From Ancient Sounds to Modern Stages: The Evolution of the Sheng

Mathews

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CHAPTER I

INTRODUCTION

The *sheng*, is a Chinese traditional, interruptive free-reed aerophone, consisting of a blow-pipe, bowl, and vertical resonating tubes. The instrument originated in the fourteenth century BCE, and the structure of its design kept changing for some 3200 years. Especially in recent decades, this instrument has been significantly modified. Since the establishment of the People's Republic of China in 1949, the structure of Chinese society has undergone profound shifts. Influenced by political, economic, cultural, and other social factors, the development of Chinese music in general has also shown different orientations with the times.

Other than playing the sheng in traditional ensembles as an accompaniment instrument, Chinese musicians are trying to bring sheng to new stages, such as accompanying in national orchestras, soloing in recitals, and new music ensembles featuring instruments from other countries. In order to adapt to these differing contexts, new demands have been placed on this traditional instrument, such as a lighter weight, more solid construction, broader range, and a new arrangement of pipes for more efficient fingering. Moreover, new materials and processes have been applied to the production of the sheng. The shape of the instrument has also been adapted to meet these demands. As a result, new components and even new kinds of sheng have been developed. This thesis addresses the origin and development of different kinds of sheng in China, and the influence of important social and political movements on Chinese music and musicians. I also explore and analyze the

motivations behind the changes of the sheng to demonstrate how Chinese people's views and expectations changed regarding this traditional Chinese musical instrument from 1949 to 2018.

Overview and Background

In this thesis, I discuss the evolution of the sheng in mainland China from 1949 to 2018. Two motivations contributed to my research. For over ten years, I have been a student of sheng performance, studying various types of sheng, including the traditional sheng, Henan square sheng, modern sheng, and bass keyboard sheng. I have taught sheng classes in Nanjing Normal University for two years. With my experience learning and teaching sheng I developed deeper understandings about the instrument's evolution. Through the study of ethnomusicology in the United States I learned necessary knowledge and skills to approach this subject, and, more importantly, a fresh perspective from which to understand music as a product of human behavior. Thus, I will examine the sheng's evolution through the lens of the changes made to the construction of the instrument, the functions fulfilled by such changes, the musicians' intentions in asking for such functions, and the cultural and social factors that created such intentions. As the entire history of the sheng's evolution goes beyond the scope of this thesis, I limit the focus to the years of 1949 to 2018, which corresponds to the establishment of the Chinese communist government. This important political transition deeply influenced subsequent cultural and political ideologies of Chinese society until the current decade.

Genesis of the Instrument

The sheng, also known as the Chinese mouth organ, is a Chinese mouth-blown, free-reed instrument, prevalent among Han people living in north and central-eastern China.

A traditional sheng is generally constructed from a bowl-shaped wind chest, with a blow-pipe extending out from one side (see figure 1).



Figure 1. A Traditional Sheng in Qing Dynasty. From the Metropolitan Museum of Art. 1

Multiple pipes (13, 15, 17, or more) with free reeds at the lower end are vertically inserted through the flat upper surface of the wind chest. The pipes of varying graded-lengths are arranged in two opposite triangular shapes to symbolize the folded wings of a phoenix bird. Most pipes on a traditional sheng sound by covering a small finger hole above the surface of the wind chest. However, some muted pipes without reeds and finger holes remain

in the design of the instrument to maintain the instrument's phoenix-like appearance.

Each of the pipes on a sheng plays one pitch in performance, either when inhaling or exhaling. The pitch of a pipe is determined by two dependent factors. The first factor is an air column in the pipe, measured by length and created by an upper aperture cut through the pipe's inner wall. The second factor is the reed, shaped as a rectangular tongue, cut from and seated flush with the frame. The reed is secured with wax at the bottom of the pipe and determines the vibrating pitch frequency. Due to the difficulty of changing the length of the air column or the size or thickness of the reed for tuning, a red wax dot (a mixture of wax, cinnabar, and honey) was invented no later than the Ming Dynasty (1368—1644 CE). Sheng players applied the wax near the sheng's vibrating end onto the reed tongue for finer adjustments of pitch, accomplished by changing the size of the red wax dot. When open, the finger holes on pipes above the wind chest's flat surface function to break the air columns that reinforce the reed vibration, hence, little sound is made. In contrast, a closed finger hole seals the air columns on the reed vibration is reinforced, and a clear sound can be made.

The materials used in sheng construction have evolved over time. The earliest sheng, dating from around the sixth century BCE, have gourd or wood wind chests and bamboo pipes. Their reeds are made of copper, bamboo, or similar plant material. The tomb of Marquis Yi of Zeng (曾侯乙墓,zēng hóu yǐ mù), in Hebei province, dates to 433 BCE. It contains five small mouth organs with gourd wind chests, bamboo pipes, and bamboo reeds.² The Han Dynasty (206 BCE—220 CE) tombs of the Mawangdui archeological site in Hunan

² Wujian Jiang, "Zenghou Yi Mu Sheng de Yinluxue Yanjiu [Restoration of the Sheng Discovered in the Tomb of Marquis Yi]," Huangzhong 3 (1998): 36.

province (马王堆汉墓,mǎ wáng duī hàn mù), dating to the second century BCE, contain two large yu (Chinese wind instruments similar to the sheng) with wooden wind chests and bamboo pipes, one of which uses metal reeds. Some silver metal beads were also found attached to the reeds and are considered evidence of the origins of the red wax tuning idea. Nowadays, sheng craftsmen use not only traditional materials, like bamboo and wood, but also materials such as alloys and plastics. Metal wind chests, metal levers, plastic buttons, stainless-steel amplifying tubes, electroplated coatings, and many other modern components are often seen on the sheng.

The tuning system of a traditional sheng is essentially diatonic, while sometimes a seventh and fourth interval may be added. For example, if a sheng is tuned in D major, other than essential pipes playing D, E, F-sharp, A, and B, an extra pipe of C-sharp maybe added. The fingering is arranged for the pentatonic scale regardless of the instrument's specific tonality (i.e., D major, E-flat minor, C major). Nowadays, in order to produce louder sounds and more pitches, a traditional sheng may also have amplifying metal tubes and levered keys. The Henan traditional sheng, or *fangsheng*, prevalent in the Henan province and the southwestern part of the Shandong province, is an exception to the round wind chest definition, with rectangular wind chest and pipes arranged in three parallel rows.

As the modernization movement in Chinese traditional music and musical instruments unfolds in the beginning of the twentieth century, new kinds of sheng emerged in China in the 1950s. Two essential differences distinguish these new sheng from the traditional sheng: 1) all the new sheng are tuned chromatically, not diatonically, and 2) levered keys that

close the pipe ends are introduced, and the reed vibration is no longer controlled by finger holes alone. Some kinds of new sheng have applied the rectangular wind chest and arranged pipes in three parallel rows. However, in order to produce lower pitches and more stable sounds with an alto, tenor, or bass sheng, artisans and musicians have increased the volume of its resonating tubes, making it a large metal-made, standing organ-like instrument, used with or without pedals (see figure 2).



Figure 2. Bass Holding Sheng (left) and Alto Pai Sheng (right). From *Zhongguo Yueqi Tujian* [Chinese Musical Instruments Illustration].³

Sheng Performance

The social and cultural context, including prevailing or controversial issues of the day, shape the mainstream aesthetic and ways of expression for sheng performance, as well as popular sheng repertoire. Audience and popular perception of instruments determines the sheng's role in different ensembles. For example, a traditional sheng is often seen for

³ Dongsheng Liu. Zhongguo Yueqi Tujian [Chinese Musical Instruments Illustration] (Qingdao: Shandong Education Press, 1992), 160-161.

entertainment occasions and folk and ritual ceremonies. In *kunqu* (a traditional genre of Chinese opera) and *sizhu* ensembles (a traditional genre of Chinese ensemble), the sheng's role is confined to an important accompaniment, following the *dizi*'s (a traditional Chinese flute) melody. However, in ritual occasions, such as Buddhist and Taoist ceremonies, the sheng is a leading instrument, providing the structure of the music and controlling the pace of the ritual.

The traditional use of sheng changed as the Chinese Communist Party's (CCP) nationwide, anti-feudal, and "anti-superstition" social movements unfolded in the 1950s.

Instead of entertainment music or religious ritual performance, traditional musicians were encouraged to compose and perform new music for labor and peasants, thus complying with the government's political agenda. By contrast, the collectivism and command economy in China limited the business market for traditional ensembles. As a result, some sheng players started to play as soloists, thus, although used as an accompaniment instrument for hundreds of years, the traditional sheng became known as a solo instrument with unique polyphonic features.

Though it can be used to play solo pieces, the newly designed modern sheng are more often heard in an ensemble, e.g., as part of the Chinese national orchestras in concert

⁴ Collectivism is any of several types of social organization in which the individual is seen as being subordinate to a social collectivity, such as a state, a nation, a race, or a social class. Collectivism may be contrasted with individualism, in which the rights and interests of the individual are emphasized; *Encyclopedia Britannica Online*, s.v. "Collectivism," accessed April 22, 2020,; In China, command economy is an economic system in which the means of production are publicly owned and economic activity is controlled by a central authority, which assigns quantitative production goals and allots raw materials to productive enterprises; *Encyclopedia Britannica Online*, s.v. "Command Economy," accessed April 22, 2020, https://www.britannica.com/topic/command-economy.

halls. Chromatic, twenty-four reed and twenty-six reed new sheng were common during the 1950s, but today's models usually have thirty-two to thirty-eight pipes. The modern sheng is essentially a result of the westernization of Chinese traditional music and musical instruments beginning in the early twentieth century.

Deeply influenced by foreign cultures, especially by ideologies from western

Europe and the Soviet Union, Chinese intellectuals in the late 19th and early 20th centuries

held strong beliefs about industrialization and modernization. Therefore, the equal-tempered

tuning system was introduced into China as part of "advanced" western culture and promoted

throughout the nation. As a result, the traditional instruments that used the Pythagorean

tuning system, sheng included, were modified to fit an equal-tempered tuning system. In

national orchestras, as the only polyphonic traditional Chinese instrument, the sheng still

plays an important role as both solo and accompaniment instrument.

Sheng Musicians and Culture

Many devoted sheng players, composers, and artisans contributed to the evolution of the sheng, conceiving and achieving improvements on the instrument and its music.

Tianquan Hu (b.1934—), a Shandong sheng player, won two gold medals at the sixth "World Festival of Youth and Students," in 1957, in Moscow for his sheng solo performance of *Fenghuangzhanchi* [The Phoenix Unfolds Its Wings]. Hu added a *bawu* pipe (an individual free-reed aerophone, originating in Yunnan Province of southwest China) to his sheng, thus he could play both instruments in a single piece without switching. In the 1980s, Zhenfa

Weng (n.d.), together with Shanping Mu (b.1942—), both from Shandong Conservatory, invented the 37-reed modern sheng. Since the 1990s, as a technical consultant, Jiangong Lei (b.1946—), from Nanjing Conservatory, has been working on sheng design with artisans from the Zhaojiasheng Company in Hebei province. Together they have implemented design changes to overcome many technical difficulties in modern sheng building and formulated standards for sheng components, such as reeds, bamboo pipes, and the structure of the bass keyboard sheng.

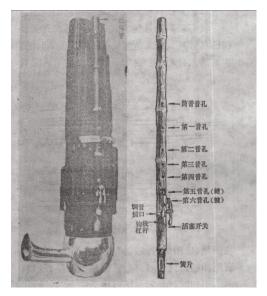


Figure 3. Bawu Sheng (left) and its bawu pipe (right).5

Survey of the Literature

Academic study of the sheng began in the 1930s. Among other studies, Yang Yinliu

⁵ Tianquan Hu, "Bawu Sheng Gaige Zhong De Jige Wenti," [Some Problems I Encountered When Inventing the Bawu Sheng] *Yueqi* 6 (1982): 11-13.

(杨荫浏) (1899—1984) conducted comparative research between two similar instruments—the sheng and the yu (an obsolete traditional Chinese interruptive free-reed aerophone, similar to, though larger in size than the sheng)—completing his 1944 article, "Comparative Research of Sheng and Yu," eventually published in Draft History of Chinese Music in 1966.⁶ In the 1950s, musician Pan Huaisu (潘怀素) (1894—1978); guqin master, Zha Fuxi (查阜西) (1895—1976); pipa (a traditional Chinese lute) master, Yang Dajun (杨大军) (1913—1987); and Yang Yinliu discovered the fifteenth century Ming Dynasty sheng-guan repertoires preserved in the Zhihua Temple in Beijing. They launched a restoration project that later reproduced the royal Buddhist ritual music of the Ming Dynasty. In addition, Yang Yinliu spent years in Hebei villages doing fieldwork on the Hebei sheng, making a considerable contribution to the study of sheng. Research results published in the 1950s and related to sheng study include Zhihuasi Beijing Music, by Yang Yinliu, and Suitang Yanyue de Chengli, Dibian yu Liuchuan [The Formation, Transmutation and Spread of Yan music in Sui and Tang Dynasty], by Pan Huaisu.⁷

In the 1980s, more materials related to the sheng were published. The *Dictionary of Chinese Music* included information about how the sheng is played in bands of traditional Chinese genres, such as *kunqu* opera, *sizhu*, *liu* (a traditional Chinese opera originating in Shandong region), and *bangzi* (a traditional Chinese opera originating in Hebei region).⁸

⁶ Yinliu Yang, Zhongguo Yueqi Shi Gao [Draft History of Chinese Music] (Beijing: People's Music Publishing House, 1966), 88.

⁷ Yinliu Yang, "Interview in Zhihua Temple, Beijing," *Collected Works of Yang Yinliu*, vol. 6 (Nanjing: Jiangsu Literature and Art Publishing House, 2009), 144-267; Huaisu Pan, "The Formation, Transmutation and Spread of Yan music in Sui and Tang Dynasty," *People's Music*, no. 1 (1954), 29-32.

⁸ Chinese National Academy of Arts, *Dictionary of Chinese Music* (Beijing People's Music Publishing House, 1984), 331-333.

Fredrick Lau explained the morphology of the instrument, its diffusion and performance in his article "Instrument: Sheng." Jing Weigang (景蔚岗) published the Notation System for Sheng in Northern Shaanxi, in 1988. 10 Beside these articles, pictures of a sheng from the nineteenth century and pictures of components in detail are displayed on the website of the National Music Museum. 11 Although these articles all describe the sheng as a mouth-blown, free-reed, vertically played aerophone with bamboo pipes and a wind chest made of gourd, wood, or metal, none of them give any information about the impact of historical, cultural, or social functions of this instrument.

Since the 1990s, more research has emerged concerning the music and performance of the sheng. Several studies focus on sheng music and performance within specific traditions of China, including Gao Pei (高沛)'s "The Henan Sheng and its Performing Characteristics," Jing Weigang's "The Clarification of Name and Content of Shanxi's Eight Grand Suites," and Ou Jie (欧杰)'s "Sheng's Performing Skills in Xi'an Chuida Ensembles."¹² These are important for the study of sheng music and performance in each tradition and are also reliable resources for the comparative study of sheng music and performance in different geographic areas and during different eras, thus forming a more dynamic understanding of the evolution of the sheng in China. Nevertheless, these studies offer few, if any, insights on the connection

⁹ Fredrick Lau, "Instrument: Sheng," Garland Encyclopedia of World Music: East Asia: China, Japan and Korea, edited by Rober Provine, vol. 7 (New York: Routledge, 2001), 186-189.

Weigang Jing, "Notation System for Sheng in Northern Shaanxi" (M.A Thesis, Chinese National Academy of Arts, 1988).

11 "National Music Museum," accessed January 30, 2019,

http://collections.nmmusd.org/EasternAsia/2566ChineseSheng/Sheng2566.html.

¹² Pei Gao, "The Henan Sheng and its Performing Characteristics," Yueqi 5 (1994): 35-39; Weigang Jing, "The Clarification of Name and Content of Shanxi's Eight Grand Suites," Music Research 1 (March 2004): 42-51; Jie Ou, "Sheng's Performing Skills in Xi'an Chuida Ensembles," (M.A. Thesis, Nanjing Conservatory), 2013.

between the traditions of sheng music and local culture.

Thus, most academic research materials related to sheng examine this instrument and its music in a historical or musicological scope. For example, Gao Pei's "The Evolution and Development of the Sheng" addresses the sheng's development from its genesis to the current instrument. The author arranges every detail into a complete story but is not able to convincingly argue all his points with detailed evidence within the space of a short journal article. Gao mentions that the largest sheng from the Han Dynasty has as many as thirty-six pipes, while the smallest sheng from the Qing Dynasty (1644 —1912) has only seven. Gao argues this disparity is the result of the Han people adopting instruments and music genres from other cultures, which has weakened the status and function of the sheng in traditional ensembles. Though this suggestion could be correct, Gao offers no solid evidence, such as with the smallest sheng from the Han Dynasty, the largest sheng from the Qing Dynasty, and other archeological discoveries proving the existence of such a change during the hundreds of years between these two dynasties. Fortunately, Gao clearly describes the storyline of the sheng's evolution and the spread of sheng music and performance, thus helping to focus my research to target how the sheng is commonly used and recognized in Chinese society.

Materials studying the connection of music and Chinese society were also important in this study. Ju Qihong (居其宏), in his "History of Music in New China (1949–2000)," published in 2002, gives a comprehensive description of the evolution of music traditions in China after 1949.¹³ The author focuses on how these traditions changed in the

¹³ Qihong Ju, *History of Music in New China (1949-2000)* (Wuhan: Hunan Art Publish, 2002).

social, political, and cultural upheaval of 1949 to the year 2000. He addresses social movements and events as triggers of musical changes, listing significant national political events, such as the Great Leap Forward (an economic and political campaign by the Communist Party of China from 1958 to 1962), the Great Chinese Famine (a national-wide famine from 1959 to 1961), the Great Proletarian Cultural Revolution (a sociopolitical movement in China from 1966 to 1976), and the Chinese Economic Reform (also known as the Opening of China, starting in 1978). He explains the connection between the musical works and the social and political motivations behind their creation. While Ju Qihong presents Chinese music history in the overview, the sheng as an instrument with particular cultural and historical meanings is beyond the scope of his work. Although he mentions genres that include the sheng, e.g., performance of ensembles in village ceremonies, the book does not serve well as a single study of the sheng and sheng music as it emphasizes cultural and aesthetic issues. It does, however, work well as a reference for discovering possibly suppressed or encouraged uses of sheng music.

Some studies discuss the motivations of the development of Chinese music from a cultural and aesthetic perspective. In *The Cultural Perspective of Chinese Music Aesthetic*,

Jianhua Guan attempts to explain traditional Chinese music as a product of the Chinese language while asserting that modern Chinese music is "simply an imported western product." Because of this difference, he claims he always feels a profound inconsistency in "modernizing" Chinese music. Guan's conclusion supports the pipa scholar Man Wu's

¹⁴ Jianhua Guan, The Cultural Perspective of Chinese Music Aesthetic (Nanjing: Nanjing Normal University Press, 2013), 144.

argument that "the modernization of Chinese traditional music is a total failure" (中国民乐西洋化,是败笔).¹⁵ However, questions arise with such conclusions; for example, what do these scholars mean by the "profound inconsistency" brought by the modernization of Chinese music? Did this profound inconsistency happen to the sheng as well? In this thesis, I will list and analyze the motives, processes and final results of movements carried out under the guidance of the westernization and modernization of Chinese traditional music starting from the beginning of the twentieth century. Comparing the musicians' original intention and the final results, combined with the analysis of such objections, I discuss my own conclusion on whether the westernization and modernization of the sheng failed.

In addition to published literature, I use iconographic and recorded materials to construct a historical, cultural, and political context that better and more accurately describe an understanding of how music was produced after 1949. For example, the sheng players Wu Wei (吴巍) and Wu Tong (吳彤) represent sheng musicians bringing the sheng to the world's stage. The analysis of their collections reveals both sheng musicians' aesthetic preference in selecting, arranging, and performing pieces. Additionally, these sources demonstrate the influence of culture and society, e.g., the reform and opening policy from 1978 and the following globalization on musicians' ideas about music creation. 16

15 "Interview: Man Wu," accessed January 31, 2020, https://www.thepaper.cn/news Detail forward 1657665

¹⁶ After Mao Zedong's death in October 1976, Hua Guofeng, the paramount leader at that time, together with Ye Jianying and Wang Dongxing arrested the Gang of Four, putting an end to the Cultural Revolution. Economic reforms began during the following "Boluan Fanzheng" [Eliminating chaos and returning to normal] period. In The 3rd Plenary Session of the 11th Central Committee of the Chinese Communist Party in December 1978, Deng Xiaoping replaced Hua Guofeng as the paramount leader of China. Deng implemented a serious of political and economic reforms which are summarized as "reform the domestic system and open-up to the world," or "reform and open policy." Modern China's participation in globalization starts with these reforms.

By reviewing the texts and scores listed above, a map emerges of how sheng research has developed since the 1940s. With the mindset that western civilization is advanced, Chinese intellectuals in the early twentieth century introduced a large number of western civilization materials into China, including western music theory and instruments. As an instrument widely used in traditional ensembles in villages and cities, the sheng was not treated with respect until the 1950s. Only a few musicians kept studying and developing further understanding of Chinese traditional music. Due to a lack of financial support, these musicians primarily worked alone in observing, recording, interpreting, learning, and restoring traditional sheng instruments and music.

The 1960s through the 1970s were significant years in terms of a series of radical political movements launched by the CCP, and subsequent violence, especially the Great Proletarian Cultural Revolution from 1966 to 1976, when musicians could hardly continue their research on the sheng as a traditional instrument. The situation became even more dangerous for music traditions of villages, or of ritual ceremonies, because such traditions were considered outdated, superstitious, or hostile to the new government. Thus, due to Tianquan Hu's success (as noted above) in Moscow, musicians during these decades showed more preference for the sheng's capability and potential as a modern solo instrument than for its traditional use.

But as the Chinese Economic Reform unfolded in China in the 1980s, the

Communist Party authorities began to introduce capitalistic market principles into the

domestic economic system. As a result, pressures subsided that had prevented scholars from

researching sheng music and performance in rural areas or for religious occasions. The government also began to realize the value of traditional music in preserving traditional Chinese culture. Thus, in 1992, a project to write an encyclopedia of folk instrument repertoires from all ethnicities in China, called *The Collection of Chinese Folk Instrumental Music*, was launched by the Minister of Culture, State Ethnic Affairs Commission and Chinese Musicians' Association. Sheng repertoire from different genres and regions was included in this collection. In the 1990s, with increased communication between musicians from China and countries abroad, Chinese musicians began learning and applying theories and methods from ethnomusicology, sociology, and other related disciplines into their research on the sheng.

Source Materials

Data acquired for this thesis comes from both primary and secondary resources, including photographs, audio and video recordings, newspaper reports, interviews, music scores, scholarly books, journal articles, theses, dissertations, encyclopedias, fieldwork reports, lectures, and speeches. They also derive from my personal experiences, observations, and reflections while learning, teaching and performing on sheng in China and the United States.

Texts include reports, scores, scholarly books, journal articles, theses, dissertations, all available from schools, orchestras, public, and school libraries, websites,

¹⁷ Lin Li, ed., The Collection of Chinese Folk Instrumental Music (Beijing: People's Music Publishing House, 2005).