The development of the Chinese symphony orchestra after 1949

Yuan Wang

Southwest Petroleum University, Sichuan, Chengdu, China, 610500

Abstract: This paper explores the evolution of the Chinese symphony orchestra, focusing on changes since 1949. It delves into the impact of modern technology on traditional Chinese orchestra, examining the introduction of new instruments and the consequent changes in performance styles. The paper also discusses the role of government and cultural revolutions in shaping the orchestra, highlighting how political and cultural shifts influenced musical practices. The integration of Western instruments and styles is a key theme, exploring the blend of Chinese and Western musical elements in modern orchestras. Additionally, the document considers the influence of music societies and conservatories in the development and professionalization of Chinese orchestral music. Overall, the paper offers a comprehensive overview of the historical, cultural, and technological factors that have shaped the Chinese symphony orchestra in the modern era.

Keywords: Modernization; Political Influence; Western Integration

1. Introduction

Music serves different purposes in the various societies, but the interpretation and regard of the same differ. To sum it, it's viewed as a way to propagate the cultural believes and morals to the younger generation, while others consider it as a form of entertainment^[11]. In both cases, music passes on a particular form of information, that is taken to be true by other community members. The Chinese symphony orchestra is something that has continually taken roots in China, and the various groups have been formed since decade to perform the music, that is curated to portray the diverse and unique culture of Chinese. It has become a center point of attraction for different people who visit this country and is believed to be one of the most treasured activities national wide.

However, modern technology has interfered with the previously recognized orchestra in China. This is due to the introduction of new instruments which are more advanced, and particularly, those that can combine different strings at a common point. The advancement has eliminated the need for having several instruments while performing the Orchestra. The advantages and drawbacks are of equal measure. According to Angelo^[1] using the modern instruments to perform draws away from the aspect of the culture of the Chinese people, hence watering down the primary objective of the orchestra. On the other hand, Utz ^[11]argues that the modern technology has brought in tastes in Orchestra, in the sense that the number of instruments used during the performances are less, hence saving on time and cost. This arena is highly contested by dissimilar authors, on whether the modernization has watered the traditionally recognized The Chinese symphony orchestra. This paper will critically review the secondary sources and trace the changes that have happened in regards to Chinese symphony orchestra after 1949^[11].

2. Statement of the Problem

According to Huron^[8], the symphony orchestra is an ensemble of instruments, combined to bring out the entertainment in a preferred and unique manner. Among them include violin, cello and others, which are traditionally recognized in the Chinese community. After the year 1949, proliferated changes happened in the music field, contributed to the changes in technology, onset of cultural revolution and people getting the awareness of other forms of entertainment. The consequences of this to the Chinese symphony was the integration of more modern instruments and continued changes in the styles of the performance. Modifying the previous orchestra could make the performance lose its primary meaning-of teaching people about the uniqueness of the Chinese culture. Therefore, this paper is essential, to shed insight on the different development stages that the Chinese orchestra has undergone to its present phase.

3. Literature review

A literature review is defined by Ahren^[2] as the process of consolidating the previous studies regarding the topic under consideration. He noted that the purpose of this section is to review the opinions of other researchers concerning the topic and find some of the gaps that were left without clear answers. It is these gaps that the present research aims to fill. To get a good base of the topic, it is prudent to revisit the history of the modern orchestra in China.

4. History of the Modern Chinese Orchestra

According to Angelo^[1] group performance in China was widely prevalent in the years of 1920s. The study reveals that the music achieved different purposes among them being ritualism. This is where the community set particular dates to appease their gods, through offering sacrifices. The occasion was accompanied by traditional dances and songs, that aimed to consolidate and attract people to such events. The other purposes were procession and entertainment. Chan^[6] is of the idea that music in China has a rich history, and it served to bring people together, as well as translated the cultural beliefs of the people to a higher understanding. As China enhanced its ties with the foreign countries through trading activity, it was noted that more advanced instruments were imported, which supplemented the performances in the groups (Avorgbedor 260). The observation was supported by Ahren^[2] who affirms that commercial activities help the nations to attain what they don't have, thus improving their local activities. It was a huge milestone, that ensured that the different orchestras groups in China were able to access more effective instruments, that were able to serve the purpose of entertainment to different factions of people.

To supplement the historical base of orchestra in China, Becker^[4] noted that excavation of tombs in the year 1978 revealed several instruments such as bells and drums, that were relatively advanced. A commonly known bianzhong was identified in the process of tracing the kind of instruments that were used in the past, and these confirmed that orchestra has a long history worth noting. According to Buchanan^[5]by the beginning of the 20th century, China had started to become economically and politically weak. The phenomenon was contributed to by the continued humiliation by the Japanese and some of the Westerners. To further the problem, the Chinese people viewed the Westerners as being more intelligent than them, which lowered their creativity in regards to Music. The affirmation is bolstered by Chan^[6] whose study confirms that the foreigner influence in China was so strong, that the music system appeared mixed, and lacked the taste of the host country.

In the wake of development and realization, the intellects in China found the need for modernization. Hence, they combined the Chinese instruments and western instruments in the orchestra. The idea of modernization and combining the instruments was supported by Geurts^[7] who gave a clear distinction of the Chinese performance to that of westerners. According to him, Chinese music was stagnant and did not progress in any way. The explanation given to this was that the performers lacked creativity and a glimpse of the changes in the music industry. On the other hand, the Westerner's music was artistically made and used advanced technology. Therefore, combining the two would improve the orchestra significantly^[10].

5. Beginnings of the Modern Chinese Symphony Orchestra

The start of the Chinese orchestra is largely related with the Cai Yuanpei, who was the president of the Peking University^[7]. With a wide interest for the Chinese culture and indulge in the field of music, the Scholar argued that the Chinese could take the strength of the western music, to compensate of the weaknesses that were observed in the Chinese orchestra. Among them that were stated included lack of creativity and use of old instruments, that were not effective. His proposal intrigued discussions regarding the effectiveness of the then orchestra, and its ability to sustain the ever-changing world. Kuo-Huang^[9] noted in his study that it due to the contribution and observations of Cai, that led to the commencement of music society at Peking University, that was particularly established to fill the loopholes that were identified in the prior music in China.

The main focus of this society was instrument ensemble, that entailed combining different instruments, both the local one and those imported from western countries. Another notable advancement that was introduced by the society was instrument playing by more than one person, something new in the Chinese orchestra. The ideology that was being put across was that of notation and parts, as opposed to the oral tradition. According to Temperley [10], modernization and westernization of Chinese orchestra

developed with gradual appreciation, and it was more effective compared to what people had initially believed. A similar case was observed by Utz^[11] who debated that Iranian embraced westernization of their music to show that they could do anything with their performance. The idea was different from that of the Chinese orchestra, whose major objective of incorporating foreign elements was to modernize their music to fit the contemporary society.

6. Development of Chinese Orchestra in the Formative Years

According to Utz^[11], the communist government that took office at the start of the year 1949 contributed largely to the development of the Chinese orchestra. This is because the government used music ensemble to spread the messages and propaganda, and therefore, the music was highly promoted during that time. The impression behind this strategy is echoed by Geurts^[7] who noted that performances consolidate huge gatherings of people, and politicians values such occasions. The information spreads out quickly; hence one's ideas are easily carried on and notified to different people at the same time. In the same vein, Chan^[6] propounds that the government of China funded the formation of a professional orchestra, which led to the establishment of strong groups such as the Shanghai Chinese Orchestra. Similarly, other amateur orchestras were formed as there was easy funding from the government. The number of people per orchestra were estimated to be seven to ten, and the largest one comprised of twenty people. However, Huron^[9] is of the contrary opinion, by noting that the major idea of forming many orchestras, was to consolidate powers and propagate the ideologies that the government wanted. In other words, the principal objective was not to benefit the people, but rather to support a few individuals in power.

The information put across by Angelo^[1] noted that the Chinese orchestra underwent several reforms, whose major objective was to improve the previous traditional form of performances. Such changes were experienced in styles, intonation and the instruments that were used to play the music. The innovation and creativity in orchestra did not only happen to the instruments, but also the musicians were mandated to undergo further retraining. The sole purpose of doing so was to eliminate the traditional precepts and inculcate new ways of doing things. The adoption is in line with the proclamation of Becker^[4] who noted that any change to make an impact has to begin with the intellectual property. In his paper, he maintains that musical performances cannot make effectual meaning if the musicians are not trained to adapt to the changes made in the musical instruments. For example, the players of the instruments require specialized education, to learn how to use them while maintaining the flow of the orchestra. This was one of the rapid development that happened towards the start of the year 1952, which was classified as the stage of familiarization to the new combination of the instrument (Chinese and western instruments).

Amidst all the changes that were experienced, the modern Chinese orchestra differed from traditional music in several ways. One, the music that was written for the CO (Chinese orchestra) followed the western form of harmony and adopted the foreign theories. This was contrary to the traditional music, which largely relied on the precepts of Chinese, without any element of external influence. Huron^[8] also noted that in the Chinese orchestra, a conductor was needed to direct other members on what to do. This means that it was a formalized performance, that followed some set of laid down procedures as opposed to the traditional music which was open to all. Likewise, he noted that the modern Chinese orchestra was segmented into form sections that were: Wind instruments, Plucked Stringed, Bowed Stringed, and Percussion instruments, that were not observed in the old-style musical performances^[2].

While the instruments were being developed in the early 1960s, there were little reforms in the composition of a Chinese symphony orchestra. Instead, solos composition was getting much attraction to the performers because the musicians were not familiar with the new genre. Huron^[8] noted that the newness of this advancement denied the performers artistic freedom since CO was completely formalized and required a particular set of requirement to be met. As a result, it became complex to integrate into the society, and the amateur orchestras that were formed by then found it hard to completely adhere to the standards of a professional performance group. However, Buchanan^[5] is of the idea that the lack of proliferating development of CO is allowable, considering that it was a new concept in society. His proposition is in support of slowed adoption since any newfangled idea faces some resistance before it is fully accepted

7. Cultural Revolution and its impacts on Chinese symphony orchestra

The cultural revolution was a movement that aimed to go against anything that appeared capitalistic

or anything western in the Chinese culture. The rapid twist of the government that was in power happened in the year 1966, and the same leaders who supported the creation of different symphony orchestras supported their demise. During this period, all music played in the country served the government, and any aspect of displaying religion or Confucius undertone increased the chances of the ban. Therefore, music failed to serve the main purpose and was altered to oblige the government in power as a tool of propaganda. As Huron^[8] noted, it was a period of chaos and stance, since the musicians lacked the motivation to do any performance, and feared the authoritarian government that had no regard for people embracing the western ways of doing things. The consequence also, limited the innovativeness and use of advanced instruments, as the government dictated what was to be done^[9]. The incident brought a halt to the development of the symphony orchestra, to the point of taking the musicians back to the systems that they had initially left- traditional performances.

Temperley^[10] noted that national songs were composed from the old Chinese melodies, and the only modification was done on lyrics. The changes were made in such a way to serve the purpose of propaganda, to champion for the ideologies of the Communist Party leader(Mao) who wanted to convert the Chinese people to pledge allegiance to him. According to Utz^[11], the optimal objective of Mao was to merge the Chinese culture with his party, a strategy that had yielded fruits since the Chinese symphony orchestra was dwindling. However, the revolution period lasted until 1977, when the leader died. The Chinese populace was now free to exercise their freedom. The period of oppression under the government that championed for its gain caused tremendous damage to the Chinese symphony orchestra. By this time, most of the genre had lost, and the musicians had to get retrained to restore them to their original statuses. Nonetheless, Geurts^[7] affirms that a number of the composers seized the moment, to portray the rot in the previous government and the harm that oppression could bring to the entire society.

8. Revitalization of the Symphony Orchestra in China

The previous period of cultural revolution maimed the Chinese symphony orchestra and left most of the groups unable to support themselves. In the initial time, the government had made proliferated efforts to fund the orchestras and supported their existence in the country. However, due to the personalized and greedy needs of the party that was in powers, the growing and interesting orchestra that was developing to the modernized one was converted to an instrument of championing personal agendas and propaganda. Chan^[6] noted that this scenario never lasted for long, and the re-emergence of the symphony orchestra began to gain traction by the end of the year 1970.

In the year 1979, the association of musician organized competition, with the major aim of redirecting people to appreciate the role of orchestra back into society. The movement campaigned for the peace and unity among the people and encouraged them to enjoy their freedoms from an oppressive government, that had planned to halt the development and innovation of music in China. Dually armed with instruments and picking the compositions from the previous stages, they were able to revive the wave of a new journey towards, progressing the Chinese orchestra to a higher level. According to Huron^[8], he noted in his study that the association decided to split the Chinese ensemble into three categories. The first one was called full orchestra, that comprised of sixty to eighty people. The second one was a medium group, consisting of thirty to sixty individuals while the last one was the chamber, consisting of thirty musicians. The main purpose was to ensure that several small groups were formed, hence spread the idea far and wide. The ideology is supported by Ahrens^[2] who affirms that passing informing across is easily executed by using small groups than large ones. This is because the chances of conflicts are reduced and efficiency improved significantly.

National music competition was a strong driving force, that ensured the Chinese symphony orchestra grew to higher levels. Under the three categories that have been highlighted above, each member of the particular group played an instrumental role in bringing the innovativeness and creativity. Some of the areas that experiences changes are in the instrumentations, the compositions and the way of presenting the content to the audience. Due to the uniqueness of the people, who were drawn from different parts of the country, the groups depicted the face of the country^[5]. Such, there was fair representation, and the consolidation of the input of every person was regarded paramount. The groups were focused and yielded results because, by the year 1983, about 211 pieces were presented for the national competitions^[1]. These were submitted by various learning institutions such as universities, high schools and colleges, and also included the individual symphony orchestra groups in China. There was a dramatic increase not only in the standard instruments, but also the players who at this time were much informed, and were abreast with the new form of music.

The theory placed across by Geurts^[7] propounds that people tend to learn fast, after a period of oppression and denial, of the very right they are aware they should be enjoying. He conducted a study seeking to understand the consequences that cultural revolution had in the lives of the Chinese people. Interviewing about two hundred subjects that were there during the period of revolution, he concluded that the citizens were anticipating the end of that regime since they were focused on developing the Chinese symphony orchestra. The musicians were okay with the integration of western instruments with the Chinese, to come up with the modern orchestra, that was stamped by the then president in China. Nonetheless, the author acknowledges that the renewed interest would significantly speed up the acquisitions of the modern precepts of the symphony orchestra.

In the mid of the 1980s Chinese music organization was established, and was to consist of music researchers, conductors, composers and musicians^[3]. The different factions were to propagate the orchestra forward, without losing the taste of the Chinese culture. This was a huge milestone in the music industry, as the different groups were tasked with specific responsibilities, that enhanced efficiency of the organization. For example, the music researchers were to delve into in-depth research, to unearth some of the trends and changes in Chinese music and even identify some of the areas that the performers could improve. The gathered information was shared with the composers, who artistically joined the words together, to effectively send the predestined message. The musicians were to sing those words, under the guidance of a conductor who organized the instruments players and those to sing. The arrangement was definite as it is noted by Angelo^[1], who is of the idea that the strategy contributed to the proliferated growth of orchestra, and more experienced musician emerged compared to the previous time before the cultural revolution. Later, the Chinese orchestral musicians emerged in the year 1986, with one sole purpose- to unify the Chinese musicians, and advocate for the need of modernization of the orchestra.

In the same vein, conservatories contributed to the resurgence of the symphony orchestra in China, because they had established training for Chinese music. Before the cultural revolution, conservatories were viewed as an enemy to the development, because they never allowed their students to join any orchestra group, while in training. Chan^[6] argues that the stance move was to minimize the combination of genre taught in the school, and teachings of the conductors which could have ameliorated the integration of the values and styles taught by conservatories. It was after the training that the professional orchestra groups recruited their students, and trained them to serve different roles in the group which created a stream of professionals comprising of young people. After the cultural revolution conservatories re-established their music department, and received a surging number of applicants, whom they could not accommodate at one time. They became instrumental in training a new set of musicians, who were perceived to propagate the Chinese orchestra to conform to the standards of the modern world, without watering down the cultural aspect of the Chinese^[11].

As time progressed, the infiltration of Western music and China opening up to the rest of the world offered an opportunity to learn from the foreigners. Conservatories began to regulate their teachings and inclined towards creating their teachings to craft a more focused musical pedagogy. Basing their system to Russia 's model, they started to emphasize more on technical skills and integrated the western methods of training such as Kinesics, etudes among others. Temperley^[11] noted that Chinese symphony orchestra viewed speed and precision as key to music development. Increasing, the conservatories emphasis on teaching technical skills and a combination of teaching models attracted many learners and the students who graduated from this place were absorbed in professional orchestras^[11].

9. The Symphony Orchestra in China Today

The previous paragraphs have detailed a sequence of events that happened in the development of the Chinese symphony orchestra, and the main hindrance to its development was the cultural revolution that happened during the reign of Mao^[1]. However, there was a transformation in the instruments that were used, with icnorpoartetion of the western style. They ensured that the music in China was not lagging, compared to others in the world. The unique thing about the Orchestra in China is its embracement and gaining traction among the populace, hence was identified as an influential tool to champion for ideologies of people in power.

The current Chinese orchestra largely borrows a lot of attributes from the western symphony. This includes in the style of composition and seating positions, something that has created a taste of the Chinese music, as opposed to the traditional one that had no particular organization. Utz^[11] noted that due to the adoption of the some of western elements, the musicians had been denied the authority for

artistic performance since any step they make is controlled by a conductor who ensures that the principles of orchestra are not violated. Likewise, he affirmed that although the western instruments have infiltrated in the modern Chinese orchestra, the music remains distinct and upholds the cultural beliefs of the native. Becker^[4] perceives the modernization of Chinese music to have brought more benefits, among them attracting people from different worlds to witness how an orchestra can play an optimal role of unifying people. Such Chinese orchestras plays the music commonly referred to Minyue, that advocates for the values of the Chinese people, hence making it unique compared to the western counterparts.

The modern instruments in the Chinese symphony orchestra are categorized into four groups which are: percussion, plucked string, woodwinds and bowed strings^[10]. These instruments are a modification from the traditional ones, to fit those of the western counterparts. Many of the currently written pieces in China are performed based on the identified groups, which gives a clear distinction of the present and traditional music. To further support this idea,Utz^[11] noted that the instruments are placed around a conductor who sits at the center. The adoption of this system is borrowed from the Western symphony and ensured that the director could instruct all the musicians with much ease. The common setting is whereby the stringed instruments are placed in front while the wind and percussion are located at the back. The arrangement is considered efficient since it generates louder sounds. The figure 1 below illustrates the actual arrangement^[8].

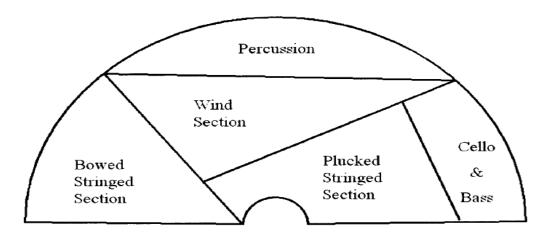


Figure 1: Modern Chinese Symphony Orchestra Arrangement

The rationale for sitting is controlled by the need to make an effective performance, that is attractive and generates better sounds, rather than using undefined methods of sitting. Temperley^[11] is of the idea that after the adoption of this system, modifications have continued to be made, based on the group members and the audience. He further confirmed that the modern symphony orchestra in China is continually being influenced by contemporary technology, hence lack of rigidity to any seating format. Orchestra has spread in different communities in China and found appreciation as part of the culture of these people. It is estimated that about six hundred professional symphony orchestras exist in China, with mushrooming amateur groups yet not recognized^[8]. This is evidence that the idea of music and blending with the western styles have gained support, both among the members of the society and those in power. Today, the orchestras possess their unique sounds, and the challenges of blending and instrumentation have been resolved. However, Angelo^[1] propounds that there are deficits still experienced in the performances. He suggests that the performers should conduct further research to come up with modern techniques, that addresses the demands of modern audiences. Moreover, modern orchestras should aim to improve on composition, as a number of them rely on traditional pieces that are outdated.

10. Methodology

The previous sections have discussed the various stages that Chinese Symphony orchestra had undergone, to its positions in modern society. They have reviewed the positions of different authors in regards to the music in China, and the varied opinions contrasted to give a full understanding of the topic that is under consideration. The methodology is defined by Huron^[9] as the approach that the researcher gives to a problem being stated in the study. It aims to justify the sequence of ideas and procedures that are adopted to form a conclusion. Two approaches are available that guide any form of study. One of them is deductive reasoning, which focuses on already known theory and seeks to explore the

phenomenon more deeply by forming hypotheses to be tested^[5]. It is also referred to as a top-to-down form of reasoning because the researcher utilizes the information that is already done concerning the issues under investigation. The second one is the inductive approach, that starts by observing a phenomenon, and later forms a theory based on the output. In this case, hypotheses are not needed in the initial phases and are also regarded as bottom-to-down reasoning^[5]. The deductive method is concerned with the collection of quantitative data while the inductive method is primarily focused on qualitative data. Therefore, the current research adopts an inductive approach since the main source of data is secondary.

Choosing the right methodology is determined by the nature of the research or the topic that is under study. The three types of the methodology are qualitative, quantitative and mixed methodology. The concept of qualitative methodology refers to the statements and observations of other authors regarding the issue that is being investigated [4]. On the other hand, quantitative methodology relies on numerical data while the mixed methodology combines the two. Therefore, the current paper has adopted a qualitative methodology. Peer reviewed papers, books and resourceful databases were consulted, to shed insight on the development of the Chinese symphony orchestra. The main point of consideration was to select the sources that address the issues, and the main points of arguments were noted. This was done by evaluating the methodologies the researchers adopted, the methods of data collection and how the data was analyzed. The method helped to eliminate unhelpful texts and only focused on papers that describe the phenomenon clearly. Later, the responses were compared and contrasted, thus helping in internalize the observed transitions the orchestra in China has undergone through.

11. Conclusion

The history of a Chinese symphony orchestra is something that has attracted a plethora of researchers, who aimed to understand the various transitions from the traditional precepts, to a modern system that incorporates both Chinese instruments and those of the Westerners. Initially, music in China was regarded as an instrument to teach the values of society and was considered as a form of entertainment. There was no defined set of doing things, and any artistic work was allowed. Later, the communist government perceived that it could form orchestras, that it would use to pass their ideologies to the populace. During the time, both large and minute orchestras were formed, since the government in power funded the same. In the same vein, the music association was formed to train people on the performances and later joined the orchestras of their choice. Likewise, the traditional Chinese instruments were combined with the western instruments, which formed a completely new set of the orchestra but still upholding the Chinese ways of doing things.

Nevertheless, the cultural revolution set in, that changed everything. The same government that supported the Chinese symphony orchestra contributed to its demise. The purpose of the revolutionary movement was eliminating the capitalistic form of leadership and anything that was considered western was stopped. This means any music that had incorporated the ideology of westerners was stopped, and the government controlled what was aired. Therefore, compositions were designed to support the needs an ideas of the people in power, which revered people back to the traditional Chinese songs. This was the regime of the president Mao, who denied the people freedom of what they wished and killed the development of orchestras.

By the year 1970, the things had gotten back to normalcy, and the different orchestras started to reorganize themselves to progress the music to higher levels. At this time, music association comprising of researchers, conductors, composers and musicians was formed that played the role of innovating new ways of performances and methods of improving the music. It was followed by proliferated training of the young people, who later joined the orchestras of their own as professionals, which improved the acquisition of the new form of performances by teaching others. Currently, Chinese symphony orchestra borrows much from the western symphony. This has been observed in the instruments used such as percussion, plucked string, woodwinds and bowed strings. To enhance the continued development of the orchestra in China, continued studies should be conducted to elucidate some of the best ways to improve composition.

References

[1] Angelo, Elin. "The music educator: Bridging performance, community and education – An instrumental teacher's professional understanding." International Journal of Community Music, vol. 8,

- no. 3, 2015, pp. 279-296.
- [2] Ahrens, Kathleen. "Analyzing Conceptual Metaphors in Political Language." Politics, Gender and Conceptual Metaphors, 2009, pp. 1-5.
- [3] Avorgbedor, Daniel. "Competition and Conflict as a Framework for Understanding Performance Culture among the Urban Anlo-Ewe." Ethnomusicology, vol. 45, no. 2, 2001, p. 260.
- [4] Becker, Howard S., and Anselm L. Strauss. "Careers, Personality, and Adult Socialization." American Journal of Sociology, vol. 62, no. 3, 1956, pp. 253-263.
- [5] Buchanan, Donna A. "Metaphors of Power, Metaphors of Truth: The Politics of Music Professionalism in Bulgarian Folk Orchestras." Ethnomusicology, vol. 39, no. 3, 1995, p. 381.
- [6] Chan, Hing- Yan. "Syncretic Traditions and Western Idioms: Composers and Works," in East Asia: China, Japan and Korea (The Garland Encyclopedia of World Music, Volume 7), 2002,350-51. New York: Routledge
- [7] Geurts, Kathryn L. "Anlo-Land and Anlo-Ewe People." Culture and the Senses Bodily Ways of Knowing in an African Community, 2003, pp. 21-34.
- [8] Huron, David B. "Empirical Musicology: Aims, Methods, Prospects, and: Statistics in Musicology (review)." Notes, vol. 63, no. 1, 2006, pp. 93-95.
- [9] Kuo-Huang, Han, and Judith Gray. "The Modern Chinese Orchestra." Asian Music, vol. 11, no. 1, 1979, p. 50-87.
- [10] Temperley, David. "Empirical Musicology: Aims, Methods, Prospects: Empirical Musicology: Aims, Methods, Prospects." Music Perception, vol. 23, no. 1, 2005, pp. 91-96.
- [11] Utz, Christian. "Nicholas Cook, Beyond the Score: Music as Performance, New York: Oxford University Press 2013." Zeitschrift der Gesellschaft für Musiktheorie [Journal of the German-Speaking Society of Music Theory], vol. 12, no. 2, 2016, pp. 275-285.