving in ascending or descending stepwise motion. This draws inspiration from Hindemith's two-part writing, where chromaticism is a crucial element of his theory.

It is important to summarize Sang Tong's creative approach of combining tonal thematic melodies with atonal harmonies. In harmony, he primarily employs traditional chord structures without third stacking, replacing the consonant intervals of major and minor thirds, perfect fifths, with seconds and tritones. Traditional functional chords are replaced by linear harmonic progressions. For tonal thematic melodies, he weakens the sense of key by emphasizing additional notes within traditional Chinese modes and using chromatic notes, while still preserving the primary folk song tune. This lends the original folk songs an air of mystery.

Two-voice framework musical work: An Analysis of the Art Song “Farewell (Bieli, 《别离》)”. As mentioned earlier, during his studies at the Shanghai Conservatory of Music, Sang Tong received instruction from multiple teachers. His atonal compositions were guided by the Jewish-German composers Fraenkel and Schloss, while the Chinese elements within his atonal works were likely influenced by Xiaolin Tan, who was teaching at the conservatory at the time. Having spent seven years in the United States, Xiaolin Tan, alongside Zi Huang, was a pioneer in

exploring use of the pentatonic in China. Therefore, it is necessary to compare the two composers.

The background of Xiaolin Tan. Xiaolin Tan (1912–1948) was a Chinese composer and music educator. At the age of three, he began studying the erhu under the tutelage of the family's accountant, and by the age of seven, he was already proficient in performing a variety of Chinese traditional instruments.⁸⁸ In September 1931, Tan was admitted to the National Conservatory of Music in Shanghai (the predecessor of today's Shanghai Conservatory of Music), where he studied pipa performance under the master Zhu Ying, while also taking piano as a secondary subject. In October 1936, as a “selected student,” he officially declared composition as his major. From that point until the death of Zi Huang, he studied composition under him.⁸⁹

In 1939, following in the footsteps of his late mentor, Tan embarked on a journey to the United States for further study. He first attended Oberlin Conservatory, where he studied under Norman Lockwood. In January 1941, through Lockwood's recommendation, he transferred to the Yale School of Music to continue his studies under Richard Donovan, then the dean of the school.⁹⁰ Later, upon Donovan's recommendation, Tan became a pupil of Paul Hindemith, whose influence is strongly reflected in Tan's later works.

His art song *Farewell (Bieli)*, composed in 1946, belongs to his late period and was written after his studies with Hindemith. The piece employs two-part theoretical principles in its compositional design, manifesting the technical and stylistic imprint of Hindemith's pedagogy.

⁸⁸ Wei Zhang, “On the Stylistic Features and Vocal Expression of Tan Xiaolin's Art Songs: Taking *Peng Lang Ji* and *Zhengqi Song* as Examples.” *Journal of Nanjing Arts Institute (Music and Performance Edition)*, no. 2 (2011), XX.

⁸⁹ Zhe Huang, *A Study of Harmonic Techniques in the Musical Composition of Xiaolin Tan* (master's thesis, Shanghai Conservatory of Music, 2023), 4.

⁹⁰ *Ibid.*

Chinese lyrics. The lyrics for Tan's art song "Farewell" are adapted from the modern poem "Farewell" by Guo Moruo, a leading poet in the literary sphere during the New Culture Movement. During the New Culture Movement, Chinese literature was also influenced by Western literary works, particularly free verse, leading to the emergence of modern Chinese free verse. Guo Moruo pioneered this new form of poetry. His collection *Goddess*, published in 1921, is hailed as the most revolutionary starting point for modern Chinese poetry since the May Fourth Movement. Modern poetry no longer emphasized rhyme and fixed verse forms like traditional Chinese poetry. Instead, it employed vernacular language, irregular sentence structures, and prioritized individual consciousness and inner feelings, making it more accessible to the general public. "Farewell," a modern poem, was created during the same period as the collection 'Goddess' and was first published on January 7, 1920, in the magazine "Xuedeng."⁹¹ It is worth noting that this poem underwent revisions later, but Tan cited the original version. Notably, while this original version belongs to modern poetry, it still retains many characteristics of traditional Chinese poetry. For example, the poem is divided into two stanzas, each with four lines, alternating between five-character and seven-character lines. In traditional poetry, five-character and seven-character verses are the primary poetic forms, and here Guo Moruo fused the two. Also, the poem's rhythm and meter exhibit meticulous correspondence. For instance, the two-line phrases in each stanza are arranged in parallel structure, and the rhyme of the final word in each phrase remains consistent (see Example 60). Phrases 1 and 2 are both 2 plus 3 and 4 plus 3 structures, Phrase 3 and 4 are both 2 plus 3 and 2 plus 2 plus 3 structures. The rhyme of the final word in two subphrases in Phrase 1 are both "u". The rhyme of the final word in two

⁹¹ Wenjun Luo, "From *The Golden Comb under the Waning Moon* to *Farewell*: On Guo Moruo's Early Poetic Rewritings," paper presented at "The Goddess" and Twentieth-Century Chinese Literature International Symposium and Youth Forum Conference Proceedings, Xi'an, China, October 28, 2011.

subphrases in Phrase 2 are both “an”. The rhyme of the final word in two subphrases in Phrase 3 are both “an”. The rhyme of the final word in two subphrases in Phrase 4 are both “ang”. The imagery of “waning moon,” “golden comb,” “at dawn,” and “the sun and moon crown with cassia” also carries a distinctly classical resonance.

I will try to explain the meaning of the entire poem in plain, easy-to-understand language. Phrase 1 tells us that in the cool night; the moonlight is as delicate as a golden comb; I want to take the moonlight and present it to her; Phrase 2 means the other person cannot be met; the stream’s murmur sounds like sobbing. Phrase 3 depicts the moon crowned by morning rays; Reunion (love) is harder than climbing to the sky. Phrase 4 implies even the highest skies are attainable; Compared to “ascending heaven,” “living apart” causes the poet greater pain and grief. The entire poem expresses the author’s longing, fantasies, loss, helplessness, and final emotional outburst, a process of gradually accumulating and erupting emotions.

Example 60: Poem *Farewell*

《别离》作者: 郭沫若

Farewell Author: Guo Moruo

Section 1:

Phrase 1: 残月 / 黄金梳 (shu)

The waning moon, / a golden comb

我欲掇之 / 赠彼姝 (shu)

I would grasp it, / to gift my fair one

Phrase 2: 彼姝 / 不可见(jian)

Yet she, / unseen

桥下流泉 / 声如弦(xian)

Beneath the bridge, / the flowing spring resounds like strings

Section 2:

Phrase 3: 晓日 / 月桂冠 (guan)

At dawn, the sun and moon / crown with cassia

掇之 / 欲上 / 青天难 (nan)

I would grasp them, / to ascend the azure sky—yet in vain

Phrase 4: 青天 / 犹可上 (shang)

Though the heavens / might still be reached

生离 / 令我 / 情惆怅 (chang)

Parting in life / leaves my heart / in sorrowful grief

Text-music relationship. I divided the melody into two sections and four phrases based on the poem's line breaks. Each phrase was further subdivided into smaller subphrases according to the poem's minor clauses. In Chapter 2, I mentioned that traditional Chinese folk songs feature simple lyrical structures paired with diverse melodic rhythms. I attempted to outline the rhythmic patterns of the lyrics using the same approach (see Example 61). Furthermore, since the time signature shifts from 4/4 to 5/4 by the end and based on the quarter note as the fundamental beat unit, I have also marked the duration of each syllable using quarter notes as the measurement unit. Overall, Phrase 1, Phrase 2 and the first subphrase of Phrase 3 have a similar length of subphrases with minor variations primarily due to the pause at the end of each phrase. However, the second subphrases of Phrases 3 and 4 share a totally different length of subphrase and stanza, forming an irregular phrase structure. Considering the phrasing in more detail, the first subphrase of Section 1 and the first subphrase of Phrase 3 at Section 2 (yellow part) share nearly identical

structures (see example 61 below). The first subphrases of Phrases 1 and 2 and 3, all five-character lines in the poem, follow patterns of 3+5, 3.5+5, and 3+5.5; The second subphrase of Phrase 1 and 2 (green part), both seven-character lines in the poem, follow patterns of 4+6 and 4+5. The second subphrase of Phrase 3 follows the pattern 3+3, the first subphrase of Phrase 4 follows pattern 2+5, the second subphrase of Phrase 4 follows pattern 8+8. This shift occurs because the poem's emotional intensity peaks at this point, so that the final phrase's rhythm abandons the dotted quarter and eighth notes used earlier, instead employing numerous half notes and dotted half notes to express the highest point of emotion. In addition, it is worth noting that the final syllable of each stanza in each subphrase is relatively lengthened, which is called *tuoqiang*⁹² ("prolonged ending") in Chinese opera.

⁹² "prolonged ending" is a term in Chinese opera and traditional music, primarily appearing in opera singing and folk songs. It falls under the category of singing techniques or methods of vocal phrasing. Prolonged ending refers to the technique of extending or elongating a single note or syllable during performance to enhance emotional expression or create a specific flavor. This is often accompanied by pitch changes or ornamental notes, serving a decorative and lyrical function.

Example 61: Phrase structure of the Chinese poem “Farewell”

Section 1
Phrase 1

残 月 黄 金 梳，
我 欲 掇 之 赠 彼 姝。
彼 姝 不 可 见，
桥 下 流 泉 声 如 弦。

$3 + 5 = 8$
 $4 + 6 = 10$
 $3.5 + 5 = 8.5$
 $4 + 5 = 9$

Section 2
Phrase 3

晓 日 月 梳 冠，
掇 之 欲 上 青 天 难。
青 天 犹 可 上，
生 离 令 我 情 惆 怅。

$3 + 5.5 = 8.5$
 $3 + 3 = 6$
 $2 + 5 = 8$
 $8 + 8 = 16$

As I mentioned in Chapter 2, Mandarin is a tonal language, and it influences melody primarily through tone, tone sandhi,⁹³ and intonation. In this study, I employed Adobe Audition software to compare the tonal contours of Mandarin with melodic contours, using each short phrase as the basic unit of analysis. Using Sibelius software, I extracted the melodic audio and

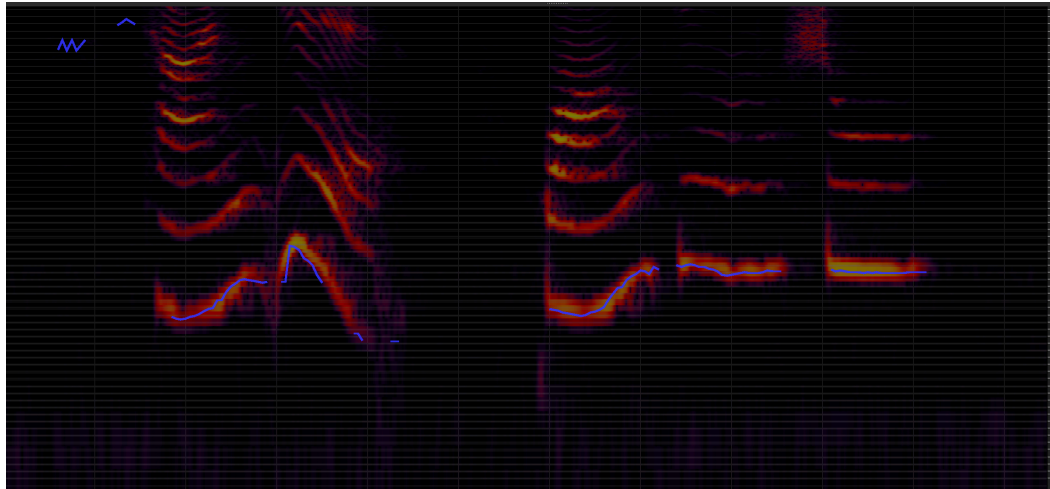
⁹³ Tone sandhi refers to the tonal changes that occur when certain Mandarin tones shift depending on the tones that follow.

subsequently produced a recording in which the lyrics were read in Mandarin in accordance with the melodic rhythm. The following are mandarin Chinese tone contour and melodic contour.

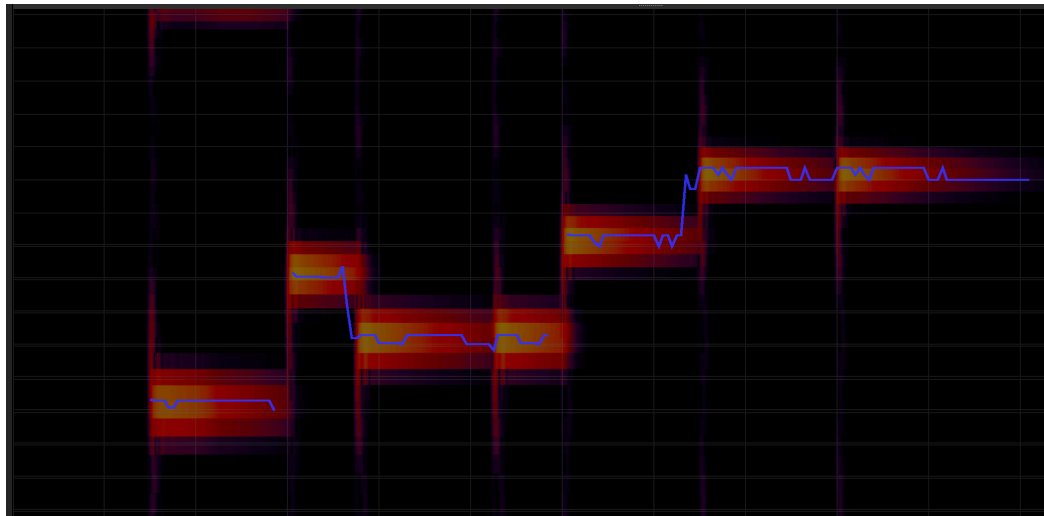
Phrase 1:

残月黄金梳 *The waning moon, a golden comb*

Language tone:

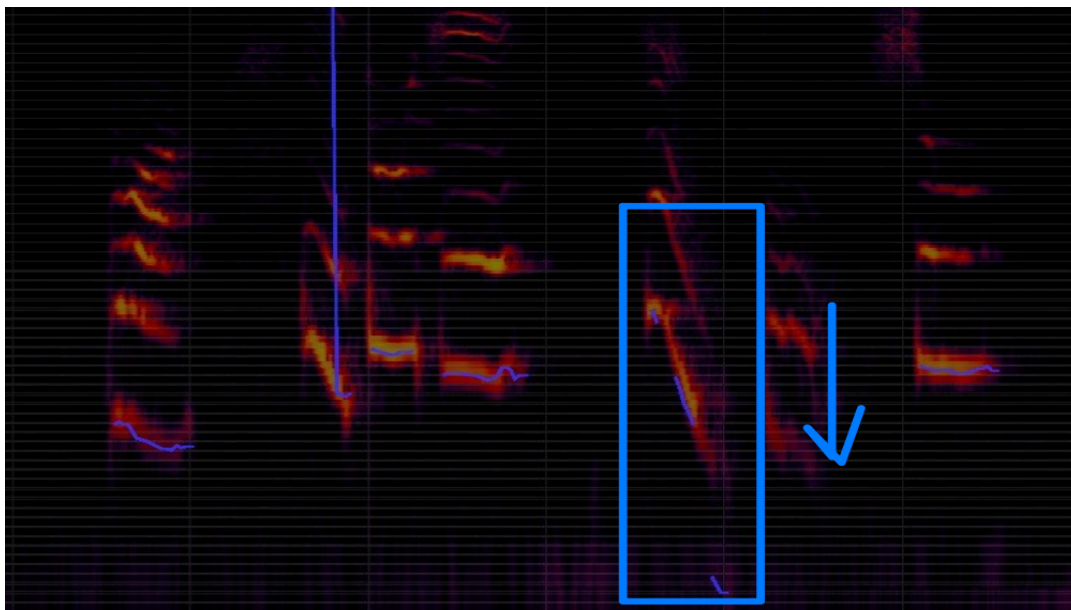


Melodic contour:

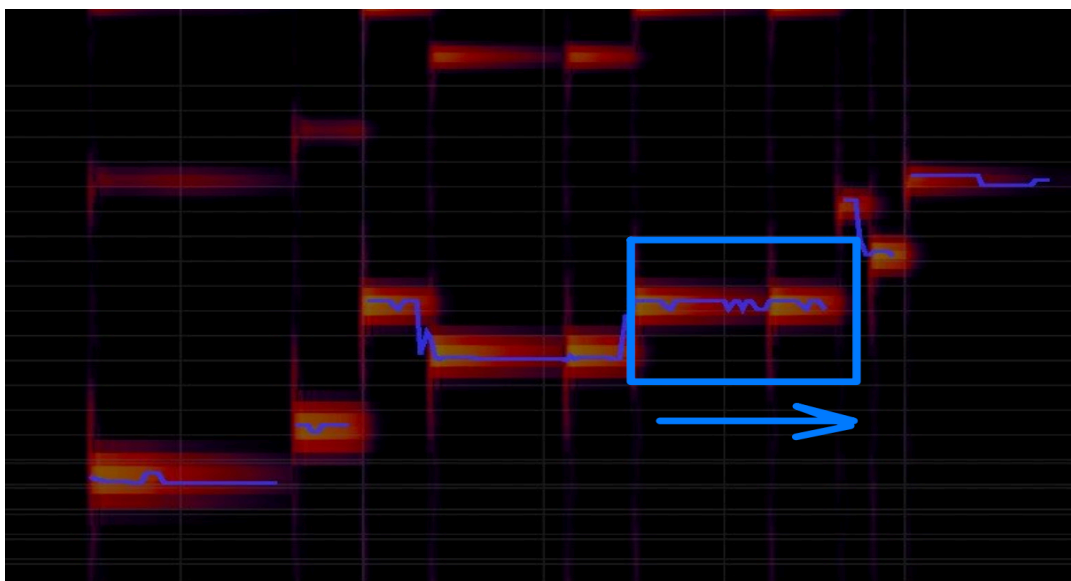


我欲掇之贈彼姝 *I would grasp it, to gift my fair one*

language tone:



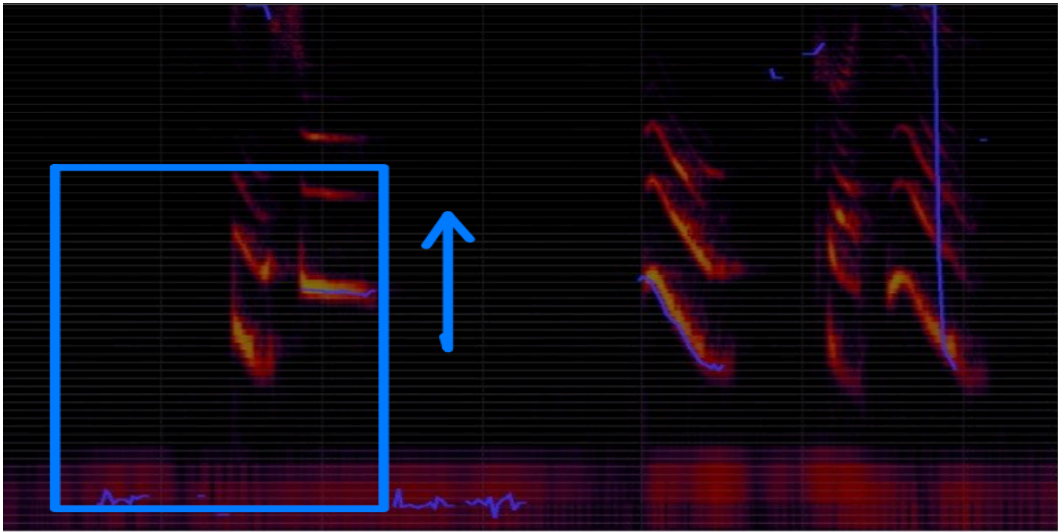
Melodic contour:



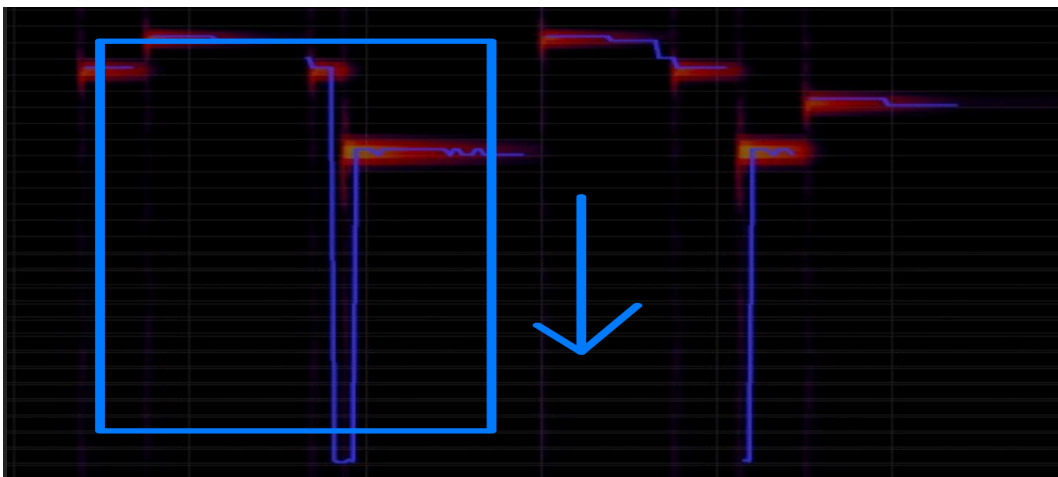
Phrase 2:

彼姝不可见 *Yet she, unseen*

Language tone:

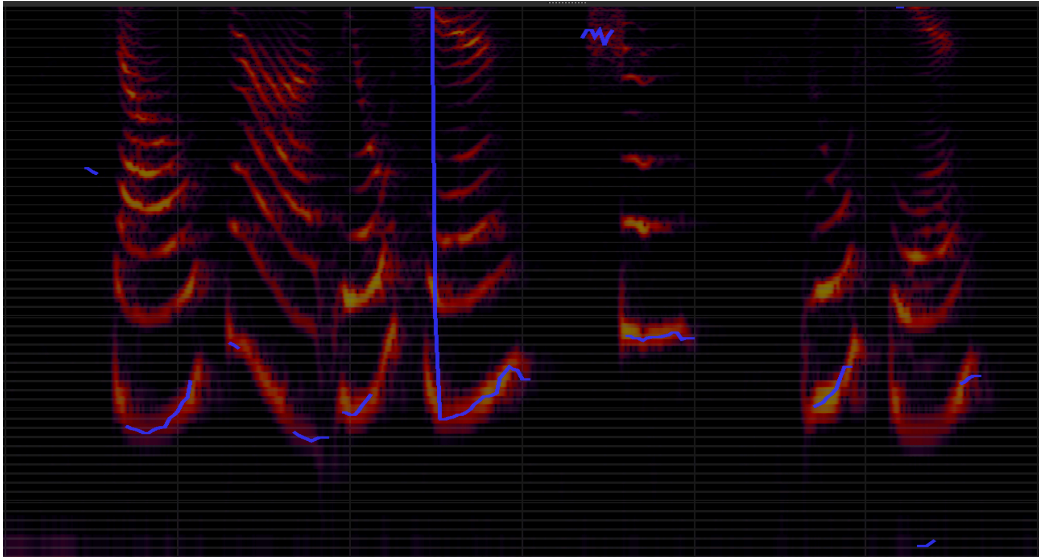


Melodic contour:

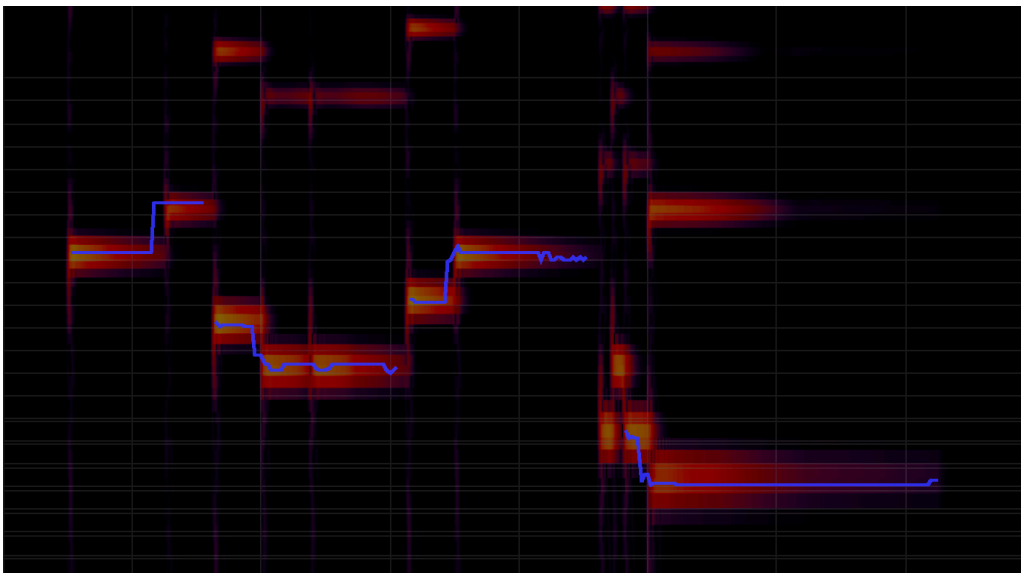


桥下流泉声如弦 *Beneath the bridge, the flowing spring resounds like strings*

Language tone:



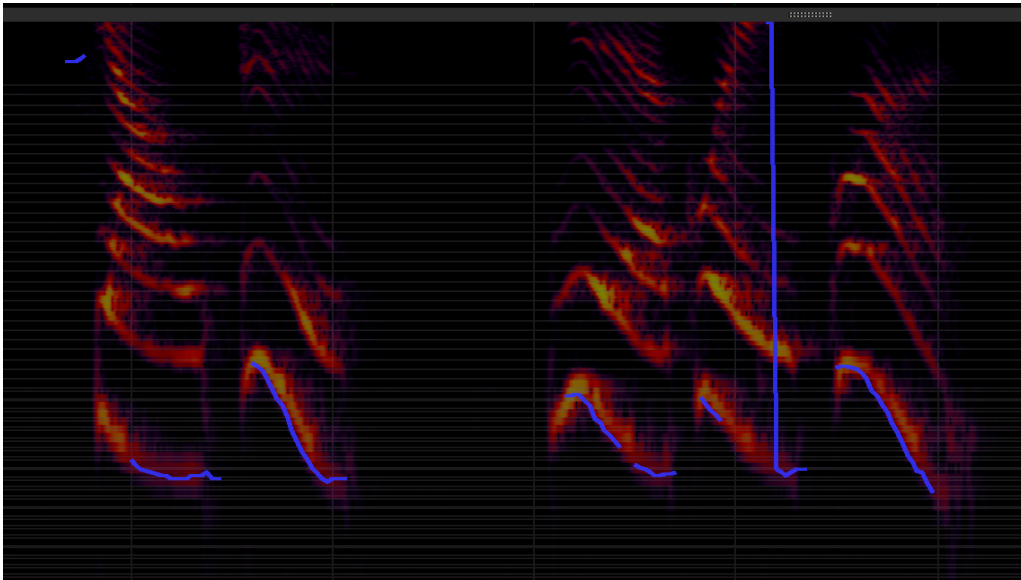
Melodic contour:



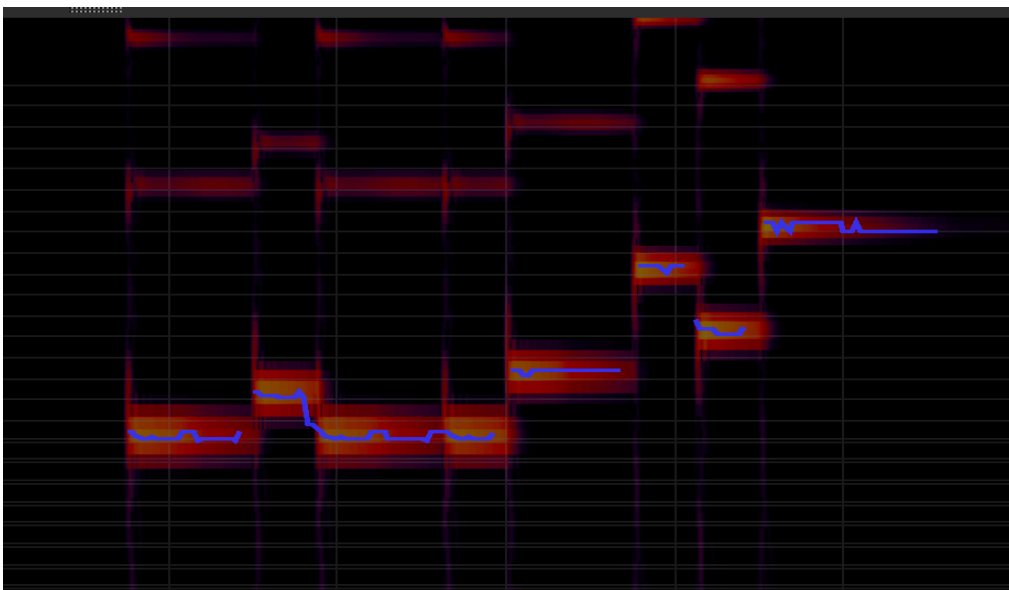
Phrase 3:

晓日月桂冠 (guan) *At dawn, the sun and moon crown with cassia*

Language tone:

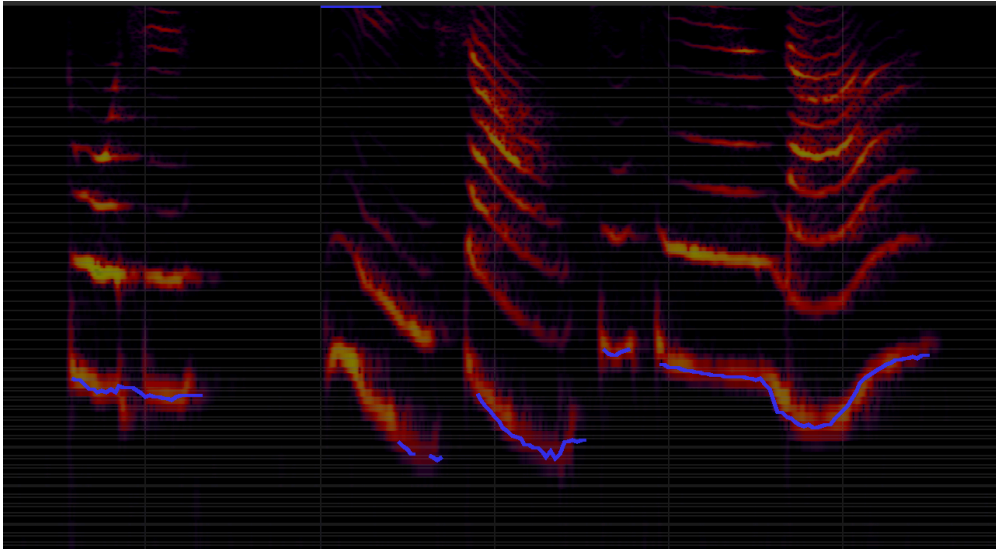


Melodic contour:

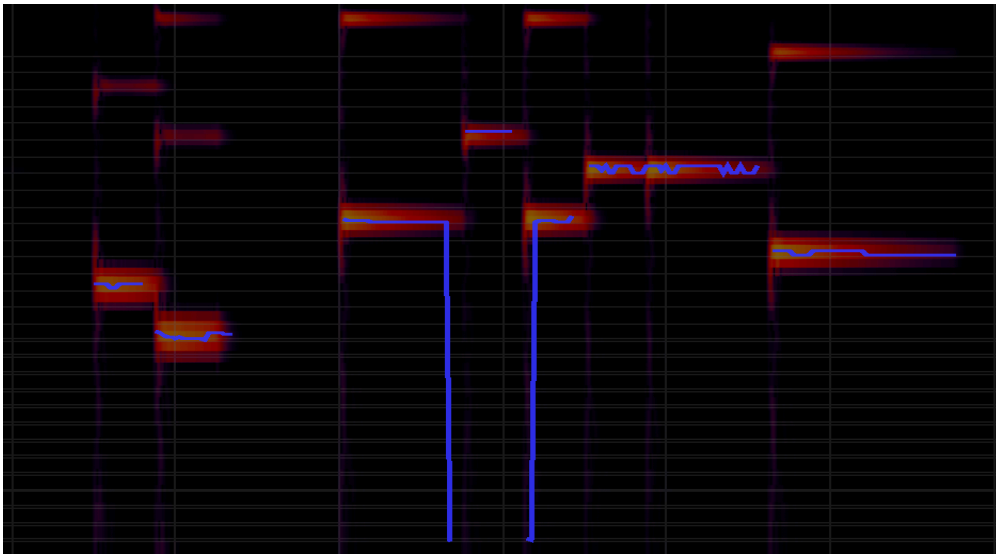


掇之欲上青天难 *I would grasp them, to ascend the azure sky yet in vain*

Language tone:



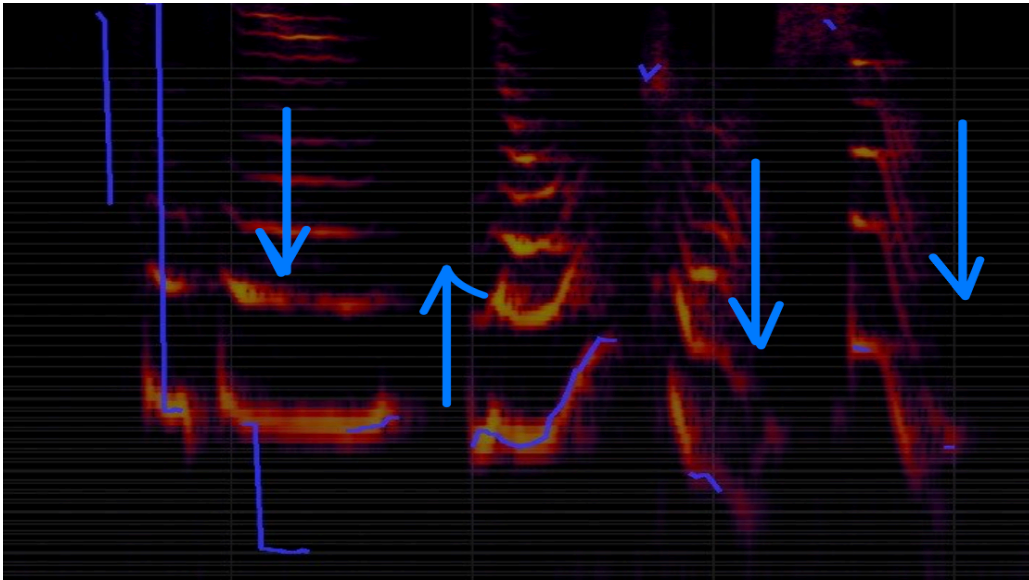
Melodic contour:



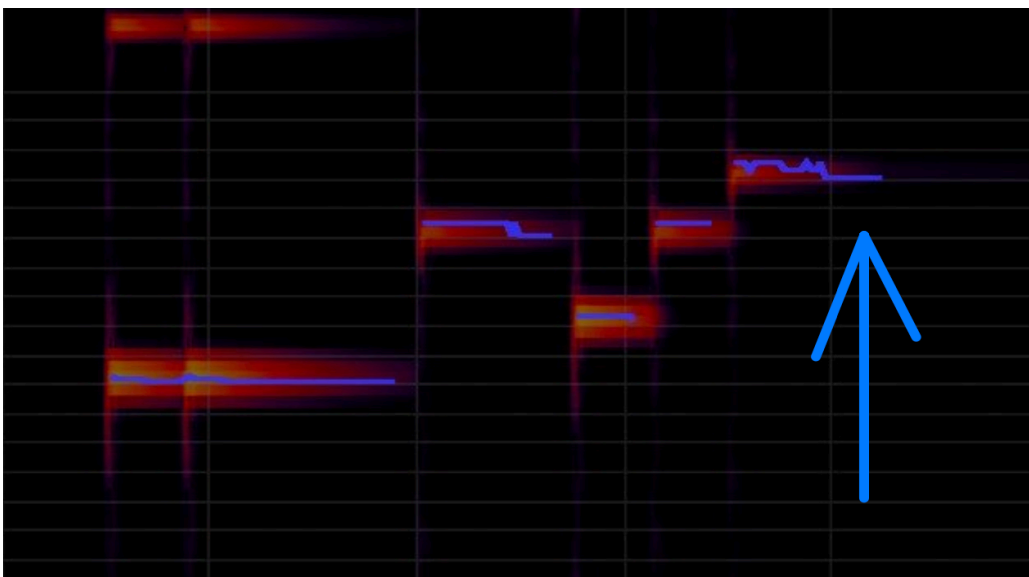
Phrase 4:

青天犹可上 *Though the heavens might still be reached*

language tone:

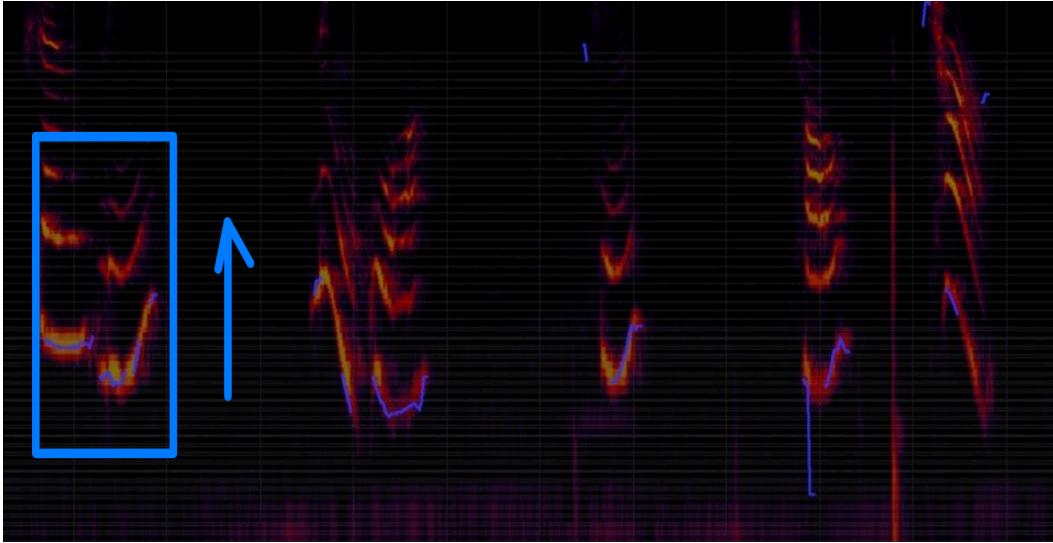


Melodic contour:

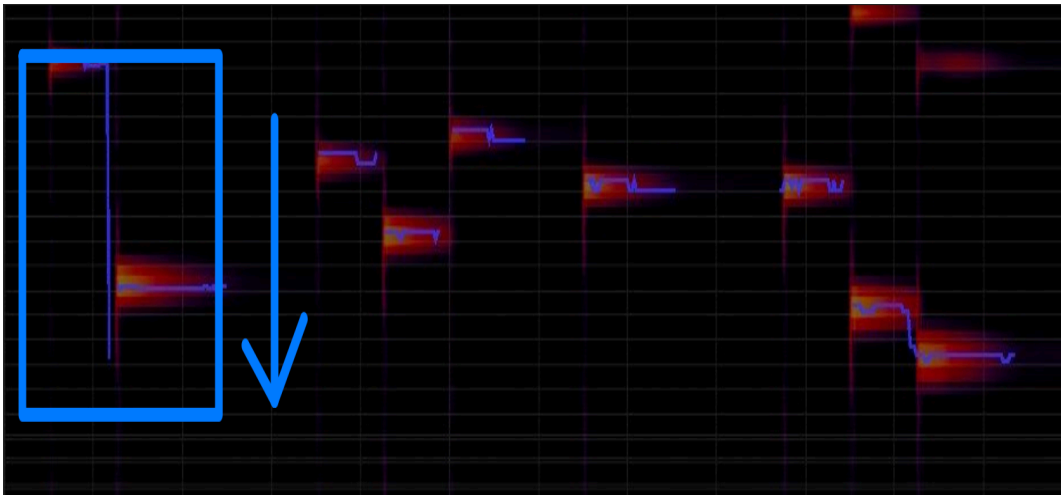


生离令我情惆怅 *Parting in life leaves my heart in sorrowful grief*

Language tone:



Melodic contour:



Overall, the melodic contour aligns closely with the language contour, particularly in the first subphrase, where the two correspond exactly; moreover, the contour curves at both the beginning and the end of the first phrase also exhibit a striking consistency. I have circled where the language tone contour and the melodic contour diverge completely. For some measures where melodic contour is different from language tone contour, primarily due to the composer's

prioritization of musical expression, the melodic contours tend to convey the meaning of the lyrics rather than merely imitate their tone contours. For example, in “我欲掇之贈彼姝” (“I would grasp it, to gift my fair one”), the syllable 贈(zèng) is pronounced with a falling tone, whereas the melodic contour remains level, and the overall contour unfolds in an ascending, stepwise motion. This discrepancy primarily reflects the upward emotional orientation conveyed in the text; In “彼姝不可見 / Yet she, unseen,” the language tone contour of *bǐ shū* rises and then falls. However, the composer, following the semantic implication of the lyrics, sets the melody with two descending motions, thereby conveying the poet’s sense of helplessness, almost as if imitating a sigh. Similarly, in “生離令我情惆悵 / Parting in life leaves my heart in sorrowful grief,” the language tone contour of *shēng lí* is upward, yet the composer employs a descending melodic contour to express the pain of separation. In “青天猶可上 / Though the heavens might still be reached,” the prosodic contour alternates up and down, whereas the melodic contour ascends continuously, thereby reinforcing the meaning implied in the lyrics.

In summary, the “convergence” and “divergence” between language tone contours and melodic contours are not coincidental but deliberate artistic choices by the composer. When aligned, they enhance the natural semantic expression of lyrics; when divergent, they deepen the emotional resonance and aesthetic impact of the work through musical tension, rhetorical contrast, or symbolic techniques.

As also noted in Chapter 2, melodies can serve different categories, such as narrative or song-like. In *Bieli*, the close alignment between the first phrase’s melodic contour and vocal contour clearly indicates a narrative function, gently unfolding the story at the work’s outset. Subsequent discrepancies between melody and vocal contour arise from compositional shifts necessitated by the emotional demands inherent in song-like melodies.

Chinese mode analysis. The entire work sounds polytonal, yet certain passages are accompanied by pentatonic sonorities. Given Tan's educational background and his experimentation with works with Chinese elements during this period, I believe he employed both Eastern and Western compositional techniques in his creation. Therefore, I first attempted to analyze the entire piece from the perspective of traditional Chinese modes. It is observed that the entire work may be understood as organized by musical phrases, within which frequent modulations occur among pentatonic, hexatonic, and heptatonic modes characteristic of the Chinese modal system. This also explains why the pentatonic sonorities of the entire work appear only locally: when a passage is cast in a pentatonic mode, its pentatonic quality is highly salient; however, as the mode shifts to hexatonic or heptatonic formations with the addition of altered tones, the prominence of the pentatonic character diminishes. Below is my detailed analysis of the Chinese modes over the whole work.

Measures 1-4, *The waning moon, a golden comb*, belong to the C-gong system, D Shang six-tone scale. The entire phrase's notes are arranged in fifths: C-G-D-A-E-B. Here, two major thirds occur: C-E and G-B, corresponding to B and C as additional tones respectively. Examining the melody alone, B falls on the weak beat while C lands on the strong beat. B is a distinct additional tone, leading me to classify this as the C gong system. According to Zhang Xiaohu's theory, the tonic is primarily determined by the main and secondary pillars (upper and lower fifths) and the upper and lower leading tones. The final note D and the sustained note A clearly form a tonic-dominant relationship. Also, the final progression C-D is a clear leading tone to the tonic, confirming D as the tonic. In the C gong system, D is the Shang. Thus, the first four measures are in the C gong system, D Shang six-tone scale (with additional note Bian-gong B).

Measures 5-6 (including the last two beats of voice part in mm. 4), *I would grasp it, to gift my fair one*, are in the F-gong system, specifically the F-gong seven-tone pure melody. This passage contains seven notes: Bb-F-C-G-D-A-E, which can be considered a seven-tone mode. We can identify the mode by considering that it contains three major thirds and additional notes: C-E (additional notes F, Bb); F-A (additional notes E, Bb); and Bb-D (additional notes A, E). The A in the bass line and the F in the melody are both emphasized and cannot be additional notes. Therefore, the additional notes can only be E and Bb, corresponding to the F gong system. The tonic is F, because the melody begins and ends on F, and the ending resolves from the leading tone E through the lower neighbor tone D to F. Also, the C-F motion in melody is a dominant-tonic motion (supporting tone to tonic), while the bass line A-F can be seen as a motion from the lower supporting tone to the tonic. The mode of this passage is F gong system, F gong seven tone scale (with additional notes E and Bb).

Measures 7-8 (including the first beat of measure 9), *Yet she, unseen*, is in the Eb gong system, Eb gong six-note scale (with additional note Ab). This segment contains six notes: Ab-Eb-Bb-F-C-G. It includes two major thirds and additional notes: Eb-G (additional note Ab) and Ab-C (additional note G). The melody voice at G is the highest note, consistently emphasized, while Ab falls on a weak beat. Thus, the major third is Eb-G, establishing this section as the Eb gong system. For tonic, the melody ends on long note Eb, and the final motion of melody F-C-Eb can be interpreted as upper and lower leading-tones resolving to Eb. Also, the Bb in bass line (the primary supporting note) is consistently emphasized. Therefore, I propose that Eb can be considered the tonic here.

Measures 9-11, *Beneath the bridge, the flowing spring resounds like strings*, though only three measures, feature a modal modulation in the final phrase “like strings.” First, the

preceding section, *Beneath the bridge, the flowing spring resounds*, belongs to the Fb Gong system, Db Yu seven tone scale (with additional notes Eb, Bb). This segment includes seven notes: Fb-Cb-Gb-Db-Ab-Eb-Bb, containing three major thirds and additional tones: Fb-Ab (additional notes Eb, Bb); Cb-Eb (additional notes Bb, Fb); Gb-Bb (additional notes Fb, Cb). Eb and Bb just appear twice and both on weak beat, Fb and Ab are both on strong beat and longer duration. Therefore, Fb-Ab forms the gong-jue pattern, establishing this section as the Fb gong system. We can derive the tonic from the melody, whose beginning and end is Db. Also, at the end of the melody, the motion is Ab-Cb-Db, which can be treated as dominant Ab (main supporting tone) leading to tonic Db as well as leading tone Cb resolving to tonic Db. It's worth noting that Ab in the bass line in mm. 8 is an additional note in the previous section. However, it can be extended from measures 8 to 9, becoming the main note Jue in measure 10. Ab's transition from additional tone to a primary tone naturally bridges the modal modulation.

Like strings modulates to the Db gong system, Eb Shang pentatonic mode. This passage is very short, but the transition from Fb in mm. 9-10 to F in mm. 10 (the last beat) is a signal of modulation. This segment contains five notes: Db-Ab-Eb-Bb-F. It features only one major third Db-F and no additional note, thus it's the Db gong system. For tonic, both the melody and bass line are Eb in mm. 11, so Eb is tonic.

Measures 12-13 (including the first half of measure 14), *At dawn, the sun and moon crown with cassia*, contains C-G-D-A-E-B-F# as well as Db. The D and Db in bass line in mm.12 form an extremely dissonant augmented octave; Db can be understood as the “Ying Sheng” of the traditional Chinese eight-note scale⁹⁴. From the perspective of Hindemith's two-

⁹⁴ The description of Ying Sheng as an added pitch between Gong and Shang in the Sui Dynasty court music system is based on traditional Chinese music theory. See Zaiyu Zhu, Jinhua Tong, Ming Jin, Qingqing Zhou, and Xiaohui Sun, *Chinese Traditional Musicology* (Fuzhou: Fujian Education Press, 2004), 123.

part writing theory, this may have been intended to create a stepwise progression in the bass through the dissonant augmented octave interval. Except bass note Db, the upper part belongs to the C Gong system, D-Shang seven-tone scale (with additional note B, F#). These seven tones include three major thirds plus additional notes: C-E (B, F#), D-F# (C, G), and G-B (F#, C). The F# is on a weak beat, functioning as decorative note to decorate E in mm. 12, while C is on the strong beat. Thus, B and F# are additional notes, C-E form gong and jue, making this a C gong system. The melody ends on motion C-D, which is the leading tone to the tonic. The primary supporting tone A (the dominant) also serves as the bass note, confirming D as the tonic.

Measures 14-16, *I would grasp them, to ascend the azure sky yet in vain*, is in the G Gong system, A shang seven-tone scale (with additional notes F#, C). This passage contains seven notes: C-G-D-A-E-B-F#. It includes three major thirds and accidental notes: C-E (additional notes B, F#), D-F# (additional notes C, G), and G-B (additional notes F#, C). The G on the strong beat in bass line and the B on the strong beat in the melody both prove that neither can be additional tones. Thus, G-B is gong-jue. For tonic, the ending note of melody A and bass note E in mm. 15 form a dominant-tonic structure, so the tonic is A.

Measures 17-18, *Though the heavens might still be reached*, this short two-measure phrase undergoes a rapid modal modulation. Measure 17 includes seven notes: G-D-A-E-B-F#-C#, containing three major thirds and additional notes. These are D-F# (additional notes G, C#); G-B (additional notes F#, C#); C-E (additional notes B, F#). All F#s in both melody and piano voice are on strong beats, thus F# cannot be an additional note. Thus D and F# are gong and jue. For tonic, the ending note of melody and bass note in mm. 18 are both F#, so F# is tonic. Therefore, m.17 is in the D gong system, F# jue seven tone scale (with additional notes G, C#).

In m. 18, G in mm. 17 shifts to G#. The introduction of G# disrupts the previous fifth-chain structure, establishing a new one: B-F#-C#-G#. According to Zhang's theory, the upper and lower supporting notes are very important. Also, C# is a persistent note in the piano's upper voice. I believe the tonic shifts from F# to C# here, though only for one measure, creating the C# gong pentatonic scale in mm. 18.

In mm. 19-23 and the last beat of piano voice in mm. 18, *Parting in life leaves my heart in sorrowful grief*, we experience multiple modulations. First, the last beat of piano voice in mm. 18 is a stacked chord consisting of fourth and fifth, with root note C. This chord can be treated as c gong pentatonic scale. In mm. 19-20, we hear Ab-Eb-Bb-F-C-G-D. It contains three kinds of major third and additional notes pattern, which are Eb-G (additional notes D, Ab), Ab-C (additional notes G, D), Bb-D (additional notes Ab, Eb). The bass note is Ab in mm. 19-20, so Ab shouldn't be additional note. Therefore, Ab and C are gong and jue. For tonic, the motion Bb-Eb in the melody in m. 19 and the interval Ab-Eb in left hand of piano voice in mm. 20 imply that tonic is Eb. Therefore, mm. 19-20 is Ab gong system, Eb zhi seven-tone scale (additional notes G, D). In mm. 21 and the first two beats of mm. 22, it includes six notes: F-C-G-D-A-E. It contains two kinds of major third and additional notes pattern, which are F-A (additional note E) and C-E (additional note F). C and E are both in strong beat and longer duration in piano voice in mm. 21. So C and E are gong and jue. G is tonic because of the ending long note of melody in mm. 22. Therefore mm. 21 is C gong system, G zhi six-tone scale (with additional note F). Mm. 22 (the last two beats) and mm.23 contains Ab-Eb-(Bb)-F-C-G-D (with omitted Bb). It includes three kinds of major third and additional note pattern, which are Ab-C (additional note G, D), Eb-G (additional note D, Ab), Bb-D (additional note Ab, Eb). Bb has been omitted, so it shouldn't be main note, G has been emphasized a lot in mm. 23, so Eb-G is gong and jue. Mm 23

is Eb gong system, G jue seven tone scale (with additional note D, Ab). Like I mentioned before, the entire poem is a process of gradually accumulating and erupting emotions, which corresponds to the modal modulation: the last phrase has a quick sequence of five modulations, the most modal modulation throughout the entire work.

Overall, the tonal central tone marked in Example 62 is mostly consistent with the tonic of each phrase.

Example 62: Chinese mode analysis and Hindemith's harmonic category

例 155

别 离
(独 唱)

郭沫若诗
谭小麟曲

Moderato (♩=80-84)

mp

D Shang six-tone scale
(with additional note B)

音级进行

D

F gong seven-tone scale (E, Bb)

5

黄金梳， 我欲援之赠彼

Lower supporting tone

Eb gong six-tone scale (Ab)

G (Highest note)

妹。 彼妹 不 可见,

cresc. *mf* *mp*

(III₁) (III₁) (III₁) (III₁) I₁

F C Ab

Db Yu seven-tone scale (Eb, Bb)

10

桥 下 流 泉 声 如

mp rit. *p* *p*

(III₁) I₁ (III₂) I₂ (III₁) (III₁)

Bb Fb Bb

E♭ Shang pentatonic

a tempo

Tonic

弦。

a tempo

mp

Tonic (III₁) (III₂)

pp *crescen*

I₁ (III₂) (III₂) *

E

D Shang seven-tone scale (B, F#)

poco

月 桂 冠，

poco

援 之

do

poco

Dominant (III₁) (III₂)

G tonic (III₁) (III₂) (III₂)

D

F# Jue seven-tone scale (G, C#)

15 *a poco cresc. f*

欲上青天难。 青天犹可

a poco cresc. molto f

(III₁) II_{b2} IV₂ IV₂ (III₁) (III₁)

— A — #F —

C# Gong pentatonic C Gong pentatonic Eb Zhi seven-tone scale (G,D)

20 *mf > mp*

上, 生离令我情

ff p mp > p

Tonic

Gong

I₁ (III₁) (III₁) III₂ IV₁ (III₁) IV₁

— F —

G Zhi Six-tone scale (F) G Jue seven-tone scale (D, Ab)

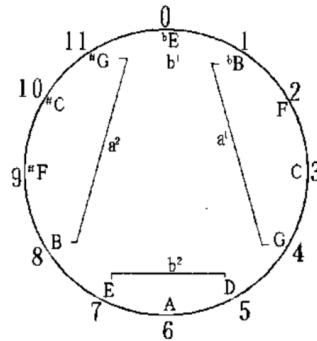
12-tone field. At this point let me introduce Weijie Gao's concept of the twelve-tone field. Weijie Gao integrates the fundamental Chinese modal principle of the circle of fifths with the twelve-tone series. He treats the twelve equal-tempered semitones, arranged in a circle of fifths, as a twelve-tone field (see Example 63). By designating any of the twelve semitones as 0 and then arranging the remaining tones upward in fifths, each pitch is sequentially assigned a number from 0 to 11. A pitch-class set is then formed by extracting a segment from this circle of fifths. The greater the numerical distance between two pitch-class numbers, the stronger the perceived tonal tension. In composition, only the intervallic distance of the pitch-class set is preserved, without regard for the specific ordering of tones.⁹⁵

I draw on Weijie Gao's concept of the twelve-tone field, placing all the modes within this framework, and try to figure out the relationship between the different modes. The entire work exhibits a "multi-Yun, multi-Gong" type of multi-tonality. Overall, we can observe that Phrase 4

⁹⁵ Zhenya Wang, *The Evolution of Chinese Compositional Techniques* (Beijing: Central Conservatory of Music Press, 2004), 271.

generates a complete twelve-tone field, whereas Phrases 1–3 do not; consequently, Phrase 4 exhibits the greatest degree of dissonance.

Example 63: 12-tone field



Hindemith's two-part writing theory. As I mentioned before, Tan's later work was strongly affected by Hindemith. Given the work's linear stepwise texture and chords constructed in other ways than stacking thirds, I find it necessary to analyze this composition through Hindemith's two-part writing theory. I will draw on Xixuan Qin's book *The Practical Application of Hindemith's Harmonic Theory*,⁹⁶ which reproduces Xiaolin Tan's 1947 composition class at the Shanghai Conservatory of Music, where he demonstrated, using the Inner Mongolian folk song *Little Road*, how to apply Hindemith's theory in harmonizing folk melodies (see Example 64). I attempt first to extract the two-part framework of *Bie Li (Farewell)* (see Example 65).

⁹⁶ Xixuan Qin, *The Practical Application of Hindemith's Theory of Harmony* (Beijing: People's Music Publishing House, 2002).

Example 64: The application of Hindemith's theory in the harmonization of *Xiao Lu*; transcribed by the author based on an example in Xixuan Qin, *The Practical Application of Hindemith's Theory of Harmony* (Beijing: People's Music Publishing House, 2002), 97.

小路
(内蒙古民歌)

房 前 的 大 路， 哎， 亲 亲

two-voice framework

harmony

category (III₁) (III₁) (III₂) (III₁)

Root note

G

Example 65: two-voice framework of the *farewell* (Bieli)

The musical score is divided into six systems, each with a treble and bass staff. Fingerings are indicated by red numbers below the notes. Some notes are circled in orange or green. Green lines connect notes across systems, indicating voice leading.

System 1: Treble staff has notes G4, A4, B4, C5, B4, A4, G4. Bass staff has notes G2, F2, E2, D2, C2, B1, A1. Fingerings: Treble (7-2-8, 3-4-4-6-7), Bass (3-2-3-5-4-8).

System 2: Treble staff has notes G4, A4, B4, C5, B4, A4, G4. Bass staff has notes G2, F2, E2, D2, C2, B1, A1. Fingerings: Treble (4-5-6-5-2, 5-4-3-4-5), Bass (3-3-7-3-4-3-3-5-3-8).

System 3: Treble staff has notes G4, A4, B4, C5, B4, A4, G4. Bass staff has notes G2, F2, E2, D2, C2, B1, A1. Fingerings: Treble (2-3-2-7-3-8-4-7-5-5-8-5-7-), Bass (6-4-8-4-5-3-6-8-7-4-2-5-).

System 4: Treble staff has notes G4, A4, B4, C5, B4, A4, G4. Bass staff has notes G2, F2, E2, D2, C2, B1, A1. Fingerings: Treble (3-6-4-8-(4)-(2)-8-5-8), Bass (3-6-4-8-8-5-3-6-8).

System 5: Treble staff has notes G4, A4, B4, C5, B4, A4, G4. Bass staff has notes G2, F2, E2, D2, C2, B1, A1. Fingerings: Treble (3-6-4-8-8-5-3-6-8), Bass (3-6-4-8-8-5-3-6-8).

System 6: Treble staff has notes G4, A4, B4, C5, B4, A4, G4. Bass staff has notes G2, F2, E2, D2, C2, B1, A1. Fingerings: Treble (3-6-4-8-8-5-3-6-8), Bass (3-6-4-8-8-5-3-6-8).

According to Hindemith's theoretical hierarchy of consonance in Series 2, the order of intervals from the most consonant to the most dissonant is as follows: perfect octave; perfect fifth and perfect fourth; major third and minor sixth; minor third and major sixth; major second and minor seventh; minor second and major seventh; diminished fifth and augmented fourth. In Example 66, I have annotated the contrapuntal intervals between the melodic and bass voices. We can observe that the relationship between the two contrapuntal lines is characterized by a continuous alternation of consonance and dissonance, with the resolution of dissonant intervals driving the forward motion of the music. It is noteworthy that the cadence of each phrase concludes with one of the three most consonant intervals, the perfect octave, perfect fifth, or perfect fourth, thus ensuring the stability of the phrase endings. Also, these three intervals are the foundation of Chinese modal system, which is based on chains of fifths.

The two-part framework of this work proceeds primarily by stepwise motion at the level of subphrases, though it is also interspersed with leaps (with the bass voice marked in green and the melodic voice in yellow in Example 66). The stepwise motion is largely grounded in Hindemith's theoretical principles, while the leaps arise chiefly from Tan's effort to preserve the pentatonic character of the melody and to avoid the use of additional notes in Chinese modal system.

Xixuan Qin's book *The Practical Application of Hindemith's Theory of Harmony* lists the chords and tonal central tone of *Farewell* according to Hindemith's theory, but it does not provide a detailed analysis. Building on this harmonic category (see Example 68), I further analyze each phrase from the perspective of Chinese modal theory.

It becomes apparent that the work makes extensive use of chords built on scale degrees I and III, which, in Hindemith's chordal category, are considered more consonant. By contrast, the

more dissonant chords on scale degrees II and IV appear only in measures 16 and 20. In measure 16, the final syllable “难” (hard) is harmonized with II2 and IV2 chords to highlight the intensity of the emotion. Also, the melodic C and the bass F♯, both additional tones within the A-shang seven tone scale, further intensify the dissonance. The use of accent marks and crescendo reinforces this moment of dramatic emotional shift. Measure 20 introduces two IV1 chords; though less dissonant than IV2 or IIb2, they nonetheless add tension when contrasted with the surrounding III chords. This tension, coupled with the four modulations in the final phrase, establishes the climactic peak of the song’s closing line.

Cadence. I have listed the cadences of each phrase and subphrase (see Example 66). In most cases, the cadences of the subphrases progress from relatively stable to less stable, while the cadences of the phrases as a whole tend to move from instability toward stability. This relationship resembles the distinction between half cadences and authentic cadences: the movement from stable to less stable functions like a half cadence, driving the musical progression forward, whereas the resolution from unstable to stable operates like a full cadence, momentarily bringing the music to rest.

Example 66: Harmonic category

Phrase 1: III2-III1 → III2-III1

Phrase 2: I1-III1 → III1-III2

Phrase 3: III1-III2 → IIb2-IV2

Phrase 4: I1-III1 → III2-VI-I1

Chromatic modal system: An Analysis of Art Song “BuSuanZi”. As I mentioned earlier, Zi Huang, a representative figure among the first generation of Chinese composers to study in the West, began exploring the creation of works with Chinese characteristics upon his return. He was

also among the earliest composers to experiment with national pentatonic harmony.⁹⁷ I will now use Zi Huang's short art song "Tune: Bu Suan Zi — Composed While Living at Dinghui Temple in Huangzhou" as an example to illustrate how he employed the modal chromatic system of the 19th-century Western exoticist school to achieve a Chinese pentatonic harmony.

Background of "Bu Suan Zi". Zi Huang set the Northern Song poet Shi Su's "Bu Suan Zi" as the text for his art song of the same title. In this study, I will compare the historical and cultural contexts surrounding Su Shi's composition of the poem and Zi Huang's creation of the art song.

"Bu Suan Zi" was composed by Shi Su (1037-1101), a literary figure of the Northern Song Dynasty. During this period, the nation faced internal turmoil and external threats. Corrupt feudal bureaucracy and prolonged oppression and exploitation of peasants left the populace struggling to survive, enduring lives of profound hardship. Simultaneously, the Liao and Western Xia dynasties coveted the Northern Song territory. After Emperor Shenzong ascended the throne, Anshi Wang proposed reforms to rescue the Northern Song from its current state of chronic poverty and weakness. Shi Su, however, opposed these reforms and was branded as "mocking the court and presuming to be superior." The emperor ordered his detention at the Censorate. After several months, he narrowly escaped execution but was demoted to Huangzhou, where he temporarily resided at Dinghui Temple. From being a high-ranking official to a powerless Deputy Military Commissioner of Huangzhou, coupled with the sorrow of separation from loved ones, this period marked the lowest point in Su Shi's life. His inner helplessness and unfulfilled ambitions overflowed onto the page. In the midst of his nightly anguish and despair, he penned this poem, "Calculating the Future: Written While Lodging at Dinghui Temple in Huangzhou."

⁹⁷ As I mentioned in Chapter 1, Chinese composers of this period sought to create works with a distinctly Chinese style. In terms of harmony, they aimed to integrate traditional Chinese modes and to develop a uniquely Chinese pentatonic-based harmonic language.

“Busuanzi” was written in 1935, a period of significant political upheaval in China. The Beiping Incident that erupted that year intensified divisions within the Nationalist government, particularly over policies to counter external aggression. These disputes ultimately led to large-scale encirclement campaigns against the Red Army, precipitating the Long March. Simultaneously, economic exploitation exacerbated social inequality, plunging rural populations into deep poverty and suffering from hunger and cold, thereby hindering rural development.⁹⁸ Against this historical backdrop, composer Zi Huang set music to “Bu Suan Zi,” a poem by the Northern Song Dynasty poet Shi Su. The song and the poem share a profoundly similar creative context, both emerging during a period of social disintegration. Zi Huang channeled Shi Su’s poetry to express reflections on realizing life’s purpose. His deep literary cultivation and masterful compositional techniques vividly interpreted the rich artistic conception embedded within the poem.⁹⁹

Chinese Lyrics and musical form. This art song is strophic and corresponds to the two stanzas of the poem. I have translated this poem into English, see Example 67. Like I mentioned in Chapter 2, Chinese poetry traditionally places strong emphasis on rhyme. In prosodic theory, the four tones of Mandarin are conventionally classified into two tonal categories: *ping* (平, level) and *ze* (仄, oblique). Therefore, I also label the rhyme of the poem, see Example 68. The final syllable of each poetic line follows a level–oblique tonal pattern, Phrase 2 and Phrase 4 share the same rhyme pattern, oblique-oblique-level-level-oblique. According to the structure of lyrics, the art song can be divided into four phrases. Like the poem *Farewell*, *Bu Suan Zi* also combines five

⁹⁸ Yunfan Yang, *The Music Characteristics and Teaching Exploration of Huang Zi’s Ancient Poetry Ci Art Songs: Taking “Dian Jiang Chun” and “Bu Suan Zi” as Examples* (master’s thesis, Xi’an Conservatory of Music, 2024), 13.

⁹⁹ Ibid.

and seven words. Phrases 1, 2 and 4 are five words, Phrase 3 is seven words. The longer Phrase 3, the meaning of lyrics, and the question mark imply that Phrase 3 is the emotional climax. This also implies that the four-phrase art song is “statement, repetition, departure and conclusion”, which is a very basic phrase structure in Chinese folk song.¹⁰⁰ I also try to divide the phrase into subphrases, but the rhythm is very equal. In addition to the last word, each word of every phrase is a quarter note. Therefore, I don’t think the subphrase division affects the rhythm of the melody in this art song.

Example 67: Poem *Bu Suan Zi*, author: Su Shi

Section 1:

Phrase 1:

缺月挂疏桐，

A waning moon hangs on sparse paulownia branches.

Phrase 2:

漏断人初静。

As the clepsydra stops dripping, people settle into quiet.

Phrase 3:

谁见幽人独往来？

Who can witness this recluse moving in solitude?

Phrase 4:

缥缈孤鸿影。

A lone wild goose, its form barely traced in mist.

¹⁰⁰ Western art music and popular music share a comparable formal archetype. Here, I adopt a term from Western music theory to describe it. Its Chinese counterpart is “起承转合,” which, taken literally, corresponds to “introduction–continuation–transition–conclusion.”

Section 2:

Phrase 1:

惊起却回头，

Startled into flight, it turns to look back.

Phrase 2:

有恨无人省。

It bears a grievance, but no one perceives it.

Phrase 3:

拣尽寒枝不肯栖，

It has searched all the cold branches yet will not settle on any.

Phrase 4:

寂寞沙洲冷。

A desolate sandbar, cold in loneliness.

Example 68: The rhyme of poem

Stanza 1:

缺月/挂疏桐，

仄仄/仄平平 oblique-oblique-oblique-level-level

漏断/人初静。

仄仄/平平仄 oblique-oblique-level-level-oblique

谁见/幽人/独往来？

平仄/平平/仄仄平 level-oblique-level-level-oblique-oblique-level

缥缈/孤鸿影。

仄仄/平平/仄 oblique-oblique-level-level-oblique

Stanza 2:

惊起/却回头，

平仄/仄平平 level-oblique-oblique-level-level

有恨/无人省。

仄仄/平平仄 oblique-oblique-level-level-oblique

拣尽/寒枝/不肯栖，

仄仄/平平/仄仄平 oblique-oblique-level-level-oblique-oblique-level

寂寞/沙洲冷。

仄仄/平平仄 oblique-oblique-level-level-oblique

Analysis from the perspective of Chinese modal systems. The melody is constructed through the alternation of modes within the same gong system. In addition to Phrase 1, the other three phrases all include the same five notes, which are C,D,E,G,A. Phrase 1 includes the same note C,D,G,A, but omits E. However, each phrase ends with different long note, which means they have different tonic. Therefore, Phrase 1 is G Zhi pentatonic scale (omit E Jue). Phrase 2 is E Jue pentatonic scale. Phrase 3 is G zhi pentatonic scale, which is the same as Phrase 2. This also corresponds to the consistency of the rhyme between Phrase 1 and Phrase 3. Phrase 4 is D Shang pentatonic scale.

The Chinese mode of the piano part is very complicated and it's different from the mode of the melody. The introduction (mm.1-3) features a D Yu seven-tone scale with four kinds of additional notes, Eb, Bb, E and B (See Example 70). This is very unusual, since most seven-tone scales just come with two additional notes. But in order to express the unstable situation and

inner frustration, Zi Huang fully integrated the three kinds of seven-tone scales here based on the D Yu pentatonic scale but in different Yuns. This creates a pentatonic scale paired with four additional notes (Example 69). In detail, this passage includes eight notes. I try to put all notes into the fifth-chain Eb-(Bb)-F-C-G-D-A-E-B. We can find that the composer omitted Bb but used the key signature to imply Bb. Also, the key signature implies F gong system. The bass line is D-E-A-F-D, which create a harmonic progression based on the central tone D. Also, the first and last note of the top voice is D. Therefore, D is tonic, this passage is the combination of three kinds of D Yu seven-tone scale.

Example 69: Three kinds of D Yu seven-tone scale

Tone series: Eb-Bb-F-C-G-D-A-E-B

(the combination of three Yuns and three kinds of seven-tone scales)

Bb-F-C-G-D-A-E Qing-Yue seven-tone scale (Bb Yun)

F-C-G-D-A-E-B Ya-Yue seven-tone scale (F Yun)

Eb-Bb-F-C-G-D-A Yan-Yue seven-tone scale (Eb Yun)

Phrase 1 (Example 70, mm. 4-5) uses the Bb gong seven-tone scale with additional notes A and Eb. This passage includes seven tones, which are Eb-Bb-F-C-G-D-A. This fifth chain includes three kinds of gong-jue pattern as well as additional notes. They are Eb-G (D, A); Bb-D (A-Eb); F-A (Eb-Bb). Bb is the ending of the bass line, so it shouldn't be the additional note. D is the first note of melody and bass line, it shouldn't be the additional note as well. Therefore, the gong-jue pattern should be Bb-D (A, Eb). Also, the ending note of the bassline is Bb. Therefore, Bb is tonic.

Phrase 2 (Example 70, mm. 6-7) is the transition from a C gong seven-tone scale (two modes combined) to an E pentatonic scale. In detail, m. 6 is the combination of two kinds of C

gong seven-tone scales but in different Yuns (C Yun and Bb Yun). Mm. 6 includes the fifth chain, Bb-(F)-C-G-D-A-(E)-(B)-F#, E, B and F are omitted. Like the introduction, this fifth-chain includes all types of additional notes in C gong system, which are (F), (B), F# and Bb, F and B are omitted though. M. 7 uses the fifth-chain E-B-F#-(C#)-G#, which means it is an E pentatonic scale.

Phrase 3 (Example 70, mm. 8-9) makes a transition between the A Yu seven-tone scale with additional notes B and E (between m. 8 and the first two beats of m. 9) and the A gong pentatonic scale (the last two beats of m. 9). In detail, for the A Yu seven-tone scale, this passage includes fifth-chain F-C-G-D-A-E-B, which includes three gong-jue patterns, F-A (E,B), C-E (B,F), G-B (F,C). A is the first note and last note of bass line, it is emphasized a lot, so it shouldn't be an additional note. Also, A as a beginning and ending note should be tonic. Therefore, the gong-jue pattern is F-A (E, B). For the A gong pentatonic scale, the blocked chord includes the fifth chain A-E-(B)-(F#)-C#, B and F# are omitted. The top note G is a suspension. Since A is a root note of this chord, it should be the tonic. The two modes share the same tonic.

Phrase 4 (Example 70, mm. 10-11) goes back to the D Yu seven-tone scale with four kinds of additional notes, Eb, Bb, E and B. The bass line is also the same as introduction D-E-A-G-D, which recalls the opening.

Example 70: *Bu Suan Zi* (Chinese mode)

卜 算 子

《黄州定慧院寓居作》
(1935)

苏 轼词
黄 自曲

Andante misterioso
Introduction

Phrase 1 **G Zhi pentatonic**
p

D Yu seven-tone scale (three combined)

1. 缺 月 挂 疏 桐,
2. 惊 起 却 回 头,

E♭ gong seven-tone scale
p

Phrase 2 **E Jue pentatonic** *pp*
漏 断 人 初 静。
有 恨 无 人 省。

Phrase 3 **G Zhi pentatonic** *p*
谁 见 幽 人 独 往 来?
拣 尽 寒 枝 不 肯 栖,

Phrase 4 **D Shang pentatonic** *pp*
缥 缈 孤 鸿 影。
寂 寞 沙 洲 冷。

C gong seven-tone scale (two combined) **A gong pentatonic scale**

E gong pentatonic scale **A Yu seven-tone scale**

D Yu seven-tone scale (three combined)

From the perspective of Chinese modal systems, the work as a whole exhibits modal modulation unfolding horizontally, while modal superimposition operates in the vertical domain. The modal modulation has three types, same gong system, same tonic and same mode. For the melody, modal modulation uses the same gong system. For the piano, it consists of the same mode and same tonic modal modulation. For example, in mm. 4-7, the modes modulate from B♭ gong seven-tone scale to C gong seven-tone scale and E gong seven-tone scale (same modes). In mm. 8-9, the modes modulate from A Yu seven-tone scale to A Gong pentatonic scale (same tonic).

For modal superimpositions, the modes involve fifth and third superimposition throughout the whole piece. For example, Phrases 1 and 3 are both Zhi mode verses Gong mode, which corresponds to the consistency of the rhymes between Phrase 1 and 3. Phrase 2 is Jue mode verses Gong mode, Phrase 4 is Shang mode verses Yu mode.

Analysis from the perspective of Western music theory. I will now label the roman numerals from the western theory perspective (see Example 71b). The mode of the whole piece is generally D Phrygian, because of the one flat key signature, and the beginning and ending chords are both d minor triads. However, at the end of Phrase 3, when the emotion reaches its peak, Zi Huang employs the leading tone of the harmonic minor scale to intensify the effect. Also, the chordal structure is almost completely third-stacked, except two chords in mm. 2 and mm. 10 respectively (I'll talk about this in detail later). Finally, the harmonic progression follows classic harmonic function, T-S-D-T (see Example 71a). In general, we can find that Zi Huang's creative thinking is based on western theory but changes the chromatic system to enrich the harmony with more coloristic sonorities and weaken traditional harmonic function. I outline the techniques Zi Huang employs to weaken traditional harmonic function and increase coloristic sonorities.

Like I mentioned, the chordal structure is third-stacked except the dominant seventh chords in mm. 2 and 10 (see example 71b). Zi Huang uses tonic D instead of leading tone C in D Phrygian, which weakens the strong tendency of the dominant seventh chord to resolve to the tonic. Also, the fifth-chain chordal structure, G-D-A-E, laid the foundation for pentatonic harmony in the early twentieth century. We can find that Zi Huang employs the substitution of chord tones in the harmonic framework to accommodate the requirements of Chinese melodic practice.

The resolutions of the dominant and secondary dominant in this piece do not follow traditional harmonic progressions that resolve to the tonic. For example, V7 in mm. 2, 9 and 10 doesn't go to I directly but go to V7/vi and III instead. The secondary dominants like V7/vi in mm. 2 and mm. 10 don't go to vi directly but go to i instead. Also, the leading tone of the dominant seventh doesn't go to tonic like usual but keeps the same tone or goes up to other degrees.

Zi Huang borrowed parallel motion from impressionist music in late 19th century, employing numerous parallel progressions in lower voices in this work to undermine traditional functional harmony (see Example 71b).

Example 71a: harmonic function of *Bu Suan Zi*

Introduction: i-----ii#5-----V7-----III7-----i

T S D T-----

Phrase 1-4: i-----V7/vi-----iv6-----V4/3/iv-----iv-----V/V-----v-----i7-----iv6-----V7-----III-----

T-----S-----

VII7-----V7-----V7/vi-----I

-----D-----T

Example 71b: *Bu Suan Zi* (western theory analysis)

卜 算 子

《黄州定慧院寓居作》
(1935)

苏轼词
黄自曲

Andante misterioso

1. 缺 月 挂 疏 桐，
2. 惊 起 却 回 头，

漏 断 人 初 静。 谁 见 幽 人 独 往 来？ 缥 缈 孤 鸿 影。
有 恨 无 人 省。 拣 尽 寒 枝 不 肯 栖， 寂 寞 沙 洲 冷。

In summary, in this stage, we can observe that explorations of Chinese modal harmony primarily involve diminishing the functional aspects of traditional Western harmony while enriching its coloristic feature. Zi Huang drew upon the Western chromatic modal system, adding chromatic notes and parallel progressions to the fundamental T-S-D-T progression and third-stacked chordal structure, thereby breaking conventional harmonic progression. From the Chinese theory perspective, Zi Huang primarily employed modal superimpositions and frequent modal modulations. An interesting point is that he applies the concept of the “One Yun Sharing Three Gong Systems” to expand the pentatonic scale into a nine-tone scale, thereby enriching its coloristic qualities.

China, 1949-1979 period

During this period, composers and music theorists undertook extensive experimentation with pentatonic harmony and attempted to systematize national pentatonic harmony based on the Chinese modal system. Therefore, I will first summarize Chinese pentatonic harmony by integrating Sang Tong's theory of Pentatonic Verticalization (the construction of harmony by vertically stacking tones of the pentatonic scale) and Liu Xueyan's book *Pentatonic Modal Harmony and Stylistic Techniques in Chinese Music*.

Chinese pentatonic harmony. In the late 19th century, numerous Western works experimented with pentatonic material as an “exotic” element, most notably in the compositions of Debussy and Ravel. I believe the distinction between Chinese pentatonic harmony and Western pentatonic harmony lies in the fact that Chinese pentatonic harmony is grounded in the Chinese modal system. The most significant difference between the Chinese modal system and Western pentatonic scales is that Chinese modes are based on the chain of fifths, expanding outward from the pentatonic mode to include hexatonic and heptatonic scales. In contrast, the western pentatonic scale is derived from a heptatonic scale by subtracting two pitches. This has led to some differences in our analysis of Chinese pentatonic harmony.

Sang Tong categorizes pentatonic harmony into pentatonic vertical harmony and third-stacked harmony from the perspective of chordal structure and texture. He defines pentatonic vertical harmony as “a harmonic method based on the vertical combination of various intervals within the pentatonic mode, embodying the characteristics of the pentatonic scale and belonging to the pentatonic harmony.”¹⁰¹ Regarding third-stacked harmony, he notes: “This harmonic approach is based on chords constructed through the stacking of thirds, corresponding to the

¹⁰¹ Sang Tong, “An Exploration of the Vertical Pentatonic Harmonic Structure,” *Music Art*, April 1, 1980, 20–44.

major and minor tonal system. At times, in order to accommodate pentatonic melodies, substitute tones or added tones may also be employed; however, the fundamental structure remains third-stacked. This method of combining traditional third-stacked harmony with pentatonic melodic material is widely used in many Chinese compositions as well as in Russian and other foreign works.”¹⁰²

Pentatonic vertical harmony. Sang Tong categorized pentatonic chords into three types according to the number of notes in the chord, including trichords, tetrachords and pentachords. Also, he described the structure of each chord in detail. For example, a “fourth-span trichord” includes the chordal structural of major second plus perfect fourth, a “fifth-span trichord” includes the chordal structure of perfect fifth plus fourth, etc.

The interval types within different chords are diverse and listing them all would be quite cumbersome. These varying chordal structures influence the chord’s timbre, root note, and bass note. Instead, I believe that using the concept of subsets from set theory offers a more direct and understandable approach. Therefore, the trichords are subsets of pentachord 5-35 (02479), which are 3-6 (024), 3-7 (025), 3-9 (027) and 3-11 (037). Similarly, the tetrachords are 4-22 (0247), 4-23 (0257), and 4-26 (0358).

To determine the root note of a pentatonic chord, Sang Tong used Hindemith’s theory. Also, he categorized chords into chords sharing the same root note or not. When the bass note is the root note, the chord is in root position, but when the bass note isn’t the root, the chord is a non-root position chord. These ideas are the same as in western theory.

For harmonic progression and function, Sang Tong said chords are free to connect with one another in multiple ways, allowing for a much broader range of harmonic possibilities. One

¹⁰² *Ibid.*, 20–44.

doesn't have to follow the same rules as traditional harmony, for example, the one that says dominant can't go to subdominant. Cadences don't have to follow the pattern V(7)-I.

Third-stacked pentatonic harmony. Third-stacked harmony is based on traditional third-stacked chords. Therefore, the root notes of chords and their harmonic functions are consistent with traditional western music theory. However, in the context of the Chinese modal system, the interpretation of certain harmonic progressions differs from that of western music theory. Based on Liu Xueyan's book and Sang Tong's theories, I will describe several aspects that differ from Western music theory and why this is the case.

The V-I and IV-I progressions in pentatonic harmony differ in several respects from their counterparts in Western harmonic theory. The harmonic progression V(7)-I in the context of the Chinese modal system doesn't have a strong tendency like that in Western music. In western music theory, the strong tendency of V(7)-I is from leading tone (raised ^7) and the seventh note of V7 (^4). However, in Chinese modal system, there's no leading tone and scale degree four in pentatonic scale, or they are just additional notes in Chinese modal system. Composers usually use the main five degrees instead of these two additional notes, or put ^7 and ^4 on weak beats, which weakens the strong tendency of V(7)-I. Because of the weaker tendency between V(7)-I in the Chinese modal system, composers sometimes use IV-I instead. IV-I has a stronger tendency to resolve than V(7)-I, because the chordal notes of IV are all main notes in pentatonic scale, and it's close to I in the chain of fifths.

For harmonic progression by an ascending fourth, some composers avoid using ascending fourth progressions because they carry a strong V-I connotation, which would disrupt the pentatonic character.

In pentatonic harmony, the change in harmonic function resulting from the alteration of chordal structure. Like I mentioned before, composers often replace additional notes with the main five notes of the pentatonic scale, thereby altering the tertian structure of the chord. This substitution stabilizes the harmony. However, the resulting structural changes also lead to alternative interpretations of the harmonic progression. For example, in A Yu mode, the harmonic progression I-III6 (A-C-E goes to E-G-C) can be seen as a pentatonic version of tonic and V (using C instead of additional note B), which gives III6 a dominant function.

An analysis of “Homesick”. I will use Sang Tong’s piano piece *Homesick*, from his *Seven Piano Pieces on Themes of Inner Mongolian Folk Songs*, as an example to demonstrate pentatonic vertical harmony.

Chinese mode analysis and musical form. The texture of this piece is contrapuntal, but the upper voice is more melodic and the lower voice keeps an 8th note pattern through the whole piece. According to the melodic upper voice, I divided the piece into four phrases (see Example 72). All four phrases are in the Bb gong system, Phrase 1 (mm. 5-8) and Phrase 2 (mm. 9-13) both use the G Yu six-tone scale (with additional note Eb), Phrase 3 (mm.14-17) and Phrase 4 (mm.18-21) are both in the C Shang six-tone scale (with additional note Eb). The Coda (mm. 21-27) goes back to G Yu mode.

Hindemith analysis. I labelled the root note of each chord and the harmonic progression in the different modes according to Hindemith’s four categories in Example 73. This shows a strong emphasis on Category III chords: chords without tritones, but with major 2nds and minor 7ths, the kind of chord one would normally associate with pentatonic harmony. Occasionally, the harmony closes into a more consonant category I chord, notably at the piece’s end. The roots tend to gravitate to Bb, consistent with the piece’s gong system.

Harmonic progression analysis. I also provided a conventional Western Roman numeral analysis below, and according to root notes and Chinese mode, we can see that Sang Tong used harmonic progressions that are not very common in western music theory, in order to diminish the harmonic function of the major and minor scale. First, he used V-IV in Phrase 1 and 4. Second, he used III at the beginning and end of the introduction and Phrase 1 as tonic instead of I. I believe the reason is because III is based on gong note Bb. Except for tonic, the gong note is the most stable note in the mode and it also implies the Bb gong system. Third, for the cadence of each phrase, Sang Tong used IV-I and VII-I, rather than the V-I common in tonal music. The reason is that V in Chinese modal contexts lacks a leading tone, and therefore does not generate the same dominant-tonic resolution tendency as in western theory. For example, in G Yu mode, V is D-F-A, IV is C-Eb-G. Eb has a stronger tendency to go to D in the tonic compared with F of V resolving to G.

Harmonic progression: (RN represents the scale degree of root note)

G Yu mode:

Introduction (mm. 1-4): IV-III-VI-III

Phrase 1 (mm.5-8): III-III-I-V-IV

Phrase 2 (mm.9-13): I-IV-IV-I-I

C Shang mode:

Phrase 3 (mm.14-17): IV-V-I-IV-I

Phrase 4 (mm.18-21): I-V-IV-VII-I

G Yu mode:

Coda (mm.21-27): III-IV-VII-I-IV-I-I-VII-I

Example 72: Phrase structure and Chinese mode

思 乡
(抒情小曲)
Homesick
(Lyrical piece)

Introduction
Moderato tranquillo

Phrase 1

poco rit. a tempo

Root note: C Bb Eb Bb Bb

Phrase 2

Bb G D C G D

Phrase 3

poco rit. mf a tempo mf

C G C mp F G

Phrase 4

C F C C G F Bb C Bb

Coda

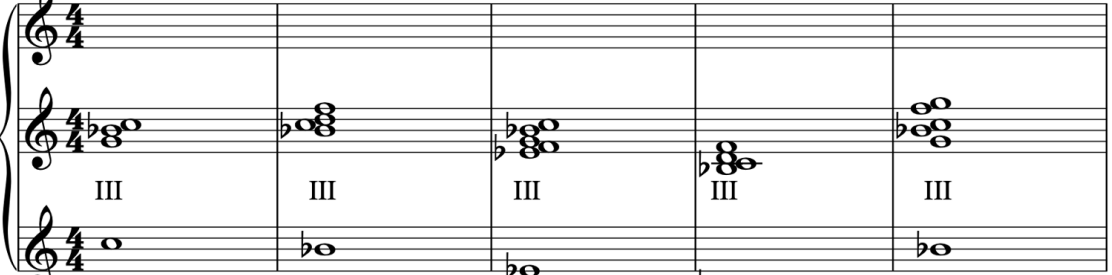
dim.

C F G C G G G F G

p rit. pp ppp

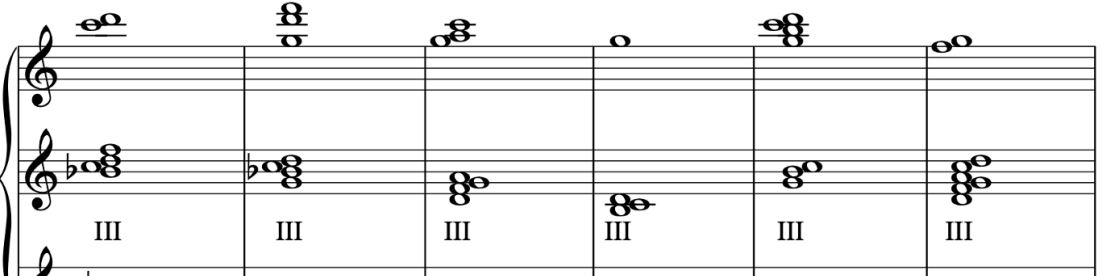
The musical score is written for piano in 3/4 time, featuring a lyrical melody in the right hand and a rhythmic accompaniment in the left hand. The piece is divided into several sections: an Introduction, four phrases, and a Coda. The key signature has two flats (Bb and Eb). The tempo and mood are marked as 'Moderato tranquillo'. Dynamics range from 'pp' (pianissimo) to 'ppp' (pianississimo). The score includes various musical notations such as slurs, ties, and articulation marks. The phrase structures are highlighted with blue boxes, and the root notes for each phrase are indicated below the staff. The piece concludes with a 'Coda' section marked 'dim.' (diminuendo) and 'ppp'.

Example 73: Hindemith analysis of *Homesick*

	mm. 1	2	3	4	5
					
Category:	III	III	III	III	III
Root note:	F	Bb	Bb	Bb	Bb

Tension
design:



	mm. 6	7	8	9	10
					
Category:	III	III	III	III	III
Root note:	F	Bb	Bb	Bb	Bb

Tension
design:



mm.11 12 13 14 15

Category: III III III III III

Root note: e_2 e_2 e_2 b_2 b_2

Tension design:

mm.16 17 18 19 20 21

Category: III III III III III III I III

Root note: e_2 e_2 e_2 e_2 e_2 b_2 e_2 b_2

Tension design:

mm.22 23 24 25 26 27

Category: III III I III III III I

Root note: e_2 e_2 e_2 e_2 e_2 e_2 e_2

Tension design:

Based on this analysis, we can see that Hindemith's theory resolves the issues posed by linear textures and non-tertian sonorities, particularly the difficulty of identifying root tones and tracing harmonic progression. It also provides tools for analyzing pentatonic harmony and degrees of harmonic tension. As for Roman numeral analysis, it does show the tendency of this piece to begin and end its phrases on tonic, but also shows that the way tonic is approached at cadences uses everything but the dominant as the penultimate chord, a way that this song's harmony diverges from the usual Western patterns. Thus, this serves as a strong example to show that integrating Chinese and Western theoretical frameworks is both feasible and meaningful for the analysis of modern Chinese music.

An Analysis of Anlun Huang's *Prelude and Dance*. I will focus on the first movement, which is a representative example of a harmonized folk song. In particular, I will concentrate on the deployment of pentatonic harmony.

Background of composer and Prelude and Dance. Anlun Huang is a Canadian-based contemporary composer. He was born in 1949 to a musical family in Beijing; his father Feili Huang studied under the renowned composer Paul Hindemith and is a prominent contemporary conductor. Huang began piano lessons with his parents at age five and completed his first piano collection at seven. He traveled to North America for studies in 1980 and earned the Trinity College of Music Associate of Music degree in 1983. In 1986, he received his Master of Music degree from Yale University with the highest honors and settled in Canada that same year.¹⁰³

Overture and Dance was composed in 1974 under the original title *Chinese Fantasy No. 2*. It was not until 1977, after the Cultural Revolution ended, that pianist Shikun Liu renamed it *Overture and Dance*. Following its highly successful premiere in Beijing, the work was formally

¹⁰³ Wanli Qin, "On the Harmonic Characteristics of Huang Anlun's *Overture and Dance*," *Music Creation (Yinyue Chuangzuo)*, no. 2 (2010): 146.

published by People's Music Publishing House. Anlun Huang composed a total of five "Chinese Fantasies," all making use of the rhapsody form, which means free structure, incorporation of folk musical elements, and virtuosic concert effects. In 1978, *Overture and Dance* received the "Ministry of Culture Award for Outstanding Works" and was hailed as the first Chinese composition to successfully enter the international music scene after the Cultural Revolution.¹⁰⁴

Theme Analysis. The first section draws on melodic materials from the folk songs of Taiwan's indigenous highland tribes as its primary creative source (see Example 74, *Fishing Song*), which also corresponds to the historical context of the time. This piece has four phrases and is based on the F gong system. Because the four phrases end on different notes, they correspond to different modes. Phrase 1 is G Shang pentatonic scale, Phrase 2 is D Yu pentatonic scale. Phrase 3 goes back to G Shang pentatonic scale, Phrase 4 is D Yu pentatonic scale. This piece is a typical "statement, repetition, departure and conclusion" musical form according to the text and the question mark ending Phrase 3.

Anlun Huang made some adaptations when using this folk song theme. First, he changes the folk song's original meter from 2/4 to 4/4 and regularizes the phrasing, shaping each phrase into four measures. An interesting point is that Huang sequences Phrase 3 of the folk song up by a perfect fourth and compresses it into four measures, which intensifies the expressive character of the phrase compared with the original. Also, the mode of Phrase 3 goes from G Shang to A Jue. This treatment strengthens the "departure" function within the overall "statement, repetition, departure and conclusion" structure.

¹⁰⁴ Ibid.

Example 74: *Fishing Song*

渔 歌

高山族民歌

Phrase 1
米 玛 那 哎, 米 玛 那 哎, 古 娃 玛 诺 米 达?
(男)在 在 哪 里? 爸 爸 他 到 哪 里 去?

Phrase 2
米 达 手 骨 达 依 萨, 娃 阿 里 安 奴 萨
(女)爸 爸 已 到 东 海 撒 网, 大 小 年 游 进

Phrase 3
那 爸 爸 撒 下 的 鱼 网 里 那 阿
(男)你 可 知

Phrase 4
各 拂 丁 尼 哇 哩? 那 路 哎 骨 萨 达 佐
(女)我 已 看 见 爸 爸 一 网 打 到

萨 银 光 奴 萨 那 古 娃 玛 诺 米 达。
银 光 闪 闪 活 蹦 乱 跳 的 二 十 八 条 鱼。

Harmonic analysis and chordal structure. The texture of this song is contrapuntal and linear.

From a horizontal perspective, the piece presents Chinese modes (see above analysis). From a vertical perspective, it presents western harmony and the chordal structure consists of traditional third-stacked or non-tertian harmonies. Therefore, I think prolongational analysis is a good way to explore the song's harmony. Example 75 includes a prolongational analysis of the song. As we can see, the middleground lines that structure each phrase is different from the usual stepwise descending lines of European music. This illustrates one of the unique ways that this piece projects tonality. The mode is d minor (d Aeolian) in Phrases 1, 2 and 4. Phrase 3 moves from g minor into a minor. The harmonic progression generally follows the harmonic functions T-PD-D-T but the specific application of chords often doesn't align with western theory.

At the end of Phrase 1, a contrary harmonic progression V-iv occurs, although iv can be heard as decorating V. The chordal structures of V and i in mm. 5 are non-tertian (see Example

76). The chord above V is A-C-D-G; Huang uses D (tonic) instead of the additional note E. The chordal notes above i in m. 5 are D-A-G, which is a structure built around D, spanning the fifth above and below. This superimposition of fifths above and below is more stable than the third-stacked structure according to the Chinese modal system, as Chinese modes are based on the chain of fifths.

In Phrase 2, what originally functioned as a predominant chord iv in western music theory takes on the role of the dominant chord in Phrase 2, so that the phrase concludes with a harmonic progression iv-i at the end. I believe the primary reason for this is the modal setting in D minor (D Yu), where the V chord loses its leading tone, eliminating the previous propulsion toward the tonic chord. Conversely, the Bb in the iv chord functions as an additional note in Chinese mode, possessing a strong propulsion toward main note A. Additionally, the iv₇ chord shares two common tones, D and F, with the tonic chord. Consequently, the iv chord exhibits a relatively stronger sense of propulsion to tonic than the V chord.

Phrase 3 experiences modal modulation from g minor to a minor. Also, Huang heightened the emotional tension in m. 11 by using the leading tone G#. In terms of chordal structure, the tonic triad I in mm. 11–12 is non-tertian. Huang adds the scale degree D above the tonic T. The addition of this D (^ 4 in the a minor scale) enhances the chord's stability since E is an additional note within the Chinese modal system context.

In Phrase 4, from the harmonic progression perspective, extended tonic prolongation at the very beginning is built primarily on the alternation between i and iv. Within this context, the iv chord seems to assume a dominant-like function, propelling the tonic forward. The concluding progression iv₂–V_{4/3}–I is less a true cadence than another extension of the tonic area, since the V₇ appears in second inversion, thereby weakening the sense of finality. From the chordal

structure perspective, Huang used the non-tertian chord for ii7 in m.13. He used A to replace the additional note Bb. For the ending chord, Huang employs a chord constructed in fifths and octaves, which is one of the most typical ending chords in pentatonic harmony.

Example 75: Prolongational analysis

The image displays a musical score for two phrases, each with a treble and bass staff. Above the notes, caret symbols (^) indicate the pitch classes of the notes. Below the staves, Roman numerals and letters (T, D) provide a prolongational analysis of the harmonic structure.

Phrase 1:

- Notes: D4, E4, F4, G4, A4, Bb4, C5, Bb4, A4, G4, F4, E4, D4.
- Chordal analysis: d: i (m. 1), i7 (m. 2), i2 (m. 3), Vi (m. 4), V-iv i (m. 5).
- Prolongation: T (m. 1-4), D (m. 5), T (m. 5).

Phrase 2:

- Notes: D4, E4, F4, G4, A4, Bb4, C5, Bb4, A4, G4, F4, E4, D4.
- Chordal analysis: i7 (m. 1), i7 (m. 2), (vii)i (m. 3), i7 (m. 4), iv6 (m. 5), i4 (m. 6), iv2 (m. 7), i (m. 8).
- Prolongation: T (m. 1-4), D (m. 5-7), T (m. 8).

Phrase 5

g: v_7 $v_9/iv(i_6)$ v_3^4 i_3^4 v_7 a: iv_7 v_2 i_6

D T PD D T

Phrase 4

1 7 5 3 1

d: i i₂ v₅⁶/vii vi₁₆ i₃⁴ iv i₆ (ii₇) i₆ iv₇ i₃⁴ iv₂ v₃⁴ i

T PD D T

Example 76 Roman Numeral analysis of *Prelude and Dance*

此曲作于1974年。

In summary, at this stage, the theoretical development of pentatonic harmony had become highly systematic and mature. Many composers engaged in writing pentatonic-based harmonic settings,

most often in the form of harmonizations of folk songs in response to prevailing social and cultural demands. The resulting works generally fall into two principal categories: tertian (third-stacked) harmony and pentatonic vertical harmony.

In terms of compositional thought, however, a clear shift occurred in the music of Zi Huang and his contemporaries in comparison with earlier explorations. During the early phase, composers largely relied on the Western chromatic harmonic system as a creative framework, while theorists attempted to interpret these practices through the lens of Chinese modal systems. By this later stage, a relatively mature system of linear pentatonic harmony had emerged, one in which Chinese modal logic governed the horizontal dimension, while Western vertical harmonic thinking was retained, though the common I–IV–V–I harmonic logic was modified in accordance with the constraints of the Chinese modal context.

Moreover, new types of non-tertian chords derived from Chinese modal structures began to appear, particularly at cadences, where these sonorities reveal their structural implications with exceptional clarity.

China, 1979-2000 period

Pentatonic twelve-tone piece: An analysis of Zhongrong Luo’s trio ensemble “One Yun Sharing Three-Gong Systems”. *One Yun Sharing Three-Gong Systems* is one of the representative instrumental musical works of Zhongrong Luo in recent years. This work combines Luo’s long-term research and practice of *pentatonic 12-tone set theory* with the concept of “One Yun Sharing Three-Gong Systems” in the Chinese modal system. Firstly, I will summarize the Chinese modal system based on the concept of *One Yun Sharing Three Gong Systems* and suggest that Chinese modes can be understood as the combination of western major

or minor scales and church modes. Also, the number and variety of modal modulations is the driving force behind the music, as is the function of harmony in Western music. Second, I illustrate “modal cubism” in the 12-tone context of this piece, due to the pentatonic 12-tone method.

Background: Zhongrong Luo’s pentatonic 12-tone method and derived row technique.

Zhongrong Luo (December 12, 1924 - September 2, 2021) was born in Sichuan Province, China. He was a composition and music theory professor at the Chinese Academy of Music. He is an accomplished contemporary Chinese composer and one of the representative figures of new music creation in China in the twentieth century. The early twentieth century was an active period in the history of Western music composition. Among the many musical schools, the musical style and compositional technique of the “Second Viennese School” directly influenced Luo’s music. Meanwhile, the “Expressionist” and “Impressionist” musical aesthetics also influenced Luo’s entire compositional career.¹⁰⁵

In the 1960s, he learned about Schoenberg’s music and theory for the first time from his classmate Sang Tong, who studied music theory and composition with Julius Schloss and Wolfgang Fraenkel.¹⁰⁶ After that, because of the Cultural Revolution, Luo’s compositional career stagnated for the next 10 years. It wasn’t until 1978, after Czech music theorist Cidilade Kehe’s 20th-century composition techniques were published in the series of Foreign Music Reference Materials, sponsored by the Central Conservatory of Music in China, that Luo then began to self-study the 12 tone method and serial music and composed the first Chinese 12-tone art song *Picking*

¹⁰⁵ Chunfun Wu, “A Study on Luo Zhongrong’s Compositional Style in His Recent Works” (PhD diss., Central Conservatory of Music, 2004), 1–3.

¹⁰⁶ Ya Zhang, “Analysis of the Pitch Organization and Techniques of Luo Zhongrong’s Later Art Songs: The Art Songs *Chang’e* and *The Past Two and Three* as Case Studies” (master’s thesis, Xi’an Conservatory of Music, 2018), 10–11.

Lotus Flowers in 1977.¹⁰⁷ After that, there were a number of atonal art song creations in the later stages of his compositional career and all the art songs' lyrics were based on Chinese poems.

According to Chunfu Wu's interview with Zhongrong Luo, Luo's pentatonic 12-tone method was influenced by the derived row proposed by Webern and Schoenberg. Derived rows refer to combining different sets that belong to the same set class to create a 12-tone row. For example, Webern's string quartet op.28 combines the well-known Bach motive (Bb-A-C-B) into a 12-tone row through transposition and inversion (See Example 77).¹⁰⁸ In turn, Luo thought about whether it was possible to combine trichords or tetrachords into a twelve-tone whole, all of which have a pentatonic sound.

Example 77: Twelve-tone row construction in Webern's *String Quartet*, Op. 28



After employing the pentatonic 12-tone method to compose “Anxiang 暗香” (1988-1989), “Qinyun 琴韵” (1993), and “Luo Zheng’s Canvas 罗铮画意” (2000), Luo discovered that the complementation of the pentatonic scale could establish a connection with the concept of “one yun sharing three gong systems” in the Chinese modal system.¹⁰⁹ Luo’s compositions using the pentatonic 12-tone method shifted from focusing on the pentatonic scale to the seven-tone scale. Therefore, in 2011, during the later stages of his composition career, Luo composed this trio ensemble named after concepts from the traditional Chinese modal system.

¹⁰⁷ Rui Wang, “A Study of the Techniques in Luo Zhongrong’s Twelve-Tone Works” (PhD diss., Shanghai Conservatory of Music, 2004), 1–4.

¹⁰⁸ Wu, “A Study on Luo Zhongrong’s Compositional Style,” 96–97.

¹⁰⁹ Ting Yang, “Ancient Techniques Applied to Modern Creations: Unique Craftsmanship—A Musical Analysis of Luo Zhongrong’s *One Yun Sharing Three Gong Systems*,” *Journal of the Tianjin Conservatory of Music*, no. 1 (2018), 77.

General layout of Luo's "One Yun Sharing Three Gong Systems": Pitch organization, texture, and Chinese philosophy. In the following section, I would like to consider various analytical approaches suggested in the literature that I have found useful in approaching Luo's piece. Yang Ting's article "Ancient Techniques Applied to Modern Creations, Unique Craftsmanship—A Musical Analysis of Zhongrong Luo's Work 'One Yun Sharing Three Gong Systems'" explained that Luo divided the 12 tones into two set-classes 5-35 (02479) and 7-35 (013568T).¹¹⁰ The notes of 7-35, C through B, are ordered in ways that they can suggest pentatonic scales in C gong, G gong, and F gong systems. Yang also mentioned that Luo's piece was arranged from one of his Chinese tonal art songs *Sent to Han Chuo, Judicial Commissioner of Yangzhou*,¹¹¹ and she compared both pieces from the melodic contour, motive and embellishing tone perspectives and talked about the musical form from the instrumentation, dynamic and rhythm perspectives. For pitch class sets, Ting just showed the first two measures of this piece to illustrate the general layout of 5-35 and 7-35, which uses 5-35 as a pentatonic scale in the harp to provide a rhythmic background, while 7-35 and 6-33 are mainly used as different seven-tone and six-tone scales in the flute and viola voices (see Example 78). I tried first to circle the pitch class sets in each voice (see Appendix A) and found that it's hard to distinguish the specific mode of each pitch-class set.

Therefore, the pitch-class sets in flute and viola voices are circled together (See Appendix B) since these voices create a contrapuntal texture and Luo also considers the vertical sound.

¹¹⁰ Yang, "Ancient Techniques Applied to Modern Creations," 79.

¹¹¹ "Sent to Han Chuo, Judicial Commissioner of Yangzhou" is one of the pieces from the vocal suite "Autumn Song" composed by Luo Zhongrong in 1962 with lyrics based on classical Chinese poetry. Due to the Cultural Revolution, its publication was delayed until the 1980s.

Example 78: The pitch organization of *One Yun Sharing Three-Gong Systems*; transcribed by the author based on an example in Ting Yang, “Ancient Techniques Applied to Modern Creations: Unique Craftsmanship—A Musical Analysis of Luo Zhongrong’s *One Yun Sharing Three Gong Systems*,” *Journal of the Tianjin Conservatory of Music*, no. 1 (2018), 79.

The image displays three staves of musical notation, each representing a different Gong system: G Gong system, C Gong system, and F Gong system. Each staff includes a 12-tone scale, a 7-35 scale, and a pentatonic scale. The notation includes notes, rests, and labels for specific tones like gong, shang, jue, zhi, and Yu. The G Gong system staff shows a 12-tone scale with notes 7, 9, 11, 2, 4, 5, 0, and a 7-35 scale with notes 6, 8, 10, 1, 3, 0, 2, 4, 7, 9, 5, 11. The C Gong system staff shows a 12-tone scale with notes 6, 8, 10, 1, 3, 0, 2, 4, 7, 9, 5, 11, and a 7-35 scale with notes 6, 8, 10, 1, 3, 0, 2, 4, 7, 9, 5, 11. The F Gong system staff shows a 12-tone scale with notes 5, 7, 9, 0, 2, 4, 11, and a 7-35 scale with notes 5, 7, 9, 0, 2, 4, 11. The notation also includes labels for specific tones like gong, shang, jue, zhi, and Yu, and a label for 'additional notes'.

Also, we can find that although the composer applied the creative thinking of the 12-tone method, all the voices of the work reflect the pentatonic sound of the Chinese modes to the greatest extent, while retaining the acoustic characteristics of Chinese traditional music. This is because in order to give full play to the performance potential of each tone, Luo did not strictly comply with the 12-tone row order. Almost all of the pitch class sets he designed are complete Chinese pentatonic, six-tone or seven-tone scales, and the interior of each pitch-class set is disordered. Besides, in order to meet the needs of the music development and avoid being mechanical and rigid, the interior of each pitch class set can be repeated freely when necessary. This idea could be inspired by Josef Matthias Hauer’s concept of trope, in which the six-tone segments specify only the constituent tones, not the order of the constituent tones.¹¹² At the same time, Luo used texture or rests to distinguish every pitch class set. Therefore, each pitch-class set is clearly marked, like segments of a Chinese folk song melody, combining together into a whole work.

¹¹² Josef Matthias Hauer’s trope system is described in George Perle’s *Serial Composition and Atonality*, 3rd ed. (University of California Press, 1972), which Zhongrong Luo translated into Chinese.

This kind of pitch organization (12-tone rows divided into 5- and 7-note segments) makes me think of the Chinese philosophical concepts “Yin”, “Yang,” and Daoism. Anna Yu Wang talked about musical time in Chinese music in her article *Philosophizing Time in Sinitic Opera*. Wang mentioned that *Yin* and *Yang* can be understood as two opposite things in the world, which interact with each other and produce everything in the world. Here change is a very important condition of time. *Dao* in Sinitic cultures also means infinite change and the lack of calculation and prediction.¹¹³ In Luo’s piece, the opposition of *Yin* and *Yang* is reflected in pitch organization and the different textures between the flute and viola voices and harp voice. Pitch classes (1,3,6,8,10) and (0,2,4,5,7,9,11) have a complementary relationship, they are “opposite” to each other in the context of the 12 tones. Also, the flute and viola voices create a contrapuntal texture while the harp texture is almost always blocked chords. The changeable idea is also reflected in the Chinese modal modulation of this piece. The work modulates very frequently, while some segments are ambiguous. I will talk more about this later.

The layout of the three voices and Chinese ink. Many scholars have tried to make connections between Chinese music and art, particularly calligraphy. Rao developed the concept of Chinese aesthetics “*shi*” based on Chinese calligraphy and poetry. Everett made some connections between musical gesture and calligraphy.¹¹⁴ Jia used the number and strokes of each character to control the pitch and rhythmic structure.¹¹⁵ Zhen relates the layering of voices and the superimposition of different instrumental timbres in the piece to the technique of ink layering in ink.¹¹⁶ Also, it’s worth

¹¹³ Anna Yu Wang, “Philosophizing Time in Sinitic Opera,” *Music Theory Online* 29, no. 3 (2023).

¹¹⁴ Yayoi Uno Everett, “Calligraphy and Musical Gestures in the Late Works of Chou Wen-chung,” *Contemporary Music Review* 26, nos. 5–6 (2007): 569–584.

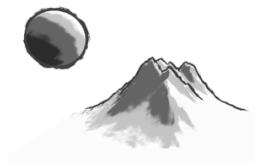
¹¹⁵ Yi-Cheng Daniel Wu, “Poetry and Musical Organization in Jia Guoping’s *The Wind Sounds in the Sky* (2002),” *SMT-V* 9, no. 5 (2023).

¹¹⁶ Yan Zheng, “Is ‘the Eye that Listens’ or ‘the Ear that Views’? A Study of Soundscape in Jia Daqun’s *Desert Ink Drawings*,” *Art of Music*, no. 1 (2019).

mentioning that Zhongrong Luo's son Zheng Luo is a painter. Another work of Luo's, *Luo Zheng's Canvas* 罗铮画意, was inspired by his son's painting.¹¹⁷

The interweaving relationship of the three voices in “One Yun Sharing Three Gong Systems” reminds me of the shading techniques used in Chinese ink drawings (see Example 79). The harp voice is very quiet, using pp, mp, p, and a blocked chord texture; and the flowing, water-like timbre of the harp, like Yang said, serves as a background.¹¹⁸ The most prominent and melodically distinct voice is the flute. Its bright timbre and melodic voice leads the whole piece. The middle viola voice provides harmonic support for the flute voice. In addition, this three-leveled hierarchy of voices reflects the Chinese modal system.

Example 79: Shading technique



Developing variation of pitch-class sets. At this point in the chapter, I would like to shift my attention to my own analytical observations about “One Yun Sharing Three Gong Systems.” Although the composer applied the creative thinking of the 12-tone method, all the voices of this work reflect the pentatonic sound of the Chinese modes to the greatest possible extent, while retaining some acoustic characteristics of Chinese traditional music. This is because in order to give full play to the performance potential of each tone, Luo did not strictly comply with 12-tone set ordering. Almost all of the pitch class sets he designed are complete Chinese pentatonic, six-tone or seven-tone scales, and the interior of each pitch-class set is disordered. Besides, in order to

¹¹⁷ Wu, “A Study on Luo Zhongrong’s Compositional Style,” 2.

¹¹⁸ Yang, “Ancient Techniques Applied to Modern Creations,” 84.

meet the needs of musical development and avoid being mechanical and rigid, the interior of each pitch class set can be repeated freely when necessary. At the same time, Luo used texture or rests to distinguish every pitch class set from the others. Therefore, each pitch-class set is very clear, like segments of Chinese folk song melody, combining together into a whole work. However, I found that it's hard to distinguish the specific mode of every segment from the Chinese modal system perspective, since in some smaller segments it is hard to figure out the emphasized notes.

From the 12-tone perspective, we can understand this whole piece as developing variation applied to pitch class sets 7-35 and 6-33. The developing variation of 7-35 and 6-33 mainly focuses on the rhythmic patterns, dynamics, and melodic contour. In Example 80, in comparison to theme number 1, number 2 expands the initial grace notes to sixteenths, and keeps the dotted quarter note the same. Number 3 then keeps number 2's initial pattern of 3 16th notes. These kinds of developing variation also imply a ternary form when we consider the patterns they form over the whole piece.

Example 80: Developing variation of 7-35 and 6-33

同均三宫
() 雅乐F宫D羽调

罗忠铭 曲
2011年作

Lento ♩=ca38

Flute

Viola

Harp

Theme ①

Theme ②

Theme ③

mf *mp* *p* *mf*

mp *mf* *p* *mf*

p sf *mp* *p*

For example (refer to Appendix B): Section A (mm.1-3) is more imitative between the flute and viola parts. For example, the B-C-B-A figure in the flute is answered by C-D-C-B in the viola at the beginning of m. 2, and there is also the melody that leaps down, then up, in the viola and flute at the end of that same measure. Section B (mm. 4-9) treats the two main voices as contrasting with each other, but these melodic ideas are also very different from those in Section A. Notice the falling and rising contours in the first measure of the B section. Section A' (mm.10-15) brings back some of the melodic ideas of A, particularly the viola part's 7-35 in measure 9, which almost keeps the same rhythmic pattern and melodic contour as the theme in measure 1. We can also hear motives being passed back and forth between the flute and viola in Section A', particularly the motive of a leap down and leap up (the green arrows). The coda (m.16-m.17), on the other hand, has more of a contrasting relationship between the flute and viola again. The flute in mm. 16-17, the green box, reminds us of the opening flute melody in measure 1, but its viola counterpart sounds like a contrasting countermelody. Both the relationship between flute and viola voices and the melodic connections between the sections contribute to hearing this piece as a ternary form with a coda.

“Modal cubism” in the flute and viola voices and conflict and resolution. The flute and viola voices modulate frequently, and the modes are distributed in blocks. Some parts, due to being incomplete pentatonic modes, cannot be clearly defined as specific modes. Other parts can be treated as different modes depending on whether you consider them horizontally or vertically. This block-like distribution of modes and the ambiguity of modes in some parts reminds me of European Cubist art. Locke (2009) proposed the concept of “musical cubism” depending on the comparison of timbres in African drumming and the conflict between ternary and binary within musical time

in dance.¹¹⁹ I would like to say that here, the flute and voice illustrate “modal cubism” in the context of 12-tone music.

Chinese mode analysis. Section A (mm.1-4) has three segments, which introduce three kinds of scales belonging to three different *gong* systems in *C Yun* respectively. In Example 81 (Segment 1), Measure 1 and the first half of Measure 2 is an A Yu seven-tone scale (qing-yue), belonging to the C *gong* system. To find the *gong* system, we consider that there are three major thirds in this segment, C-E, F-A and G-B, which represent three kinds of *gong* and *jue* pattern along with three kinds of additional note pattern. If *gong* and *jue* are C and E, the additional notes are F and B; if *gong* and *jue* are F and A, the additional notes are E and B; if *gong* and *jue* are G and B, the additional notes are F and C. In this segment, C is obviously a long note, which means *gong-jue* can be C-E or F-A with additional note patterns F-B and E-B. The durations of F, E, and B are all very short and occur on weak beats. It’s hard to distinguish the mode from the additional note perspective. However, in the viola voice, C appears twice, thus I believe that C and E is emphasized more than F and A, and this segment should belong to the C *gong* system. Also, according to my experience, tonic is usually the last long note. Zhang writes: “When comparing between emphasizing the tonic and the supporting tone, emphasizing the two supporting tones is more important, particularly emphasizing the dominant (primary supporting tone).” Also, “The dominant has the greatest stabilizing effect on the tonic, so it generally should not lack dominant note.”¹²⁰ That means, sometimes, the tonic might be emphasized less frequently than the supporting tones. In Example 81, we can see that the tonic A appears only once at the end of the flute voice, while there are multiple supporting tones and leading tones surrounding it, including

¹¹⁹ David Locke, “Simultaneous Multidimensionality in African Music: ‘Musical Cubism,’” *International Library of African Music Journal* 8, no. 3 (2019): 8–37.

¹²⁰ Xiaohu Zhang, *Harmonic Techniques of the Pentatonic Scale* (Beijing: People’s Music Publishing House, 1987), 23–37.

supporting notes E, D and leading tones C and G. In Measure 2, the flute voice holds a long note A as a background, while the viola voice uses the supporting tone D, leading tones G and C to reinforce the tonic A. In Example 82 (Segment 2), the second half of Measure 2, among three major thirds C-E, F-A and G-B, F-A is the most sensitive for *gong* and *jue* since the other two major thirds are all in a short duration or embellishing tones. Also, if the viola voice's long note A at the end of this segment is taken as tonic, supporting notes are F (upper) and D (lower); Leading tone is G; other notes are neighbor tones. This segment is the A jue seven-tone scale (Yan-), and it belongs to the F gong system.

In Example 83 (Segment 3), Measure 3 and the beginning of Measure 4 hints at four different modes from both the horizontal and vertical perspectives, which is an excellent example of the modal ambiguity characteristic of Chinese music. The first half of the flute voice (yellow part) is the G gong pentatonic scale. There's only one emphasized major third G-B, and supporting notes C and D. The second half of flute voice (pink part) is the F gong six-tone scale. It's hard to distinguish the *gong* system since all the notes are very short. However, we can confirm that F is the tonic since the dominant note C appears at the highest point, and the additional note E and leading tone G propel towards F. From a different perspective, you could also say that the entire flute voice is an F gong seven-tone scale with the dominant note C appearing from the very beginning, B being its neighboring tone, and the leading tone G and additional note E extending continuously from the outset until the final tonic. However, the emphasis on the additional note B renders the F gong mode somewhat unstable. The first half of viola voice (orange part) is an A Yu pentatonic scale, there's only one major third C-E (gong and jue). Also, A is tonic, a long note at the end, E and D are supporting notes, G and C are leading tones. The latter part of the viola voice can be read as a D Yu six-tone scale with the additional note E, yet its stability is compromised

due to the absence of a dominant note. Moreover, both the upper and lower voices in measures 3 and 4 adhere to the F gong system, suggesting Luo's intention to uphold a relatively stable harmony between them.

Example 81: Section A, Segment 1

Lento ♩=ca38

Flute

Viola

mf

mp

A Yu seven-tone scale
(C gong system)

A tonic

Example 82: Section A, Segment 2

A Jue seven-tone scale (Ya Yue)
F gong system

Flute

Viola

p

mf

mf

p

A tonic

Example 83: Section A, Segment 3

Section B (mm. 4-9) has five segments. The first segment (Measure 4) can be understood horizontally as a G gong seven-tone scale and vertically as a G shang pentatonic scale (see Example 84). This segment includes all seven notes and should have three kinds of gong-jue pattern with additional notes. If we examine both voices horizontally, G and B are more likely to function as gong and jue, given that the bass note of the first blocked chord is G, and it is *forte* and accented. Also, the viola voice goes from G3 to G4 (marked pink) with supporting notes and leading tones. The first beat's blocked chord is an incomplete F gong pentatonic scale. Since the bass note G has been emphasized, we can treat this blocked chord as a G shang pentatonic scale. The second segment is Measure 5 and 6 (see Example 85); here, the first beat of the flute voice projects the C gong pentatonic scale since we can find only the tonic and dominant notes C and G. The rest of Measures 5 and 6 are in the D Yu six-tone scale. There are two major thirds G-B and F-A, but it's obvious that F has been emphasized twice, the highest note of the flute voice and the highest note of the viola voice. So, F and A should be gong and jue, which belongs to the F gong system. Also, the last long note is D, as well as the first note in the viola, so D should be tonic. The third segment is Measures 7 and 8 (see Example 86), which is an interchange of the G gong and C gong systems. Measure 7's flute voice and Measure 8's viola voice are both in the G gong scale.

G and B are both obvious major thirds and we can find the dominant note D and lower supporting note B in a long duration or higher register. Measure 8's flute voice and Measure 7's viola voice are both in the C gong system. Measure 8's flute voice is the D shang six-tone scale since the supporting notes G and A are both in the highest point. Measure 7's viola voice is the C gong six-tone scale since the basic framework is from C5 to C4, the first two notes G and E are supporting notes. Also, there are two stepwise progressions that support tonic C, which are C-B-A-C and E-D-C. The segment in mm. 8b-9 is the F gong six-tone scale. The first blocked chord is the tonic chord above C, and the last note in m. 9 is F, which creates a dominant-tonic harmonic function.

Section A' (mm. 10-17) consists mostly of F gong system and C gong system scales. The beginning of measure 9 (viola voice in Example 87) is a C gong six-tone scale: since the only major third is C-E, this implies it is a C gong system scale. Also the tonic and dominant notes C and G are emphasized in this segment. From Measure 10-12 the music is all in the F gong system but uses different rotations and tonics (see Example 87). In Measure 10's flute voice, the mode changes from the D Yu pentatonic scale to the C Zhi six-tone scale. The major third F-A is emphasized, but the D Yu and C Zhi rotations emphasize their tonic and dominant notes. In the beginning of Measure 10 we hear the tonic and dominant D-A, while the second half changes its tonic and dominant to C and G. The rest of Measure 10-12 stays within the D Yu seven-tone scale.

Example 84: Section B, Segment 1

① G gong seven-tone scale

mf 6 *pp* *p*

G Shang
(F gong system)

3

Example 85: Section B, Segment 2

②

C gong pentatonic

D Yu six-tone scale

Flute

f *p* *mf* *pp* *pp* *mf*

Viola

f *p* *mp* *pp* *mp*

Lower fifth

Upper fifth

5

Example 86: Section B, Segment 3

2

3

G Gong six-tone scale

D Shang six-tone scale

4

Lower supporting

Flute

Viola

7

8

9

10

11

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15

16

17

18

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100

Lower supporting tone

Tonic

Higher supporting tone

C Gong six-tone scale

G Gong seven-tone scale

F Gong six-tone scale

G Zhi (C Gong system)

pp

mf

mp

ff

p

f

3

5

7

9

11

13

15

17

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Example 87: Section A', Segments 1 and 2

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84

85

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97

98

99

100

A'

2

1

C Gong six-tone scale

D Yu pentatonic (F Gong system)

C Zhi six-tone scale (F Gong system)

D Yu seven-tone scale

pp

mf

p

espress

f

3

5

7

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11

13

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17

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83

85

87

89

91

93

95

97

99

From measure 13 to 15, the mode is not very stable: it changes from the G gong system to the C gong system and then the F gong system (Example 88). In Measure 13's viola voice, the fact that the only major third is G-B and the tonic-dominant E-B implies that it is E Yu pentatonic scale, which belongs to the G gong system. From Measure 13-14 the flute voice is in the C gong system but has a different tonic: the mode changes from the A Yu pentatonic scale to the C gong seven-tone scale. C-E is the only emphasized major third, but the tonic-dominant notes change from A-E to C-G. Measure 14-15's viola voice contains a D Yu six-tone scale (F gong system), which forms a contrast with the upper voice and the last blocked chord (tonic triad).

The Coda (Example 88, m.16) contains a very stable D Yu seven-tone scale (F gong system). Flute and viola voices both end on the long note D, which implies that the tonic is D. Upper and below supporting notes A and G all come on the first attack of each beat or have accent and tenuto signs. Also, the major third F-A is strongly emphasized.

Example 88: Section A', Segments 3 and 4 and Coda

The image displays a musical score for two instruments, Flute and Viola, across measures 13, 14, and 15. The score is annotated with various musical concepts and scale systems.

- Measure 13:** The Flute staff is annotated with "A Yu pentatonic (C gong system)" and a circled "3". The Viola staff is annotated with "E Yue pentatonic (G gong system)".
- Measure 14:** The Flute staff is annotated with "C gong seven-tone scale" and a circled "4". The Viola staff is annotated with "D Yu six-tone scale (F gong system)".
- Measure 15:** The Flute staff is annotated with "Upper supporting tone" and "Lower supporting tone". The Viola staff is annotated with "D Yu six-tone scale (F gong system)".

The score includes dynamic markings such as *f* (forte) and *p* (piano), and articulation marks like accents and tenuto marks. The Flute staff is in treble clef, and the Viola staff is in bass clef. The time signature is 2/4.

The image shows a musical score for Flute and Viola. The Flute part is in treble clef, and the Viola part is in bass clef. The score is divided into three sections: Ritenuto (marked 'G Zhi (C gong system)'), A tempo (marked 'f marcato'), and Rit (marked 'D Yu seven-tone scale (F gong system)'). The Ritenuto section starts at measure 15. The A tempo section follows, and the Rit section concludes the piece. The score includes various musical notations such as notes, rests, and dynamic markings (sf, f, p, mf). The background of the score is color-coded to represent different gong systems: orange for G Zhi (C gong system), pink for F gong system, and light blue for D Yu seven-tone scale (F gong system).

Overall, I use different colors to label the three different gong systems (see Appendix C). The layout of the modes suggests a ternary form. Section A introduces all three different gong systems, establishing an initial conflict. In Sections B and A', the proportion of the F gong system scales gradually increases. The coda is characterized by a very stable D Yu seven-tone scale, resolving the conflict posed at the beginning. It's worth mentioning that among the three types of seven-tone scales—Qin-yue, Ya-yue, and Yan-yue—Yayue holds a prominent position in ancient China, which is similar. In the *Chinese Music Dictionary* by Miao Tianrui, Ji Lian kang, and Guo Naian, there is the following passage:¹²¹

Original:

古代以雅乐、“雅颂之声”作为纯正的音乐，称为正声，相对于“奸声”、“郑卫之音”、“夷狄之音”而言。《荀子·乐论》：“凡奸声感人而逆气应之。…正声感人而顺气应之故正声音阶在我国传统音乐中占据重要的地位。

Concise translation (mine):

In ancient times, “Ya Yue” and the “elegant singing” were considered to be pure forms of music, called “zheng sheng,” in contrast to the “jian sheng (treacherous sound or sinister sound),”

¹²¹ Tianrui Miao, Lian kang Ji, and Naian Guo, *Chinese Music Dictionary* (Beijing: People's Music Publishing House, 1985), 503.

“Zheng and Wei music,” and “barbarian music.” In “Xunzi’s Theory of Music,” it’s stated: “In general, jian sheng moves people but goes against the qi... Zheng sheng moves people and aligns with the qi.” Therefore, the zheng sheng (Ya Yue) tonal system holds a significant position in traditional Chinese music. It seems that Luo intended to imply the significant importance of Ya-Yue via emphasis of Ya-Yue in the whole piece.

The entire piece evolves through a process of conflict and resolution, reminiscent of Schoenberg’s “musical idea”. Additionally, multiple different gong system modes appear at the junctions between each section, such as in measures 3-4, 7-8, and 14-15. This suggests instability at these transitions. We observe that the Chinese mode functions similarly to Western music harmony in this case. The simultaneous conflict of multiple modes is akin to chromatic harmony, while a single mode represents stable harmony.

Harp voice: a huge color palette. All notes in the harp voice come from set-class 5-35, the Gb pentatonic scale, and are mostly block chords. From the perspective of the Chinese modal system, this voice can only be identified as belonging to the Gb gong system, but the specific mode cannot be determined. It can be observed that these five notes are almost entirely grouped into sets of three notes and two notes. The Chinese theorist Liu Zhengwei proposed a concept of “fourth-based three note figures,” suggesting that all traditional Chinese music can be created using different types of such figures, based on the “Zhi-class” and “Yu-class” scales.¹²² In western music, the church modes were conceived in medieval times as combinations of species of 4th and 5th. Therefore, I believe that it’s reasonable to divide the harp voice’s 5-35 into sets of three notes and two notes.

¹²² Zhengwei Liu, “The Four-Degree Three-Tone Series: The ‘Chromosome’ of Traditional Music,” *Chinese Music Quarterly*, no. 1 (2009).

The possible 3-note subsets of 5-35 are 3-6, 3-7, 3-9 and 3-11. According to Appendix 4, which focuses on harp voicing, each trichord pitch-class set usually comes with intervals that form a 3+2 pattern. I list and name all types of these 3+2 patterns (see Table 4).

Table 4: 5-35's possible 3+2 patterns

Name	Trichord + interval
A-1	3-9 + M2
A-2	3-9 + P4
B-1	3-7 + M2
B-2	3-7 + m3
B-3	3-7 + P4
C-1	3-11 + M3, m3 or P4
C-2	3-11 + M2
D	3-6 + M2

According to the interval vector of each pitch-class set, I arrange these patterns according to their different levels of consonance from highest to lowest: C-1, C-2, A-1, A-2, B-2, B-3, B-1 and D. Here A-1, A-2, B-2 and B-3 are in the same group, having the same level of consonance among their component intervals. Also, I use different shades of red in Appendix 4 to indicate varying levels of consonance: the darkest red represents the most dissonant, while the lightest red represents the most consonant. We can find that the harp voice creates a huge color palette that also supports ternary form. The beginning of Section A and A' uses more consonant combinations, while the beginning of the B section is more dissonant, reaching into categories B-1 and D in Table

3. The Coda's pattern of dissonant and consonant chords is also compelling, encapsulating nearly every degree of consonance, and creating a comprehensive summary of the entire piece.

Overall, this work by Luo emphasizes the tonal character of Chinese modes within the framework of the twelve-tone music. As I have identified the various modes and gong systems in this way, I believe I have uncovered a distinct pattern over all of Luo's piece that gradually narrows from a wide-ranging diversity of scales within all three gong systems to asserting the gong system and rotation of the subtitle at the end: F Gong system, D Yu Yayue mode. I have also shown how the gong systems and harmonies as well as imitative textures and melodic contours support the ternary ABA' form of the piece.

Movie music analysis: An analysis of Tan Dun's movie music "Hero" and "In the Chess Court". In the preceding chapters, I focused primarily on art songs and piano works. For the period from 1979 to 2000, I have selected this movie music because it encapsulates multiple dimensions of Chinese musical characteristics and exemplifies the rich stylistic diversity that marked Chinese compositional activity during this era.

Background of movie Hero. The film *Hero* is a martial arts movie which was directed by Zhang Yimou in 2002, a famous film director in China. This movie recounts a well-known story in Chinese history, the incident of "assassinating the Qin Emperor (the kingdom of Qin State)," by using well-designed and philosophical narrative techniques. In 2003, *Hero* was awarded the Best Foreign Language Film at both the Academy Awards and Golden Globe Awards, which marks it as a milestone among the blockbuster movies in the Chinese mainland. Tan Dun, a well-known Chinese-American composer, was in charge of creating the original scores for *Hero*. Like Tan Dun did for the highly-acclaimed original scores for the film *Crouching Tiger, Hidden Dragon*, he also emphasized the consistent relationship between the music and the plot for the score of

Hero. In other words, the score should make contributions to explaining the plot to some extent, so that the audience can achieve a deeper understanding of the story not only from the plot but also from the music. My analysis is of two pieces found within the first four minutes of the film *Hero*, which are also the first two works of the *Hero Concerto: Hero* (the first piece) and *In the Chess Court* (the second piece). The analysis will be conducted according to four aspects: script, musical material, musical structure, and dramatic thinking.

Introduction of the Film's Plot and Thematic Analysis of the Two Pieces. The historic background of this film *Hero* is set between 770 B.C. and 221 B.C. At that time, China was a great and powerful country divided into seven warring states. The king of Qin State was a ruthless ruler. He had a vision to unite the land and put an end, once and for all, to war. Therefore, there are many stories of assassination attempts on the Qin Emperor in Chinese history. The film *Hero* describes one of the assassination attempts, although it is revised by the artist and not totally based on history. The plot of the film can be divided into two types: the overt plot, and the covert plot. More specifically, the overt plot consists of a dialogue between Wu Ming and Emperor Qin. Wu Ming told Emperor Qin how he killed Canjian, Feixue, and Changkong (three assassins who intended to kill the king). The covert plot shows why Wu Ming killed the three assassins; as part of a plot to kill the emperor himself. It is worth mentioning that the three assassins were sacrificed voluntarily, but not deliberately killed by Wu Ming. Only in this way can Wu Ming win the trust of Emperor Qin, so that the subsequent assassination plan conducted by Wu Ming himself could be successful.

The whole film intends to express the director's understanding of a "hero", a person with "Tian Xia" (the world) in mind. All the characters of the film can be considered as heroes, because what they pursued and did is all for their own state. For example, although Emperor Qin was a

plundering king and killed countless people, he could still be seen as a hero because he indeed made efforts toward the unity of the whole world. Wu Ming, Canjian, Feixue, and Changkong may represent one of the other seven states, though the film does not explicitly state this, but they are also heroes of their respective states. It is worth noting that the title *Hero* is singular, which suggests that the director implies there is only one hero. Since the film does not explicitly state this, it implies that the hero in one's heart may differ from person to person.

The first piece is entitled *Hero*, which appears in the beginning of the film. This score serves as the theme of the film, and portrays the important scenes of the film. The piece expresses the preparations before the assassin Wu Ming was summoned by the Qin Emperor. The second piece, entitled *In the Chess Court*, has a great sense of atmosphere. This work features the performance of Qin (a Chinese traditional stringed instrument), while integrating some unconventional instrumental elements such as the prologue from Peking opera style. The second piece expresses the process of how Wu Ming killed another assassin, Chang Kong, in the chess court.

Music Analysis: Overall sound concept from Tan Dun. In order to analyze these two-movie music works by Tan Dun, it is necessary to mention the 'sound field' concept proposed by Tan Dun in his article *Silent Shock*, published in Issue No. 11 of *People's Music* (a Chinese music magazine) in 1992. This article explores the 'absence' and 'presence' of sound, as well as the power within silence, reflecting an important aspect of Tan Dun's early musical thought. In the article *Silent Shock*, Tan Dun recorded an interview with Cage, which intuitively conveys some of Cage's musical concepts. Since it is related to this study, some of the contents are selected and presented as follows:

Tan Dun: Schoenberg was your main teacher, but your music is completely different. Have you never been influenced by him at all?

Cage: No. I always don't think that sound can be divided into one unit of scale or tone series. I regard the sound as a whole, from low to high, and from small to large. There are so many sounds in the world, but why can composers only use those limited units?

*Tan Dun: The rhyme and intonation of the Chinese Peking opera are completely free to walk in the "whole sound", rather than beating on a certain scale.*¹²³

It should also be admitted that Cage's concepts contain many contents, such as the thinking of "silence", the view of "contingency", etc., which also influenced Tan Dun in many aspects. Tan Dun continued Cage's music exploration, and gradually formed his own personalized style.

Combined with the composition of movie music, I focus on the "overall sound concept" and its practice in the film. The so-called "overall sound concept" refers to the concept that all sounds are equally used as the musical material (including silence), and the concept of exploring the various possibilities of the combination of these sounds and their relationship in practice. In other words, "sound is not based on the concept of scale, but on all types of sounds including various natural sounds."¹²⁴ The overall sound concept first affirms that all kinds of sounds existing in human life and nature are valuable, most of which are non-equal temperament. All sounds can be musical material as long as they are logically combined and emotionally integrated by people.

¹²³ Tan Dun, "Silent Shock," *People's Music*, no. 11 (1992), cited in Heping Yang, *A Study of Tan Dun's Opera* (PhD diss., Shanghai Conservatory of Music, 2009), 123.

¹²⁴ Maochun Liang, "The Symphony of *Re*: An Analysis of Tan Dun's *Band Theater II: Re*," *Journal of the Central Conservatory of Music*, no. 2 (1994), cited in Heping Yang, *A Study of Tan Dun's Opera* (PhD diss., Shanghai Conservatory of Music, 2009), 123.

For example, the second piece *In the Chess Court* perfectly presents Tan Dun's "overall sound concept". During the fight between Wu Ming and Changkong, apart from the original sound of Guqin and drum, the piece also integrates the sounds of water dropping on weapons, water dropping on stones, the collision between weapons, and the exaggerated shouting during the fight (using Chinese opera elements, like the chanting in Peking opera). Even before the real duel between Wu Ming and Changkong, there was silence without any sound when they thought with eyes closed, which reflects the artistic conception of "silence is better than any sound at this time". It can be seen that, according to Tan Dun's "overall sound concept," silence is also a kind of sound and thus forms part of the "overall sound." This view closely parallels the Daoist idea that *silence can be more expressive than sound*. In the film, all these natural sounds, as well as the two fights, are carefully recorded in slow motion. The slow film motion and the rapid drum sound form a strong contrast between "static" and "dynamic".

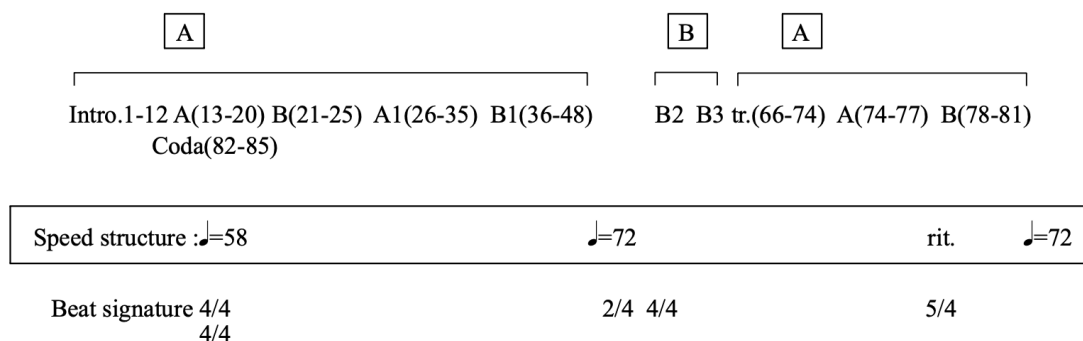
Therefore, in light of Tan Dun's "overall sound concept," my analyses of the following two movie music excerpts focus primarily on orchestration, texture, rhythm, and the ways in which pitches are de-emphasized.

Musical form. From the perspective of musical form, the two pieces *Hero* and *In the Chess Court* are both atypical. This is because the typical Western musical form is set up on the basis of the tonal system in equal temperament. The division into periods and structural functions are evaluated based on traditional criteria such as key, harmony, etc. In terms of the musical material of these two pieces, particularly the second piece *In the Chess Court*, a large part of the score is not based on equal temperament, such as the prologue or percussion passages, which makes a difference in the expression of these materials. The judgment of structural function in music refers to distinguishing between exposition segments, development segments, and recapitulation

segments, which is normally evaluated based on tonal areas as well as timbre, time signature, tempo, etc. These two pieces, on the other hand, both reflect the idea of “speed-based variation structure” in Chinese traditional music. The musical forms of these two pieces are illustrated in Example 89.

Example 89: Musical forms of *Hero* and *In the chess court*

Hero



(In this graph, A and B indicate Theme A and Theme B respectively.)

In the Chess Court

	I	II	III	IV
Measure:	1-12	13-20	21-48	49-62
Speed structure:	♩ = 60	♩ = 120	♩ = 130	♩ = 140

Chinese Traditional Pentatonic Themes. The two main themes that recur through the whole Section 1 *hero* are called “Cang” (meaning being desolate) and “Tian Xia” by the composer. I extracted and simplified the melodic lines of the two themes based on the orchestral score (see Example 90). From the naming norm, it can be revealed that the first theme “Cang” (symbolizing depth, vastness, and the transformative weight of time) implies the tone of the whole film, while the second theme “Tian Xia” implies the theme of the whole film: that is, people with the world in mind, who want to bring unity, are heroes. These two themes convey different emotional

qualities: Theme A, “Cang,” has a distinctly dark and heavy tone, whereas Theme B, “Tianxia,” presents a much brighter one. In detail, both of the two themes are set in Chinese traditional modes and performed on the solo violin’s third or fourth strings, producing a lower, darker timbre and unfamiliar pitch colors (see Example 91). The theme “Cang” (Theme A below, see Example 90) uses G Yu Ya-Yue (a seven-tone scale which omits Zhi F), with the scale structure as G-A-B^b-C-D-E-F. It is worth mentioning that the use of the traditional Chinese Ya-Yue scale implies a very important character of the film, Emperor Qin, because this type of scale was called “Royal Zheng Sheng” in ancient times. Aside from the Chinese mode, some other elements of Theme A highlight the meaning of “Cang” and its sudden sense of oppression. First, from the perspective of timbre, like I mentioned before, Tan Dun employs retuned violin strings and lower register to produce a lower and darker timbre. Also, the additional notes within the seven-note scale heighten the sense of instability. Second, in terms of instrumentation, Tan Dun uses accented long notes in the brass section and syncopated rhythmic patterns in the percussion section (the middle eighth note is the accent), which adds to the sense of heaviness. Third, regarding rhythm, both the brass and percussion enter on the second beat, creating a sudden, unexpected impact (see Example 92a).

Theme B, “Tian Xia” (The World) (see Example 90), is a D Zhi pentatonic scale, with the scale structure as G-A-C-D-E. The use of the pentatonic scale (without additional notes) makes the melody more stable, and its register is also higher compared to Theme A. In terms of orchestration, Theme B removes the brass section that appears in Theme A, retaining only the percussion. The percussion part employs numerous sixteenth-note rhythmic figures and syncopated patterns within a contrapuntal rhythmic texture, with the accents removed. All of these elements contribute to the brighter character of Theme B, (see Example 92b)

Example 90: Theme A “Cang” and Theme B “TianXia”

Theme A “Cang”:

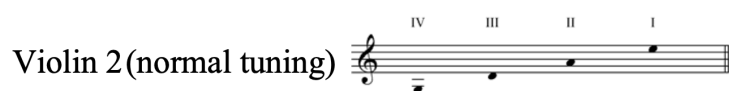
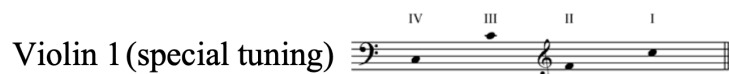


Theme B “Tian Xia”:



Example 91: Solo violin tuning

Solo Violin (Two Violins. One is special tuning. The other is normal tuning.)



Example 92a: Excerpt from Theme A (in the actual movie music, there is no string section, only solo violin, this score is from a concert version)

16

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

B. Cl. 1

B. Cl. 2

B. Cl.

Bsn. 1

Bsn. 2

C. Bsn.

Hn. in F 1

Hn. in F 2

Hn. in F 3

Hn. in F 4

C Tpt. 1, 2, 3

Trb. 1

Trb. 2

Tuba

Timp.

1

2

3

4

Perc.

Hp.

Gu Qln

Theme A

Special VI. solo (transposed)

Pitch sound

VI. I

VI. II

Vla.

Vcl.

Cb.

4

Example 92b: Excerpt from Theme B

21

Picc.

Fl. 1
2

Ob. 1
2

B♭ Cl. 1
2

B. Cl.

Bsn. 1
2

C. Bn.

Hn. in F 1
2
3

C Tpt. 1, 2, 3

Trb. 1
2
3

Tuba

Timp.

Perc. 1
2
3
4

Hp.

Gu Qín

Theme B

Special VI. solo (transposed)

Pitch sound

VI. I

VI. II

Vln.

Vc.

Ch.

Gesture. Tan Dun's works exhibit distinctive characteristics in the writing and deployment of musical gestures. These gestures are typically short, flexible in structure, and differ markedly from the traditional motivic model. According to Tan Dun's definition in his doctoral dissertation, "Similarly, there is also a unit of material, usually smaller than the series, but intensely more meaningful than the idea of 'phrase' or 'ornament'. I call this gesture, and believe it is a basic unit of such compositional procedure." "It is thus more powerful and more interesting than an ornament. It is usually smaller, and freer, than a theme. It can stand on its own or be combined."¹²⁵ In this movie score, Tan Dun also extensively uses gesture in texture and transitions. The features of gesture are determined by four factors: the musical material, instrumentation, rhythm, and articulations.

Vibrato gesture. This gesture appears in the string group and woodwind group of the transition (mm. 66-73) before Theme A and B appear again (see the green boxes in Example 93). Its main purpose is to create the atmosphere and express the grand scene in which Wu Ming was greeted by many ministers after being summoned by the Qin Emperor. It does this by giving multiple wind and string instruments trills, to express a sense of excitement. This kind of gesture is one of the deviated tones that I mentioned in Chapter 2.

¹²⁵ Tan Dun, *Death and Fire: Dialogue with Paul Klee. An Analysis* (PhD diss., Columbia University, 1993), 13.

Example 93: Transition (mm. 66-73)

Transition:

The musical score is arranged in systems. The top system includes Picc., Fl. 1 & 2, Ob. 1 & 2, B♭ Cl. 1 & 2, B. Cl., Bsn. 1 & 2, and C. Bn. The middle system includes Hn. in F 1 & 2, C Tpt. 1, 2, & 3, Trb. 1 & 2, Tuba, Timp., Perc. 1, 2, 3, & 4, Hp., Gu Qin, Special VI solo (transposed), and Pitch sound. The bottom system includes Vl. I, Vl. II, Vla., Vc., and Cb. The score is marked with various dynamics such as *mp*, *mf*, *f*, and *p*. A red box highlights the initial transition in measures 66-73, and a red arrow points from this box to a corresponding section in the Violin I and II staves. Other colored boxes (green and orange) highlight specific musical passages throughout the score.

Glissando gesture. Glissando is another type of deviated tone. This gesture mainly appears in Theme A and B when it is played by the violin solo, in order to express a slight tenderness in the troubled times of the desolate background (see Example 94). There are some other forms that appear, such as double glissando. This deformation expands to the vocal part and applies the intonation to create an exaggerated up sliding or down sliding, such as the spoken parts in Peking opera. “Double Glissando” is a developed form of Theme A1 (mm. 26-35) and Theme B1 (mm. 36-28) (see Example 94), which can help to highlight the film plot at that time: thousands of troops were galloping in the desert with an atmosphere of desolation. The Glissando of the vocal part is mainly reflected in the second piece, during the imagined fight with Chang Kong. The original shouting voice during the fight is prolonged, with the technique of exaggerated up sliding and down sliding, which can suggest that the fight is not real between Wu Ming and Chang Kong, but only imagined by Wu Ming during his conversation with the Qin Emperor.

Example 94: Glissando gesture

Themes A and B

The image displays musical notation for two themes, A and B, each consisting of a 'Special VI. solo (transposed)' staff and a 'Pitch sound' staff. Theme A is marked with a red box and includes a red 'Theme A' label. Theme B is also marked with a red box and includes a red 'Theme B' label. The notation includes various musical symbols such as notes, rests, and glissando lines, with some notes marked with fingerings (e.g., 1, 2, 3, 4, 5) and dynamics (e.g., *mf*, *f*). The 'Pitch sound' staff shows a continuous line representing the pitch contour of the solo.

Themes A1 and B1

The image displays three musical staves, each with a red box highlighting the 'Special VI. solo (transposed)' and 'Pitch sound' parts. The first two staves are labeled 'Theme A1' and the third is labeled 'Theme B1'. The notation includes various musical symbols such as notes, rests, and dynamic markings like 'p' (piano). The 'Pitch sound' part is written in a lower register, while the 'Special VI. solo' is in a higher register. The staves are arranged vertically, with Theme A1 appearing twice and Theme B1 appearing once.

Rhythmic gesture. This gesture is the most frequently adopted in the two pieces. Tan Dun applies various types of rhythmic gesture to express the changes in the film's plot. The first type involves developing variation in the rhythmic pattern itself. For example, when Theme A appears for the first time in the first piece (mm. 16-20), the rhythmic pattern of the percussion's music is the sixteenth-eighth-sixteenth syncopated rhythmic pattern (see Example 95). After that, when Theme B appears for the first time (mm. 21-25), based on the previous rhythmic pattern, sixteenth notes, dotted notes, and syncopated figures are added into the percussion, with two measures as the cyclic unit (see Example 96). The complexity of the rhythmic pattern of the percussion implies the appearance of Wu Ming.

Example 95: Rhythmic pattern at the initial appearance of Theme A

The musical score for Example 95 shows the initial appearance of Theme A. The score includes staves for Timp., 1, 2, Perc., 3, 4, Hp., and Gu Qin. A red box highlights the rhythmic pattern in the percussion and timpani staves, which is characterized by a series of eighth and sixteenth notes. The pattern is repeated across the percussion section. The Hp. staff shows a similar rhythmic pattern. The Gu Qin staff is empty. The Special VI. solo (transposed) and Pitch sound staves are also shown, with the Pitch sound staff containing a series of notes that correspond to the rhythmic pattern.

Example 96: Rhythmic pattern at the initial appearance of Theme B

The musical score for Example 96 shows the initial appearance of Theme B. The score includes staves for Timp., 1, 2, Perc., 3, 4, Hp., and Gu Qin. A red box highlights the rhythmic pattern in the percussion and timpani staves, which is characterized by a series of eighth and sixteenth notes. The pattern is repeated across the percussion section. The Hp. staff shows a similar rhythmic pattern. The Gu Qin staff is empty. The Special VI. solo (transposed) and Pitch sound staves are also shown, with the Pitch sound staff containing a series of notes that correspond to the rhythmic pattern.

The second type of rhythmic gesture is presenting a rhythmic pattern in different instrumental groups simultaneously. For example, in the introduction of the first piece *Hero* (mm. 1-12) (added by the composer for publishing, but not appearing in the film), we can see that the harp and the string group share the same rhythmic pattern (see Example 97). Also, in the transition

(mm. 66-73, See Example 93, red boxes), the string group and the woodwind group share the same rhythmic pattern.

Example 97: Rhythmic pattern in the introduction of *Hero*

The musical score for the introduction of *Hero* shows a Harp part at the top, followed by Gu Qin (Ancient lute), Special Violin solo (transposed), and Pitch sound. Below these are the string parts: Violin I, Violin II, Viola, Violoncello, and Contrabass. The string parts are marked 'col legno' and 'p'. The tempo is marked 'Adagio (♩ = 58)'. The Harp part is marked 'mp' and '(dry)'. The string parts are marked 'p'.

The third type involves a change in the rhythmic pattern itself as well as the instrumentation. For example, in the first piece, in Theme B1 (mm. 36-48, see Example 99), the previously tense rhythmic pattern is transformed from the percussion group to the string group. The string group only selects two kinds of rhythmic pattern from those of the percussion group, sixteenth-eighth-sixteenth and four sixteenth notes, and accelerates the repeating frequency of the rhythmic pattern with every two beats as a cycle. Also, in the transition (mm. 66-73, see Example 93, yellow box), the percussion group develops the original rhythmic pattern (syncopation) of the percussion group in the first appearance of Theme A, and the woodwind group develops the rhythmic pattern of the percussion group in the first appearance of Theme B. In the transition, the string and woodwind groups share the same rhythmic pattern, adding trills, which makes the whole transition a combination of various rhythmic pattern. It is such a high degree of complexity in the rhythmic patterns that raises the emotion of the whole work to a climax and expresses the nervous feelings of Wu Ming when summoned by the Qin Emperor.

Timbral gestures. A timbral pattern is a pattern that acquires special sound effects through abnormal performing methods of instruments or special sound materials. Timbral gestures mainly occur in the percussion group in the second piece. Tan Dun applies some special methods to playing the percussion instruments, with the above-mentioned exaggerated voice, to create a new and rich sound effect. It is not difficult to understand why the composer uses so many timbral gestures. As mentioned above, the part of the film's plot corresponding to the second piece is originally the "play in the play" which was imagined by Wu Ming. These kinds of exaggerated and rich timbres can help to express the dramatic plot of the film.

Arpeggiation gesture. The arpeggiation gesture mainly appears in the first piece *Hero* and is performed by the harp, for example in Theme B3 (measure 59-65; see Example 98). In the same example, the first/second violin groups and the solo violin form a gently-moving counterpoint, which adds a slight tenderness into the previous tense atmosphere.

Example 98: Arpeggiation gesture in Theme B3 of *Hero*

Arpeggiation

Counterpoint

Theme B3

Hp.

Gu Qín

Special VL solo (transposed)

Pitch sound

VI. I

VI. II

Organization of Musical Materials: Material Layout - Point, Line and Plane. In order to establish the atmosphere and portray the film's plot, Tan Dun uses the percussion in both of these two pieces, and adds a human voice in the second piece, forming the "fundamental plane" of the material. The percussion is applied throughout most of the accompaniment, and the rhythmic gestures performed by percussion are presented as background material. On the fundamental plane, Tan Dun further creates a "point and line" layout. The element of "line" can be divided into the music material presented throughout the whole film and the material in certain parts of the film. In the first piece, the material used throughout the whole film consists of the two pentatonic themes performed by solo violin (the above-mentioned Themes A and B), while the material in certain parts of the film includes the accompaniment performed by the brass group and violin group. The element of "point" includes the glissando and arpeggiations of the harp. In the second piece, the material going throughout the whole film is the Guqin voice, while the material in certain parts of the film is the violin solo, the percussion and human voice. The element of "point" is not reflected very clearly in the second piece.

This combination of point, line and plane not only guarantees the unity of the whole work (the unity of the tone in the whole film), but also achieves flexibility. The changes into different instrumentations and textures help to express the ups and downs of the film's plot. In addition, from the perspective of the whole structure, the unity of the fundamental plane helps us hear the work as a consistent and solid whole, and the consistent use of theme materials throughout the work leads to variety as other structures with different timbres are formed. These two structures of different levels enhance the inner logic controlling the musical materials. To sum up, the two movements both use the percussion as the main background timbre, with other materials as appropriate supplements.

Texture. In terms of texture, in the first volume of the book *The Methods of Instrumentation in Orchestral Music*, Liqing Yang proposed the definition: “texture refers to the overall combination of different fundamental factors of music and details expressing form”¹²⁶. In other words, the concept of texture should not be limited to the accompaniment but should be considered throughout the whole music. Indeed, in these pieces, texture can be observed in certain parts, and can also be investigated throughout the whole.

The texture of these two scores is highly flexible and takes various forms, with stationary pitch and gestural texture being the most typical. Particularly, the gestural texture is extensively applied in the first piece, and these materials are simple and flexible, including various patterns such as the trill pattern, glissando pattern, rhythmic patterns mainly based on the percussion music, etc. (analyzed above in detail). Different kinds of gestural textures can be combined flexibly with other materials. These dynamic gestural textures can form various “movable sounds” in the work.

Stationary pitches are embodied in both of the two pieces. For example, in the first piece *Hero*, the harp and the string group of the introduction (mm. 1-12, See Example 97), as well as the string group of Theme A1 (mm. 26-35), are all repeated, stationary pitches. In the second piece, the majority of voices: human voice, the brass group, the woodwind group and the string group are all stationary pitches. It is worth mentioning that the stationary pitch technique is borrowed from Chinese opera.

Apart from the above two typical textures, rhythmic counterpoint also appears in these two pieces, such as the percussion and the string group (mm. 37-48, see Example 99) in the first piece, as well as the Guqin and the violin group (mm. 41-48, See Example 100) in the second piece.

¹²⁶ L. Q. Yang, *The Methods of Instrumentation in Orchestral Music* (Shanghai: Shanghai Music Publishing House, 170).

Example 99: Rhythmic Counterpoint in Hero, mm. 37–48

36

Picc.

Fl. 1

Fl. 2

Ob. 1

Ob. 2

B. Cl. 1

B. Cl. 2

B. Cl.

Bsn. 1

Bsn. 2

C. Bn.

Hn. in F 1

Hn. in F 2

C. Tpt. 1, 2, 3

Trb. 1

Trb. 2

Tuba

Timp.

Perc.

1

2

3

4

Hp.

Gu Qtn

Theme B1

Special VI solo (tramped)

Pitch sound

VI. I

VI. II

Vla.

Vc.

Ch.

mf

mp

pp

f

glissando

Rhythmic counterpoint

Example 100: rhythmic counterpoint in *Hero*, mm. 41-48



Dramatic Thinking: Breaking down the barrier between instrumental timbre and the human voice to generate expanded musical materials. For orchestral theatre composition, Tan Dun mentioned that “western classical music has gradually separated the instrument from the singing, but my orchestral theater music combines these two parts based on the perspective of humanities and arts. Performers should participate in shouting, singing, the conductor should participate in chanting, and even the audience should participate, with the purpose of breaking the barrier between the band and the audience.”¹²⁷

This practice continues to be applied in these two pieces. For example, in the first piece at Theme B1 (measure 38-48, see Example 99, it must be noted that the woodwind group on the score is human voice in the film), the male voice is added to the original string group and percussion group, as well as the glissando of the harp, which makes a diversified sound effect at that time and reflects the huge scene of ministers meeting Wu Ming. In addition, the use of male voice implies that the era depicted in the film is one of patriarchal society. In the second piece, percussion uses special performing methods, and the performers in the brass group, the woodwind group and the string group need to speak “Feng” during their performance. All these techniques are adopted to pursue the diversification of sound materials and create the dramatic effect of “play in play”.

¹²⁷ Renping Qian, “An Interpretation of Tan Dun,” *Chinese New Music* (Shanghai: Shanghai Conservatory of Music Press, 2005), 236.

In summary, at this stage, an ever-expanding variety of musical works emerged, yet nearly all of them bore distinctly Chinese characteristics. Composers consistently sought musical materials and structural principles derived from traditional Chinese music. Zhongrong Luo's *One Yun Sharing Three-gong Systems* exemplifies a compositional approach that integrates the modal concept of "One Yun Sharing Three-Gong Systems" from Chinese modal theory with the procedures of the twelve-tone series. Prior to this, most Chinese composers paid attention merely to the sonic qualities associated with pentatonicism, they did not necessarily possess an explicit awareness of the modal relationships implied by "One Yun Sharing Three-Gong Systems." Such relationships were typically articulated only in subsequent theoretical scholarship rather than consciously employed in compositional practice. Tan Dun's two movements from *Hero* move beyond earlier explorations that centered on Chinese characteristics at the levels of mode, rhythm, and texture, etc. Influenced by John Cage, Tan broadens the very notion of "sound" itself and advances the culturally grounded concept of overall sound, thereby opening new conceptual territory for articulating a modern Chinese sonic identity through innovations in rhythm, timbre, and texture.

Chapter 5: Chinese music theory pedagogy

All existing Chinese and foreign literature on Chinese music education focuses exclusively on pedagogical methods and disciplinary development. For example, materials in English like Yao YiJun (2012) primarily introduce the historical stages of curriculum development and teaching system reforms at the China Conservatory of Music, which is the only higher education institution dedicated to teaching and researching traditional Chinese music in China. Chinese materials like Gan ShaoCheng (2017) primarily emphasize utilizing digital resources, online platforms, multimedia tools, and modern teaching methods such as the flipped classroom to enhance student learning efficiency and teaching quality. Xiang Yang (2016) talks about Yuan Jingfang's contribution to the research in traditional Chinese music theory, the development of teaching materials, the construction of disciplinary frameworks, and music education during the past fifty years. An important point is that Yuan opposes the approach of "imposing Western theories on Chinese music," advocating instead for the development of a theoretical system for Chinese music that is derived from Chinese music's own historical context and living folk practices. There are many Chinese materials that systematically introduce Chinese music theory, some of which I have cited in previous chapters. However, I have not encountered any materials, in either Chinese or English, that address specific teaching methods for traditional Chinese music.

In this chapter, I outline a structured approach to introducing Chinese music theory to Western undergraduate students. While I have not yet had the opportunity to teach this subject in a Western classroom, my four years as a teaching assistant in Western music theory give me confidence (hopefully not misplaced) that the framework I propose would be accessible to students with no background in Chinese music. My pedagogical method deliberately avoids

culturally abstract or philosophically complex ideas; instead, it begins with the fundamental musical principles on which the theories are built.

The instructional model develops along two complementary paths: traditional Chinese music and modern Chinese compositions. For traditional music, I suggest bringing Chinese instruments into the classroom to demonstrate the concept of deviated notes firsthand. When teaching Chinese modes, I begin with tuning systems and use comparative analysis to highlight how Chinese and Western modal systems differ, particularly in their respective treatments of pentatonic scales. To clarify the relationship between melodic contour and linguistic tone, I recommend using Adobe Audition to visually map how melody corresponds to language tone patterns, giving students an intuitive grasp of tonal-melodic interaction. For modern Chinese compositions, I rely mainly on parallels with modern Western theory, as the two share numerous conceptual connections, such as the relationship between expanded Chinese modal systems and Western synthetic scales, the analogy between the Chinese “multi-Yun, multi-Gong” framework and Western polytonality, similarities in pentatonic harmonic practices, and comparable rhythmic techniques.

Chinese Music Theory Based on Traditional Chinese Music

Single tone and traditional Chinese instrument and opera. The smallest unit in Chinese music is the single tone. As mentioned in Chapter 2, Chinese music classifies single tones into four types: straight tones, deviated tones, free tones, and noise tones. Among these, straight tones and noise tones also exist in western music, but deviated tones and free tones are distinctive features of Chinese music, and they represent the types of tones that most fully embody Chinese cultural expression.

Therefore, deviated tones and free tones should be given particular emphasis in teaching. One of the main reasons these tone types emerge is the construction and performance techniques of Chinese instruments. For this reason, it is essential to incorporate Chinese instruments, such as the erhu and guqin, into classroom instruction. By having students play just a single pitch on these instruments, they can directly experience the subtle transformations of deviated tones and free tones and understand that Chinese music places considerable emphasis on the horizontal and internal variation of a single tone.

Students may also be invited to discuss why Chinese instruments naturally produce deviated tones. Such exploration can begin from the perspective of instrument construction. For example, unlike the violin, the erhu does not have a fingerboard beneath the strings. Thus, when the performer presses the string, slight variations in pressure lead to subtle changes in sound. Moreover, Chinese string instruments more readily produce free tones that are not constrained by fixed pitch boundaries.

In addition to traditional Chinese instruments, spoken recitative in Chinese opera is also a significant form of free tone. Xian'an Li and Dongmei Zhao's book *Research on Han Language and Han Melodic Patterns* mentioned that Xian'an Li used the software Solo Explorer to visualize spoken recitative, making its melodic contour more intuitively observable and thereby enhancing students' understanding of this unfamiliar concept.

Chinese modal system pedagogy. The most crucial component of Chinese music theory instruction, and the very foundation of Chinese music theory, is the Chinese modal system. Due to the distinct nature of this system, significant conceptual differences arise between Chinese and Western music theory, which are particularly evident when analyzing traditional Chinese music. Therefore, when teaching Chinese music theory, I begin with the tuning systems, exploring the

differences between Chinese and Western tuning systems. which is the root cause of the differing modal systems. Subsequently, I compare the distinctions and similarities between Chinese and Western modal systems. Finally, I highlight the most crucial aspect: how the unique Chinese modal system leads to divergent concepts in Chinese and Western music theory. Using Chinese folk songs as examples, I analyze them from the perspectives of both Chinese and Western music theory, enabling students to grasp the fundamental differences between the two systems.

The teaching of the Chinese modal system is one of the most essential components of Chinese music theory and forms the foundation of the discipline. Because the Chinese modal system differs fundamentally from that of western music theory, many theoretical concepts diverge between the two traditions. Especially when analyzing traditional Chinese music, these differences become particularly pronounced. Let us begin with the study of tuning systems, examining the distinctions between Chinese and western tuning, which constitute the root cause of their divergent modal structures. I will then compare the differences and similarities between the two modal systems and summarize important points for distinguishing Chinese modes. Finally, I will use Chinese folk songs as examples and present analyses from both theoretical perspectives to help students grasp these contrasts more concretely. Also, the most crucial point, I will point out certain concepts that are different between Chinese and western music theory.

Tuning system. The most fundamental reason for the structural differences between Chinese and Western modal systems lies in their reliance on different tuning systems. As I discussed in Chapter 2, the Chinese modal system is based on the cycle of generating fifths: twelve absolute pitches are produced by successively generating fifths and fourths according to the ratios 3:2 and 4:3. This is consistent with the Pythagorean system, which employs the arithmetic mean (the perfect fifth) and the harmonic mean (the perfect fourth). In this sense, the origins of Chinese and

western music theory are essentially aligned. However, western music later adopted equal temperament, whereas Chinese music continued to use the fifth-generation tuning system.¹²⁸

I do not recommend covering the detailed calculations of tuning systems or frequency derivations in an undergraduate course, as such information does not substantially aid students' overall understanding of Chinese music theory. These topics are more appropriate for an advanced graduate-level class. What must be emphasized, however, is that the Chinese modal system is grounded in a tuning structure derived from a chain of fifths. This foundation is crucial for understanding the modal system generally.

Chinese modal system. The important concept of “One Yun Sharing Three-gong System” in the Chinese modal system was proposed in 1986 by the music theorist Xiangpeng Huang, based on ancient musical treatises. This concept has since become a foundational pillar of Chinese modal theory. I have already discussed the concept of “One Yun Sharing Three-gong System” several times earlier, so I will not repeat its explanation here. In teaching this concept, I believe the most important approach is to compare the Chinese and western modal systems so that students can clearly understand the fundamental differences between them. Below, I summarize two key points of distinction between the two systems, which were discussed in Chapter 2 and illustrated by the analyses in Chapter 3, for reference.

First is a comparison at the structural level of the modal systems as a whole. The Chinese modal system is organized into three hierarchical layers, Yun (tone series), Gong (similar to western notion of key), and Diao (mode), which introduces an additional layer not found in Western music theory. It is precisely this additional hierarchical layer that gives rise to the large number of modal types in the Chinese system. Moreover, it provides the theoretical basis for

¹²⁸ Traditional Chinese music is based on the cycle-of-fifths tuning system, whereas professional musical compositions created after 1919 are based on twelve-tone equal temperament.

modern Chinese composers to expand the modal framework into “multiple Yuns and multiple Gong systems” in their works after 1919 (I’ll talk about this later).

Second is the comparison of modal types. The Chinese modal system is fundamentally built upon the five types of pentatonic scale. Based on the pentatonic modes, the inclusion of two additional tones produces hexatonic and heptatonic scales. By contrast, the western modal system is based on the seven-note diatonic scale, from which the two pentatonic types, major and minor pentatonic scales, are derived by omitting two degrees (as reflected in their names, which indicate their derivation from the major and minor systems). As for hexatonic structures, western theory does not designate a specific modal category for them. When a musical work contains only six scale degrees, it is generally treated as an incomplete form of a seven-note scale. In short, both Chinese and western traditions possess pentatonic and heptatonic modal types, but the processes through which these types are formed are essentially opposite.

Music analysis example. The structural contrasts between the Chinese and Western modal systems give rise to different modes of analytical thinking. Therefore, in teaching, it is more effective to analyze musical works separately through the lens of the Chinese modal system and the Western modal system, as this approach facilitates a clearer understanding of the differences between the two. I will use the folk song *Lady Meng Jiang* as the example. I use this folk song as the example because it is short and concise, and its four-phrase structure, “initiation, continuation, transition, and conclusion,” is a highly representative phrase pattern in Chinese folk music. In Chapter 2, I have already provided a detailed analysis of *Lady Meng Jiang* from the perspective of the Chinese modal system. Therefore, I reanalyze the piece from the perspective of western theory and then summarize the differences in analytical thinking between the two approaches.

When I first encounter this piece, my initial task is to determine its mode and phrase division. The first and last notes of the piece are D, the key signature contains one sharp (F#), and there are no chromatic pitches in the whole piece. Therefore, I identify the piece as being in D Mixolydian, and I do not observe any modulation at first. Second, I label the Roman numerals and identify the non-chord tones (see Example 101). Third, regarding the phrase division, based on the two full stops in the lyrics, as well as the Dominant-tonic motion created by the first line ending on A and the second line ending on D, it is natural to divide the folk song into two periods. For the melodic development, the framework is D-B-A-D ($\wedge^1\text{-}\wedge^6\text{-}\wedge^5\text{-}\wedge^1$).

Example 101: Roman Numeral analysis

孟姜女

江苏

The musical score for 'Meng Jiangnu' is presented in four staves, each with a line of lyrics in Chinese. The key signature is one sharp (F#), indicating D Mixolydian. The score includes Roman numeral analysis and non-chord tones (N) marked in red.

Staff 1: 春季里来是新春, (Chūn jì lǐ lái shì xīn chūn,)
 Staff 2: 家家户户点红灯。 (jiā jiā hù hù diǎn hóng dēng.)
 Staff 3: 别人家夫妻团圆聚, (bié rén jiā fū qī tuán yuán jù,)
 Staff 4: 孟姜女的丈夫去造长城。 (Mèng jiāng nǚ de zhàng fū qù zào cháng chéng.)

The Roman numeral analysis and non-chord tones are as follows:

- Staff 1: D: I, IV, V (Non-chord tones: N on 春, 季, 里, 来, 是, 新, 春)
- Staff 2: I, V₇, V₇, I₂ (Non-chord tones: N on 家, 户, 户, 点, 红, 灯)
- Staff 3: I₂, V₂, i, V₇ (Non-chord tones: N on 别, 人, 家, 夫, 妻, 团, 圆, 聚)
- Staff 4: V₂⁺¹, i₃, I, I (Non-chord tones: N on 孟, 姜, 女, 的, 丈, 夫, 去, 造, 长, 城)

Based on the comparison of the analytical approaches outlined above, we observe that western music theory, in general, places greater emphasis on vertical harmony and large-scale formal organization. For instance, we use Roman-numeral notation and a melodic framework grounded in harmonic progression and scalar motion. In contrast, analyses grounded in Chinese

music theory focus more on horizontal modal shifts, the development of characteristic intervals within the melody, and the rhythmic pattern shaped by the text. (refer back to where you discussed these things in chapter 2, and maybe give details about what Chinese modes and intervals are used.)

Finally, I would like to summarize how Chinese and Western music theories differ in their interpretations of certain concepts. First, there is a fundamental difference in how the relationship between individual tones and larger phrase structures is understood. From the Chinese modal system perspective, the relationship between tones and phrases is dependent on the chain of fifths rather than scale degrees in western music theory. For example, in the analysis of *Lady Meng Jiang*'s (see Example 101), the last note of every phrase shows an interesting pattern: A, D, E, D, respectively. According to the chain of fifths, E is farther from tonic D than A, corresponding to the third phrase's contrasting function. Second, there is a difference between characteristic motion in the Chinese modal system and the motive concept in western music theory. Characteristic motion refers to characteristic intervals in each mode, and they are usually the intervals around tonic. In western music theory, composers emphasize tonic and dominant to confirm a mode, while in traditional Chinese music theory, composers ensure the mode by emphasizing its characteristic intervals. Example 102 showed the characteristic intervals in the five modes, which are in the same Gong system and same Yun. In Example 101, we can find characteristic motions in the Chinese melody (such as D-E and G-A) are different from motives in western music theory. Often a characteristic motion only changes its rhythm because it includes the characteristic interval of the mode, while a motive can be developed more freely. Third, and this is the most important point, we can find that melodic developing variation in Chinese music theory is more irregular than western music theory, but at the same time it causes

every phrase in the whole piece to be highly similar. For example, interval inversion is an important method of developing variation in Chinese folk songs. In the piece, D5-E4 appears at the beginning of the first phrase and is followed by multiple repetitions of D4-E4, of which one of the most prominent is the D4-E4 on the second beat of m. 5, near the beginning of the contrasting third phrase. (see Example 101). This high similarity in motivic content between the phrases also explains why a western-style prolongational analysis would not yield the typical $\wedge^3$ – $\wedge^2$ – $\wedge^1$ structural framework, because the melodic development is not based on scalar motion. Consequently, such analytical methods are not well-suited for interpreting Chinese folk songs.

Example 101: The D–E intervallic pattern and phrase-final pitches

孟姜女

江苏

Phrase 1
春季里来是新春,

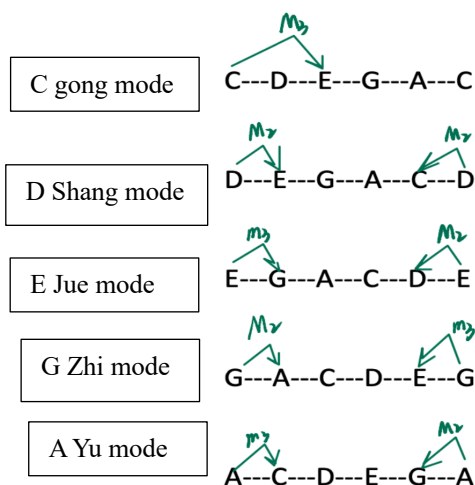
Phrase 2
家家户户点红灯。

Phrase 3
别人家夫妻团圆聚,

Phrase 4
孟姜女的丈夫去造长城。

Example 102: The characteristic interval of each mode

C gong system



Rhythm of traditional Chinese music. In teaching rhythm in traditional Chinese music, we should first introduce Gong-che notation system for pitches and rhythms, which is a good example to show the rhythmic principle of “relative freedom” in traditional music. As shown in the example of Gong-che notation discussed in Chapter 2, the note groups “工六工尺”, “工”, “上上”, and “尺六工尺” each constitute a single beat, which are represented by the symbols above the note groups, x, ., and o, (see Example 103). However, the precise duration of each note within a beat is not fixed. This example illustrates that traditional Chinese music places great emphasis on rhythmic units, while allowing a degree of flexibility regarding the exact durations of the articulations within each beat unit.

Example 103 Gong-Che notation

X	•	o	•
工	工 六 工 尺	上 上	尺 六 工 尺
3	<u>3 5 3 2</u>	<u>1 1</u>	<u>2 5 3 2</u>

We can also use Peking Opera as an example, letting students observe the musical score while listening to the audio to experience the differences between the written score and the actual performance. Students may notice that the performers' singing isn't as precise as the written score suggests.

My next step in a course in Chinese music theory and analysis would be to guide students in exploring the relationship between lyrics and rhythm in folk songs. This is crucial for analyzing traditional Chinese folk music since the text plays a significant role in shaping melodic rhythm. I will use several folk songs as examples. *Lady Meng Jiang* in Chapter 2 is an excellent illustration of this principle, as it demonstrates the characteristic contrast between the simplicity of lyric structure and the diversity of rhythmic realization. This contrast further reveals how rhythmic patterns can imply or reinforce musical form, as discussed in detail in my analysis of *Lady Meng Jiang* in Chapter 2.

Finally, I would guide students to discuss how the characteristic simplicity of lyric structure and diversity of rhythmic realization in Chinese folk songs can inform the analysis of works composed after 1919. In Chapter 3, in my analysis of Xiaolin Tan's art song *Farewell (Bieli)*, I examined in detail how the rhythmic patterns derived from the text shape the musical form of the piece.

By teaching these three components together, the traditional and the modern become interconnected, enabling students to gain a deeper understanding of Chinese musical works and providing a more grounded analytical framework for interpreting them.

The relationship between text and melody. Most traditional Chinese music consists of songs, in which the lyrics play an essential role. For this reason, the relationship between melody and text is an important component of traditional Chinese music. In Chapters 2 and 3, I have already discussed in detail, through the examples, how lyrics influence melodic contour, rhythm, and musical form. Therefore, I will list some important points for teaching here.

The first step is to introduce basic Mandarin pronunciation and ancient Chinese poetry to students. For western undergraduates, however, it is unrealistic to spend extensive time learning Chinese. Thus, it is sufficient for them to understand that Mandarin has four tone categories and that certain syllables undergo tone sandhi in speech. The main objective is to help students experience how the pronunciation of lyrics shapes the melodic contour. This can be demonstrated using the method I employed in Chapter 3, which is visualizing the contour of the melody and the contour of lyric pronunciation with Adobe software.

An important exception, however, is the teaching of level and oblique tones of text and rhyme schemes in ancient Chinese poetry. This is crucial because many traditional and modern Chinese musical works directly set poetry to music, and the structural framework of the poem often exerts a significant influence on musical form.

The Expansion of Chinese Music Theory in Post-1919 Modern Compositions

In expanding the scope of Chinese music theory pedagogy, I will focus on representative Chinese compositions from the twentieth century and place them in dialogue with Western twentieth-century theoretical frameworks. As in the earlier part of the chapter, I will present my summary of twentieth century works in the form of suggestions about how I might introduce the material to a college class. On the one hand, twentieth-century Chinese musical works were

profoundly influenced by Western modernist idioms. On the other hand, this comparative approach enables western scholars to gain a deeper understanding of the development of Chinese music and its theoretical foundations during the same period.

Expanded Chinese Mode. The expansion of Chinese modal practice can be understood on two levels. Horizontally, additional notes are introduced into the traditional pentatonic, six-tone, and seven-tone scale frameworks, giving rise to eight-tone and nine-note modal types. Vertically, due to the structural principle of “one Yun sharing three gong systems” of the Chinese modal system, modulations are extended at both the Yun and Gong system levels, resulting in a “multi-Yun, multi-Gong” modal configuration. These two modes of expanding Chinese modality provide a meaningful point of comparison with twentieth-century western theoretical concepts such as synthetic scales and polytonality.

Chinese Eight-tone and nine-tone modes and western synthetic scales. Chinese eight-tone and nine-tone scales, as well as pentatonic twelve-tone series, may be understood as forms of synthetic scales and can thus be compared with twentieth-century western synthetic scale systems; for example, the whole tone scale, octatonic scale and hexatonic scale and Messiaen’s modes of limited transposition, etc.

For the teaching of the Chinese eight-tone and nine-tone scalar systems, Zi Huang’s art song “Bu Suan Zi” may serve as an illustrative example. The work allows students to grasp early-twentieth-century Chinese composers’ explorations of the Chinese modal system. A detailed analytical discussion has already been presented in Chapter 3. In addition, the pentatonic 12-tone row may be understood as another form of synthetic scale. As noted in Chapter 1, the various types of twelve-tone rows constructed from pentatonic materials, like Luo Zhongrong’s

“Picking Lotus Flowers at the Riverside” or *One Yun Sharing Three Gong Systems*, provide good examples of this concept.

For western synthetic scales, we can use Debussy’s *Voiles* (Sails) (the beginning of the piece) as an example to illustrate the whole tone scale (see Example 104), and use Stravinsky’s *Symphony of Psalms* to illustrate the octatonic scale (see Example 105).

Example 104: Debussy’s *Voiles* (Sails) (beginning of piece)

Modéré (♩ = 88)
(Dans un rythme sans rigueur et caressant)

The musical score for the beginning of Debussy's *Voiles* is presented in four systems. The tempo is marked 'Modéré' with a quarter note equal to 88 beats per minute, and the character is '(Dans un rythme sans rigueur et caressant)'. The first system features a piano (p) part with 'très doux' dynamics and a bass line with 'p' and 'più p' markings. The second system shows a 'pp expressif' piano part and a bass line with 'pp' and 'toujours pp' markings. The third system has a 'très doux' piano part and a bass line with 'pp' markings. The fourth system continues with 'pp' markings in both parts. The score includes various musical notations such as chords, arpeggios, and dynamic markings.

Example 105: Stravinsky's *Symphonie De Psaumes*

The image shows a page of a musical score for Igor Stravinsky's *Symphonie De Psaumes*. The score is for a large orchestra and includes parts for Oboe, C. I., Fag., Cor., A., Piano 1, Piano 2, V-C. Solo, Gli altri V-C., and C-B. The music is in 4/4 time and features complex polytonal textures. The score is marked with 'R. M. V. 517' at the bottom.

Chinese “multi-Yun, multi-Gong” modal configurations and western polytonality. The application of “multiple-Yun, multiple-Gong” modal configurations permeates Chinese compositions throughout the twentieth century. Accordingly, in my teaching I draw on the works analyzed in Chapter 3, Xiaolin Tan’s art song *Bieli (Farewell)*, Zi Huang’s *Bu Suan Zi*, and Luo Zhongrong’s *One Yun Sharing Three-Gong Systems* as representative examples. Although these three pieces adopt Western compositional techniques, for example, *Bieli* employs Hindemith’s two-voice framework, *Bu Suan Zi* follows European harmonic progressions, and *One Yun Sharing Three- Gong Systems* utilizes a pentatonic twelve-tone row, at the level of the musical surface the composers consistently employ pentatonic modality to articulate a distinctly Chinese musical identity. From the perspective of Chinese modal theory, one can therefore observe frequent modulatory shifts, often operating across different *Yuns* and *Gong* systems. I have

provided detailed analysis of these three pieces in Chapter 3, but for some pieces, I didn't emphasize the Yun level. Therefore, I will label different Yuns based on prior analysis of Chinese modes in the art song *Bu Suan Zi* as an example (see Example 106). In detail, the melody is C Yun, C Gong system. The piano voice is in different Yuns and Gong systems. For example, the first three measures are in three different Yuns (Bb Yun, F Yun and Eb Yun) but use the same F Gong system but add different additional notes. Measures 4 and 5 use the Eb Yun and Eb Gong system. Measure 6 is the combination of two seven-tone scales but in different Yuns (C Yun and Bb Yun). Measure 7 is in E Yun, E Gong system. Measure 8 and 9 is the combination of C Yun, C Gong system and A Yun, A Gong system. Measure 10 and 11 is the same as measure 1 and 2. Therefore, the whole piece uses multiple Yuns and multiple Gong systems.

Example 106: Yun and Chinese modes of *Bu Suan Zi*

卜 算 子
《黄州定慧院寓居作》
(1935)

苏轼词
黄自曲

Andante misterioso
Introduction

Phrase 1 C Yun, C Gong system
p G Zhi pentatonic

1. 缺 月 挂 疏 桐,
2. 惊 起 却 回 头,

Phrase 2 E Yue pentatonic
pp

Phrase 3 G Zhi pentatonic
p

Phrase 4 D Shang pentatonic
pp

漏 断 人 初 静。 谁 见 幽 人 独 往 来？ 缥 缈 孤 鸿 影。
有 恨 无 人 省。 拣 尽 寒 枝 不 肯 栖， 寂 寞 沙 洲 冷。

C gong seven-tone scale (two combined)
C Yun + Bb Yun
pp

E gong pentatonic scale
E Yun
pp

A gong pentatonic scale
C Yun + A Yun
p

D Yu seven-tone scale (three combined)
Bb Yun + F Yun + Eb Yun
pp

D Yu seven-tone scale (three combined)

The musical score is presented in two systems. The first system includes an introduction and the first two phrases of the song. The piano accompaniment for the introduction features a D Yu seven-tone scale (three combined) in the right hand and a Bb Yun + F Yun + Eb Yun combination in the left hand. The first phrase is in C Yun, C Gong system, and the second phrase is in E Yue pentatonic. The second system continues with phrases 3 and 4, featuring a G Zhi pentatonic and a D Shang pentatonic respectively. The piano accompaniment for the second system includes a C gong seven-tone scale (two combined) with C Yun + Bb Yun, an E gong pentatonic scale with E Yun, an A gong pentatonic scale with C Yun + A Yun, and a D Yu seven-tone scale (three combined) with Bb Yun + F Yun + Eb Yun. The score is marked with dynamics such as p, pp, and Andante misterioso.

To show how western polytonal works might have influenced the modern Chinese pieces we have been discussing, I will use Bartók's *Mikrokosmos*, No. 131 "From the Diary of a Fly" (1938) as an example. See Example 107: the upper voice is mostly Gb Lydian (with a Cb in m. 10) while the lower voice contains a modal modulation from G Mixolydian to B Locrian. Also, Stravinsky's "Petrushka Chord" in *Petrushka* (1911) is a good example for introducing students to polytonality. In detail, the whole chord is the combination of tonic of C Major and F# Major (see Example 108).

Example 107: Bartók's *Mikrokosmos* No. 131 "From the Diary of a Fly" (1938)

Allegro ♩ = 146

sopra

pp

sotto

6

11

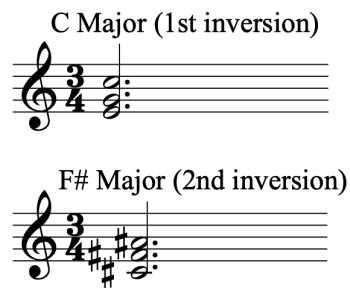
p

16

21

1

Example 108: Petrushka Chord



Pentatonic harmony. For the teaching of pentatonic harmony, it is first necessary to recognize that Chinese pentatonic harmonic practice is profoundly influenced by the late-nineteenth-century Western theories of coloristic harmony. In terms of harmonic logic, it breaks away from the conventional rules of functional tonality and instead takes the Chinese modal system as its structural foundation. With respect to chordal construction, the sonorities are no longer uniformly built through tertian stacking; rather, they employ what I referred to in Chapter 3 as pentatonic vertical harmony, or they retain a primarily tertian framework supplemented by additional tones in order to accommodate pentatonic sonorities.

The second step in teaching Chinese harmony is to compare Chinese works that employ pentatonic harmony with Western compositions that also make use of pentatonic harmonic techniques. Debussy, for instance, produced numerous works that feature pentatonic harmony. This comparison can then be extended to include Western late-nineteenth-century repertoires that exemplify coloristic harmonic practices, such as Lili Boulanger's music. Approaching the topic from these two perspectives enables us to articulate methods for analyzing coloristic harmony and to summarize both the shared and divergent features of Chinese and Western pentatonic harmonic practices.

Regarding the first point, the discussion of Chinese works employing pentatonic harmony may draw on the three compositions analyzed in Chapter 3. Zi Huang's *Bu Suan Zi* represents an early exploration of pentatonic harmony and serves as an example of tertian chordal construction. Sang Tong's piano piece *Homesickness* illustrates the use of pentatonic harmony built through quintal sonorities. Huang Anlun's *Overture and Dance*, exemplifies linear harmonic techniques and provides a model of harmonizing folk melodies.

For pentatonic harmony in western music, Debussy's work *Pagodes* is a good example of pentatonic harmony. See example 109; the melody uses the pentatonic scale B-C#-D#-F#-G#, the texture is linear and there is a pedal point on tonic and dominant, which is highly similar to Huang Anlun's *Overture and Dance* example in Chapter 3. The chords in measures 1-2, B-F#-G#, and m. 3, B-D#-F#-G#, are also subsets of the B pentatonic scale.

Example 109: Debussy's *Pagodes*

Estampes: I. Pagodes

Debussy

♩ = 65

pp

pp

8

3

8

3

8

3

8

3

For the discussion of coloristic harmonic techniques, I will encourage students to compare the application of coloristic harmony in Chinese and western music. I will use Lili Boulanger's art song "Si tout ceci n'est qu'un pauvre rêve" as an example, which is a work that employs numerous devices which break from traditional harmonic conventions and thereby create a distinctly coloristic harmonic language. For example, see Example 110, in which the opening of this piece features the superimposition of the f minor scale and the Db Major scale. Zi Huang's *Bu Suan Zi* likewise employs this type of technique to superimpose Chinese modal collections. The first beat of m. 2 in the piano in Boulanger's piece, the beginning theme, is similar to Wagner's Tristan chord but she has made some changes, which is to subvert conventional functional harmony (it's a #IV7 chord) and avoid functional resolution. In Example

111, Boulanger used alternating whole tone scales for the chords in the piano, which is a type of synthetic scale. This kind of idea is similar to the expanded Chinese modes I've talked about before. Also, in the green boxes in Example 111, Boulanger employs several non-tertian sonorities, a technique that, as I have noted earlier, is likewise used by many Chinese composers.

Example 110: The beginning of *Si tout ceci n'est qu'un pauvre rêve*

Boulanger
Si tout ceci n'est qu'un pauvre rêve

à mon grand ami M^r TITO RICORDI

Assez lent f minor *mf douloureux et résigné*

Assez lent *expressif et sobre*

Si tout ce - ci.....

..... n'est qu'un pau - vre rê - ve, et..... s'il faut.....

un peu mouvementé.....

..... que j'a - jou - - te dans ma vi - e, u - ne fois en -

las

cédez

Example 111: Mm. 19-25 of *Si tout ceci n'est qu'un pauvre rêve*

Plus vite
p avec agitation contenue

Whole tone scale

Plus vite

p tortueux

Un peu calmé
p douloureux

Un peu calmé
p subito

mf

et si je dois en-co - re, par ma som-bre fo - li - e, cher -

- cher dans la douceur du vent..... et de la plui - e les

accel.....

e Bb7 e Bb7 C7

Rhythm in Modern Chinese Music and Traditional Chinese Music. I provided an overview of the rhythmic language of traditional Chinese music in chapter 2, but discussed the rhythmic language of modern Chinese music only briefly. This is because modern Chinese music largely adopts Western rhythmic theory. However, what is interesting is that this western rhythmic language can also be interpreted through the lens of traditional Chinese rhythmic practices. Therefore, when we teach rhythm in modern Chinese music, I suggest comparing traditional Chinese music with western music. Here I suggest comparing the rhythmic practices of traditional Chinese music, modern Chinese music, and modern Western music not with the aim of determining who influenced whom or identifying an original source. Rather, since many aspects of traditional and modern musical rhythms in China and the West resonate with one another, my intention is simply to facilitate a dialogue between the two musical cultures. I will do that using several examples based on different types of rhythm.

Free rhythm. The concept of free rhythm bears a striking resemblance to the elastic rhythm principles found in traditional Chinese music. It also appears frequently in both Chinese and Western modern music. Example 112a is a Chinese traditional *erhu* piece, where the beginning “grass radical” (十) symbol is frequently employed to denote passages performed in a free and flexible rhythm, without strict metrical constraints. Example 112b is a piece of Chinese modern music, in which Tan Dun employs improvisatory techniques in the percussion parts. Example 112c is western modern music: Takács writes music without barlines, with the intention of allowing certain musical elements to be coordinated freely. The sounds between two given letters may be performed at any pace, depending on the instructions provided for the instrument. The duration of the free rhythm is measured in seconds using a stopwatch.

Example 112a: Erhu piece *The River Waters*

江 河 水

二胡独奏曲

东北民间乐曲
黄怀海 移植

1 = $\flat$ B (3/7 弦)

【引子】节奏自由 凄凉地

十 3..... 6..... 1 内 2..... 0 5 . 3 6..... 4 32 3..... 0 32 3.532 1..... 5 3.

【一】慢速 悲痛 倾诉地

6..... 6..... || 4/4 1 . 6 1 2 3 5 3 | 2 3 6 1 2 5 3 | 6 - 6 6 1 |

p f

Example 112b: Tan Dun's *Symphony 1997: Heaven, Earth, Mankind*; transcribed by the author based on an example in Zhongliang Tong, *Modern Music Theory: A Textbook* (Changsha: Hunan Literature and Art Publishing House, 2003), 87.

Example 112b is a musical score for three staves (1, 2, 3) and three bass staves (1, 2, 3). The tempo is marked as quarter note = 90. The top three staves are marked 'improvise' and 'mf'. The bottom three staves are marked 'ppp'. The score includes various musical notations such as notes, rests, and dynamic markings.

Example 112c Takács' *Sound and Color*; transcribed by the author based on an example in Zhongliang Tong, *Modern Music Theory: A Textbook* (Changsha: Hunan Literature and Art Publishing House, 2003), 86.

Example 112c is a musical score for a single staff with a treble clef. The tempo is marked as quarter note = 90. The score includes various musical notations such as notes, rests, and dynamic markings.

Arithmetic additive meter. In traditional Chinese music, the *Shifan luogu* ensemble contains many fixed rhythmic patterns. Among them, *Golden Olive* “Jin Ganlan” and “Yu He Ba,” which were discussed in Chapter 2, are particularly representative examples. These rhythmic patterns share similarities with the concept of number-controlled rhythm in Western modern music.

Zhongrong Luo’s *Second String Quartet* incorporates all the rhythmic patterns found in the traditional Chinese *Shifan luogu* ensemble. For example, mvt. 4, *Yu He Ba*, is based on a percussion pattern of the same name from the *Shifan luogu* tradition. Example 113a demonstrates the *Yu He Ba* rhythmic pattern in the traditional Chinese *Shifan luogu* ensemble. An eighth or a quarter note is one unit, therefore, each voice has eight units in total horizontally. Example 113b and c includes the rhythmic pattern and musical score of mvt. 4 from Luo’s *Yu He Ba*. *The musical score is taken from Music Exploration, a Chinese music magazine.*

Example 113a: *Shifan luogu* ensemble, rhythmic pattern *Yu He Ba*; transcribed by the author based on an example in Jiti Li, *An Overview of Structural Analysis in Chinese Music* (Beijing: Central Conservatory of Music Press, 2004), 59.

	<u>七 七</u>	<u>一 七</u>	<u>一 七</u>	七	扎	(7+1)
内	<u>内 内</u>	<u>一 内</u>	内		<u>扎 扎 扎</u>	(5+3)
同	同		<u>扎 扎 扎</u>	<u>一 扎</u>	扎 扎	(3+5)
王	<u>扎 扎</u>	<u>扎 扎 扎 扎</u>	<u>一 扎</u>	扎 扎	扎	(1+7)

Example 113b: Zhongrong Luo's *Second String Quartet*, rhythmic pattern of mvt. 4, *Yu He Ba*; transcribed by the author based on an example in Tongba Yang and Cheng Liu, eds., *Selected Research Essays on Luo Zhongrong's Works*, vol. 1 (Shanghai: Shanghai Music Publishing House, 2014), 190.

The image displays four rhythmic patterns for an 8-note sequence, each with a different grouping of notes. The patterns are labeled with 'A', 'B', and 'Fixed rhythm' above them. The first pattern is labeled '8 (7+1) notes' and shows a sequence of seven eighth notes followed by a quarter note, with a bracket above the first seven notes labeled 'A'. The second pattern is labeled '8 (5+3) notes' and shows a sequence of five eighth notes followed by three eighth notes, with a bracket above the first five notes labeled 'A'. The third pattern is labeled '8 (3+5) notes' and shows a sequence of three eighth notes followed by five eighth notes, with a bracket above the first three notes labeled 'A'. The fourth pattern is labeled '8 (1+7) notes' and shows a sequence of one eighth note followed by seven eighth notes, with a bracket above the last seven notes labeled 'B'. All patterns end with a vertical bar line. The 'Fixed rhythm' label is in a box above the third pattern.

8 (7+1) notes A B Fixed rhythm

8 (5+3) notes

8 (3+5) notes

8 (1+7) notes

Example 113c: Zhongrong Luo, *Second String Quartet*; transcribed by the author based on an example in *Music Exploration*, no. 1 (1989), cited in Shiyuan Li, *Chinese Modern Music: A Dialogue between the Indigenous and the Western—The Influence of Western Modern Music on the Composition of Mainland Chinese Music* (Shanghai: Shanghai Conservatory of Music Press, 2004), 160.

Unite1

A(7) B(1) Fixed rhythm

pizz. col legoo arco 3

mp fz p fz f mp mp mf

pizz. arco p pizz. arco

col legoo col legoo

fz f

Unite2

B(3)

col legoo

A(5)

Unite3

Fixed rhythm B(5) Fixed rhythm

col legoo arco 3

sf p mf sf p mp

mf arco sf p pizz.

3 pizz. arco

sf p

Unite4

A(3)

pizz. arco

sf f mf sf f

pizz. arco

In Example 114, Stravinsky marks the accents to indicate the rhythmic pattern of 3–4–5–3 (with the eighth note as the basic rhythmic unit) instead of using time signatures. Similarly, in Example 115, Blacher and Stravinsky also use eighth note as the basic rhythmic unit to indicate the change of rhythmic pattern.

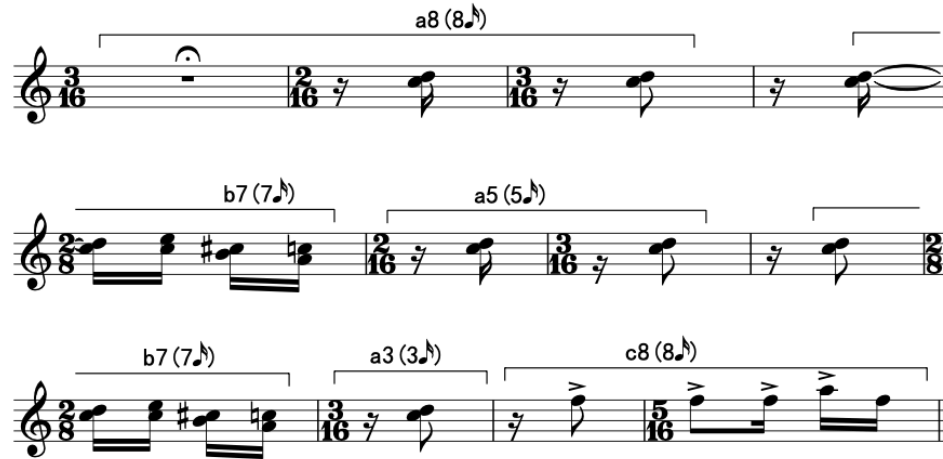
Example 114: Stravinsky's *The Rite of Spring*; transcribed by the author based on an example in Zhongliang Tong, *Modern Music Theory: A Textbook* (Changsha: Hunan Literature and Art Publishing House, 2003), 72.

Example 115a: Blacher's *Piano Capriccio No. 1*; transcribed by the author based on an example in Zhongliang Tong, *Modern Music Theory: A Textbook* (Changsha: Hunan Literature and Art Publishing House, 2003), 71.

Vivace ♩=100-102

The musical score is written for piano and consists of four systems of staves. The first system is for the left hand (bass clef) and includes a forte (f) dynamic marking. The second system continues the left hand part. The third system introduces the right hand (treble clef) with a triplet of eighth notes. The fourth system continues the right hand part. The score features various musical notations including eighth notes, sixteenth notes, triplets, and dynamic markings like 'f' and 'v' (vivace).

Example 115b: Stravinsky's *The Rite of Spring: Sacrificial Dance*; transcribed by the author based on an example in Zhongliang Tong, *Modern Music Theory: A Textbook* (Changsha: Hunan Literature and Art Publishing House, 2003), 71.



Additive meter. Additive meters also appear in traditional Chinese music, though the added durations are often less strictly defined and contain elements of improvisation: see Example 116. These enriched rhythms may appear incidentally and improvisationally, or they may form cyclical rhythmic patterns with fixed enriched positions under structured rhythmic control. In modern Western music, the additive values are specified much more precisely. Example 117 demonstrates the use of additive meter, in which the plus signs in the score indicate the added rhythmic values.

Example 116: Uyghur folk song from Xinjiang: *The Carter's Song*; transcribed by the author based on an example in Jiti Li, *An Overview of Structural Analysis in Chinese Music* (Beijing: Central Conservatory of Music Press, 2004), 56.



Example 117: A musical example in Messiaen's *The Technique of My Musical Language*; transcribed by the author based on an example in Zhongliang Tong, *Modern Music Theory: A Textbook* (Changsha: Hunan Literature and Art Publishing House, 2003), 48.



Chapter summary

In this chapter, I have focused primarily on the pedagogy of Chinese music theory as I would teach it to Western undergraduate students and provided several musical examples suitable for classroom use. Because Chinese music theory is entirely new to most western scholars, especially its modal system, which differs fundamentally from that of western music, my

teaching approach relies heavily on making comparisons between Chinese and western theory. This comparative method helps students better understand Chinese music theory, encourages them to reflect on the similarities and differences between the two traditions, and guides them toward developing systematic analytical methods for Chinese musical works.

In addition, for the section on traditional Chinese music, I would propose bringing Chinese musical instruments into the classroom. By allowing students to become familiar with these instruments, they can gain a deeper and more intuitive understanding of the theoretical concepts underlying traditional Chinese music.

Chapter 6: Conclusion

Scholars have produced a substantial body of literature employing a wide range of analytical approaches to examine Chinese music across different historical periods. However, for modern and contemporary Chinese compositions in particular, none of these efforts has yielded a systematic analytical framework nor do they explain, from a music-theoretical perspective, the reasons for choosing this analytical method. Moreover, existing studies often focus on the analysis of individual works, with relatively few offering detailed discussions of music from a broader historical period.

In English-language scholarship, research on Chinese contemporary music predominantly employs diverse analytical methodologies and often emphasizes relationships between music, Chinese aesthetics, and philosophy. For instance, Lam (2024) proposes four types of pentatonic transformations in Chinese music, chromatic transposition, pentatonic transposition, bian-directed transformation, and qing-directed transformation, using mathematical modeling to label and relate these categories. However, Lam does not connect these transformational processes to the traditional Chinese modal principle of “one Yun sharing three-gong systems”.

Other scholars focus more extensively on aesthetics and philosophy. Rao (2020), for example, advances the concept of *shi*, defining it as “dynamic configuration” or “the probability and propensity that drive the process.” Everett (2007) investigates correlations between musical gesture and calligraphy, drawing connections between types of articulation, such as glissandi, and specific brushstroke techniques, as well as between changes in musical density or texture and the characteristics of calligraphic strokes. Chou Wen-chung applies a modal system derived from the idea of Yin-Yang (the opposite perspective in Chinese philosophy) of I-Ching (an ancient Chinese divination text).

Wang (2022) examines the musical form of the “period” in Chinese opera, comparing its temporal logic with that of Western music. She argues that whereas the Western musical period is characterized by regularity and symmetry, with irregularity deemed exceptional, the Chinese musical period is fundamentally irregular and asymmetrical, a mode of temporal organization that drives the unfolding of musical structure. Wang also links these differences to broader philosophical and cultural distinctions between China and the West.

Within Chinese-language scholarship, numerous sources introduce traditional Chinese music theory, many of which are cited in Chapter 2 of this dissertation, but there remains no systematic analytical method for contemporary Chinese compositions. Some studies offer insightful yet piece-specific perspectives. For example, Zhen (2019) relates the layering of voices and the superimposition of instrumental timbres to the technique of ink-layering in Chinese ink painting. Wu (2023) explores how the imagery and structure of Hai Zi’s poem *September* correspond to musical rhythmic patterns, pitch-class sets, and formal design. Jiang (2015), building on Rao (2002), provides a detailed diagram illustrating how Luo integrates Forte’s set theory into his pentatonic twelve-tone row. However, Jiang does not offer an in-depth analysis of Luo’s compositions; rather, her work focuses primarily on explicating the structural design of Luo’s pentatonic twelve-tone system.

Given the current state of the literature, I have proposed that a coherent analytical system should be distilled from the perspective of traditional Chinese music and subsequently integrated with Western analytical methodologies for the study of contemporary Chinese music. Deriving an analytical framework from traditional Chinese musical thought is, in my view, the most compelling approach, because traditional music served as a reservoir of compositional materials

for many twentieth-century Chinese composers, and it embodies distinctly Chinese aesthetic and cultural practices. This is the reason for covering traditional Chinese theory in Chapter 2.

Through the theoretical survey of traditional Chinese music and the analyses of folk songs and a Peking opera piece in Chapter 2, we discover that “Chinese characteristics” can be articulated comprehensively across four dimensions, which are single-tone, modal systems, rhythm, and the relationship between melodic contour and text, not merely through the “pentatonic scale.” In fact, as Chapter 2 demonstrates, the pentatonic mode is the least distinctive marker of “Chineseness,” since pentatonic scales are found in many musical cultures worldwide. The association between pentatonicism and “Chinese” or “East Asian” musical identity largely stems from early twentieth-century western composers who linked the pentatonic scale with exoticism, such as Puccini and Debussy.

At the same time, integrating western analytical methods remains necessary, because modern Chinese compositions after 1919 were deeply influenced by western modernist practices. Many composers during this time worked almost entirely within western theoretical frameworks. As discussed in Chapter 1, this historical reality makes it impossible to disregard western analytical perspectives altogether. This is why Chapter 3 is organized chronologically, with each period examined through analytical techniques aligned with the western compositional methods adopted in representative works. For example, in the period 1919–1949, an era of initial experimentation with western compositional techniques, I selected works that involve atonal technique, Hindemith’s two-voice framework, and chromatic harmony. In 1949–1979, the focus shifts to chromatic harmonic expansion; in 1979–2000, to explorations of atonality, twelve-tone music, and sonic conception.

Because Chinese compositions do not possess a long-standing, universally adopted analytical tradition comparable to that of western art music, there is a notable absence of pedagogical literature for teaching Chinese music theory. This gap provides the rationale for Chapter 4. In this chapter, I propose a systematic method for teaching Chinese music theory to western undergraduate students. Although I have not personally taught Chinese music theory in a western classroom, my four years of experience as a teaching assistant in western music theory leads me to believe (I hope not overconfidently) that such an approach would be accessible to students with no prior exposure to Chinese music. My pedagogy avoids culturally abstract or philosophically dense concepts, instead beginning with the core principles of the musical theories themselves.

The teaching strategy proceeds from two angles: traditional music and modern Chinese compositions. For traditional music, I propose bringing Chinese instruments into the classroom to demonstrate the concept of deviated note. For teaching Chinese modes, I begin with tuning systems and employ comparative methods to illustrate the differences between Chinese and western modal systems, especially their divergent uses of pentatonic scales. For the relationship between melodic and language tone contour, I recommend using Adobe Audition to visually represent the correlation between melody and linguistic tone patterns, providing students with an intuitive understanding of melodic-language tone contour. For modern Chinese compositions, I draw primarily on analogies with modern western theory, because the two share many points of correspondence. For example, between expanded Chinese modal systems and western synthetic scales, between the Chinese “multi-Yun, multi-Gong” concept and western polytonality, between Chinese and western uses of pentatonic harmony, and between rhythmic practices in both traditions.

Through this entire project, I have emphasized that Chinese music possesses its own analytical logic rooted in traditional musical thought. Yet we should not reject western analytical approaches, since modern Chinese composition after 1919 was unmistakably shaped by western theoretical systems. The most productive approach is to synthesize Chinese and western analytical perspectives, beginning from the works themselves, from the backgrounds of their composers, and from a careful selection of analytical tools suited to the musical materials at hand. For instance, in my analysis of Xiaolin Tan's art song *Farewell*, I employed both Hindemith's two-voice framework and the Chinese modal system to examine the work's harmonic organization. This dual approach is justified by historical and musical factors: Tan studied with Hindemith, and the contrapuntal nature of the outer voices in *Farewell* reflects this pedagogical influence. At the same time, Tan received early training in Chinese instruments and was part of a generation of composers committed to cultivating a distinctly Chinese musical language. It is therefore analytically appropriate to interpret the piece through Chinese modal principles as well. With respect to melody and musical form, I approached the piece from the perspective of the text, focusing on the interaction between linguistic tone and melodic contour, an approach informed by traditional Chinese musical aesthetics. In my discussion of Luo Zhongrong's *One Yun Sharing Three Gong Systems*, I analyzed the work through both the pentatonic twelve-tone framework and the Chinese modal system. Luo's method adapts Western twelve-tone theory to pentatonic materials, while the concept of "One Yun Sharing Three Gong" articulates a fundamental principle of traditional Chinese modality. I additionally evaluated the harp part in terms of degrees of consonance and dissonance, as its pitch content is strictly pentatonic (set class 5-35) and its pitch-class configurations consistently comprise a three-note

group and a two-note group; under these conditions, assessing harmonic tension yields the most meaningful insights.

For Sang Tong's piano piece *Homesick*, I integrated Hindemith's harmonic theory with Chinese modal analysis. The work exemplifies Chinese pentatonic harmony, yet its linear texture and non-tertian sonorities obscure root identification and harmonic progression when examined through conventional Western tonal methods. Hindemith's theoretical system provides a more effective analytical tool for resolving such issues.

Taken together, these case studies have demonstrated that a combined Sino-Western analytical framework can more fully illuminate the structural logic and aesthetic significance of these compositions. As we continue to explore pieces such as these, and the Chinese theories that contributed to them, we can expand and refine our ideas of how theory and composition advanced in the 20th century, to include important developments in a non-western culture.

Appendix A: Pitch-class sets in flute and harp voices

同均三宮

（一）雅乐F宫D羽调

罗忠镕 曲
2011年作

2011年12月

Lento $\text{♩} = \text{ca} 38$

Flute

Viola

Harp

3

5

7

Flute

Viola

Harp

pp *mf* *3* *mp* *ff* *mf* *p* *f* *5* *p*

9

Flute

Viola

Harp

pp *mf* *p espress.* *mf* *p* *f* *mp* *f* *mp*

11

Flute

Viola

Harp

f *pp* *p* *mf* *p* *mf* *p* *pp* *f* *p* *mf*

Appendix B: Developing variation in flute and viola voices

Section A:

同均三宫
(一) 雅乐F宫D羽调

罗忠镕 曲
2011年作

A

Lento ♩=ca38

Flute

Viola

Harp

mf *mp* *p* *mf*

mp *mf* *p* *mf*

p sf mp p

3

Flute

Viola

Harp

mp

mf *mp*

p mp p

Section B:

B

Flute

Viola

Harp

2

Flute

Viola

Harp

Section A'

9 A'

Flute *pp* *mf*

Viola *p espress.* *mf* *mf*

Harp *p* *p* *f* *mp* *f* *mf* *mp*

11

Flute *f* *pp* *p*

Viola *mf* *p* *mf*

Harp *p* *pp* *f* *p* *mf*

The musical score for Section A' is presented in two systems. The first system covers measures 9 and 10, and the second system covers measures 11 and 12. The instrumentation includes Flute, Viola, and Harp. The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 3/4. The score includes various dynamic markings: *pp* (pianissimo), *mf* (mezzo-forte), *p* (piano), *f* (forte), and *mp* (mezzo-piano). Performance instructions include *espress.* (espressivo). Blue boxes highlight specific passages in the Flute and Viola parts. Green arrows indicate phrasing or articulation in the Flute and Viola parts. The score is divided into two systems, with measures 9-10 and 11-12 shown.

Section A' and coda

13

Flute

Viola

Harp

f

mp

mf

f

Coda

Ritenuato

A tempo

Rit

G gong system

15

Flute

Viola

Harp

sf

f marcato

mf

f

p

mf

mf

sf

f

f

mp

pp

p

pp

Appendix C: Chinese modes analysis in flute and viola voices

C gong system

F gong system

G gong system

同均三宫

(一) 雅乐F宫D羽调

A Yue seven-tone scale (Ya Yue)
F gong system

罗忠铭 曲
2011年作

Flute **Viola** **Harp**

Section 1: A Yue seven-tone scale (Ya Yue) F gong system

① A Yue seven-tone scale (C gong system)
② A Yue seven-tone scale (F gong system)

Section 2: G gong seven-tone scale

③ G gong seven-tone scale
G gong pentatonic
A Yu pentatonic C gong system
D Yu six-tone scale
G Shang (F gong system)

Section 3: C gong pentatonic

④ C gong pentatonic
D Yu six-tone scale
Lower fifth

Tempo: Lento $\text{♩} = \text{ca}38$

Dynamic markings: *mf*, *mp*, *p*, *pp*, *f*, *sf*, *ppp*, *ppp-fff*

Scale and Mode Analysis:

- A Yue seven-tone scale (Ya Yue) F gong system:** A scale spanning two measures, marked with circled numbers 1 and 2. It includes notes like $\text{A}^{\flat}$, $\text{B}^{\flat}$, C , D , E , F , and G in the context of the F gong system.
- G gong seven-tone scale:** A scale spanning two measures, marked with circled number 3. It includes notes like G , A , B , C , D , E , and F in the context of the G gong system.
- C gong pentatonic:** A pentatonic scale spanning two measures, marked with circled number 4. It includes notes like C , D , E , F , and G in the context of the C gong system.
- D Yu six-tone scale:** A six-tone scale spanning two measures, marked with circled number 5. It includes notes like D , E , F , G , A , and B in the context of the D Yu system.

Instrumentation and Performance:

- Flute:** Plays the main melodic lines, often with grace notes and slurs. Dynamics range from *pp* to *f*.
- Viola:** Provides harmonic support and counter-melodies. Dynamics range from *pp* to *mf*.
- Harp:** Provides a continuous harmonic background with arpeggiated figures. Dynamics range from *pp* to *f*.

2

7

3

G gong six-tone scale

Lower supporting

Tonic

pp

Viola

Higher supporting

mf

C gong six-tone scale

mp

Harp

pp

mp

mp

ff

D Shang six-tone scale

mf

3

p

f

5

p

Lower supporting

F gong six-tone scale

f

3

mp

f

G Zhi (C gong system)

G gong seven-tone scale

9

A'

2

D Yu pentatonic (F gong system)

C Zhi six-tone scale (F gong system)

Flute

pp

mf

Viola

C gong six-tone scale

p

espress

3

mf

mf

Harp

p

p

f

mp

f

mf

D Yu seven-tone scale

11

Flute

f

pp

p

mf

Viola

mf

p

mf

Harp

p

pp

f

p

mf

D Yu seven-tone scale

3 A Yu pentatonic (C gong system) C gong seven-tone scale 3

Flute

Viola

Harp

E Jue pentatonic (G gong system)

D Yu six-tone scale (F gong system)

Coda:

D Yu seven-tone scale (F gong system)

Ritenuito G Zhi (C gong system) A tempo Rit

Flute

Viola

Harp

f *mp* *mf* *f* *sf* *f* *mp* *pp* *p* *pp*

Upper supporting tone Lower supporting tone

f marcato *p* *mf*

mp *pp* *p* *pp*

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Flute

Viola

Harp

pp *mf* *ff* *mf* *p* *f* *p*

mf *3* *mp* *ff* *3* *p* *f*

B-2 *B-1* *ff B-2* *C-2* *mp* *B-1*

9

Flute

Viola

Harp

pp *mf* *p espress.* *mf* *mf*

A'

p *f* *mp* *f* *mp* *mf*

B-2 *A-1* *B-1* *B-2* *C-2* *A-1*

11

Flute

Viola

Harp

f *pp* *p* *mf* *p* *mf*

p *pp* *f* *mf* *p* *mf*

B-2 *B-1* *B-2* *C-2* *A-1* *C-1*

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