

A COMPARATIVE STUDY OF PIANO ETUDES BY GYÖRGY SANDOR LIGETI AND
UNSUK CHIN: A TECHNICAL AND STYLISTIC GUIDE TO MASTERING
THE DIFFICULTIES OF THEIR ETUDES

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Unsuk Chin (b.1961), a Korean-born woman composer, was a student of Gyorgy Sandor Ligeti (1923-2006). Chin's work reflects the influence of Ligeti but also undeniably has its own style. This study investigates the six piano etudes so far published from *12 Piano Etudes* (1995-2003) by Unsuk Chin and compares them with Ligeti's piano etudes to highlight the influence of the teacher on the student and to aid pianists in facing the unique technical challenges posed by both sets of etudes. The practice guide provided in this study for each specific technical difficulty requires a degree of patience from a student which, if followed, will enhance the performance.

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CHAPTER 1

INTRODUCTION

The purpose of this study is to investigate the six piano etudes (1995-2003) by Unsuk Chin and compare them with those of her teacher, György Ligeti, in order to highlight the influence of the teacher on the student and to aid pianists in meeting the unique technical challenges posed by both sets of etudes.

The genre of *Etude* absolutely requires a high level of technical expertise from the performer as well as the ability to interpret a composer's intentions. To understand Chin and Ligeti's etudes, it is essential to know the genre in general and how it developed. Nicole Edwards states that an etude is "designed to strengthen a particular aspect of technique and each etude therefore tends to evolve from a single motif or musical idea."¹ Originating in the eighteenth century, the etude's original function "was intended for didactic purposes that went beyond that of a short formulaic exercise."² Domenico Scarlatti's *sonatas K.1-30* (1738) were initially entitled *Essercizi per Gravicembalo* (Exercises for harpsichord) and J.S. Bach's two and three part inventions were conceived as educational works. But the intensive role of counterpoint and innovative invention within the Baroque era showed that composers were using a style that influenced both pedagogical and also musical value.³ With the rapid growth of the popularity of the piano, the significance of piano etudes increased in the late eighteenth and the early nineteenth century. Muzio Clementi's collection of one hundred studies, *Gradus ad Parnassum* (Steps to Parnassus) (1817-26) provided many kinds of technical features, for example, "scales,

¹ Nicole Edwards, "Ligeti's *Etudes pour piano (premier livre)*: A Fusion of Tradition and Experimentation." *Musicology Australia* 24, no..1 (2010): 62.

² Eun Young Kang, "Late Twentieth-Century Piano Concert *Etudes*: A Style Study." (D.M.A. Diss., University of Cincinnati, 2010), 2.

³ Edwards, "Ligeti's *Etudes*," 63.

arpeggios, broken octaves, repeated notes, double notes, skips, ornaments, and the Alberti-bass pattern.”⁴

Composers of the nineteenth century developed the genre by combining musical difficulties with technical challenges. The etudes of this time developed into a specific genre that was more suitable for public performance and were therefore named concert etudes; these combined expressiveness and musicality with virtuosic technique required.⁵ Frédéric Chopin and Franz Liszt are the most important and influential composers in the genre of *concert etude*. Chopin’s *Etudes* Op.10 and Op.25 are generally based on a single technical challenge, but contain an enormous range of pianistic color and dramatic musical contour. Liszt created even more virtuosic etudes with a wider dynamic range, density of textures, and a variety of musical ideas and technique. After Liszt, many other composers such as Charles Henri Valentin Alkan, Sergei Rachmaninoff, Sergei Prokofieff, Igor Stravinsky, Bela Bartok, Alexander Scriabin, Claude Debussy, among others, wrote concert etudes, expanding the diversity of virtuosic techniques to challenge the limit of the pianist’s technical abilities.

One of the most significant composers in the post World War II era was György Sandor Ligeti (1923—2006), who wrote a cycle of eighteen piano etudes. His student, Unsuk Chin won many significant international awards including the prestigious 2004 Grawemeyer Award, which Ligeti also received for his piano etudes in 1986. Chin’s music is generally described as having distinctive colorful and imaginative harmony linked to the use of overtones and whole-tone pitch sets. Another feature of her writing is a complicated rhythmic structure which was influenced by her teacher, Ligeti, with whom she studied between 1985 and 1988. Chin’s etudes demand an

⁴ Eun Young Kang, “*Late Twentieth-Century*,” 2.

⁵ *Ibid.*,2

intense level of expertise, as do those of Ligeti. Chin's etudes were originally planned as a set of twelve, like the etudes of Chopin and Debussy; but only six etudes have been published so far. She has stated that she wants to complete the set only after developing more maturity in her compositional style.⁶ The etudes of Ligeti, on the other hand, stemmed from a mature composer in total command of his craft.

According to Moon Jung Kim, Chin's etudes make use of some compositional procedures that Ligeti usually followed: diverse experiments in complex rhythmic, melodic, and harmonic structures inspired by non-European elements such as Indonesian Gamelan music, African music and other sources. Ligeti's etudes themselves clearly also had a significant influence on Chin's own treatment of the genre.⁷ In addition to being influenced strongly by her teacher, Chin traveled widely and absorbed the music of various non-European cultures. The result has been the establishment of her unique style, featuring multi-colored sonorities and rhythmic complexity but always within an organized structure and with traditional motivic gestures. Ligeti's etudes present an opportunity to introduce students interested in the music of the later twentieth century to a variety of extended techniques and unusual notation as well as unusual key signatures. In contrast with her teacher, Chin demands extended techniques of the performer while still using traditional notation.

The etudes of both composers are an important part of the contemporary piano etude repertoire. A comparative study of the two sets of etudes, while shedding light on the influence of Ligeti on his student Chin, will also provide a guide to performers interested in exploring

⁶ Moon Jung Kim, "An Analysis of Unsuk Chin's Piano Etudes" (Diss. Seoul National University, 2010), 2.

⁷ Soo Young Kim, "A Study of Unsuk Chin's Piano Etudes" (D.M.A.diss., University of Georgia, 2012), 2-3.

extended piano techniques and unconventional notation. In addition, it hopes to generate more familiarity with the piano music of these two significant composers.

CHAPTER 2

COMPOSERS AND COMPOSITIONAL BACKGROUND

György Ligeti's Life and His Piano Etudes

Gyorgy Sandor Ligeti (1923-2006) was born in Transylvania, Romania. His interview with Paul Griffith summarizes his childhood concisely:

I wanted to play an instrument - I particularly wanted to play the violin- but my father was against it, and it was not until I was fourteen that I started the piano. I do not have a very good technique and that is a pity, because I love to play the piano... Then I composed immediately after starting to learn the piano. I remember exactly that my first piece was a waltz in the style of Grieg, because one of the very easy Lyrical Pieces is a waltz. But the decision that I was a composer, that only came much later, and very gradually. When I was eighteen the intention was that I should go to the university to study physics, but by that time, the anti-Jewish laws had been passed, and it was very difficult for a Jew to enter the university. So, my father let me go to the conservatory and I would be a composer.⁸

Ligeti studied at the Budapest Academy of Music with Ferenc Farkas, who was one of the most influential Hungarian composers in the generation following Bartok. During World War II, Ligeti was conscripted to serve in forced labor camp. When World War II had almost finished he escaped, and returned home. Only when he came back to his home country, did he realize his parents and brother had been sent to Auschwitz concentration camp in Poland and only his mother had survived. After the war, he continued his study in Budapest and became a professor of harmony, counterpoint and analysis. However, while the country was under the control of communism, Ligeti's work was not recognized and was not able to be performed to its nature; only compositions based on folk music, traditional peasant, and a march, were deemed suitable to be published or performed. In 1956, Ligeti fled to Vienna during the Russian invasion of Hungary. Living in Vienna, Ligeti was exposed to the newest compositional trends in the West

⁸ Paul Griffiths, *The Contemporary Composers: Gyorgy Ligeti* ed. Nicholas Snowman (Letchworth: Robson Books, 1983), 15.

such as electronic music. There Ligeti composed his first electronic compositions, *Glissattdi*, *Artikulation* and the unfinished *Atmosphères*, which were influenced by Karlheinz Stockhausen and Pierre Boulez.

After a brief period of working with electronic music, Ligeti's compositional style had made significant developments:

Ligeti developed his most important compositional innovations - micropolyphony webs, which were extraordinarily dense in their polyphony resulting in complex musical color and texture that transcended the traditional definitions of melody, harmony and rhythm. Ironically, the linear design of micropolyphony resulted in homophonic structures called "clusters," where rapidly moving parts were perceived as masses of sound.⁹

His two orchestral compositions, *Apparitions* (1959) and *Atmosphères* (1961), in which he combined instruments into these clusters, definitely helped establish his international reputation as one of the leading figures in new European music. In *Adventuns* (1962) and *Nouvelles aventuns* (1962-65), Ligeti experimented with coloristic language with non-traditional use of speech sounds and nuance, and he endeavored to moderate the differences between instrumental and vocal sounds. His work, *Requiem* (for soprano, mezzo-soprano, two choruses and orchestra, 1963-65) won the Bonn Beethoven prize in 1967.

While continuing to develop his non-traditional language and also experimenting with Minimalism, Ligeti's compositions continued to be influenced by Bartok in his use of tonal and folk elements. But his most significant compositional innovation was the use of a complex poly-rhythmical technique. He introduced his new technique in his piano etudes, book 1(1985), book 2(1988-1993) and book 3 (1995). These etudes and the piano concerto (1985-88) are considered

⁹ Mayron Tsong, "Etudes pour piano, premier livre of Gyorgy Ligeti: Studiess in Composition and Pianism" (D.M.A. diss., Rice University, 2001), 3.

to be some of his most complex and difficult scores. Ligeti's style developed in a direction that was unique compared to his peers:

While Ligeti used many of the techniques of his contemporary avant garde colleagues such as minimalism, serialism, and electronic music, his own technical innovations such as micropolyphony, clusters, "clouds" and the rapid succession of rhythmically complex structures created a distinct personality for his music, which has had a great influence on a younger generation of composers.¹⁰

Ligeti's piano *etudes* have taken their place as one of the most important sets of piano studies in twentieth century music. They contain virtuosic technical difficulties along with expressive musical materials, following the traditional role of an etude, but also introducing new technical concepts. Nicole Edwards writes about the ways in which both tradition and experimentation influenced Ligeti's etudes for piano:

One distinguishing feature of Ligeti's etudes is their unique chromaticism. It is in his innovative use of rhythm, however, where Ligeti departs from the existing compositional conventions of the repertoire. Ligeti's compositional language, preceding the writing of his piano etudes, illustrates a focus on the discrepancies between what is required technically of the performer and what is perceived as a result by the listener. Textural exploration, in the micropolyphonic works of the 1960s, later became rhythmic experimentation as Ligeti searched for methods to extend the cross-accenting techniques of the Western music tradition. The exploration of polyrhythmic devices, and adapting such complexities to the capacity of the solo pianist, is prevalent to such an extent that it is clear these works are not only etudes for the performer, but also studies in compositional technique for the student. There are connections between Ligeti's use of rhythm and that of earlier composers of etudes which can be easily identified.¹¹

Ligeti's debt to Chopin can be seen particularly in the "shimmering effect" of his hemiola patterns.¹² Edwards observes that Chopin's *Etude* Op. 10 no. 10 and the first of his *Trois nouvelles Etudes* display two different applications of these cross-rhythms which so captivated

¹⁰ Tsong, 7.

¹¹ Nicole Edwards, "Ligeti's *Etudes pour piano (premier livre)*: A Fusion of Tradition and Experimentation." *Musicology Australia* 24, no.1 (2010): 62.

¹² Gyorgy Ligeti, "On My *Etudes for Piano*," *Sonus* 9, no. 1(1988): 4.

Ligeti.¹³Op. 10 no. 10 contains a 2:3 pattern in which the hands share an underlying pulse, similar to that which Ligeti identified in African additive rhythms and some minimalist music.¹⁴

In addition, Edwards states that:

Ligeti's continuation of the piano etude tradition is clear in the connections between his studies and the major works of the genre. Chopin and Liszt provide the foremost models; the concert etude's formal structure and technical figuration. Ligeti's Etudes contain further parallels with those of Debussy, Scriabin, Stravinsky, Bartók and Messiaen, particularly regarding the revitalization of rhythm and reorganization of pitch structure in twentieth-century music.¹⁵

According to Ligeti, listening to African music led him to think in terms of patterns of motion and the illusory melodic/rhythmic configurations that result from the combination of two or more voices. Consequently, polyrhythm, polymeter, and even polytempo became possible.¹⁶

Ligeti discusses this possibility as follows:

That which is eminently new in my piano etudes is the possibility of a single interpreter being able to produce the illusion of several simultaneous layers of different tempi. That is to say, our perception can be outwitted by imposing a "European" accent pattern onto the non-accentuated "African" pulsation. I am using only an idea from African notions of movement, not the music itself. In Africa, cycles or periods of constancy of equal length are supported by a regular beat. The individual beat can be divided into two, three sometimes even four or five "elementary units" or fast pulses. I employ neither the cyclic form nor the beats, but use rather the elementary pulse as an underlying grid work.¹⁷

UnsuK Chin's Life and Her Piano Etudes

UnsuK Chin was born in Seoul, South Korea, in 1961. She learned to read music and play the piano from her father who was a minister in the Presbyterian Church and later she played at

¹³ Edwards, "Ligeti's *Etudes*," 64.

¹⁴ Ibid.

¹⁵ Edwards, "Ligeti's *Etudes*," 83.

¹⁶ Mayron Tsong, "*Etudes pour Piano, premier livre* of Gyorgy Ligeti: Studies in Composition and Pianism" (D.M.A. diss., Rice University, 2001), 11.

¹⁷ Erato, 1990.

her father's church. Although she wanted to become a concert pianist, her parents could not financially support her aspiration. At the age of 13, she started to compose, and abandoned the idea of pursuing a career as a pianist. Her compositional skills were self taught by finding scores, copying them over by hand and studying them. Her professional studies of composition started when she entered Seoul National University in 1981, studying with Sukhi Kang, who was a student of Isang Yun, an internationally renowned Korean-born composer. Kang introduced Chin to various aspects of Western post-war avant-garde music.

While in college, Chin won the International *Gaudeamus*, a competition located in Amsterdam, Composition Prize for her piece, *Spektra* for three cellos, and received a *Deutscher Akademischer Austausch Dienst* (German Academic Exchange Service) grant in 1985 which provided the funds to study with György Ligeti at the University for Music and Theatre in Hamburg until 1988. Chin mentioned the experience with Ligeti in an interview,

Of course it was a big change in my life, but I definitely wanted it. South Korea was a dictatorship at that time and I wanted to live in an open society. As far as my studies with Ligeti are concerned: of course it was a great shock. At that time I already had had success in two important international competitions. But when I showed him these prize-winning pieces, he would only shake his head and say: "Throw all this away. There is nothing original in these pieces." This was very hard, though I somehow knew myself that I hadn't found my own voice in these works. I had a compositional crisis, which lasted for three years: I couldn't compose anything. At that time Ligeti was changing his compositional style. Until then he had been at the forefront of the Western avant-garde (though always in a unique, original way) but now he abandoned his old faith and - after a period of not writing any music - changed, and in my opinion, broadened his style. He was influenced from sub-Saharan music and in the 80s and 90s he wrote so many masterworks. His way to teach was very unorthodox. He demanded from us to work hard and write completely original music, which was not at all possible. He could be extremely sarcastic and critical, but he was very self-critical, too.¹⁸

After the study with Ligeti, Chin lived in Berlin and began to experiment at the electronic music studio in the Technical University. During this period, she re-oriented her view of music.

¹⁸ Interview. <http://usasiains-articles.tripod.com/unsuk-chin.html>

In an interview with Hae Young Yoo, she stated,

Since the process of composing electronic music is very abstract and complicated, it requires a total revamping of how one thinks about music. My point of view towards music changed and I could apply that into my acoustic music when I returned to writing acoustic composition again. It was indeed very helpful for me to find a way to write music with my own voice.¹⁹

Chin's experience in the electronic studio resulted in a remarkable electronic piece, *ad Infinitum* (1989). The electronic music of Chin still engages with the organization of musical concepts of composition for acoustic instruments. However, according to Yoo, the difference between writing for acoustic instruments and writing for electronic music is "how one manipulates the sound material, since there are entirely different kinds of sound material available for electronic music."²⁰

After winning a prize from the *Gaudeamus* Foundation for her innovative piece *Akrostichon-Wortspiel*, for piano and ensemble (1991. Rev.1993), Chin earned international commendation for her new eccentric style. With this her first acoustic composition since she had been composing electronic music, Chin's reputation as a composer increased rapidly. Her style began to come out and develop noticeably, especially in its distinct sense of fantasy and shimmering colors.²¹ The musical elements of this work were inspired by Ligeti. David Babcock writes on *Akrostichon-Wortspiel* that there is a resemblance to Ligeti in its flexibility and playfulness but the actual harmonic language is quite different - less systematic and more spontaneous.²² Arnold Whithall briefly addresses the influence of Ligeti on this work in which "there are hints of the later Ligeti in the simple malleability of the material, and the amusing yet

¹⁹ Yoo, "Western Music," 151.

²⁰ Doori Yoo, "Two Etudes by Unsuk Chin: No. 1, *in C*, and No. 6, 'Grains,' for Piano." (D.M.A. diss., Florida State University, 2013), 6

²¹ *Ibid.*, 6.

²² David Babcock, "Korean Composers in Profile," *Tempo*, New Series, no. 192 (April 1995): 19.

delicate fantasy with which text and music combine.”²³ Chin’s piano etudes were composed during this period as well.

Chin was selected to be composer-in-residence for the *Deutsches Symphonie-Orchester’s* 2001-2002 season. With a violin concerto which was commissioned by the *Deutsches Symphonie-Orchester*, she won the honorable *Grawemeyer* Award in 2004. In the last decade she was awarded the 2011 Music Composition Prize for Foundation Prince *Pierre de Monaco* for her ensemble work, *Gougalon* (2009) which was inspired by her memories of Korean street theater from her childhood and she received a British Composer Award in 2010 for her Cello Concerto.

Chin has served as the composer-in-residence at the Tongyoung International Music Festival since 2005 which is the hometown of I-Sang Yun. She was appointed composer-in-residence of the Seoul Philharmonic Orchestra in 2006. As the artistic director of its Contemporary Music Series, “*Ars Nova* with Unsuk Chin,” she gave lectures, workshops, and master classes, as well as programming the series. She tried her best to establish an audience for contemporary music in Korea, but she resigned her position at the Seoul Philharmonic Orchestra in January, 2018.

Unsuk Chin’s twelve piano etudes are her only solo piano compositions. Although this set had been originally planned to be twelve etudes following the pattern of Chopin, Debussy, and Scriabin, only six etudes were published. However, she expressed her hope to compose the rest of the etudes after her style has matured.²⁴

²³ Arnold Whittall, “Unsuk Chin in Focus: Meditations and Mechanics,” *The Musical Times*, vol. 141, no. 1870 (Spring 2000): 21.

²⁴ Moon Jung Kim, “An Analysis of Unsuk Chin’s Piano Etudes,” (D. M. A. diss., Seoul National University, 2010), 2.

Chin gave her own subtitle for each etude: Etude No. 1 “In C,” No. 2 “Sequenzen,” No. 3 “Scherzo ad libitum,” No. 4 “Scalen,” No. 5 “Toccata,” and No. 6 “Grains.” All six etudes were commissioned to be performed. Notably, No.6, “Grains” (2000) was commissioned by the Royal Festival Hall for Pierre Boulez’s 75th birthday and was written for Boulez.

Chin followed traditional form in her etudes. According to Kim:

The formal structures within most of Chin’s piano etudes are clear and are easy to perceive by ear because the forms are structured around clear tempo changes. These distinctly perceived formal structures indicate her strong sense of organization, and reflect her value of the Western classical tradition. Also, Chin creates variety in this set of etudes by using diverse formal structures. For example, Etude No. 2, “Sequenzen,” and No. 5, “Toccata,” are written in a symmetrical arch form used frequently in Bartok’s works, and No. 6, “Grains,” uses a theme and variations form. Most of the pieces end with brief coda sections.²⁵

In speaking about the etudes’ harmonic language, Kim describes the use of the overtone series:

Chin’s piano etudes are characterized by their harmony derived from the overtone series. Her technique was influenced by Ligeti’s treatment of overtones in his later work such as *Hamburg Concerto* (1998-99, rev. 2003). Her elaboration of the overtone series harmony works well in these piano etudes since the piano has a naturally resonant quality created through its many strings. Among her etudes, Etude No. 1, “In C,” demonstrates the most extensive use of the C overtone series for its fundamental harmonic framework. In addition, Etude No. 5, “Toccata,” is composed of harmony derived from the C overtone series.²⁶

Chin’s piano etudes provide valuable insight into her unique musical style, one that synthesizes diverse influences from many cultures. Like those of her teacher Ligeti, Chin’s etudes demonstrate extreme rhythmic complexity, a strongly organized structure, imaginative sound colors, and dexterous motivic development.²⁷ Paul Griffiths writes, “her music makes no parade of national flavor: her preferences for the sounds of plucked or struck strings, for slowly drifting glissandos and for arrays of bells and gongs all carry no specific cultural overtones, and that

²⁵ Kim, “An Analysis of Unsuk Chin’s Piano Etudes,”15.

²⁶ Ibid.,17

²⁷ Soo Young Kim, “Study,” 3.

indeed is one of her strengths.”²⁸ Her music highlights diverse musical sources and ideas, rather than accentuating the characteristics of her national background, as well as synthesizing what she learned from Ligeti.

Since Chin’s etudes are a work in progress and not yet completed, there is not yet much written about them specifically. However, interest in her music and in etudes of the twentieth and twenty-first centuries has been growing, as illustrated particularly by the publication of dissertations and, performances and CDs by young pianists.

²⁸ Paul Griffiths, “In Focus: an Introduction to the Music of Unsuk Chin,” http://www.boosey.com/pages/cr/composer/composer_main.asp?composerid=2754&ttype=INTRODUCTION&title=In%20Focus; accessed on February, 10.2018.

CHAPTER 3

LIGETI'S INFLUENCE ON CHIN'S PIANO ETUDES

Ligeti's etudes inspired Chin a great deal when she took up this genre. Through her teacher, Chin was introduced to many musical ideas that assisted her in developing her own compositional language. Steinitz writes that Ligeti's etudes combine polymeter and cross-accentuation to produce secondary-level accents called "supersignals."²⁹ According to Hae Young Yoo:

Chin's etudes *in C* and *Sequenzen* are good examples of this particular trait. The divergent rhythmic patterns of *in C* and the complex inner detail of *Sequenzen* scarcely can be heard by listeners at this speed. The impression of sound is that it is a homogeneous and rich noise, but their ears perceive an intense vertical rhythmic flow with multiple accents.³⁰

Yoo also writes about a direct relationship between the two composers:

Although all of Chin's etudes start with a simple motive, by either the simultaneous working out of different mechanisms or by transformation of motivic cells, the first impression is soon dispersed. This is also very much the same in Ligeti's Etudes. For example, Ligeti utilized harmonics in his Etude No. 3, *Touches bloquées*, as does Chin in No.1, *in C*; Chin's harmonics are held by the *sostenuto* pedal while Ligeti's are held by the fingers. Like Ligeti's Etude No. 1, in which he superimposed several different rhythmic strata, in Chin's etudes *in C* and *Grains*, an overall beat or rhythmic organization no longer implies any meaning because of the superabundance of different beats and rhythms. *Moto perpetuo* and incessant continuum are other words to describe the music of these two composers.³¹

As composers in the later twentieth century gradually abandoned most of the conventional musical language of previous centuries, they sought out new musical materials to substitute for the older musical ideas of form, tonality, timbre, etc. In the course of abandoning traditional musical language, tonality and melody became ambiguous. Many composers have

²⁹ Richard Steinitz *György Ligeti: Music of the Imagination*. (Boston: Northeastern University Press, 2003), 278.

³⁰ Hae Young Yoo, "Western Music in Modern Korea: A Study of Two Women Composers" (D.M.A.diss., Rice University, 2005), 100.

³¹ Hae Young Yoo, "Western Music," 100-1.

emphasized the importance of tone color and texture, finding these qualities to be as basic and as structurally important as motive and rhythm.³² Ligeti was one of the composers who played an important role in this musical change in the twentieth century. Since he was Chin's teacher from 1985 to 1988, it is not surprising that we can see many similarities between Chin's Etudes and Ligeti's.³³

Meter and Rhythm

Both Ligeti and Chin use either no meter or unusual meters such as 12/16 and 3/2 in their piano etudes. This gives flexibility in creating polyrhythms. In the performance notes for Ligeti's *etude* No.3, he writes about the function of the bar line:

The bar lines are intended to serve as a means of orientation and do not have a metric function or indicate articulation. The duration of individual "bars" results from the number of sounding and non-sounding keys struck in succession between two bar-lines; i.e. the "bars" differ in duration."³⁴

Primary sources for Ligeti's etudes are the cross-accentuation as shown in Example 1 and 2, polyrhythm, polymetric counterpoint, and *aksak* rhythm,³⁵ a rhythmic device which also appears in Chin's piano etudes, as shown in Example 3 and 4. *Aksak* refers to the pairing of two uneven rhythmic units in the ratio 3:2, and in larger combinations of 3+3+2, 2+3+3, 3+2+3, 2+2+2+3, etc., as found in Balkan folk music.³⁶ Ligeti used this rhythm a great deal in his piano etudes and Chin was influenced by it. Ligeti used the constant *aksak* rhythm in the accompaniment of his

³² Yoo, "Western Music," 86.

³³ Yoo, "Western Music," 100.

³⁴ György Ligeti, *Etudes pour piano, premier livre* (Mainz: Schott, 1986), 20.

³⁵ *Aksak* is from the Turkish word for "limping" or "hobbled," as coined and defined by Constantin Brailoiu, a Romanian ethnomusicologist. Quoted in Steinitz, *György Ligeti*, 176.

³⁶ Yoo, "Western Music," 94.

etude *Fanfare* as shown in example 5, as a foundation for the jazz-like improvisatory melody and harmony. In his etude, *Columna infinita* which is written in 16/8 meter, he wrote the melody with *aksak* and placed it over a consistent eighth note passage as shown in example 6.

Cross-Accentuation in Etudes by Chin and Ligeti

Example 1: Chin, Piano Etude No.1, in C, mm. 20-21

The image shows a musical score for Example 1: Chin, Piano Etude No.1, in C, mm. 20-21. The score is written for piano and consists of two staves. The top staff is in treble clef and the bottom staff is in bass clef. The music features complex rhythmic patterns and dynamics. Red boxes highlight specific notes and dynamics, including *sfz* (sforzando) markings. A dashed line above the top staff indicates a melodic line. A *ped.* (pedal) marking is present below the bottom staff. The score is numbered 20 at the beginning.

Example 2: Ligeti, Piano Etude No.1, "Disorder" (unmeasured)

The image shows a musical score for Example 2: Ligeti, Piano Etude No.1, "Disorder" (unmeasured). The score is written for piano and consists of two staves. The top staff is in treble clef and the bottom staff is in bass clef. The music features complex rhythmic patterns and accents. Red circles highlight specific notes and accents, including *>* (accent) markings. The score is numbered 1, 2, 3 at the end of the bottom staff.

Aksak Rhythm in Etudes of Ligeti and Chin

Example 3: Chin, Etude No. 3, “Scherzo ad libitum,” mm. 26-9

a tempo $f = \text{ca. } 208$

f *sub 2* *no* *legato*

3 + 3 + 2 3 + 3 + 2 + 2 + 2

Aksak Rhythm in Etudes of Ligeti and Chin

Example 4: Chin, Etude No.4, “Scalen,” mm. 147-50

$f = \text{ca. } 144-152$ *tempo molto rubato*

(*cresc.*) *no*

3 + 3 + 2 + 3 3 + 2 + 3

Example 5: Ligeti, Etude No.4, “Fanfare,” mm. 1-4

Vivacissimo, molto ritmico, $\text{o} = 63$, con allegria e slancio

) > *)

3+2+3 Aksak Rhythm

*) *pp sempre legato, quasi senza pedale* *pp sempre*

Example 6: Ligeti, Etude No.13, “Columna infinita,” mm. 32-34

Annotations in Example 6:
 - *ruidoso e ritmico, come prima*
 - $(3+2+2+2)+(3+2+2)$
 - *non arp.*
 - *cresc. molto*
 - *sempre fffff senza cresc.*
 - $(3+2+2+2)+7$

Extended Technique and Unusual Key Signatures

Ligeti created harmonics in his Etude No. 3, *Touches bloquées*, by silently depressing the keys with one hand and playing notes against that with the other hand as shown in Example 7. Chin also used this technique in her Etude No.1, *in C*. However, Ligeti’s harmonics are held by the fingers, whereas Chin’s are held by the *sostenuto* pedal, as shown in Example 8.

The Use of Extended Technique and Unusual Notation in Etudes by Ligeti and Chin

Example 7: Ligeti, Etude No.3, “Touches bloquées,”mm. 1-4

Annotations in Example 7:
 - *Vivacissimo, sempre molto ritmico*
 - *sempre legato*
 - Small notes – already depressed keys
 - *stuttering’ / „stotternd“*
 - *senza ped. (sempre)*
 - Depress the keys silently

Example 8: Chin, Etude No.1, in C, mm. 1-3

Unsus Chin (1999)
Revision (2003)

Press the keys silently and hold with the *sostenuto* pedal

The use of harmonics creates overtones upon which Chin focuses in her etude *in C*. However, in Ligeti's etude *Touche bloquées*, what is most important is the complex rhythmic pattern. This creates an atmosphere of near chaos and presents the performer with the particular technical challenge of irregular pauses and the unusual effect of silently pressing keys.

Chin's etude No.6, "Grain," includes a cluster, which is one of the most common of extended piano techniques in music of the twentieth century, as shown in Example 9. In this etude, she features repeated note patterns such as those found in Ravel's *Scarbo*, as shown in Example 10.

Example 9: Chin, Etude No.6, "Grain," mm. 53-62

Similar repeated notes to Ravel's *Scarbo*

Example 10: Ravel, “Scarbo” from his *Gaspard de la Nuit*, mm. 1-9

The use of unconventional key signatures in Ligeti’s etudes is a significant challenge to performers. None of Chin’s piano etudes has a key signature and most of Ligeti’s have either no key signature or different key signature for each hand which comes from Bela Bartok, shown in Example 11.

Unusual Key Signature in Ligeti’s Etudes

Example 11: Ligeti, Etude No.1, “Disorder” (unmeasured)

In Ligeti’s etude No.1, “Disorder” (Example 11), the right hand plays only white keys and the left hand plays only black keys. In this etude, the cross-accentuated melodic line between the two hands establishes the atmosphere of disorder, but it could also be argued that this mood stems from the unusual key settings alone.

In his performance notes for Etude No.7, “*Galamb Borong*”(Example 12), Ligeti writes, “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 only notes of the whole tone scale of E, D, C, Bb, Ab, Gb.”³⁷ Also, he suggests that the performer practice the left and right hands separately in order to get used to the different key signatures in the two hands.³⁸

Unusual Key Signature in Ligeti’s Etudes

Example 12: Ligeti, Etude No.7, “*Galamb Borong*,” mm. 1-3

Vivacissimo luminoso, legato possibile, $\text{♩} = 40$ or faster / oder schneller

una corda, poco ped.

Example 13: Ligeti, Etude No.10, “*Der Zauberlehrling*,” mm. 64-69

64 *ppp*

8b.

15'

sempre *ppp*

67

15'

cresc. poco a poco

pp

15'

poco a poco tre corde - - - - -

³⁷ Ligeti, *Etudes pour piano, deuxième livre* (Mainz: Schott, 1998), 4.

³⁸ Ibid.

Example 14: Ligeti, Etude No. 11, "En Suspens," mm. 18-27

18 *pp* *non arp.* *p* *pp*

22 *non arp.* *non arp.* *mp* *pp* *p* *mp* *p* *mp* *p*

25 *mp* *p* *mfpp sim.* *mfpp sim.*

Example 15: Ligeti, Etude No. 12, "Entelacs," mm. 1-3, 52-54

mf *pp* *mf* *pp* *sim.*

12 16 *pp* *mf* *sim.*

mf *con ped.* *mf* *pp* *pp sub.*

(52) *fff cresc.* *fff* *mf* *pp sub.* *pp*

Ligeti uses an unusual key signature, writing 5 flats: Bb, Eb, Ab, Db, Gb on one staff only in his etudes, No.10 “*Der Zauberlehrling*” (Example 13), No.11 “*En Suspens*”(Example 14), and No.12 “*Entrelacs*” (Example 15). In these three etudes, Ligeti challenges a pianist with the change of the key signature between hands.

Although Chin did not use any key signatures in her piano etudes, she used large amounts of accidentals simultaneously in chords as shown in example 16. As these are often played in a high register, it can be challenging when first learning the piece to distinguish which are the right pitches, a challenge intensified by the thick texture of the writing.

Example 16: Chin, Etude No.1 in C, mm. 41-42



Extreme Dynamics

Both Ligeti and Chin indicated very precise and extreme dynamics in their etudes. The use of extreme dynamics can be found often in the music of the twentieth century including such works as *Makrokosmos* by George Crumb; but Ligeti used them in a much more precise and particular fashion. Ligeti indicated the dynamics of *pppppppp* in the right hand and *pppp* in the left hand as shown in Example 17.

Example 17: Ligeti, Etude No.4, "Fanfare," mm. 169-72

8
169 (dim.) - **PPPPPPPP** *pp* **) *tre corde*
pppp *sub. ff*

Example 18: Ligeti, Etude No.14, "Columna infinita," mm. 1-2, mm. 20-1, mm. 41

*Presto possibile, tempestoso con fuoco, $\text{♩} = 105$ *)*

16 $\frac{8}{8}$ *fff sempre con tutta la forza, legato possibile*
very little pedal **) *wenig ped.*

21
(cresc.) - **ffff**

15
41 (cresc.) - **ffff** *forza estrema al fine*
8 15

The use of extreme dynamics could be interpreted as a deliberate appeal to performers to create a huge contrast. Ligeti rarely used the dynamic range of *mf* and *mp*. To reach his extreme dynamic markings, Ligeti created a precise build up by adding dynamics step by step, rather than jumping from *f* to *fffff*. Etude No.14, “*Columna infinnita*,” by Ligeti starts with *fff* and it ends with *fffff* as shown in Example 18. It is an interpretive challenge to decide whether to take the dynamic markings at face value or whether to use them as indicators of extreme dynamic contrast. Either way, it is important to plan a precise building up of dynamics which will be clear to an audience.

Chin also adapted her teacher’s use of extreme dynamics but in a milder fashion as shown in Example 19. However, the challenge in her etudes consists of sudden dynamic changes in a rapid tempo. See Example 20.

Example 19: Chin, Etude No.5, “Toccata,” mm. 93-6



Example 20: Chin, Etude No.4, “Scalen,” mm.144-46



Extreme Virtuosity

The concert etude genre since the time of Chopin and Liszt is recognized for its virtuosic challenges, but some of the Ligeti and Chin etudes are almost beyond performers' physical and mental capacities. Chin's simultaneous devices of different articulations and the simultaneous use of a wide range of registers coupled with exceptionally rapid tempo markings create enormous difficulties for the performer. (see Example 21).

Example 21: Chin, Etude No.3, "Scherzo *ad libitum*," mm. 1-4, 9-15

♩ = ca. 200-208 Difficult Tempo marking on constant rapid leaps

III

9

10: 7

Rhythmic Difficulty

12

ppp

molto rit.

a tempo

non legato

The greatest technical difficulties in both sets of the etudes stem from their rhythms. Unusual bar lines and metric organization do not provide any rhythmical pulse or else create an irregular pulse.

In addition, Ligeti created two versions of one of his etudes, No. 14, "Columna infinita." His second version, indicated as No.14A, is for player piano, with thicker textures than No.14

(see Example 22). It is almost physically impossible for a human being to perform. Yet in his performance note he writes, “with appropriate preparation, a performance by a live pianist is also possible.”³⁹

Example 22: Ligeti, Etude No.14A, “Coloana fără sfârșit,” mm. 1-3

dédiée à Vincent Meyer
Étude 14A: „Coloana fără sfârșit“^(*)
for player piano (ad lib. live pianist)^(**)

Presto possibile, tempestoso con fuoco, $\text{♩} = 105$ ^(*)**

16
8 *fff sempre con tutta la forza, legato possibile ^(****)*

ped. ^(*****)
sopra

3

4

³⁹ Ligeti, *Etudes pour piano, deuxième livre* (Mainz: Schott, 1998), 69.

CHAPTER 4

PERFORMANCE AND PRACTICE GUIDE FOR ETUDES BY LIGETI AND CHIN

Students who are inexperienced in contemporary music face difficulties when dealing with Ligeti's and Chin's etudes because of their use of unconventional notation, extended techniques, non-traditional and complex rhythmic and harmonic gestures, and extreme virtuosity. The completely individual and independent musical elements of the treble and bass staves in Ligeti's piano etudes require students to consider the separate management of both the right and left hand both physically and mentally.

For example, in Ligeti's Etude No.1, "Disorder" as shown in example 23, the unusual key signature requires independent hand movement, since the right hand plays only white keys and the left hand plays only black keys.

Example 23: Ligeti, Etude No.1, "Disorder" (unmeasured)

Molto vivace, vigoroso, molto ritmico, ♩ = 63

Practice Chart for Irregular Rhythmic Pulse and Cross Accentuation

Ligeti suggests practicing the hands separately to get used to the different key signature in each hand. Irregular accents and cross-accentuation with shifting numbers of eighth notes also require independent hand movement. Students must practice to keep the irregular pulse meter

throughout this etude without breaks or rests. To help students practice and become familiar with the complex rhythm and cross-accentuation, I suggest several steps for practicing:

1. Play both hands separately, feeling the smooth and light movement in the thumbs and constantly listening for an even tone.
2. Have both hands tap the accented notes/beats, counting the rhythm aloud or with a metronome. Mark the places where the accents occur simultaneously in both hands.
3. Have both hands play the accented notes with a metronome.
4. Play the right hand and accent the notes only in the left hand.
5. Play the left hand and accent the notes only in the right hand.

This practice chart applies to other music as well that contains irregular and different rhythmic pulses in each hand, such as Chin’s etudes Nos.1 and 5. The polyrhythm such as 10 against 7 as shown in Example 9 is a great challenge. I suggest a simple tapping practice as shown in Figure.1, but even this requires patience.

Figure 1: Polyrhythm practice by tapping

10 against 7: 10 x 7 = 70, counting aloud 1 through 70 while tapping the rhythm																
R.H (10):	x	x	x	x	x	x	x	x	x	x	x	x				
Counting:	1	8	11	15	21	22	29	31	36	41	43	50	51	57	61	64
L.H (7):	x		x		x		x		x		x		x		x	

Tapping practice helps students play polyrhythms more precisely. While tapping the rhythms slowly, students should also try to imagine the music. This mental practice is particularly important for students who are new to contemporary music because of the unusual harmonic progressions and melodic gestures.

Ligeti uses an extended piano technique in his Etude No.3, “*Touches bloquées*,” as shown in Example 24, which involves silent sustained pitches. The right hand moves over the keys silently on the smaller notes while the left hand depresses blocks of notes, which causes irregular

gaps and pauses within fast-moving scales. Since most students are unaccustomed to this sensation it is necessary to practice slowly with patience. The mental practice of imagining and listening to the continuous chromatic scale line is important in this etude. Playing every note without the depressed chords is also an effective practical approach when beginning to learn this etude.

Example 24: Ligeti, Etude No.3, “Touches bloquées,”mm. 1-4



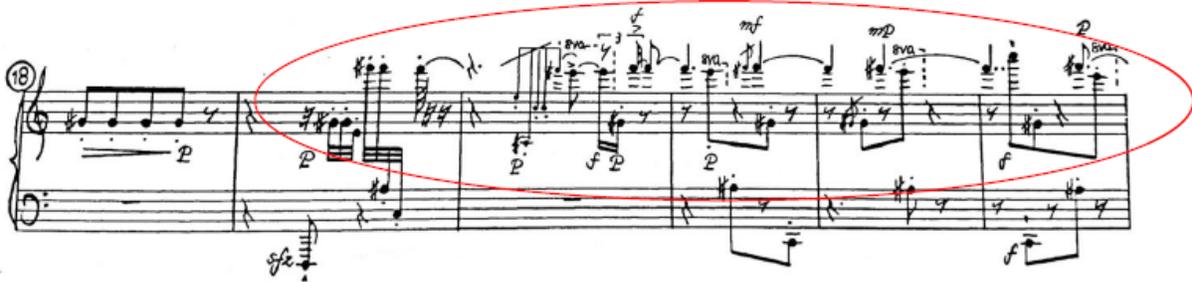
Practice Steps for a Rapid Leap Passage

Chin’s etudes contain many techniques similar to Ligeti’s etudes, but her etudes challenge pianists even more with large leaps at a rapid speed, requiring a prompt shifting of the hand coupled with subtle dynamic changes, especially in Nos. 1, 3, and 6. Performers must have careful control of their arm and finger muscles to play the passages precisely. The large rapid leaps also involve visual practice in that the performers’ eyes must check and verify the location of the note or chord during the leap as a preparation before the fingers reach their destination. When the passage contains a rapid leap simultaneously in both hands, I suggest watching for the right-hand leap, because the left hand is probably already more comfortable making quick leaps since these frequently occur throughout standard piano literature. I propose several practice steps for precision in passages including rapid leaps:

1. A visual practice: Before you play the rapid leap, check the exact notes of the leap. (A visual check should precede a tactile approach.)
2. Practice just the arm movement of a leap without playing the note or chord but using a metronome. The hand should not make an arch-formed movement, but rather, a horizontal movement.
3. Play the leap at a slow tempo but focus on Steps 1 and 2.
4. Play the leap with a metronome, gradually working up from a slow tempo to the actual tempo.

Most of the passages with rapid leaps in Chin's etudes contain a leap in one hand quickly followed by a leap in the other hand, as shown in Example 25. There might not be enough time for one's eyes to visually shift to the next leap, despite the fact that leaps are not simultaneous in both hands. Mental and visual attention is as significant as the physical practice to make a precise fast leap successful.

Example 25: Chin, Etude No.6. Passage of Fast Leaps (Tempo: eighth note = 184), mm. 18-23



Ligeti's etude No.14a "Coloana fără sfârșit" was originally written for player piano and Ligeti indicates *ad lib.* live pianist with parenthesis. As opposed to his etude No.14, No.14a uses many accidentals, and has a thicker texture creating potential tension in the hands with uncomfortable stretches. Because of its rapid tempo, extreme dynamic markings (*fff*), and constantly moving chords marked *legato* (example 26), it seems as though this etude would be unplayable. But a Turkish pianist, Idil Biret made a recording of No.14a. She was very successful in playing with an even tone and legato as Ligeti requests in his program notes. To

play this challenging etude, a pianist must find a resting point for each hand. As described in the title of this etude, “Column without end,” the gesture in each hand keeps ascending and starting over from the low register, so when a pianist moves his arms from the high register to the low register, he must release tension in his arms and hands. Along with the practice of applying different rhythms such as a dotted-rhythm, a reverse dotted-rhythm, and a *staccato* practice for each note, I suggest a practice of a chord and one note pattern played by each hand separately with a complete *legato* as shown in example 26. Also, practicing only the soprano and bass together will help strengthen weak fingers and underscore what should be listened for.

Example 26: Ligeti Etudes No. 14a mm. 1-3

Practice Pattern:

- Blue for 2 notes - 1 note pattern
- Red for 1 note - 2 notes pattern

dédiée à Vincent Meyer
Étude 14A: „Coloana fără sfârșit“^{}**
 for player piano (ad lib. live pianist)^{**})

Presto possibile, tempestoso con fuoco, $\text{♩} = 105$ ^{*})**

16
8 *fff sempre con tutta la forza, legato possibile ******

ped. *****
sopra

3

4

Interestingly, each etude by Ligeti and Chin indicates an exact time duration which also prescribes a challenge. In order to play fast, slow practice is always necessary. However, I also suggest practicing extremely fast once in a while during your practice time even if not every note is accurate. The feeling of the fast movement of not only your fingers, but also your arms is an important gesture as well. A performer should be able to control the rapid movement in their arms and upper body during a fast piece without creating tension.

CHAPTER 5

CONCLUSION

One of the primary purposes of this comparative study and practice guide is to highlight the musical diversity of the Ligeti and Chin etudes and to emphasize their inherent value to composers and performers. Additionally, this study also highlights how the work of a teacher can influence and shape their students. Chin's work reflects the influence of Ligeti but also undeniably retains and forms its own style. Just as Ligeti was influenced by other composers such as Bartok, Ligeti's influence on Chin's etudes shows that she did not imitate her teacher's techniques and style, but instead further developed the musical ideas she learned from him and created her own style with her own musical language.

Chin's compositions are frequently performed and have received worldwide attention from many prestigious musicians and ensembles. The music of her teacher is of course widely known, and the etudes are beginning to be performed by more adventurous pianists.

As stated in this dissertation, the etudes of Ligeti and Chin contain an extreme level of technical difficulty and the variety of techniques demanded presuppose a high level of pianistic virtuosity. The pianist has to have a comprehensive understanding of the technical challenges presented by each etude before approaching and learning the etude. The practice procedure provided in chapter 4 for each specific technical difficulty requires a degree of patience from a student, but if followed, will guide the performance. Hopefully, this study will assist pianists to perform Chin's piano etudes and as well to explore contemporary etudes by other composers of their time.

BIBLIOGRAPHY

Writings

- Babcock, David. "Korean Composers in Profile." *Tempo*, n.s., no. 192 (1995): 15-21.
- Chang, Ji-Hye. "Contextual Analysis of Unsuk Chin's Piano Etudes." D.M.A. Diss., Indiana University, 2006.
- Choi, Bokum. "A Musical and Pedagogical Analysis." D.M.A. diss., Texas Tech University, 2009.
- Duchesneau, Louise, and Wolfgang Marx, ed. *György Ligeti: Of Foreign Lands and Strange Sounds*. Woodbridge, Suffolk: Boydell Press, 2011.
- Edwards, Nicole. "Ligeti's *Etudes pour piano (premier livre)*: A Fusion of Tradition and Experimentation." *Musicology Australia* 24, no.1 (2010): 62-84.
- Griffiths, Paul. "In Focus: An Introduction to the Music of Unsuk Chin." Available from http://www.boosey.com/pages/cr/composer/composer_main.asp?site-lang=en&composerid=2754&langid=1&ttype=INTRODUCTION&tttitle=Portr%C3%A4t; accessed 10 February 2018
- Kang, Eun Young. "Late Twentieth-Century Piano Concert Etudes: A Style Study." D.M.A. Diss., University of Cincinnati, 2010.
- Kim, Jeong-Soo. "An Overview of Pedagogical Piano Repertoire by Contemporary Korean Composers." *American Music Teacher* 55, no. 6 (2005): 30-34.
- Kim, Moon Jung. "An Analysis of Unsuk Chin's Piano Etudes." D.M.A. diss., Seoul National University, 2010.
- Kim, Soo Young. "A Study of Unsuk Chin's Piano Etudes." D.M.A. diss., University of Georgia, 2012.
- Ligeti, György. "On My *Etudes* for Piano." *Sonus*. 9, no.1 (1988): 3-7.
- Pace, Ian. "Maintaining Disorder: Some Technical and Aesthetic Issues Involved in the Performance of Ligeti's *Etudes* for Piano." *Contemporary Music Review* 31, nos. 2-3 (April-June 2012): 177-201.
- Park, Yong-Wan. "Chin Unsuk: At the Forefront of Contemporary Music." *Koreana* 21, no. 4 (winter 2007): 64-67.
- Pratt, Keith. *Korean Music: Its History and Its Performance*. Seoul: Jung Eum Sa, 1987
- Simms, Bryan R. *Music of the Twentieth Century: Style and Structure*. New York: Schirmer Books, 1986.

- Steinitz, Richard. *György Ligeti: Music of the Imagination*. Boston: Northeastern University Press, 2003.
- Thompson, Ellen. *Teaching and Understanding Contemporary Piano Music*. San Diego: Kjos West, 1976.
- Tsong, Mayron. “*Etudes pour piano, premier livre* of Gyorgy Ligeti: Studies in Composition and Pianism.” D.M.A. diss., Rice University, 2001.
- Wagner, Edyth. “History of the Piano Etude.” *American Music Teacher* 9, no. 1 (September-October 1959): 12-13; 9, no. 2 (November-December 1959): 13; 9, no. 3 (January--February 1960): 12.
- Wang, Chien-Wei. “Examples of Extended Techniques in Twentieth-Century Piano Etudes by Selected Pianist-Composers.” D.M.A. diss., University of Miami, Coral Gables, 2010.
- Whittall, Arnold. “Unsuk Chin in Focus: Meditation & Mechanics.” *Musical Times* 141, no. 1870 (spring 2000): 21-22, 24-32.
- Yoo, Doori. “Two Etudes by Unsuk Chin: No. 1, *in C*, and No. 6, ‘Grains,’ for Piano.” D.M.A. diss., Florida State University, 2013.
- Yoo, Hae Young. “Western Music in Modern Korea: A Study of Two Women Composers.” D.M.A.diss., Rice University, 2005.

Interview

Interview. <http://usasians-articles.tripod.com/unsuk-chin.html>

Scores

- Chin, Unsuk. *Piano Etude No. 1 (in C) from “12 Piano Etudes.”* London: Boosey& Hawkes, 2003.
- . *Piano Etude No. 2 (Sequenzen) from “12 Piano Etudes.”* London: Boosey& Hawkes, 2003.
- . *Piano Etude No. 3 (Scherzo ad Libitum) from “12 Piano Etudes.”* London: Boosey&Hawkes, 2003.
- . *Piano Etude No. 4 (Scalen) from “12 Piano Etudes.”* London: Boosey& Hawkes, 2003.
- . *Piano Etude No. 5 (Toccata) from “12 Piano Etudes.”* London: Boosey& Hawkes, 2003.

———. *Piano Etude No. 6 (Grains) from “12 Piano Etudes.”* London: Boosey & Hawkes, 2003.

Ligeti, György. *Etudes pour piano, premier livre.* Mainz: Schott, 1986.

———. *Etudes pour piano, deuxième livre.* Mainz: Schott, 1998.

Recordings

Chopin, Scriabin, Liszt, Ligeti. *Sonatas and Etudes*, performed by Yuja Wang, Deutsche Grammophon, 2009

Gubaidulina, Chin, Ligeti, Piano works, performed by Mei Yi Foo. Odradek Recording, 2011

Ligeti, György. *Piano Etudes, Bk. 1*, performed by Pierre-Laurent Aimard, piano. Erato ECD, 1990.

Ligeti, György. *Piano Etudes, Bk. 1, Bk.2, Bk.3, Musica ricercata*, performed by Pierre-Laurent Aimard, piano. Sony Classical, 1997.

Ligeti, György. *Etude Pour Piano Bk2, Musica Ricercata, 2 Capriccios, Invention*, performed by Lucille Chung, Dynamic, 2001

Ligeti, György. *Etude Pour Piano*, performed by Fredrik Ullen, BIS, 2009

Ligeti, György. *Etude Pour Piano*, performed by Gianluca Cascioli, Deutsche Grammophon, 2010

Ligeti, György. *Etude Pour Piano*, performed by Erika Haase, EMG Classical, 2010

Ligeti and Beethoven, *Sonatas and Etudes*, performed by Jeremy Denk, Nonesuch, 2012

Ligeti, György. *Etude Pour Piano*, performed by Thomas Shell, Wergo, 2013

Ligeti, György. *Etude Pour Piano*, performed by Toros Can, L’empreinte Digitale, 2018

Lyapunov, Chin, Szymanowski, *Piano Etudes*, performed by Clare Hammond, piano. BIS, 2014.

Panisello and Ligeti: *Etudes pour piano*, performed by Dimitri Vassilakis, NEOS, 2010

Scriabin, Ligeti, and Debussy. *Piano Etudes*. performed by Angela Tosheva, Orange Factory, 2007