A Study of Unsuk Chin’s Piano Concerto:
The Influence of György Ligeti’s Piano Concerto

D.M.A. Document

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ABSTRACT

Korean composer Unsuk Chin (b. 1961) is regarded as one of the leading classical composers of the 21st century. Her vivid oral imagination; ability to express a wide range of musical colors; diverse influences, including non-European music and electronic music; and enthusiasm for the virtuosity have opened up, in particular, the various possibilities of a concerto genre. So far, from 1996, she has composed six concerti, one each for six different instruments: piano, violin, prepared piano and percussion, cello, the Chinese instrument sheng and clarinet.

This dissertation examines Unsuk Chin’s Piano Concerto (1996-7), providing a biography of the composer and explaining her musical style in chapter 1, analyzing the influence of her teacher György Ligeti and similarities of her Piano Concerto with Ligeti’s Piano Concerto (1985-88) in chapter 2, and offering an in-depth study of each movement of her Piano Concerto in chapter 3. The final section of the dissertation is composed of an interview with pianist Sunwook Kim, who recently performed and recorded her Piano Concerto with conductor Myung-whun Chung and the Seoul Philharmonic Orchestra.
DEDICATION

This document is dedicated to my mother.
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CHAPTER 1: INTRODUCTION

1.1 A Biography and the Works of Unsuk Chin

One of the leading classical composers working today, Unsuk Chin was born on July 14, 1961, in Paju, Gyeonggi Province, in South Korea. She was the second daughter of Presbyterian pastor Sun-hang Jin, whose first daughter Hoe-suk Chin¹ is known for her career as a music critic, as well as a music editor. Chin’s younger brother Jung-gwon Chin is a well-known Korean culture critic.

1.1.1 Early years

Due to her family’s lack of financial resources, she did not have the opportunity to receive a formal music education. At four, she began to learn piano and basic music theory from her father, and when she was able to master fundamental piano skills, she started to play the organ every week at church. This was an important experience because

¹ Hoe-suk Chin published several concert reviews in the Seoul philharmonic orchestra’s magazine SPO of Unsuk Chin’s works, such as the Contemporary Music Series Ars Nova, which was directed by Unsuk Chin in 2006, and the première of the opera Alice in
she not only had to sight-read diverse hymns but also transpose songs to different keys, according to various situations.\(^2\)

Before being admitted to Seoul National University on her third try, she mainly taught herself composition by listening to music at school and copying scores, such as Tchaikovsky’s Symphony No. 6 *Pathétique* and Stravinsky’s *Rite of Spring*.\(^3\)

Suk-hi Kang,\(^4\) a former student of Isang Yun,\(^5\) taught Chin composition in college for two years and introduced her to various European composers of the late 20\(^{th}\) century, including Ligeti, Stockhausen, and Boulez. It is not surprising that several works from her college years feature a very complex and abstract style, reminiscent of “total-serialism”.\(^6\) Among her compositions in college, *Gestalten* for flute, violin and piano (1984, but has since been deleted from her list of works) was selected for both ISCM World Music Days in Canada and the UNESCO “Rostrum of Composers”. The

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\(^4\) Sukhi Kang (b. 1934) studied composition with Boris Blacher and Isang Yun in Berlin and worked in an electronic music studio of the Technical University of Berlin. He is known as the composer who introduced electronic music to Korea and taught composition at the Seoul National University from 1982 to 1999.

\(^5\) Isang Yun (1917-1995) is regarded as the first world-class Korean composer. Yun’s musical style can be described as mixture of Korean traditional music and Western Avant-garde style.

graduation work Spektra for three celli (1985, but has since been deleted from her list of works) won the first prize of the Gaudeamus Foundation in Amsterdam.

1.1.2 1985-1988: Studying with Ligeti in Hamburg

After graduating from college, she moved to Hamburg, receiving the German government’s DAAD Scholarship to study at the Hochschule für Musik und Theater under György Ligeti. In many interviews, she has confessed that studying with Ligeti was challenging in all sort of ways. By the time when she brought her music to him, which was highly influenced by Darmstadt avant-garde style, his criticism was harsh. He told her “… You are from Korea and you haven’t lived here in Germany for a long time, how could you write music in a typical European avant-garde style? It is ridiculous. Imagine that when you wake up tomorrow, you become a totally different person!”

Ligeti encouraged her to have as many experiences with world music as possible and to be familiar with different historical periods of music. One example would be gamelan music. Chin’s later instrumental works, such as Piano Etudes (1995-2003), Piano Concerto (1996-7), Violin Concerto (2001), Double Concerto (2002), and her orchestral work Rocaná (2007-8), demonstrate the influence of gamelan music on her style. In addition, one of her vocal works, Miroirs des temps (1999), reflects her interest in

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medieval music of such composers as Pérotin (12th-13th century, Ars antiqua), Guillaume de Machaut (14th century, Ars Nova), and Johannes Ciconia (early 15th century, virelai and ballata) by reinterpreting their style from her modern viewpoint. In 1986, while she was studying with Ligeti, she composed *Troádes* (Trojan Women of Euripides) for three female soloists, choir, and orchestra.

**1.1.3 1988-89: At the Electronic Music Studio in Berlin**

After three years, she finished her studies with Ligeti and moved to Berlin to work at the Electronic Music Studio at the Technical University of Berlin. It was a crucial time in her development as she explored the unlimited possibilities of sound material and the rigid organizational structure in music. Her first electronic musical composition, *Gradus Ad Infinitum für Tonband* (1989), deals with microtone scales, which are scales based on twenty microtones in one octave. Two groups of eight voices are structured in a canonic way, and the complexity of the music is enhanced by polyrhythms. This highly complex music is reminiscent of American composer Conlon Nancarrow’s *Studies for Player Piano*, which also cannot be played by a human.

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Various experiences in electronic music such as acoustic splitting or analysis opened up the possibilities of composing (acoustic) instrumental music to which overtone series and microtones are applied, such as *Akrostichon-Wortspiel* (soprano and ensemble, 1991, rev. 1993), Piano Etude No. 6 *Grain* (2000) and the orchestral work *Rocaná* (2007-8).

**1.1.4 1990s–2000s: Contract with Boosey & Hawkes in 1994**

A piece for soprano and ensemble, *Akrostichon-Wortspiel* (1991) played a crucial role in Chin’s international reputation. In this piece, she played with text in several ways by changing the order of consonants and vowels and reading them backwards. By doing so, the symbolic meanings of text remains, despite the rearrangement.\(^{11}\) Similar forms of wordplay such as acrostics, anagrams, and palindromes\(^{12}\) also appear in her later vocal works, such as *Kalá* (2000) for chorus and orchestra, *snagS&Snarls* (2003-04) for soprano and orchestra, and *Cantatrix Sopranica* (2004-05) for two sopranos, countertenor and ensemble. An influence of electronic music—the use of microtones—is also

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\(^{12}\) An acrostic is a word puzzle in which certain letters in each line form a word or words. An anagram is the rearrangement of the letters of a word or phrase to produce a new word or phrase. A palindrome is a word, phrase, number, or other sequence of characters that reads the same backward or forward.
experimented with in this piece by adjusting the tuning systems (from 1/4 to 1/6) of each instrument.

This breakthrough work has been performed in over twenty countries around the world and gave Chin a contract with the music publisher Boosey & Hawkes in 1994. Since then, Chin has received commissions from leading ensembles and orchestras including Paris Ensemble InterContemporain, Kronos Quartet, the BBC National Orchestra of Wales, the Hilliard Ensemble, and the London Philharmonic Orchestra. The compositions during this period include *Allegro ma non troppo* (1993-4) for tape, *Fantaisie mécanique* (1994) for five instrumentalists, *ParaMetaString* (1996) for string quartet and tape, *Piano Etude Nos. 1, 2, 3, and 4* (1995-99), *Piano Concerto* (1996-7), and *Xi* (1998) for ensemble and electronics, *Miroirs des temps* (1999, rev. 2001) for alto, two tenors, bass soloists, and orchestra.

1.1.5 2000s–2010s: The Grawemeyer Award for Violin Concerto

During this period, she was appointed as composer-in-residence for three orchestras: the Deutsches Symphonie-Orchester Berlin for the 2001-02 season; the Seoul Philharmonic Orchestra in 2006, where she also served as an artistic director of the Contemporary Music Series *Ars Nova*; and then the Essen Philharmonie for the 2009-10 season. Her most important achievement during this time period arose from her collaboration with Japanese-American conductor Kent Nagano, which gave her the
chance to première her two most important works, *Violin Concerto* and the opera *Alice in Wonderland*.


Chin’s first opera, *Alice in Wonderland*, based on English author Lewis Carroll’s famous novel, premièred at the Munich Opera Festival in 2007 and was selected as “world premiere of the year” in the annual survey of European opera critics. A live recording of the première was released as a DVD by EuroArts.

Besides these two important works, she also composed three large-scale vocal works: *Kalá* (2001), *snagS & Snarls* (2003-04), and *Cantatrix Sopranica* (2004-05); three concerti for solo instrument: *Double Concerto* (2002), *Šu Concerto* (2009), and *Cello Concerto* (2010), and *Double Bind?* (2007) for solo violin and electronics; *Rocaná* for

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orchestra (2007-8); Gougalon for mixed ensemble (Scenes from a Street Theater) (2009/2011); and Piano Etudes Nos. 5 and 6 (2000-03).

1.1.6 2010s–2016: The Influences of Different Art Genres

Two significant CDs were released between 2010 and 2014. In 2010, the Analekta label produced a CD that included Rocaná for orchestra and the Violin Concerto, performed by Viviane Hagner, Kent Nagano and Montréal Symphony Orchestra. This CD was nominated for the Midem Classical Award in 2010. In 2014 the Deutsche Grammophon label put out a CD with Three Concerti for Piano, Cello, and the Chinese instrument Sheng, performed by pianist Sunwook Kim, cellist Alban Gerhardt, and Sheng player Wu Wei, conductor Myung-Whun Chung, and the Seoul Philharmonic Orchestra. This CD won the BBC Music Magazine’s “premiere” award in 2015.

Chin’s recent works, Cosmigimmicks (2011-12) for ensemble, Graffiti (2012-13) for large ensemble, and Mannequin (2014-15) for full orchestra, show her interest in different genres of art such as pantomime, street art, dance, and literature. Her previous orchestral piece Rocaná (2008) was inspired by Olafur Eliasson’s installations. (Danish-Icelandic artist known for sculptures and large-scale installation art.)

Chin’s passion for virtuosity continues to the present day by means of the concerto genre. Until now, she has composed five concerti: piano, violin, sheng, cello,

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and a combination of prepared piano & percussion. Her recent work *Clarinet Concerto* (2014) adds a sixth instrument. Again, as in previous works, her focus is not on the traditional ideas of competition between solo instrument and orchestra. What she cares most about is the ability of the solo instrument to meld with the orchestra and become a part of the whole ensemble.¹⁶


1.2 The Characteristics and Musical Style of Unsuk Chin

It is hard to define Chin’s musical style in one word because she does not belong to any group, nation or stream of the music in this era. However, there are several sources that allow listeners to access Chin’s music much easier.

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1.2.1 Beyond Nationality: The Influence of Non-European and Historical Music

The listener’s first impression on hearing Chin’s music is of an absence of ethnic influence. Obviously, she is not an advocate of traditional Korean music, a characteristic embraced by Korean composer Isang Yun. Rather, she tries to find sources from non-European music as well as historical music of different periods. The major influence of world music on Chin’s compositions includes Gamelan music.

Gamelan is a percussion-dominated ensemble in the area of Indonesia and Malaysia. There are two different kinds of Gamelan music, Balinese and Javanese; *Balinese* is more virtuosic and has a faster tempo and more dynamic changes, while *Javanese* is slower and meditative in character. In general, Gamelan music is composed of different layers of sounds (polyphonic structure) in musical repetition within a cyclic form. The interesting thing lies in their tuning systems. Two sets of tunings are usually played alternately: *Pelog* uses seven tone scales in a half step, and *Slendro* uses five tone scales (pentatonic) without a half step.

In an interview with the internet portal US Asians, Chin specifically talked about the influences of Balinese gamelan music imbedded in her orchestral works:

I am highly fascinated about non-European musical cultures. I am especially fascinated about the sound world of Balinese gamelan music. It has been an inspiration for many pieces of mine, e.g. my orchestral pieces. In my opinion, the conventional orchestral setting is a European relict of the 19th century, although there are, of course, great masterworks written for it. So, I often call for an array of extra instruments. Through this, I always try to introduce a completely different color into my compositions based on my experience of non-European music.

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18 Images are derived from, Lindsay, Jennifer. *Javanese gamelan: Traditional orchestra of Indonesia*. Oxford University Press, 1992. p. 39
Besides the orchestral works, her *Piano Etudes, Piano Concerto, Violin Concerto*, and *Double Concerto* also share Gamelan characteristics.

Similar to Stravinsky, the 2\textsuperscript{nd} Viennese school composers, and Ligeti, all of whom were fascinated by the contrapuntal music of the medieval period, Chin also expressed her interpretation of medieval music in *Miroirs des Temps* (1999, rev. 2001) for alto, two tenors, bass soloists and orchestra. Of the seven movements in the cycle, two of them are derived from Johannes Ciconia’s *Cypriot Virelai* and a *Ballata*, the first and the last movements are a homage to Pérotin (1200, Ars Antiqua), and the third movement is related to Guillaume de Machaut (1300-1377, Ars Nova).\textsuperscript{20}

1.2.2 Colorful Textures: The Influence of Spectral and Electronic Music

Timbre has been regarded as a subsidiary musical element, in contrast with basic musical components such as harmony, rhythm, and melody. However, by the early 1970s, a new musical stream, characterized by the gradual development of sound blocks that are built with the fundamental nature of sound (ex: overtone series), took center stage in the 20\textsuperscript{th}-century contemporary music scene. In this particular style, called spectral

music, there is no clear motive or theme. The timbre and texture, which mainly affect the color of music, play a crucial role.\textsuperscript{21}

Some of Chin’s instrumental works share characteristics of spectral music by emphasizing the colorful textures of music. For instance, Chin’s orchestral piece, \textit{Rocanà} (2008), deals with her impression of beams of light. The whole structure is one entity, which is based on uninterrupted waves of colorful sounds. In particular, the repeated wavy pattern of triadic motives in the first movement of her \textit{Piano Concerto} resembles Gérard Grisey’s \textit{Vortex Temporum}. Grisey is regarded as a founder of spectral music, along with Tristan Murail. A detailed discussion of Chin’s \textit{Piano Concerto} follows in Chapter 3.

There is no doubt that Chin’s experience at the Berlin Technical University’s Electronic Music Studio during the late 1980s exerted great influence on her. Among various electronic music techniques, \textit{granular syntheses}\textsuperscript{22} was specifically adopted by Chin in her electro-acoustic work \textit{Xi} and \textit{Piano Etude No. 6 Grain}. As the meanings of both titles—the smallest particle or nucleus—suggest, a tiny fragment of sound functions

\textsuperscript{22} According to Frank Harders-Wuthenow, “It is a variant of the manner of digital sound production developed in the 1970s by Curtis Roads at the University of California, San Diego, and later at MIT in which minute “grains,” acoustical quanta are taken from digitally stored sounds, and whose characteristics can be modified according to the composer’s specification.” Harders-Wuthenow, Frank. “Programme Note for \textit{Xi} (1998) by Unsuk Chin.” \textit{Trans. Howard Weiner}. Boosey & Hawks. Web. 1 Mar. 2016. \url{http://www.boosey.com/cr/music/Unsuk-Chin-Xi/15297}
as a basic unit in a musical composition, and once this fragment is repeated over and over
again in a faster tempo, the texture of the music can be changed in a linear yet more
complex fashion. It is similar to looking at the painting *A Sunday Afternoon on the Island
of La Grande Jatte* (1884) by Georges Seurat up close rather than far away.

![A Sunday Afternoon on the Island of La Grande Jatte](image)

Figure 2. A Sunday Afternoon on the Island of La Grande Jatte (1884) by Georges Seurat

When you see this picture from a distance, it seems like that the painting is made
with linear brushstrokes, but once you look at it closer, you notice that it is composed of
numerous small dots. An approach to creating music from the very smallest particle of

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23 Image from the personal website of Eric Wayne. Wayne, Eric. “Robert Ryman –
http://artofericwayne.com/tag/monochrome-painting/
sounds, and developing it something complex shows Chin’s organic compositional method.\textsuperscript{24}

1.2.3 Inspiration from Different Genres of Art and Literature

English writer Lewis Carroll plays an important role in Chin’s vocal works. Among her various compositions for voice, four of them are based on Lewis Carroll’s *Alice in Wonderland* and *Alice Through the Looking Glass*. The first song, *Akrostichon-Wortspiel* (*Acrostic-Wordplay*) (1991, rev. 1993), is composed of seven scenes from fairytales, including both Michael Ende’s *The Neverending Story* (originally published in German as *Die unendliche Geschichte*) and Lewis Carroll’s *Alice Through the Looking Glass*. Another is *snagS&Snarls* (2003-04) for soprano and orchestra, a song cycle where several parts of scenes are derived from Lewis Carroll’s *Alice in Wonderland*. Interestingly, *snagS&Snarls* was a prerequisite work for her first opera, *Alice in Wonderland*, and most of the songs in this work were reused in the opera. Finally, the fascination with the Alice stories continues in her second opera, *Alice Through the Looking Glass*, which will premiere in 2018.

Besides an interest in the dreams, fantasies, and nonsensical language in Lewis Carroll’s fairytales, Chin also deals with such heavy subjects as death, infinity, and time in her work *Kalá* (2000) for soprano, bass soloists, mixed chorus, and orchestra. By

exploring European contemporary poets, such as Gerhard Rühm, Inger Christensen, Paavo Haavikko, Gunnar Ekelöf, Unica Zürn, and Arthur Rimbaud, Chin shows us how a word itself could be a more interesting source of music than the meanings of words in a text. Therefore, Chin’s use of such techniques as anagrams and symmetry demonstrates that for Chin the concept of “word play” plays a crucial role throughout the movements.\(^{25}\)

In addition to literature, such diverse art genres as pantomime, street art, theatre, the traditional Korean narrative theatre *Pansori*, art installations, and dance were broadly used as source material for her instrumental music. Examples include: *Rocaná* for orchestra, which is inspired by Ólafur Elíasson’s installations *The Weather Project* and *Notion Motion* (2008); the 1\(^{st}\) movement of *Cello Concerto Aniri*, which is related to the Korean narrative theatre *Pansori* (2006-8, rev. 2013); *Gougalon* for ensemble, which is inspired by scenes from an old Korean street theater (2009-2011); *Cosmigimmicks* for ensemble, which is associated with pantomime (2011-12); *Graffiti* for large ensemble, which is about street art (2012-13); and lastly, *Mannequin* for orchestra, which deals with the genre of dance (2014-15).

1.2.4 Virtuosity: Six Concerti and Six Piano Etudes

“‘I’m attracted by virtuosity,’” Ms. Chin said. “This enthusiasm and virtuosity of a player trying to go beyond his or her boundaries: I like that. It’s a situation that I experience all the time as a composer:

pushing the limits of your possibilities, not knowing whether you can do it — and then somehow succeeding. I ask every bit as much from a soloist.”

Chin’s enthusiasm for virtuosity has continued into recent years with such musical genres as *Concerto* for solo instrument and *Piano Etudes*. As of 2016, she has written a total of six compositions for each genre over the past twenty years. Since the very first piano works—*Piano Etudes* Nos. 2 Sequenzen, 3 *Scherzo ad Libitum*, and 4 *Scalen* (1995)—she has experimented with such concepts as sequence, symmetry, polyphony, ostinato, polyrhythm, and tone clusters.

In conjunction with the acclaimed *Violin Concerto* (2001), she explored the unlimited possibilities and inherent characteristics of each instrument but interestingly enough that she did not follow the trend of trying to create a competitive relationship between the soloist and the orchestra, which was quite popular in many piano concerti in the 18th and 19th centuries. In a conversation with Helge Grünewald about her recently revealed *Cello Concerto* (2008-10), she compared the characteristics of each instrument (piano, violin, and cello concerto), explaining her notion of the “hyper-instrument.” In the case of the piano and violin concerto, she tried to blend the sounds of both solo

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instruments with the orchestra, so that they would not always compete with each other. Rather, she wanted to expand the possibilities of the complex yet colorful textures in a highly virtuosic manner. On the other hand, in the case of the cello concerto, because of the weak point of the instrument, in this case its component of middle registers, she had to bring back the concept of the rivalrous relationship between the two and arranged the cello as a supporter of the whole structure. The fourth movement, in particular, revealed the tension inherent in more traditional concerto compositions, which stress the concept of competition between the soloist and the orchestra.

*Piano Etude No. 1 in C, Piano Etude No. 5 Toccata and Piano Etude No. 6 Grain* (1999-2003) were composed a little later than the first three etudes, and therefore they addressed more experimental ideas than the previous ones, such as overtone series, Gamelan music, and electronic music. Along with a tradition of composing etudes using transcendental difficulties, such as those of Franz Liszt, whom Chin admired, Chin has begun to focus on virtuosity in her compositions.²⁸

Besides Chin’s concerti for piano, violin and cello, she has also employed unusual instruments and highlighted them for solo playing; for instance, *Double Concerto* (2002) for prepared piano, percussions, and ensemble, as well as *Sù (air) Concerto* (2009-10) for

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the Chinese instrument Sheng.\textsuperscript{29} Again, she kept away from the concept of the traditionally competitive structure but appropriately mixed or sometimes changed the role of solo and ensemble, creating impeccable sound colors.

In the case of \textit{Double Concerto}, a tendency to blend the sounds of solo and orchestra is obvious, a technique she specifically called “hyper-instrument.”\textsuperscript{30} Also, in \textit{Double Concerto}, Chin draws on gamelan music and Ligeti’s unique tonal system (dividing chromatic scales into two whole-tone collections) as inspirations. Similarly, \textit{Sù Concerto} also shares this characteristic of not sticking to a competitive concept in the concerto throughout, but she focuses more on bringing out the natural temperament of the instrument itself, such as making a broad range of sounds from microtones to clusters, and explores different layers of sounds with the orchestra. The technique of developing music from a small segment and broadening it to a highly complex one penetrates most of her concerti and etudes.

\subsection{1.2.5 The Influence of György Ligeti}
In his article “Craft and Aesthetics – The Teacher György Ligeti,” Wolfgang-Andreas Schultz shares an intriguing anecdote about Ligeti’s class in the 1970s and 1980s at the Hamburg Musikhochschule.

\textsuperscript{29} Sheng is a Chinese instrument known as the oldest free lead instrument, similar to organ and accordion.
Ligeti was incredibly curious about any type of music. He always brought something new to class for us to hear. It could be works by Harry Partch, Conlon Nancarrow, or music from Indonesia, Africa, or Mongolia. The discussion could focus on jazz and pop, or centre on music of the late Middle Ages known as subtilior... What interested him the most, however, were alternative tuning systems, microtonality, and different ways of structuring rhythm. It became clear that Ligeti, too, was looking for something, and it was this common search and a constant feedback which made these class meetings so productive.\(^3\)

It is true that after finishing the opera *Le Grand Macabre* (1977), Ligeti was confronted with difficulties in finding his own musical style. Almost a decade later, in his glorious three books of *Études for Piano* (Book 1: 1985, Book 2: 1988-94, Book 3: 1995-2001), he explored the possibilities of basic musical elements such as harmony (modal or major/minor or overtone or polyphony) and rhythm (polymeter or polyrhythm), incorporating various musical sources, as Schultz explains in his article about Ligeti.\(^2\) Ligeti’s endeavor to seek originality continued with his *Piano Concerto* (1988), and several aspects of both the *Piano Concerto* and the études share several similarities.

In the case of Chin, she followed in her teacher’s footsteps, particularly in her six *Piano Etudes* (1995-2003) and *Piano Concerto* (1996-7). As Ligeti had experimented with a variety of possibilities for harmony and rhythm in the étude and continued on to the *Piano Concerto*, Chin first wrote three pieces, *Piano études Nos. 2, 3, and 4*, and then


composed the *Piano Concerto* a year later. What she mainly dealt with in the etudes were the possibilities of whole-tone scale, polyphony, tonal center, aksak rhythm, ostinato, polyrhythm, and clusters. In addition to a keen relationship between etudes and piano concerto, this overview suggests the similarities between Ligeti and Unsuk Chin’s piano concertos. Detailed information is provided in Chapter 2.

### 1.2.6 Structure, Texture, Harmony, and Rhythm

As we have discussed, it is hard to define Chin’s musical style in one word because inside her musical box there are mixtures of styles from the Middle Ages to the avant-garde, from traditional European music to world music, from church mode to synthetic scale, from small segments of tones (even including microtones) to highly complex sound masses. However, once one looks at her music from a broader perspective (structure and texture) and narrows it down (harmony and rhythm), her unique characteristics emerge.

When it comes to structure and organization, she tends to follow a traditional classical structure that is divided into clear sections. One example that features this style is the 1st movement of the *Piano Concerto*. Each section (ABCB’A’) is precisely divided by tempo markings (such as ♩= ca.112-120). Normally, there is a cadenza at the end of the first movement, but Chin waits until the end of the last movement, reminiscent of Ligeti’s *Piano Concerto*.
Although her characteristic compositional device is the use of unison, she employs 2nd and 4th intervals as a basic motivic element throughout the six Piano Etudes and her Piano Concerto. She not only employs small intervals as a basic idea but also uses clusters for a special sound effect in both works.

Chin’s most interesting character trait is her use of timbre and texture. When one first listens to her music, one immediately hears dense layers of sounds as well as complex rhythms. Simultaneously, shimmering musical colors that flow throughout the music catches the listener’s ear. Several factors that provide diverse musical coloring include brilliant orchestration, the use of various kinds of percussion instruments, an extensive range of registers, and the use of elements reminiscent of spectral and electronic music. Musicologist Paul Griffiths asks, “This iridescence, where does it come from? Colours shimmer, float and weave over Unsuk Chin’s music, and their sources are multiple.”33 For pianists who would like to explore her Piano Concerto, it will be beneficial to listen to her orchestral pieces as well (such as Rocaná, Gougalon, and Mannequin) because her orchestration similarly demonstrates the active role of the orchestra in the Piano Concerto.

As far as harmony and rhythm are concerned, the influence of Ligeti dominates. In the piano etudes as well as piano concerto, she frequently uses overtone series, a

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http://www.boosey.com/pages/cr/composer/composer_main.asp?composerid=2754&ttype=INTRODUCTION&ttitle=In%20Focus
whole-tone scale, major/minor chords, and a synthetic scale. Several instruments in the orchestra (such as harp and mandolin) have a different tuning system, a characteristic derived from the tradition of gamelan music. Mixing complicated polyrhythms such as 5:7 or 3:5:7 and placing accents to one of rhythmic layers that blur the functions of a regular pulse are typical characteristics of her music, as well as that of her teacher Ligeti. Lastly, the manner of presenting melodic material in a contrapuntal style is present throughout her piano concerto, as well as her piano etudes.
While researching Chin’s *Piano Concerto* and reading several articles about it, I noticed that several authors brought up the similarity between her piano works and Ligeti’s piano works. James Webb specifically points to aspects in Chin’s piano concerto that are similar to her teacher’s musical style, such as the moto perpetuo, the Poulenc-on-speed black note/white note music, the suddenly billowing tonal fragments, and the punctuating lurches of momentum.\(^{34}\)

Paul Griffiths also mentions that several features of Ligeti’s music are well embedded in Chin’s piano works, particularly in her *Piano Etudes*.

The setting up of fractal-style rules having to do with repetition and growth, rules leading to a complexity that overwhelms them, and the invention of ideas that are almost animated in their will to live and prosper. Yet the pieces are decidedly Chinesque, too, in their rainbow modal colors, their multiple allusions (not only to Ligeti but also to twentieth century French music and jazz, sometimes in the same bar) and their flash.\(^{35}\)

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By considering all these facts, we can compare Ligeti’s *Piano Concerto*, of which several ideas are closely related to his *Piano Etudes* in Book 1, to Chin’s *Piano Concerto* by taking a wide perspective.

### 2.1 A Brief Introduction to György Ligeti’s *Piano Concerto*

Ligeti wrote his *Piano Concerto* as a three-movement form in 1985 when the first book of *Piano Etudes* was in progress. After its unsatisfactory première, he decided to add two additional movements to bring the piece to an appropriate conclusion.\(^{36}\) The second première as a five-movement form was performed in 1988 with the same conductor, Mario di Bonaventura, and the same pianist, Anthony di Bonaventura, with the ORF-Symphony Orchestra in Vienna. The entire work takes about twenty-four minutes.\(^{37}\)

#### 2.1.1 The Usage of Various Percussion Instruments

When it comes to the timbre of an orchestra, the percussion section stands out. Twenty different percussion instruments are used, ranging from traditional cymbals, triangle, and xylophone to non-European ones, such as the bongo, *güiro*, siren whistle, and chromatic harmonica. Their primarily function, which is to provide diversity in

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rhythm, starts from the very beginning of the 1st movement with tom-tom and piano performing like a duet, and the complex rhythmic divisions are enhanced by strings, which are in a different meter.

A similar approach of using percussion (such as bongo and xylophone) as a means of rhythmic device is also seen in the 3rd and 5th movements of Ligeti’s Piano Concerto. Although the sound of the bongo is hardly noticeable because of its soft dynamic, an African rhythm permeates the music throughout the concerto. At the end of the 5th movement, the xylophone and piano play fast rhythmic figurations together as 3:4, which is in turn developed further by adding asymmetrical rhythmic accents to both, creating an additive progression. It’s a rhythmic complexity that proceeds to chaotic gesture, reminiscent of Conlon Nancarrow’s Studies for Player Piano.

Besides rhythmic diversity, percussion instruments are also used to evoke different colors, as well as to create bold (sometimes humorous) sound effects. In the middle of the 2nd movement, various tuned percussion instruments, such as the slide whistle, flexatone, and xylophone, are added to either imitate a “lament motive” (descending tetrachord) or to create a big surprise, using abrupt dynamic changes. A wide range of percussion instruments such as glockenspiel, whip, signal whistle, castanets, Tambourine, bass drum, and wood block, are also employed in the 4th movement, which serves the function of providing diversity in texture to each small melodic and rhythmic fragment.
Like Ligeti, Chin also uses a large number of percussion instruments in her *Piano Concerto* (a total of twenty-four percussion instruments), but the way Chin places them as well as the way Chin uses them in a piece, is unlike Ligeti. Chin stresses the importance of the mandolin, harp, and percussion instruments by specifically asking them to be placed in the middle of the orchestra. This approach is similar to Béla Bartók’s *Piano Concerto No.1*, Sz.83 (1926), in which the percussion section is also placed right behind the piano.\(^{38}\)

<table>
<thead>
<tr>
<th>Ligeti’s piano concerto (20 Percussion instruments)</th>
<th>Chin’s piano concerto (24 Percussion instruments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triangle</td>
<td>Xylophone</td>
</tr>
<tr>
<td>Crotales, by pairs</td>
<td>Marimabaphon</td>
</tr>
<tr>
<td>4 Woodblocks</td>
<td>4 Templeblocks</td>
</tr>
<tr>
<td>Tambourine</td>
<td>Snare Drum</td>
</tr>
<tr>
<td>3 Bongos</td>
<td>2 Triangle</td>
</tr>
<tr>
<td>Bass drum</td>
<td>2 Cymbals</td>
</tr>
<tr>
<td>Castanets</td>
<td>Whip</td>
</tr>
<tr>
<td>Suspended cymbals</td>
<td>Maracas</td>
</tr>
<tr>
<td>Siren Whistle</td>
<td>Clapper</td>
</tr>
<tr>
<td>Signal Whistle</td>
<td>Glass harmonica</td>
</tr>
<tr>
<td>Slide Whistle</td>
<td>Flexatone</td>
</tr>
<tr>
<td>Chromatic Harmonica</td>
<td>Glockenspiel</td>
</tr>
<tr>
<td>Xylophone</td>
<td>2 suspended Cymbals</td>
</tr>
<tr>
<td>2 Timpani</td>
<td>4 Bongos</td>
</tr>
<tr>
<td>Tenor drum</td>
<td>Bass drum</td>
</tr>
</tbody>
</table>

Table 1. A formation of percussion instruments in Ligeti’s and Chin’s *Piano Concertos*

According to Kyung Eun Kim, Chin’s method of using percussion instruments is modeled on a gamelan ensemble. She pointed out that a majority of the components in the percussion instruments are composed of metallophones (metal-keyed percussion instruments), which are crucial elements in the formation of gamelan ensemble.\textsuperscript{39} Several examples of Chin’s usage of percussion instruments will be examined in Chapter 3.

\textbf{2.1.2 Overview of Ligeti’s \textit{Piano Concerto}}

In Ligeti’s \textit{Piano Concerto}, each movement of the piece is filled with his new conception of harmony and rhythm, as explained in the article “On My Piano Concerto”.\textsuperscript{40} The most interesting point in the 1\textsuperscript{st} movement is that there are two different meters placed simultaneously (12/8: 4/4 = 3: 2) while Ligeti enhances the complexity by putting an asymmetrical accent in each tempo group. The length of the basic beat value (in this case, the 8\textsuperscript{th} note) and the structure of the talea (a repeated rhythmic pattern) are organized differently into two groups, and they are essentially unsynchronized with each other throughout.\textsuperscript{41}

\textsuperscript{39} Kyung Eun Kim “A Study of Unsuk Chin's Piano Concerto” DMA, Manhattan school of Music, 2010 P. 25
Furthermore, several musical ideas are closely related to his Piano Etude no.1 Désordre, such as the formation of the motive, mixing white/black keys and experimenting with chaotic gestures (in other words, purposely putting additional notes in one of the hands, so that the rhythmic process gets out of alignment) A similar approach to making a chaotic effect by slightly delaying a rhythmic pattern in one of hands can also be found in both Ligeti’s Piano Concerto, in the 1st movement in measure 97, and Chin’s Piano Etude No.2 Sequenze, in mm. 18-29. (See figure No. 31)
In the slow 2nd movement, Ligeti focuses more on composing melodic lines than exploring rhythmic complexity. In particular, the piece begins with two simple notes, G-F# (minor 2nd) of piccolo on top of a F pedal point of contrabass. For about thirteen measures, the piccolo plays alone with descending melodic lines, creating an additive rhythmic pattern: G,F# – G,F#,E – G,F#,E, Eb. A similar approach to constructing descending melodic lines in a longer phrase continues in the bassoon, piano, and brass - which is reminiscent of a canonic gesture. Ligeti specifically explains that the melody lines are derived from Messiaen’s modes of limited transposition No. 3. The scale that
contains a succession of major 2\textsuperscript{nd} and two minor 2\textsuperscript{nd}s mostly matches Ligeti’s melodic formation.\textsuperscript{42}

According to Stephen Taylor, the so-called “lament motive” (descending tetrachord) is widely adopted, not only in the 2\textsuperscript{nd} and the 3\textsuperscript{rd} movements of Ligeti’s Piano Concerto, but also in his Piano Etude No.6 Automne à Varsovie, the 5\textsuperscript{th} movement of the

Violin Concerto, the 5th movement of the Viola Sonata, and the 4th movement of the Horn Trio.44

In addition to the formation of the melody line, unusual tone colors of music are explored in both the piano and orchestral parts. As Ligeti mentions in “On My Piano Concerto,”45 a mixture of the low register of the piccolo and the high register of the bassoon in the very beginning create an atmosphere of weirdness, which appropriately matches the dreary mood of the lament motives. Taking advantage of the extreme register of the piano can also be seen in mm. 32 to 40, where Ligeti purposely separates two simple descending melody lines to both edges of the piano (maintaining ppp without pedal) and enhances the mood of emptiness (along with the intervallic distance of the 4th). This way of presenting melody lines in a distant register is reminiscent of Dmitri Shostakovich’s piano works.

Figure 7. Ligeti’s Piano Concerto, 2nd movement, mm. 32-36

The mixture of white and black keys again is used towards the end of the piece, remaining in the same figuration of descending lines in the 5th and 7th intervallic distance. Instead of covering all the registers of the piano, only the treble part is used with the maximum level of sounds (ffff). This way of covering most of chromatic tones in an octave with both hands, reminiscent of a crying or screaming effect, alludes to the tone cluster effect enacted by Henry Cowell.

Figure 8. Ligeti’s Piano Concerto, 2nd movement, mm. 70-71

In the 3rd and the 5th movement, Ligeti again turns his attention to the possibilities of rhythmic complexity but not in the way he does in the 1st movement. Particularly in the 3rd movement, instead of mixing different meters, various layers of different rhythmic pattern are gradually built up with asymmetrical accents that are placed in one of the rhythmic layers, in such places as the fast running 16th notes. In a fast tempo, the illusion of asymmetrical accent transforms its short rhythmic value into a longer melodic gesture,
which makes listeners to conceive of them as multiple melodic lines, as if listening to polyphonic music.

Figure 9. Ligeti’s Piano Concerto, 3rd movement, in m. 18, multiple rhythmic layers

Such a characteristic as a cyclical and repeating rhythmic pattern with no evidence of a bar line or regular pulse is a typical style of sub-Saharan African music. As Stephen Taylor points out, the toccata like fast on-going 16th notes act as a “common denominator” (which Ligeti mentions in his article) and hold different rhythmic patterns together, which in turn makes it easier for pianists to handle all these complex rhythms.\textsuperscript{46}

Rhythmic layers in the 3rd movement

<table>
<thead>
<tr>
<th><strong>Top layer</strong>: singing melody line</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(Buildable) Middle layer</strong>: various rhythmic pattern + accented notes</td>
</tr>
<tr>
<td><strong>Basic (bottom) layer</strong>: constantly on-going 16th notes (fast)</td>
</tr>
</tbody>
</table>

Table 1. Rhythmic layers in the 3rd movement of Ligeti’s *Piano Concerto*

In a view of harmonic progression, Ligeti’s new conception of a “quasi-equidistantial interval or scale” is predominant in the 3rd movement. In detail, a chromatic scale, which is based on minor 2nds, can be divided into two whole-tone collections that are composed mainly of major 2nds. By mixing two whole tone collections together, one can hear both characteristics of harmonic scales at the same time. As Ligeti explains:

There are places in which the melody and piano figuration are formed out of the two whole-tone collections, one collection in one hand, the complementary collection in the other hand. In this way both whole-tone and chromatic languages reciprocally arise, an unusual sort of equidistance, remarkably iridescent and like wise ‘oblique’, an illusionary harmony, clearly originating within twelve-tone temperament, but no longer belonging to it.47

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Figure 10. Ligeti’s Piano Concerto, 3rd movement, mm. 53-54

<table>
<thead>
<tr>
<th>Chromatic scales (WT1 + WT2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Whole-tone scale 1:</strong> C-D-E-F#-G#-A#</td>
</tr>
<tr>
<td><strong>Whole-Tone scale 2:</strong> C#-D#-F-G-A-B</td>
</tr>
</tbody>
</table>

Table 2. Ligeti’s new conception of harmony (quasi-equidistantial interval or scale)

Beside rhythmic and melodic experiments, Ligeti’s interest in geometry and fractal concepts⁴⁸ (such as self-similarity and recursion) is mainly applied to the 4th movement. More closely, the piece starts from the three, very simple motivic fragments

⁴⁸ According to the Fractal Foundation, “A Fractal is a never-ending pattern. Fractals are infinitely complex patterns that are self-similar across different scales. They are created by repeating a simple process over and over in an ongoing feedback loop. Driven by recursion, fractals are images of dynamic systems – the pictures of Chaos.” Fractal Foundation, *What are fractals*, Web. 1 March 2016.  
http://fractalfoundation.org/resources/what-are-fractals/
of woodwind and horn, string, and piano, which are placed sparsely next to each other.

Similar to the progression of the “lament motive” in the 2\textsuperscript{nd} and the 3\textsuperscript{rd} movements, which was constantly repeated throughout but not the same as the previous figuration (in a way of additive rhythmic pattern), the three basic fragments in the 4\textsuperscript{th} movement are also repeated throughout, but each time, in a more developed way, such as augmentation and diminution.

First motivic fragment (woodwind) Augmentation of it (string)

Figure 11. Ligeti’s Piano Concerto, 4\textsuperscript{th} movement, m. 1 and mm. 10-11

What makes this movement interesting is that by gradually raising the density of music (such as reducing the gap between each fragment, as well as putting two different
levels of rhythmic order simultaneously towards the end of the movement, 2:3), a simple fragment gradually turns into a chaotic comma, as is shown in Figure 13. The concept of the fractal, in which the shape of the whole structure and the shape of the small parts in the structure are similar to each other, serves a crucial role in the construction of this movement.

![Image of Ligeti's Piano Concerto, 4th movement](image)

Figure 12. Ligeti’s *Piano Concerto*, 4th movement – two different levels of rhythmic order mm. 114-116

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Interestingly enough, the 3rd movement of Chin’s piano concerto also shows such a fractal characteristic. The movement is composed of thirty different motivic fragments on top of two harmonic pillars. As Chin mentioned in the composer’s note, these motivic fragments are placed in a mosaic fashion and the shape of each fragment is different yet similar to the others. A detailed description of the movement will be discussed in Chapter 3.

Lastly, as we have briefly discussed, the 5th movement shares common characteristics with the 3rd movement in terms of rhythmic complexity and harmonic usage (a mixture of the whole-tone collection). A background rhythmic layer, which is a repeated 16th note, starts from the very beginning of the piece by percussion (bass drum).

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and is transferred to the piano as a succession of whole-tones. To use the on-going 16th note as a basic rhythmic layer alludes to African music, which is broadly applied to Ligeti’s piano works, such as *Piano Etude Nos.1 and 6*, the 3rd movement of his *Piano Concerto* and Chin’s 1st and 4th movements of her *Piano Concerto*.

Figure 14. Ligeti’s *Piano Concerto*, beginning of the 5th movement

In terms of motivic usage, the first five notes in the right hand of the piano (groups of 2, 3, and 1 notes) serves as a basic motivic fragment and these notes constantly heard throughout the piece in a different lengths and orders, not just from piano but also from the woodwind, brass, and string.
In addition, a core function of the percussion section, rhythmic complexity, penetrates the movement throughout. One example is in measure 12 in which the bongo adds an additional rhythmic layer (reminiscent of African rhythm) on top of the on-going 16th notes on the piano and the singing melody in the strings.

Figure 15. Ligeti’s Piano Concerto, 5th movement, mm. 3-4 (piano part: right and left hands)
Figure 16. Ligeti’s *Piano Concerto*, 5th movement mm. 13-14

After the cadenza section, which is based on motives in the beginning of the piece, a fast 16th notes scale appears again in the form of a duet between piano and the xylophone. An asymmetrical accent, which is developed in an additive rhythmic pattern, makes it harder to discern any beat or pulse; in this way it is reminiscent of Conlon Nancarrow’s *Studies for Player Piano*. 
2.2 Similarities between Ligeti’s and Chin’s Piano Concertos

Broadly used throughout the movements in Ligeti’s Piano Concerto are such influences as: sub-Saharan African music (layers of different rhythmic patterns in the 3rd and 5th movements), fractals (self-similarity and recursion in the 4th movement), chaos theory (small changes could make a huge difference, as in the butterfly effect in the 1st and 4th movements), the “lament motive” (the descending tetrachord in the 2nd and 3rd movements) and Conlon Nancarrow’s Studies for Player Piano (the possibilities of polyphony, polyrhythm, and polytempo in the 1st, 3rd and 5th movements).

Interestingly enough, in Chin’s Piano Concerto, similar concepts, such as sub-Saharan African rhythmic layers, fractals, and Conlon Nancarrow’s Studies for Player Piano
are also embedded throughout her piece, and one could assume that these influences are handed down from her teacher, Ligeti.

2.2.1 Simultaneous Use of Different Rhythmic Pattern

The major difficulty faced in playing Chin’s music is rhythm. One example is related to the use of multiple layers of different rhythmic patterns, which can be seen in the 1st movement of Chin’s Piano Concerto. In the middle of the movement, three different layers of rhythms are interwoven with each other by the xylophone, vibraphone, and piano as 3:4:5. In particular, the fast 16th notes figuration which contains asymmetrical accents, keeps recurring throughout the movement as a basic rhythmic layer. This is regarded as a typical characteristic of Ligeti, and it can also be seen in his 3rd and 5th movements of his Piano Concerto.

Figure 18. Chin’s Piano Concerto, 1st movement, mm. 92-96, multiple layers of rhythm

Piano Concerto No. 1 by Unsuk Chin
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Moreover, as Ligeti used various percussion instruments such as bongos, xylophone, and glockenspiel to the middle part of the rhythmic layer and accentuated its complexity, Chin similarly uses diverse percussion instruments such as xylophone, vibraphone, cymbals, and Lithophon to one of the rhythmic layers and enhances the characteristic of the polyrhythm. Notably, the shape of the rhythmic and melodic gestures between the harp and the piano in mm. 16 to 21 in Chin’s 1st movement (3:4 rhythm) closely resembles the ones between the glockenspiel and the piano in the 5th movement of Ligeti’s Piano Concerto.

Figure 19. Ligeti’s Piano Concerto, 5th movement, mm. 23-30
Although percussion instruments play an important role in accentuating the
rhythmic variety in both composers’ works, Chin’s way of using percussion instruments
resembles gamelan music. In particular, the tuning of the harp constantly changes
throughout the entire movement, which resembles of an alternative tuning (Pelog and
Slendro) of gamelan ensemble music.
<table>
<thead>
<tr>
<th>Tuning system of harp</th>
<th>1st movement</th>
<th>Measure 1</th>
<th>A-Bb-C#-D-Eb-F#-G#</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Measure 72</td>
<td></td>
<td>C#-D-E-F#-G#-A-Bb</td>
</tr>
<tr>
<td>2nd movement</td>
<td>Measure 1</td>
<td></td>
<td>Ab-Bb-C-D-Eb-Fb-Gb</td>
</tr>
<tr>
<td></td>
<td>Measure 16</td>
<td></td>
<td>C#-D-Eb-F#-G#-A-B</td>
</tr>
<tr>
<td></td>
<td>Measure 33</td>
<td></td>
<td>C#-D-E-F-Gb-Ab-B</td>
</tr>
<tr>
<td></td>
<td>Measure 38</td>
<td></td>
<td>C#-D-Eb-F-G-Ab-B</td>
</tr>
<tr>
<td></td>
<td>Measure 63</td>
<td></td>
<td>C-D-Eb-F#-G#-A#-B</td>
</tr>
<tr>
<td></td>
<td>Measure 154</td>
<td></td>
<td>A#-B-C-D#-E-F#-G#</td>
</tr>
<tr>
<td></td>
<td>Measure 180</td>
<td></td>
<td>C-D#-E-F#-G#-A-B</td>
</tr>
<tr>
<td>3rd movement</td>
<td>Measure 1</td>
<td></td>
<td>C-D-Eb-F-Gb-A#-B</td>
</tr>
<tr>
<td></td>
<td>Measure 31</td>
<td></td>
<td>C#-D#-E-F-Gb-A#-B</td>
</tr>
<tr>
<td>4th movement</td>
<td>Measure 84</td>
<td></td>
<td>A#-B-C#-D#-E-F#-G#</td>
</tr>
</tbody>
</table>

Table 3. Tuning of harp in Chin’s *Piano Concerto*

### 2.2.2 Fractal concept

In Chin’s piano concerto, the 3rd movement is the most recognizable of the four because its unusual structural organization. As she mentions in the composer’s note, the piece is composed of thirty different (yet similar) motivic fragments laid out in mosaic fashion, and two harmonic pillars supporting them throughout. Interestingly, the same
idea of placing motivic fragments in a mosaic fashion had already been examined by Ligeti, which can be seen in the 4th movement of his Piano Concerto.

I conceive the fourth movement as the central movement of the concerto. Its melodic-rhythmic elements (germinal cells or motivic fragments) are rudimentary. The movement also begins simply, with successions and superpositions of these elements in harmonic mixture formation. Here too a kaleidoscopic structure emerges, for there is a limited number of such elements, like mosaic stones, which in augmentation and diminution, always recur.\(^{51}\)

As Ligeti mentions, the three basic motivic fragments, played by woodwind, string, and piano in the beginning of the movement, recur throughout, but not in the same way as its original formation. The fact that the whole structure, which is composed of a recurrence of these similar yet different motivic fragments, is also self-similar to its components offers an excellent explanation of the concept of the fractal.

Chin also follows Ligeti’s way of using motivic fragments. In the 3rd movement of her Piano Concerto, the last ten motivic fragments out of thirty are actually derived from the previous one as if to demonstrate their variation. For instance, the second motivic fragment, which is composed of two simple melodic lines mixing the white key (D-A-E) and the black key (A#-D#-G#), appears in contrary motion in mm. 7-8. This basic motivic fragment slightly changes from its original shape and recurs twice. The first one appears as a longer phrase in mm. 17-19, stressing the interval of a 5th in the celesta, glockenspiel, vibraphone, and string which all share the characteristic of the overtone.

series. Meanwhile, the second motive appears in mm. 74-77 in the form of augmentation, featuring the interval of 2\textsuperscript{nd}.

Figure 21. Basic motivic fragment #2

Figure 22. Varied version of motivic fragment #2

Although, the two composers share similarities in placing motivic fragments as a mosaic fashion, Chin does not follow Ligeti’s way of developing structure, which could be described as a gradual growth of musical density that reaches a chaotic moment at the
end. Even if Chin finishes the music with a big sound block at the end of the 3rd movement, it is hard to say this climatic cadence is related to the chaotic concept. Rather, a core idea that she wants to bring out in the 3rd movement is a possibility of “natural resonances”. Evidence can be seen in the fact that several motivic fragments possess the harmonic characteristic of the overtone series, and the weakness of the piano’s sound durability is supported by the brass instruments.

2.2.3 The Influence of Conlon Nancarrow’s Studies for Player Piano

Conlon Nancarrow (1912-1997) is an American composer who spent most of his lifetime in Mexico. Among his compositions, the series 49 Studies for Player Piano is regarded as his great achievement. In these individual works, the extreme complexity of rhythm (such as polyrhythm and polymeter) demonstrates his combination of a style of jazz and contrapuntal music. For instance, in the case of Study No.3, the jazz influence is obvious by considering the boogie-woogie bass pattern that accompanies the multiple layers of jazzy melody lines, which are composed of different rhythms. The most interesting one includes Study No.21 “Canon X,” in which the two different melody lines in a different tempo (slow bass + fast melody) progressively exchange their speeds with

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each other (one gets slower and the other gets faster), so that by the end of the piece, the
tempos of the two are completely crossed with each other in the shape of its title “X.”

As pianist Michael Arnowitt has pointed out, Nancarrow’s experimental musical ideas are melded into Ligeti’s Piano Etudes. In Etude No.6 Autumne à Varsovie, four different tempos are interwoven into each other on top of Ligeti’s signature “perpetual motion”. Additionally, individual parts of the texture also change tempos by slowly speeding up or down, which is similar to Nancarrow’s “Canon X”.

Besides Ligeti’s Etudes, his Piano Concerto also features a characteristic of Nancarrow’s and not surprisingly, Chin’s Piano Concerto also shares similarities with it.

For instance, at the end of the last movement in both composers’ Piano Concertos, perpetual 16th notes are presented in a highly virtuosic manner, combining such concepts as layers of rhythmic pattern, polyrhythm, additive rhythmic progression, white/black key, and canon. This complicated music, which is impossible for human to play, recalls Nancarrow’s music for player piano.

2.2.4 Mixture of White/Black Keys

A characteristic of bitonality can be seen in such works as the 1st movement of Ligeti’s Piano Concerto, Piano Etude No.1 Désordre and the 2nd and 3rd movements of

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Chin’s *Piano Concerto* in the form of white and black key patterns. In detail, towards the end of the 2\textsuperscript{nd} movement in Chin’s *Piano Concerto*, a succession of triplet clusters appears to both hands as an alternation of white and black keys. Another similar example can also be seen in one of the motivic fragments in the 3\textsuperscript{rd} movement, in which two groups of scales in both hands are distributed to white and black keys on the keyboard.

![Image: White key and Black key]

Figure 23. Chin’s *Piano Concerto*, 3\textsuperscript{rd} movement, m. 72: Bitonality & Pentatonic scale

![Image: Piano Concerto No. 1 by Unsuk Chin]

Figure 24. Chin’s *Piano Concerto*, 2nd movement, mm. 203-209
2.2.5 Exploring Extreme Registers

As Ligeti had experimented with extreme register of sounds in both the orchestral (such as the low register of the piccolo and the high register of the bassoon) and the piano parts (placing melody lines in a distant way) in the 2nd movement of his Piano Concerto, Chin also looked to create different colors of sounds by taking advantage of the piano’s registral gap.

The most notable example can be seen in the 1st movement in measures 31 to 38 where the piano changes its 16th perpetual motion to linear melody line in three voices. In particular, Chin emphasizes the registral gap of each melody line in both hands of the piano by paring them with the piccolo and the clarinet one by one.

Figure 25. Emphasizing the registral gap in Chin’s Piano Concerto (Continued)
Figure 25. Emphasizing the registral gap in Chin’s *Piano Concerto*

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In addition, in the middle of the 2nd movement of her *Piano Concerto*, musical texture is drastically changed by stressing on a difference between low and high registers. Chin respectively pairs low and high register instruments with the piano (low: the bassoon, the cello, the bass and the timpani / high: piccolo, flute, oboe, clarinet, celesta, harp, violin) and brings out dark, threatening yet busy sound effect in an alternative way.
Figure 26. Chin’s Piano Concerto, 2\textsuperscript{nd} movement, mm. 165-176

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2.2.6 Economical Usage of Motives and Additive Rhythmic Pattern

When it comes to Ludwig von Beethoven’s motivic usage, such as splitting a basic motive into a smaller parts and adapting it to a bridge part or a development section in a varied form, Ligeti and Chin also follow this approach in their piano concertos. Taking advantage of a single motive to the entire piece in a varied form ultimately provides unification to the music.
In the 5th movement of Ligeti’s *Piano Concerto*, fragments of the basic motive in the right hand of the piano part recur throughout as augmentation and diminution in both the piano and orchestral parts. Such examples can be found in mm. 7-8 in the woodwind section and in mm. 9-10 in the brass section (basic motive is in Figure 12).

![Augmentation](image1)

**Figure 28.** Ligeti’s *Piano Concerto*, 5th movement, mm. 9-10 (continued)

![Diminution](image2)

**Figure 28.** Ligeti’s *Piano Concerto*, 5th movement, mm. 7-10
In the case of Chin, a similar approach can be seen in the 1st movement of her piano concerto in which, four motives based on a triad in the beginning of the movement recur not only in the piano part but also in the orchestral part throughout. For instance, a triplet motive of the harp in measure 15 to 21 is a varied form of the basic motive of the piano. (Figure 16). Also, a piano part in measures 92 to 117, in which the 16th scale is changed to a leaping motion of having the 5th intervallic distance, is also derived from the basic motive in the beginning of the movement (Figure 17).

Similar to Ligeti’s “lament motive” in the 2nd and 3rd movement of his Piano Concerto in which, a short descending melody line extends in sequence, Chin also uses an additive rhythmic pattern in the 2nd movement of her Piano Concerto. For instance, in measure 39, a descending chromatic line in the left hand of the piano shows an additive rhythmic pattern (number of the 8th notes: 2-3-4-5) on top of a quintuplet rhythmic figuration (almost like ostinato) in the right hand.

Figure 29. Chin’s Piano Concerto, 2nd movement, mm. 39-40
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A similar gesture also can be seen in measure 57 to 61 in which, the phrasing of a chromatic ascending melody line in the piano part is gradually stretched from quintuplet to sextuplet, septuplet and octuplets in which, later in mm 67 to 72, the melody turns into a trill on F #, and in turn serves as the tonal center of the fast middle section in the 2nd movement.

Figure 30. Chin’s *Piano Concerto*, 2nd movement, mm. 57-61 and mm. 67-72
2.3 The Influences of György Ligeti on Other Pieces by Chin

Besides Chin’s Piano Concerto, her Piano Etudes also share similarities with Ligeti’s piano works in terms of the influence of gamelan ensemble, chaos theory, equidistantial harmonic usage, and the frequent use of Bartok’s aksak rhythm.

2.3.1 Gamelan Ensemble

A typical example that reflects the influence of the gamelan ensemble traces back to Claude Debussy’s Estampes, No.1 Pagodes (1903). Since Debussy first heard the exotic Javanese gamelan sound at the Paris Exhibition Universelle in 1889, the gamelan ensemble became a great musical resource for his later works. According to music critic David Kettle, Debussy’s way of using gamelan sound could be considered in three ways: 1) imitating the metallic sounds of a gong, 2) using complicated layers of texture (as Kettle says, “In which different instruments play different material in different speeds”), and 3) taking advantage of gamelan instruments themselves to make music.56

In the case of Ligeti’s Piano Etude No.7 Galamb Borong, the gamelan influence goes further by tracing its harmonic usage and layers of texture. In the performance notes, Ligeti asks pianists to play two different whole-tone scales simultaneously on

both hands throughout. In light of gamelan’s alternative tuning systems – Slendro and Pelog, the mix of the two whole-tone scales in Piano Etude No.7 Galamb Borong resembles the gamelan tuning system.

The notes played by each hand remain completely separate throughout the whole piece: the right hand plays only notes of the whole tone scale of B, A, G, F, Eb, Db, the left hand only notes of the whole tone scale of E, D, C, Bb, Ab, Gb. This also applies to the places where the left hand crosses over the right hand.57

In addition, Ligeti also explains his way of using multiple layers of rhythms in the performance notes. Endless on-going 16th notes that serve as a background rhythmic layer penetrates the entire piece while different rhythmic and melodic layers, which function as foreground layer, pile on top of it. A complex texture that contains a bell-inspired sound suggests the exoticism of a gamelan ensemble.

Instead of a bar meter the piece has a structure of additive pulsations, whereby the constant, even pulsation of semiquavers (sixteenth notes) remains in the background. The melodic-rhythmic lines (two independent rhythmic strands in the right and left hand) are based on whole number multiples of semiquavers.58

Chin’s interest in the gamelan ensemble can be seen in her Piano Concerto by considering such examples as frequent changes in the tuning system of the harp and the unique formation of percussion instruments, which are mainly composed of metallic percussion instruments. In addition, based on Jong Eun Lee’s analysis, Chin’s Double Concerto also shares a characteristic of gamelan music in term of a paired tuning (Pelog

58 Ibid.
and *Slendro*), cyclic metric structure, and multiple sonic layers that provide shimmering effect in music. Detailed discussion will be added in Chapter 3.

### 2.3.2 Chaos Theory

Similar to the butterfly effect, simple music can become complicated at the end by adding an extra note to one hand in the middle of the progression. Related musical examples of chaos theory can be seen in both Ligeti’s *Piano Etude No.1 Désordre* and Chin’s *Piano Etude No.2 Sequenzen*.

In contrast to Ligeti’s *Etude No.1* in which complexity is brought about with an extra note in the left hand in measure 4, Chin purposely delays a left hand progression a beat behind and blurs the rhythmic pulse. It could be thought of as varied canon or imitation but when these unsynchronized figurations are played periodically similar chaotic effects as those with which Ligeti had experimented in the etudes can be achieved.

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2.3.3. Equidistantial scale or tonal structure

Ligeti’s new thoughts about harmony included the use of a chromatic scale in the twelve-tone divisions of an octave, which could be further divided into two whole-tone collections. By combining the two, the listener could feel both the characteristics of the chromatic and the whole-tone scales, simultaneously. These ideas about harmony can be seen in the 3rd movement of his Piano Concerto as well as Chin’s Piano Etude No. 2 Sequenzen, No.3 Scherzo ad libitum, and No.4 Scalens. Soo Kyung Kim’s analysis of Chin’s Piano Etudes notes that in the middle part (mm. 30-49) of Chin’s Etude No. 2, which is mainly composed of a Cb tonal center on top of the 3:4:3 aksak rhythms as ostinato. In this piece, the fast 16th notes embellishment that demonstrate her interest in

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natural resonances can be heard for several times, and the components of these embellishments form a mixture of the two whole-tone collections.\textsuperscript{61}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image.png}
\caption{Chin’s Piano Etude No. 2 Sequenzen, mm. 30-34}
\end{figure}

In the case of Etude No.3, a motive in the beginning of the piece, which is composed of an ascending scale with a big leap motion that is developed by using an additive rhythm, shares three harmonic schemes that are chromatic, octatonic and two whole tone scales. Lastly, in the Etude No.4, a basic motive in the beginning, which is an alternation of scales in both hands, shows a harmonic mixture of two whole tone collections to give the impression of a chromatic scale.

2.3.4 Aksak (Bulgarian) rhythm

Aksak is a Turkish word that means lame. A combination of unequal beats such as 2+3+2 / 2+2+2+3 is widely spread and heard most often in the region of East Europe. In particularly, a clear example that shows aksak’s influence can be found in

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Béla Bartók’s piano music, such as a set of *Six Dances in Bulgarian Rhythm* in *Mikrokosmos* Sz.107, Vol. 6.

Figure 34. Bartók's *Six Dances in Bulgarian Rhythm in Mikrokosmos* Sz. 107, Vol. 6, No. 153

Aksak's influence can also be found in both Ligeti and Chin’s piano works. In Ligeti’s *Piano Etude No. 4 Fanfares*, the clear 8th note division of 3+2+3 is shown as an ostinato pattern, and a similar one that is composed of 3+4+3 appears in the middle of Chin’s *Piano Etude No. 2 Sequenzen* (Figure 24).

Figure 35. Ligeti's Piano Etude No. 4 Fanfares mm. 1-4
CHAPTER 3: AN ANALYSIS OF UNSUK CHIN’S PIANO CONCERTO

Unsuk Chin’s Piano Concerto was written in 1996-97 after she had finished her first compositions for piano, Etudes No. 2 Sequenzen, No. 3 Scherzo ad libitum, and No. 4 Scalén (1995). It was commissioned by the BBC for the BBC National Orchestra of Wales and was premièred by pianist Rolf Hind and conductor Mark Wigglesworth at St. David's Hall in Cardiff in 1997. The first recording, with pianist Sunwook Kim, conductor Myung-Whun Chung, and the Seoul Philharmonic Orchestra, was released by Deutsche Grammophon in 2014 and won BBC Music Magazine’s “premiere” award in 2015. The work is composed of four movements and the approximate duration of the concerto is twenty-five minutes.

3.1 First Movement: Overview

According to Chin’s explanation of the work (in her composer’s notes), she wanted to bring out four important characteristics in the genre of piano concerto: the virtuoso potential of the piano, the expanded role of orchestra, the economical usage of

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motives, and the unpredictability of the structure. In particular, the first movement effectively shows these characteristics, by combining layers of complex polyrhythms with swirling, repeated triadic motives that demonstrate the influence of Ligeti’s *Piano Concerto* and Gérard Grisey's *Vortex Temporum*.

### 3.2 Structure and Motivic Usage

Each section is clearly divided by tempo markings. As Kyung Eun Kim has explained, the movement is in the form of A-B-C-B’-A’. ⁶⁵ Although Kim subdivided sections A and C into four smaller parts (a, b, c, d) and three smaller parts (a, b, c), respectively, based on Chin’s tempo markings, it is also possible to group them more in a broader view with smaller parts (a, b, c) and one larger part by considering the progression of the music.

As far as the symmetrical form of the movement is concerned, it could be compared to Bartók’s *Piano Concerto No.2* in G major, Sz. 95. (1930-31). The overall structural shape of the Bartók *Piano Concerto* features “fast-slow-fast-slow-fast” tempo organization. ⁶⁶ This Bartókian arch shape structure is clearly seen in the 1st movement of Chin’s *Piano Concerto*.

---


<table>
<thead>
<tr>
<th>Tempo marking and measure number</th>
<th>Time signature</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>♩=ca.112-120 (mm. 1-30)</td>
<td>2/4</td>
</tr>
<tr>
<td></td>
<td><em>meno mosso</em> ♩= 92-96 (mm. 31-47)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>♩= ca. 112-120 ♩= 88-92 (mm. 48- 66 )</td>
<td>4/4</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>♩=ca. 104- 112 (mm. 67-91)</td>
<td></td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>♩=ca. 96-100 ♩= 120 ♩= ca. 96-100 (mm. 92-117)</td>
<td>3/4 - 2/4 - 3/4</td>
</tr>
<tr>
<td><strong>B’</strong></td>
<td>♩=ca. 120-126 (mm. 118-148)</td>
<td>2/4</td>
</tr>
<tr>
<td><strong>A’</strong></td>
<td>♩=ca. 112-120 (mm. 149-178)</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Structure of the 1st movement
According to Chin, there are four basic motives in the beginning of the movement, based on a triad.\(^\text{67}\) As can be seen in Figure 1, the shape of the motives (in other words, the melodic contour) serves an important role in distinguishing them from one another. Interestingly, she placed the motives like a puzzle and used them throughout the movement in a varied way in both the piano and the orchestral parts.

Figure 36. Four types of motives based on a triad (piano part)

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Figure 37. Basic motives in the woodwind part

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Figure 38. Basic motives in the string part

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Unlike the motives in sections “A” and “B,” in which the triadic arpeggio figuration in the piano part are clearly recognizable, the one in the “C” section is drastically changed in its shape to a succession of 5\textsuperscript{th} intervals. Although the rhythm and intervallic content of the motive are altered to a different meter, the phrasing or melodic contour of the motive still remains in as the beginning, which suggests Chin’s economical method for deploying motives.
Interestingly, these repeated and swirling gestures in the motives resemble those in the 1st movement of Gérard Grisey’s *Vortex Temporum* for flute, clarinet, violin, viola, cello, and piano (1994-96). In the opening of that piece, Grisey mainly uses a diminished 7th chord in an arpeggiated motion and repeats it continuously in a wavy pattern. Referring to this melodic line, Ching-Yi Wang points out that Grisey’s broken diminished chord is derived from a motive of Ravel’s *Daphnis et Cloë* (1912).  

Comparing the very first measure of Chin’s piano part to Grisey and Ravel’s motives, one can see that they are almost the same.

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3.3 The Pedal Tone, the Tonal Center, and the Interval of the 2\textsuperscript{nd}

In this highly complex texture, it is noticeable that Chin frequently employs a pedal tone throughout the 1\textsuperscript{st} movement. Similar to the 3\textsuperscript{rd} movement, in which the two harmonic chords constantly appear throughout and serve as a pillar of the structure, the pedal tone in the 1\textsuperscript{st} movement also functions as a harmonic pillar but at the same time provides a variety of colors to the music.

In particular, the progression of pedal tones in the “A” section features an interval 2\textsuperscript{nd} as one could see in Figure 7.\textsuperscript{70} Also, in section “B,” the note “A” (from the second violin) is constantly heard in complex cluster pedals, which functions as a tonal center of the section.

\textsuperscript{69} The picture of Grisey and Ravel’s motives is derived from Ching-Yi Wang’s dissertation (p. 75).
\textsuperscript{70} Kim, Kyung Eun. \textit{A Study of Unsuk Chin’s Piano Concerto}. Diss. Manhattan School of Music, 2010. P. 53
Interestingly, Chin’s way of presenting pedal tones on top of the ongoing 16th notes closely resembles the manner used in the opening part of Grisey’s *Vortex Temporum*. 
Figure 44. Grisey’s *Vortex Temporum*, 1st movement.

Figure 45. Chin’s *Piano Concerto*, 1st movement.
3.4 Layers of Different Rhythmic Patterns and Rhythmic Taleas

In the 3rd and the 5th movements of Ligeti’s Piano Concerto, multiple layers of different rhythmic patterns are interwoven by extensively using percussion instruments with the piano; similarly, the first movement of Chin’s Piano Concerto stacks different layers of rhythms throughout. In particular, the two sections in the middle of the 1st movement (mm. 68-91 / mm. 92-95, Figure 15) clearly reveal the influence of Chin’s teacher, Ligeti, because the percussion instruments (such as xylophone and vibraphone) and the piano are simultaneously presented having different rhythmic patterns, a characteristic of Ligeti’s work.

Figure 46. Chin’s Piano Concerto, 1st movement, mm. 68-91
In addition, as Ligeti employed two different rhythmic taleas (a repeated rhythmic pattern) in the beginning of the 1st movement of his Piano Concerto using accented markings (Figure 1 in chapter 2), Chin also demonstrates a similar manner in the beginning of the 1st movement of her Piano Concerto. According to Kyung Eun Kim, the piano part, which is composed of running 16th notes, has recurrent asymmetrical accented markings in the form of $4+4+3 / 4+4+2 / 4+4+3 / 4+4+3$ in the A-a section.
Figure 49. Chin’s *Piano Concerto*, 1st movement, mm. 1-7 (A section)

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| Table 5. Rhythmic talea in the A-a section (piano) |
|---------------------------------|---------------------------------|
| **mm. 16-22**                   | 4+4+3/ 4+4+2/ 4+4+3/ 4+4+3/ 4+4+3/ 4+5+6 |
| **mm. 23-30**                   | 4+4+3/ 4+4+2/ 4+4+3/ 4+4+3/ 4+4+2/ 4+5+6 |

Meanwhile, in the beginning of the recapitulation section (A’), Chin does not follow the previous rhythmic pattern, but instead applies a new rhythmic talea with 4+4+3/ 2+3+4/ 4+4+3/ 2+3+4.
Figure 50. Chin’s Piano Concerto, 1\textsuperscript{st} movement, mm. 149-153 (A’ section).

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Rhythmic talea in the A’ section (piano)

| mm. 149-158 | 4+4+3 / 2+3+4 / 4+4+3 / 2+3+4 / 4+2+3/ 3+4+3/ 4+3+2/ 3+4+5 |
| mm. 159-167 | 4+4+3 / 2+3+4 / 4+4+3 / 2+3+4 / 4+3+2/ 4+3+2/ 4+3+2+4 |

Table 6. Rhythmic talea in the A’ section (piano)

3.5 Second Movement: Overview

As Chin has explained, the 2\textsuperscript{nd} movement is a tone painting that has a virtuosic interlude in the middle of the movement. An extensive use of percussion instruments that involves metallic tone colors and the static motion of the music allude to the influence of Javanese gamelan music. Similar to the 2\textsuperscript{nd} movement of Ligeti’s Piano Concerto in which extreme registers are explored in both the piano and the orchestral parts, Chin also
experiments with registral gaps by specifically pairing low- and high-register instruments with the piano and then alternating between them. Again, as in the 1st movement, the frequent use of pedal tone, tonal center, and the interval of a 2nd appear throughout, while tone clusters and a mixture of black and white keys are evident in the piano part.

3.6 Structure

The 2nd movement is clearly divided into three sections: A-B-A’ (slow-fast-slow). Both the A and B sections can be subdivided into smaller sections: a, b, c and a, b, a’, c. Similar to the 1st movement, the musical structure of the 2nd movement shares the influence of the 2nd movement of Bartók’s *Piano Concerto No. 2*, in which the musical form is also composed of *Adagio-Presto-Adagio*.  

<table>
<thead>
<tr>
<th>Tempo marking and measure number</th>
<th>Time signature</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A  ♩ = ca. 48 (mm. 1-18) ♩</td>
<td>3/4</td>
<td>a: metallic bell-inspired sounds between percussion instruments and the piano. Interval of 5th (cluster) and 2nds are altered throughout.</td>
</tr>
<tr>
<td>♩ = ca. 72 ♩ = ca. 66 (mm. 39-75)</td>
<td>3/4 - 2/4</td>
<td>c: additive rhythmic progression. (quintuplet- sextuplet- septuplet … Trills)</td>
</tr>
<tr>
<td>♩ = ca. 96-100 ♩ = ca. 86-96 ♩ = ca. 120 (mm. 152-176)</td>
<td>4/4 (2/2) - 3/4(9/8) - 4/4 (2/2) - 3/4(9/8)</td>
<td>b: Alternation between low register (bassoon, cello, bass) and high register (piccolo, flute, oboe, clarinet, violin).</td>
</tr>
<tr>
<td>♪ = ca. 168 (mm. 177-198) ♪</td>
<td>3/8 (9/16)</td>
<td>a’: similar to the “a” section (repeated note and asymmetrical accents).</td>
</tr>
<tr>
<td>♩ = ca. 120 -132 (mm. 199-213)</td>
<td>2/4</td>
<td>c: tone clusters as mixture of black and white keys. There is a climax.</td>
</tr>
<tr>
<td>A’ ♩ = ca. 92-96 ♩ = ca. 80 ♩ = 60 (mm. 214-236)</td>
<td>4/4 (2/2)</td>
<td>Layers of repeated notes. Rhythmic value is getting longer (quintuplet-triplet- double).</td>
</tr>
</tbody>
</table>

Table 7. Structure of the 2nd movement
3.7 The Influence of Gamelan Music

Unlike the virtuosic B section, the static A and A’ sections feature dreamlike shimmering sound effects created by extensive use of percussion instruments such as the Steinspiel, Röhrenglocken, Plattenglocken, Antike Zymbeln, Glasplättchen, Becken, and Herdenglocken. A majority of these instruments are metallophones (metal-keyed percussion instruments), which are a crucial element in the formation of a gamelan ensemble.  

The gamelan’s musical structure deploys multiple layers of different melody lines presented in a polyphonic style. According to Bruno Deschênes, each group of percussion instruments in the gamelan has its own musical functions. For instance; different sizes of gongs play a role as “time-marking” instruments, the suling and the rebab play the role of “melodic” instruments (balung – skeleton melody), and the rest of the metallophones function as “elaborating” instruments.  

Jennifer Lindsay specifies the function of elaborating instruments into kenong, kempul, and ketuk, explaining that kenong and kemple are comprised of smaller musical

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phrases, whereas *ketuk* consists of the middle of a phrase, usually falling between the two.\(^74\)

![Diagram of Javanese gamelan music structure]

**Figure 51.** The structure of Javanese gamelan music\(^75\)

This characteristic of Javanese gamelan music can be seen in the 2\(^{\text{nd}}\) movement of Chin’s *Piano Concerto* (mm. 19-38). Based on Bruno Deschênes’s classification, the piano functions as a “time-marking” instrument, while the percussion instruments (the harp, the mandolin, and the celesta) play the role of the “elaborating” instruments.

Although it is hard to find the *balung* (from a broader point of view, the progression of block chords in the piano could be regarded as a skeleton melody line), the *ketuk* is clearly heard in the woodwind and brass sections (the flute, the clarinet, the English horn, and the horn) in mm. 23-38.


\(^{75}\) Ibid. (The picture is derived from her book, p. 33.)
<table>
<thead>
<tr>
<th>Time-marking instruments</th>
<th>Different sizes of gongs</th>
<th>Piano</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melodic instruments</td>
<td>Suling and Rebab</td>
<td>Unclear</td>
</tr>
<tr>
<td>Elaborating instruments</td>
<td>Metallophones</td>
<td><em>kenong</em> and <em>kemple</em>: percussion instruments, harp, mandolin, celesta, violin</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>kentuk</em>: woodwind, brass</td>
</tr>
</tbody>
</table>

Table 8. Musical structure: Javanese gamelan vs. Chin’s *Piano Concerto*, 2\textsuperscript{nd} movement (mm. 19-38).
Figure 52. Chin’s *Piano Concerto*, 2\textsuperscript{nd} movement, mm. 22-27.
3.8. Virtuosity and the Experiment of Different Registers

In contrast with the A section, which features static motion mainly composed of shimmering tone colors, the B section sharply changes its texture by emphasizing the virtuosic aspect of the piano, which enhances the rhythmic nature of forward direction. In the same manner as the 1\textsuperscript{st} movement of Chin’s \textit{Piano Concerto}, in which the piano is composed of ongoing 16\textsuperscript{th} notes, having asymmetrical accents throughout (meaning multiple voices), the B section is made up of a repeated F#, which contains a separate melody line in the form of \textit{tenuto} and accent markings.

![Figure 53. Chin’s \textit{Piano Concerto}, 2\textsuperscript{nd} movement, mm. 81-87.](image)

In the middle of the B section (mm. 165-176), the musical texture drastically changes again by emphasizing a difference between low and high registers. Specifically,
Chin alternately pairs low- and high-register instruments (low: the bassoon, the cello, the bass and the timpani; high: piccolo, flute, oboe, clarinet, celesta, harp, violin) with the piano and brings out dark and threatening yet busy sound effects by alternating the instrumental pairings. In particular, the string’s Bartok pizzicato in measure 152 enhances both the rhythm (triplet) and the colors of the music (aggressiveness), which also can be seen in the 1st and the 5th movements of Ligeti’s Piano Concerto.

Figure 54. Chin’s Piano Concerto, 2nd movement, mm. 150-153.

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3.9 Pedal Tone and Tonal Center

In a technique similar to the 1\textsuperscript{st} movement, Chin also employs pedal tones throughout the 2\textsuperscript{nd} movement. Noticeably, in the beginning of the movement (mm. 1-7), a cluster pedal tone appears from the celesta, the mandolin, the vibraphone, and the low-register strings in the form of tremolos. The piano part also presents a succession of thick (cluster) chords in both hands.
Right before the B section, which is mainly composed of an F# tonal center, the B major chord appears from the low strings and the xylophone, which smoothly connects the two sections.

Figure 56. Pedal tones in the A section.

After the big climax in measure 214 (at the end of the B section), the musical texture returns again to a static motion but not the same as it was the beginning. Chin creates a special sound effect, which sounds as if one were floating around the space, by layering multiple repeated notes (which was a main motive in the B section) from the woodwinds and the strings. The rhythmic value of these repeated notes lengthens through
additive progression. Again, a C# tonal center penetrates the A’ section from the low strings.

3.10 Clusters and a Mixture of Black and White Keys

Tone clusters dominate throughout the piece, especially in the piano part. One example can be seen in the very beginning of the 2\textsuperscript{nd} movement wherein a mixture of block chords appears, mostly maintaining an interval of a 5\textsuperscript{th} (D-A).

![Figure 57. Chin’s Piano Concerto, 2\textsuperscript{nd} movement, mm. 1-5.](image)

A similar example can be found at the end of the B section (mm. 199-214). Various block chords placed in a different key signature (a mixture of black and white keys) appear in both hands of the piano as triplets. Interestingly, Chin puts asymmetrical accents on the tone clusters and pairs them with four bongos, which is reminiscent of sub-Saharan African music.
3.11 Third Movement: Overview

Unlike the 1st and the 2nd movements of Chin’s *Piano Concerto*, in which the musical form is clearly divided into sections following the tradition of classical music, the 3rd movement is hard to define in terms of its musical structure, as it is composed of thirty different motivic fragments on top of the two harmonic pillars.\(^76\) Similar to her *Double Concerto*, in which the concept of the “hyper-instrument” is embedded so that the orchestra helps the piano to expand the horizon of its limited registers and tone colors, which is exactly the opposite of the “competing” notion of the concerto genre,\(^77\) the 3rd movement also features a characteristic of the “hyper-instrument” by using a variety of resonances. Notably, her strategy of placing motives in a mosaic fashion is similar to the

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4th movement of Ligeti’s *Piano Concerto*, which reveals his strong interest in “fractals” (as explained in chapter 2 of this dissertation).

Again, the frequent use of the pedal tone and the interval of the 2nd dominate, and Chin’s interest in resonances and overtone series are clearly heard. The 3rd and 4th movements are connected with an F note (played by the contrabass) as *attaca*.

### 3.12 Thirty Motivic Fragments and Two Harmonic Pillars

As Kyung Eun Kim’s analysis indicates, half of the motivic fragments (fifteen of the thirty) are derived from a previous one in a way of variation. A similar gesture of recurring fragments, each time in a more developed way, can also be seen in the 4th movement of Ligeti’s *Piano Concerto*.

<table>
<thead>
<tr>
<th>Fragment</th>
<th>Measure number</th>
<th>Tempo marking</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragment 1</td>
<td>mm. 4-6</td>
<td>J=ca. 72-80</td>
<td>Repeated note on B</td>
</tr>
<tr>
<td>Fragment 2</td>
<td>mm. 7-8</td>
<td></td>
<td>Overtones - 5th (Mixture of black and white keys)</td>
</tr>
<tr>
<td>Fragment 3</td>
<td>mm. 9-10</td>
<td></td>
<td>Sextuplet rhythm in contrary motion (as staccato)</td>
</tr>
<tr>
<td>Fragment 4</td>
<td>mm. 13-14</td>
<td></td>
<td>Succession of tone clusters as sextuplet (alternation between black and white keys, ex: C#, D#, F#/ C, D, F)</td>
</tr>
<tr>
<td>Fragment 5</td>
<td>mm. 14-15</td>
<td></td>
<td>Combination of triton and 5th interval as block chord.</td>
</tr>
<tr>
<td>Fragment 6</td>
<td>m. 16</td>
<td>J=ca. 96</td>
<td>Quintuplet rhythm (Big leaps and crossing hands)</td>
</tr>
</tbody>
</table>

Table 9. Structure of the 3rd movement (Continued)

---

<table>
<thead>
<tr>
<th>Fragment 7</th>
<th>mm. 17-19</th>
<th>J=ca. 72</th>
<th>Varied version of Fragment 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragment 8</td>
<td>mm. 20-21</td>
<td>Quintuplet rhythmic figuration as arpeggio (both hands are unison).</td>
<td></td>
</tr>
<tr>
<td>Fragment 9</td>
<td>mm. 22-23</td>
<td>Quintuplet rhythmic figuration (emphasis on 2\textsuperscript{nd}).</td>
<td></td>
</tr>
<tr>
<td>Fragment 10</td>
<td>mm. 24-25</td>
<td>Quintuplet rhythmic figuration as an octave, asymmetrical accents (emphasis on 2\textsuperscript{nd}).</td>
<td></td>
</tr>
<tr>
<td>Fragment 11</td>
<td>m. 26</td>
<td>J=ca. 80-88</td>
<td>Chromatic descending chords.</td>
</tr>
<tr>
<td>Fragment 12</td>
<td>m. 27</td>
<td>J=ca. 72-80</td>
<td>Triplet octaves. Accents on each third beat (sfz).</td>
</tr>
<tr>
<td>Fragment 13</td>
<td>m. 28-29</td>
<td>Varied version of Fragment 3.</td>
<td></td>
</tr>
<tr>
<td>Fragment 14</td>
<td>mm. 30-31</td>
<td>J=ca. 60 \textit{meno mosso}</td>
<td>Linear melody line as quintuplet (emphasis on 2\textsuperscript{nd}, D-C#, F-F#).</td>
</tr>
<tr>
<td>Fragment 15</td>
<td>mm. 32-34</td>
<td>J=ca. 88-92</td>
<td>Varied version of Fragment 6.</td>
</tr>
<tr>
<td>Fragment 16</td>
<td>mm. 36-38</td>
<td>J=ca. 96-100</td>
<td>Syncopation rhythm (emphasis on 2\textsuperscript{nd} using triplet and octave).</td>
</tr>
<tr>
<td>Fragment 17</td>
<td>mm. 39-42</td>
<td>J=ca. 88-92</td>
<td>Varied version of harmonic pillar. Big dynamic change (alternation between \textit{p-f}) and registral gap.</td>
</tr>
<tr>
<td>Fragment 18</td>
<td>mm. 43-46</td>
<td>J=ca. 72-80</td>
<td>Varied version of Fragment 4.</td>
</tr>
<tr>
<td>Fragment 19</td>
<td>mm. 48-57</td>
<td>J=ca. 60</td>
<td>Varied version of Fragment 3 (rhythm 7:5).</td>
</tr>
<tr>
<td>Fragment 20</td>
<td>mm. 58-60</td>
<td>J=ca. 72-80</td>
<td>Varied version of Fragment 6.</td>
</tr>
<tr>
<td>Fragment 21</td>
<td>m. 61</td>
<td>Varied version of Fragment 11.</td>
<td></td>
</tr>
<tr>
<td>Fragment 22</td>
<td>mm. 62-63</td>
<td>Varied version of Fragment 6.</td>
<td></td>
</tr>
<tr>
<td>Fragment 23</td>
<td>m. 64</td>
<td>Varied version of Fragment 11.</td>
<td></td>
</tr>
<tr>
<td>Fragment 24</td>
<td>m. 66</td>
<td>Varied version of Fragment 6.</td>
<td></td>
</tr>
<tr>
<td>Fragment 25</td>
<td>m. 67</td>
<td>Varied version of Fragment 11.</td>
<td></td>
</tr>
<tr>
<td>Fragment 26</td>
<td>mm. 68-72</td>
<td>Varied version of Fragment 4.</td>
<td></td>
</tr>
<tr>
<td>Fragment 27</td>
<td>mm. 73-77</td>
<td>Varied version of Fragment 2.</td>
<td></td>
</tr>
<tr>
<td>Fragment 28</td>
<td>mm. 78-80</td>
<td>J=ca. 96-104</td>
<td>Varied version of Fragment 10.</td>
</tr>
</tbody>
</table>

Table 9. Structure of the 3\textsuperscript{rd} movement (continued)
Table 10. Structure of the 3\textsuperscript{rd} movement

The two harmonic pillars, which are mainly composed of an interval of a 2\textsuperscript{nd} (A#, B / D, Eb) in the form of an octave, appear from the very beginning of the movement with the piano. Interestingly, Chin also applies it to one of the fragments and varies it in mm. 39-42 (for example, fragment 17).

<table>
<thead>
<tr>
<th>Fragment 29</th>
<th>mm. 81-83</th>
<th>J=ca. 72-80</th>
<th>Varied version of Fragment 2.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragment 30</td>
<td>mm. 84-96</td>
<td>J=ca. 80-88</td>
<td>Varied version of Fragment 10.</td>
</tr>
</tbody>
</table>

Figure 59. Two harmonic pillars
3.13 Hyper-Instrument and Resonances

The relationship between the harmonic pillars and the fragments can be compared to the role of the orchestra and the piano in terms of the concept of the “hyper-instrument.” In some of Chin’s concerto works, she does not exclusively emphasize solo instruments. What she cares about is the possibilities of various colors or ranges of sound that can be acquired by changing the role of the orchestra to help the solo instrument, not to compete with it, so that one can hear a “giant solo instrumental sound” out of it.

Some of the fragments demonstrate the characteristic of “resonances” by repeating a certain note that belongs to the harmonic pillars or emphasizing an overtone series (mainly the interval of the 5th – an open string sound). By placing the fragments next to the harmonic pillar, Chin tries to expand the horizon of sounds from two harmonic chords.

Figure 60. Fragment 17: Varied version of the harmonic pillar, mm. 39-42.

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Figure 61. Chin’s *Piano Concerto*, 4th movement, mm. 1-6.

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Figure 62. Chin’s *Piano Concerto*, 3rd movement, mm. 17-19.

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In addition, the piano’s limited sustainability of sound is supported by the horn and the trombone in mm. 81-83 (Fragment 29), which again reveals the concept of the “hyper-instrument.”
In the middle of the movement (in mm. 48-57 – Fragment 19), Chin divides the string instruments (two violins, viola, and cello) into solo and tutti and expands the register and color of the piano by asking solo instruments to imitate the quintuplet rhythmic figuration of piano and play it in sequence. By doing so, the virtuosic gesture of the piano (fast 16th quintuplet) is further stressed.

Figure 64. Chin’s Piano Concerto, 3rd movement, mm. 48-57.

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3.14 Fourth Movement: Overview and Structure

The 4\textsuperscript{th} movement can be divided into three sections: A, B, and the cadenza section. Unlike the traditional 18\textsuperscript{th} and 19\textsuperscript{th} century piano concertos that usually have a cadenza at the end of the 1\textsuperscript{st} movement, Chin delays this section to the end of the last movement, in a move similar to Ligeti’s \textit{Piano Concerto}.

Chin’s interest in resonances continue from the previous movement to the A section of the 4\textsuperscript{th} movement, which is mainly composed of both strings’ harmonics and the bass, the piano, and the tuba’s F pedal tone. The B section clearly reveals Ligeti’s influence again by considering multiple layers of different rhythmic patterns. Similar to the 3\textsuperscript{rd} and the 5\textsuperscript{th} movement of Ligeti’s \textit{Piano Concerto} and the 1\textsuperscript{st} movement of Chin’ \textit{Piano Concerto}, layers of different rhythm appear so that the piano has ongoing 16\textsuperscript{th} notes as a basic rhythmic layer and the percussion instruments stack with a different rhythmic gesture. The quasi-improvised cadenza section can be subdivided into three parts as a, b, c (bridge, cadenza, and coda), and the ongoing 16\textsuperscript{th} note, which is a basic rhythmic layer in the B section, serves as a main motive of the piano part.
<table>
<thead>
<tr>
<th>Measure number and tempo marking</th>
<th>Time signature</th>
<th>Characteristic</th>
</tr>
</thead>
</table>
| **A** | mm. 1-31  
\[ \frac{J}{=} \text{ca. } 60 - 66 \]  | 3/2 | Harmonics (strings) + F pedal tone (bass, piano, tuba) |
| **B** | mm. 32-128  
\[ J = 126-132 \]  | 3/4 (12/16) | Layers of different rhythmic patterns. (piano + percussion instruments) |
| **Cadenza** | mm. 129-135  
\[ J = \text{ca. } 108 \]  | 4/4 | a (bridge): blocks of sounds in sequence (woodwind, brass, percussion instruments) |
|   | mm. 136-139  
\[ J = \text{ca. } 72-88 \]  |   | b (cadenza): mixture of piano, brass, and percussion instruments. |
|   | mm. 140-150  
\[ J = \text{ca. } 68-72 \]  
\[ \text{meno mosso} \]  
\[ \frac{J}{=} \text{ca. } 60 \]  |   | c (coda): ongoing 16\textsuperscript{th} notes in a canonic way in both hands of the piano which changes its shape to clusters at the end. |

Table 11. Structure of the 4\textsuperscript{th} movement

### 3.15 F-Pedal Tone and Resonances

Similar to the role of the motivic fragments in the 3\textsuperscript{rd} movement, which mainly function as resonances of the two harmonic pillars, the strings’ harmonics in the beginning of the 4\textsuperscript{th} movement (starting from the cello and building up a sound block with the viola, and the two violins in sequence) also act as resonances of an F pedal tone. The piano takes over the mumbling gesture of the strings’ harmonics in measure 14 and develops it further in an additive rhythmic pattern, which is similar to the progression of the “lament motive” in the 2\textsuperscript{nd} movement of Ligeti’s *Piano Concerto*. 

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Figure 65. Chin’s *Piano Concerto*, 4th movement, mm. 1-3.

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Figure 66. Motivic development in the A section (piano)

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3.16 Layers of Different Rhythmic Patterns: The Influence of Ligeti

In the B section, the texture of the music drastically changes, with multiple layers of different rhythmic patterns, as was already seen in the 1st movement of Chin’s Piano Concerto. Again, the percussion instruments, such as the timpani, bass drum, vibraphone, and marimba, appear over the piano line (basic rhythmic layer: ongoing 16th notes) and enhance the forward motion, which alludes to sub-Saharan African music.

Figure 67. Chin’s Piano Concerto, 4th movement, mm. 34-36

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3.17 The Cadenza: The Influence of Conlon Nancarrow

Interestingly, the cadenza section is composed of three instrumental groups: the piano, the percussion instruments, and the brass instruments, which are rarely seen in the traditional piano concerti of the 18th and 19th centuries. Again, based on the concept of the “hyper instrument”, the percussion (in this case, vibraphone, marimba, tom-toms, and timpani) and brass instruments function to expand the horizon of musical colors of the piano by playing fragments of piano’s melody line. Although Chin asks pianists to play the cadenza section in an “improvisational” manner by specifically marking it on the score, there is no room or space for the performer’s discretion because the score is packed with countless notes, which are precisely as well as densely written in a given tempo marking on the score.
In the coda section, the virtuosic aspect of the piano is emphasized by pairing ongoing tone clusters in the piano with busy tremolos in the mandolin and the harp. A characteristic of complicated music (usually packed with uncountable notes) is that it is too challenging for humans to perform, which is reminiscent of *Studies for Player Piano* by Conlon Nancarrow.
Figure 70. Chin’s *Piano Concerto*, 4th movement, mm. 147-148 (coda).

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Figure 71. Colon Nancarrow’s *Studies for Player Piano No. 36*, p. 19 (system 58-60)\(^7\)

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CHAPTER 4: A CONVERSATION WITH PIANIST SUNWOOK KIM

In 2014, acclaimed Korean pianist Sunwook Kim\textsuperscript{80} recorded Unsuk Chin’s \textit{Piano Concerto} with conductor Myung-Whun Chung and the Seoul Philharmonic Orchestra and released an album of this performance on Deutsche Grammophon. In addition to the recording, he also gave the world premiere performance of the work both in Stockholm (with the Norrköping Symphony) and in Hamburg (with the NDR Symphony) in the 2013-14 season.\textsuperscript{81}

Regarding my interviewing process, I sent a questionnaire to Sunwook Kim via social media (Facebook) on January 13, 2016. He replied to my questions on March 9, 2016.

\textsuperscript{80} According to Sunwook Kim’s personal website, he was born in Seoul in 1988, and in 2006 became the first Asian winner, as well as the youngest winner in 40 years, of the prestigious Leeds International Piano Competition. Since then, Kim has built his career as a concert pianist by actively performing throughout the Europe, Asia, and the United States with the world’s major orchestras and musicians. “About.” SunwookKim.com. Web. 12 Mar. 2016. \url{http://www.sunwookkim.com/about/}

4.1 General Opinions about Contemporary Music

1) Besides the works of Unsuk Chin, have you had enough chances to learn or play avant-garde music, for instance, piano works after World War II?

Kim: To be honest, I have always been curious about contemporary music but I could not have enough chances to explore it deeply since I was into studying various repertoires of the classical period of music for a long time. However, when I was in college, I had often played Anton Webern’s Variations for Piano, Op. 27 (1936) on the stage, as well as newly composed works by colleagues and faculty members of the composition department in the Korean National University of Arts. Most recently, London-based Japanese composer Dai Fujikura wrote a piano piece for me (Joule for piano), and I had the privilege to première it in 2009.

2) It is true that many pianists, nowadays, are reluctant to play experimental music—I am specifically referring to the music composed after Arnold Schoenberg’s serial music—and put it in their concert programs. Part of the reason comes from not only its abstractness but also a fact of disconnection with audiences. As a concert pianist, how do you think about this stream? Do you have a plan to play contemporary music in the near future?

Kim: I have a sense of duty or obligation to constantly play the 20th- and the 21st-century music. Although it is very difficult to learn and uncomfortable to play at the
moment, if we, performers, neglect those works, there is no way to inherit the genealogy of classical music. I have seen many performers who are afraid of playing contemporary music because not only it takes so much time to practice but also it is less effective on the stage and hard to communicate with audiences. However, I strongly believe that if performers keep trying to interchange experiences with living composers and suggesting new ideas to audiences, it will affect the next generations of composers and performers and through this virtuous circle, we could take a step forward to “new” music that does not exist in this era yet.

3) In the case of French pianist Pierre-Laurent Aimard, he was able to spend quality time with Olivier Messiaen in his early years, as Aimard was a former student of Messiaen’s wife, pianist Yvonne Lorio. In addition, Aimard confessed in an interview that having the chance to work with such composers as Boulez and Ligeti had a great influence on his interpretations of their music. How was your work with Unsuk Chin and what aspects affected how you interpret her music?

Kim: Composer Unsuk Chin is my mentor as well as a musical companion, regardless of age. We often enjoy talking about numerous topics that are not only related to music but also related to politics, culture, and society in general. She also shared her vision or values by telling me an interesting anecdote about the time when she studied with Ligeti in Hamburg and how she began to build her career as a composer. Whenever
I have a chance to go to Berlin or she comes to London, I often play music for her because she asks for playing any type of music. By doing so, I truly learn a lot from her.

4.2 Unsuk Chin’s Piano Etudes and Piano Concerto

1) What brings you to play Unsuk Chin’s Piano Concerto?

Kim: Although it has been 7 to 8 years since I got to know her, I first played her Piano Concerto in November 2013. The reason is that her Violin Concerto is often played more than the Piano Concerto for its fame, and it was hard to find a chance to play this music. At the same time, the piece itself is technically and musically very challenging to pianists, even those who are familiar with contemporary music. In the beginning of 2013, she suggested that I play and record the piece, and I accepted her offer because I wanted to challenge myself, as well as to go beyond my boundaries. Before the performance in November at the Norrkoping in Sweden, we got together in London and shared many ideas about the music (including a tempo change) and by having this experience and getting to know it better, I was able to record it in January, 2014.

2) Chin’s Piano Concerto was premièred in 1997 by pianist Rolf Hind and BBC National Orchestra of Wales. Have you had a chance to listen to it? If so, what aspects affected your playing?

Kim: I was able to listen to it through the CD archive. In fact, I was doubtful about my ability to reflect the performer’s own idea or style into the music because it is
impossible to play all the notes in the score anyway. However, once I listened to it, I became confident I would be able to bring my own colors to the music.

3) After the première of her concerto, many critics and newspapers pointed out the similarity between Chin’s concerto and Ligeti’s music. Chin also explained that both her piano and violin concertos are “my answer to Ligeti’s music.” Have you had a chance to listen to Ligeti’s Piano Concerto before? If so, was it helpful in preparing to play Chin’s music?

Kim: I had listened to Ligeti’s Piano Concerto before. However, I also listened to a lot of Gamelan music, which is clearly presented in the second movement of her Piano Concerto. I find it interesting that the character and the role of percussion instruments throughout the movements share many similarities with gamelan music. I guess she was interested in both delicate details, in which belonged to the longer breath and the strong attraction and power of the gamelan itself. Besides Ligeti, there are inspirations from Olivier Messiaen and Béla Bartók.

4) Although it is a “piano” concerto, the orchestra’s role is as important as the piano. Each instrument has a solo part; in addition, twenty-four kinds of percussion instruments expand the horizon of musical colors. Rehearsals must be really tough. How were rehearsals? Could you explain more about the process of rehearsals?

Kim: The Piano Concerto had a significant meaning for Unsuk Chin because it was the first commissioned work from the BBC as a professional composer. She put a
strong emphasis on the power and artistry in music but because of its transcendental
difficulty and abstractness, she is still revising it at the moment. I believe this is because
she has a great affection for this work. As one could notice, she employed a variety of
percussion instruments throughout the work, besides me (as soloist), orchestra members
also had to practice the piece rigorously hard. Unsuk Chin’s works do not lead
performers to play music easily. She keeps pushing performers to go beyond their
boundaries. Fortunately, we all knew it very well and wish to succeed, so the rehearsals
progressed smoothly.

5) Technique and Rhythm: Even the very first part of the work is really
complicated. Each melody line in both hands unfolds without having a rule, and on top of
it, added accents, which are also randomly placed, make it much harder to execute.
Throughout the movements, complicated polyrhythms are presented each time in a
developed version. Also, the colors of music in the 2nd and the 3rd movements are quite
unique. How did you prepare the music in general? Please share your experience with it
(for example, the ways of practicing) and give some advice to pianists who want to
explore this piece.

Kim: First of all, the biggest hurdle that I faced with this piece was that the
performance technique of contemporary music is very different from those in the
classical and the romantic periods of music. Contemporary music has no boundary,
unlike many classical repertoires, which have numerous references and a clear structure.
For instance, in certain passages, there is no way to play all the notes exactly as it is written. Therefore, if one attempts to play them all by solely focusing on the technical point of view, without feeling change of color or timbre, the music would be meaningless.

In fact, because I am so used to playing all the notes perfectly as it is written, I was so stressed out at some point. If one carefully listens to recordings of contemporary music, performers do not focus too much on each and every note. Rather, they care more about the color or decorative function (effectiveness) of music. It should be naturally done like this because there are innumerable notes in the score. In order to play it, we would need to have twenty fingers. I literally put all my energy into practicing and preparing for this piece because I wanted to play it close to perfection. In the beginning of the second movement, I imagined dropping various colors of ink into the water and at some places; I conceived of my fingers as a hammer. In a delicate section, I imagined the keyboard as a sponge. You have to try variety of things—as many as possible.

6) Similar to Ligeti, Chin is writing her piano etudes as a cycle. Up to now, she has written a total of six pieces for the cycle. Especially, in the case of Etude No.5 “Toccata”, pianist Mei Yi Foo’s playing gives great inspiration to many pianists. Are you also interested in playing her Piano Etudes, and do you have a plan to play these pieces in the near future?
Kim: Last October, I was able to go to Festival d’Automne in Paris and listened to Unsuk Chin’s various works. At that time, I played her *Piano Concerto* with Orchestre Philharmonique de Radio France and the next day; I played her *Piano Etudes Nos. 1, 2, and 5*. I remember how hard it was to practice and prepare for the performance. If I have a chance, I am trying to learn the rest of her *Piano Etudes Nos. 3, 4, and 6* and play them in the near future.

4.3 The Process of Making Recordings with Conductor Myung-Whun Chung and the Seoul Philharmonic Orchestra

1) As far as I know, it is not the first time you have made a recording with Conductor Myung-Whun Chung and the Seoul Philharmonic Orchestra. You already recorded Beethoven’s *Piano Concerto No. 5 “Emperor”* with them and released an album of this recording on Deutsche Grammophon in 2013. How was the second recording of Chin’s *Piano Concerto* with them?

Kim: I worried about many things before the recording. Unlike the Šu Concerto, which was a live recording, the cello and piano concertos were studio recordings that were first attempted with the Seoul Philharmonic Orchestra. In addition, we had to use the piano that was originally in the practice room because it was not easy to move a new one to the studio. Although we were able to bring a famous piano tuner from Germany, and it helped to improve the sound of piano a little better, I still think that we should have
used a better piano for the recording. Maestro Myung-Whun Chung has a lot of experience with contemporary music and above all, he knows how to rehearse difficult passages and to manage it so well that I comfortably finished the recording. Of course, the composer was able to take part in the recording process, which is a large point of difference in comparison to recording the classical repertoire. I was so happy that anyone could ask questions of her like “How is it sounding?” or “Should we stress the percussion instruments more?” in the middle of the recording. It was an entirely different experience than recording Beethoven or Brahms.

2) In 2009, you had successfully played Bartok’s Piano Concerto No. 3 with the same conductor and an orchestra in Brussels. It is known for being a demanding piece for many pianists, like Chin’s Piano Concerto. Would you share your experience with it and compare it to Chin’s work?

Kim: Bartok’s Piano Concerto No. 2 has more in common with Chin’s Piano Concerto than his Piano Concerto No. 3. Such aspects as the new sound color and the freshness of structure but strictness that controls all these elements in place share similarities with Chin’s piece. It requires a lot of practice time. One should honestly focus on it and do your best to prepare the piece, and then finally it could be performed naturally. If one gets used to preparing music in this way, the bigger and better chances will certainly follow. It sure is a precious and valuable experience.
CONCLUSION

For Chin, the *Piano Concerto* carries significant meaning, as it was the first work that she received commission from the BBC as a professional composer, while at the same time it was the first large-scale composition for the piano. Importantly, the piano was the instrument that had brought her attention as a child performer; now, years later it was her composition for this instrument that brought her international attention as a composer. Among her piano works (six etudes and a concerto), the early compositions, such as *Piano Etude Nos. 2, 3, and 4* (1995) and her *Piano Concerto* (1996-7), reveal the influence of her teacher Ligeti, particularly considering her use of a mixture of polyrhythms and asymmetrical accents. Meanwhile, her later compositions for the piano, such as *Piano Etude Nos. 1, 5, and 6* (1999-2003), clearly demonstrate her originality by drawing on a wide variety of influences, including overtone series, the gamelan ensemble, and electronic music.

When it comes to the genre of the concerto, her unique idea of the “hyper-instrument” and her enthusiasm for virtuosity come to the forefront as her main contributions to the genre. Chin purposely changes the function of *tutti*, not to compete with the solo but to assist the solo by expanding the horizon of musical colors available in the solo. The most interesting example lies in the cadenza section of the *Piano Concerto*, in which she not
only stresses the solo instrument, but also expands its scope of sound by adding the brass and the percussion instruments throughout. In addition, she alters the main purpose of the concerto genre, which is to show off the ability of soloist, by imposing the same virtuosic difficulty on the orchestra, so that every instrument functions as soloist in terms of virtuosity.

Without a doubt, Chin’s Piano Concerto is a very challenging piece technically as well as musically. In order to become accustomed to the music and be prepared to play it, a musician should be familiar in advance with Ligeti’s piano music, the gamelan ensemble, Conlon Nancarrow’s Music for Player Piano, and Chin’s various orchestral pieces. In addition, the recently released recording of Chin’s Piano Concerto (by pianist Sunwook Kim, conductor Myung-hwun Chung, and the Seoul Philharmonic Orchestra) provides excellent guidance for the performances. I hope that my dissertation also serves as a helpful reference for those musicians who want to explore the new repertoire of the piano concerto genre in the twenty-first century.
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Following my first three etudes for piano, this is my second major work for piano – an instrument which has fascinated me since the age of four. This composition reflects the influences of every epoch in piano literature - from Scarlatti to the present. I wanted to emphasize particularly the vitality, kinetic and virtuoso aspects – in short, the playful side – of the piano. The solo part shows no evidence of the Romantic tradition, where the brilliant solo line is merely accompanied by the orchestra. Here every orchestral part has an important function.

The four movements each have a very distinctive character. A common feature, however, is that none has a predetermined structure. Each movement develops spontaneously from a common cell, where simple rules produce highly complex, unpredictable results.

First movement: a prelude to the work. At the beginning there are four motives based on a triad, which – like a puzzle – are put together geometrically. These passages are interrupted by far-away sounds, which gradually increase in volume and importance. These varying layers of sound also have varying rhythmic patterns. At the end of the movement a rhythmic motif previously introduced in the percussion section is taken over by the piano and transformed into a virtuoso display by the soloist, exploring all the sonorities of the instrument. The conclusion consists of a metamorphosis of the beginning of the movement.

The second movement is a tone painting with a virtuoso interlude, which divides the movement into two segments. In the first section numerous layers of sound are introduced, complementing and opposing one another. The interlude presents a marked contrast to the static sonorities at the opening and closing of the movement.

In the third movement 30 markedly differing motives are introduced in mosaic fashion and two constantly recurring tutti chords act as pillars, holding the entire movement together.

In the concluding fourth movement an approximately two-minute long sustained F provides the pedal point for a gradual build-up. The piano has passages that sound
improvisatory, with accompanying ostinato. Gradually a rhythmic pattern develops in the strings, eventually veering away from the central pitch of F and changing into short and interlocking motives. The movement concludes with a quasi improvised cadenza for piano, brass and percussion, followed by a typically classical coda.

This concerto was written in the winter of 1996-97, commissioned by the BBC for the BBC National Orchestra of Wales.\(^{82}\)

Unsuk Chin

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