GYÖRGY LIGETI'S DÉSORDRE AND L’ESCALIER DU DIABLE: COMPOSITIONAL STYLE AND METHOD OF PRACTICE

D.M.A DOCUMENT

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ABSTRACT

György Ligeti (1923-2006) is one of the most influential and virtuosic composers in the twentieth-century. Among his piano works, the Études Pour Piano (1985-2001) are a late twentieth-century rarity in that they have become one of the most valuable and important twenty-first century repertoire for developing pianists’ technical and musical skills. Because of the diverse influences on Ligeti’s music in the 1980s, this document investigates eclecticism in his piano etudes from traditional devices to recent discoveries as well as various other composers who influenced his music. This study ultimately suggests various possibilities of other works that could be paired with Ligeti’s etudes to encourage pianists to include a variety of pieces for effective concert programs.

This study provides a brief biography of György Ligeti, his major works chronologically, and his musical styles. The main purpose of this document is to provide an analysis and performance guideline of the most challenging and virtuosic of his etudes: No. 1 “Désordre” and No. 13 “L’escalier du diable.” It proves especially useful and instructive to discuss these two pieces, as they present some of the most individual and intricate pianistic and musical challenges of Ligeti’s piano works. Since these etudes require pianists to have completely independent movement of their hands, due to
complicated rhythms, shifting accents, and layers moving at different speeds, techniques for rhythmic practice will also be addressed. Also, I will provide instruction on how to practice the technically demanding devices in the etudes including extremely dramatic dynamics, wide range of keyboard positions, fast tempos, wide intervals, and unpredictable changing patterns. The performance suggestions will help pianists to approach the technically difficult sections and to give more accurate and musical renditions of these highly complex compositions.
This document is dedicated to my family
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CHAPTER 1

INTRODUCTION

1.1 A Brief Biography of György Ligeti

One of the most virtuosic composers in the twentieth century, György Sándor Ligeti was born on 28 May 1923 in Discőszentmáton, which had become Transylvania in Romania. Ligeti began his musical study at the piano, composing several pieces, and playing the timpani in an amateur orchestra from the age of fourteen. In 1941, he entered the Kolozsvar Conservatory and studied with Ferenc Farkas (1905-2000) who was one of the most respected Hungarian composers at that time. He also took private lessons with the composer and pianist Pál Kadosa. Around this time, Ligeti imitated Mozart, Bach and Couperin and also studied Stravinsky and Hindemith. His first published composition, *Kineret* (*Galilee*), a song for mezzo-soprano with piano accompaniment won first prize in a competition in Budapest.¹

During World War II, Ligeti was arrested and sent to a labor camp and almost his entire family died there as Jews under the Nazi-puppet regime in Hungary. After the war, he continued studying music with Farkas at the Franz Liszt Academy in Budapest. The artistic environment in Hungary was restricted between 1949 and 1955. The cultural situation influenced him to incorporate folk music into his compositions, like Bartok and Kodály. After graduation from the Franz Liszt Academy, he became a professor there from 1950 to 1956. In his role as a teacher, he taught theory, harmony, and counterpoint and published two textbooks on traditional harmony and an article on Bartók’s chromaticism.  

In 1956, Ligeti escaped to Vienna because the Hungary Revolution was suppressed by the Soviet Union. In Vienna, his life, career, and musical style took a 180-degree turn. He began to study and compose music at the Cologne-based Electronic Music Studio with Stockhausen and Koenig from 1957 to 1959. Ligeti emphasized the compositional techniques of complexity, textural composition, and polyphony. After leaving Cologne, Ligeti taught summer courses at Darmstadt and at the Academy of Music in Stockholm as a visiting professor. During this period, his renown grew due to his orchestral works, including Apparitions and Atmosphères. He received Austrian citizenship in 1968 and taught composition and analysis at the Hamburg Hochschule für Music until he retired in 1989. Ligeti experimented with various genres from choral to instrumental music and styles from the traditional to the avant-garde. He suffered from ill health from the 1980s and died at the age of 83 in Vienna, Austria, on June 12, 2006.

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2 Ibid, 35
3 Marina Lobanova, Gyorgy Ligeti: Style, Ideas, Poetics (Berlin: Verlag Ernst Kuhn, 2002), 4.
1.2 Chronological Major Works and Musical Style

Ligeti composed in various genres, including electronic, orchestral, choral, and instrumental works. As a composer, he was not only interested in different types of music from the Renaissance to African music, but also in literature, painting, architecture, science, mathematics, and fractal geometry. Many of his early compositions are choral pieces with mostly Latin texts. He often wrote a cappella works with secular Hungarian texts using simple, repetitive phrases, and folk music. Ligeti became more interested in instrumental music from the late 1940s, experimenting with simple tonal and rhythmic structures that built new sounds starting from nothing. The piano piece Musica ricercata (1951-53) was his first successful result of this approach. The eleven movements contain certain pitch classes and a wide variety of character and six of the set were later arranged for wind quintet. “The Six Bagatelles for Wind Quintet” (1953) became one of the most important pieces for winds in the twentieth century. Another impressive work, “String Quartet no. 1 Metamorphoses nocturnes” (1953-54), is built on a four-note melodic pattern. It shows chromatically intense melodic and harmonic language and a dense texture of interlocking figurations.

When working at the Cologne Electronic Music Studio, Ligeti composed electronic pieces such as Glissandi (1957) and Artikulation (1958). After joining the Western avant-garde movement in 1957, he moved away from composing piano pieces. His first major orchestral works, Apparitions (1958-1959) and Atmosphères (1961), had world premieres in 1960 and 1961. In his orchestral pieces, Ligeti utilized clustered dense

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5 Ibid, 63-4.
textures. The technique of micropolyphony became identified with his music between 1961 and 1974. In micropolyphony, many instruments play different and closely-spaced versions of the same line, which results in a complex web. These types of textures also appear in *Requiem* (1963-1965), which was composed for soprano, mezzo-soprano, twenty-part mixed chorus, and orchestra. In the “Kyrie,” Ligeti used various techniques, including traditional canon, fugue, twelve-note series, and pitch sequence. The “Kyrie,” *Atmosphères, Lux Aeterna, and Aventures* were used in Stanley Kubrick’s film, *2001: A Space Odyssey*.

Ligeti composed in diverse genres and repertoires with various instruments. To be specific, he studied organ and cello alongside the piano in order to improve his compositional skills. One of his organ works, *Volumina* (1961-62), contains graphic symbols, cluster techniques, and allows the organist to choose their own tempo, but the duration of each page must average forty-five seconds. He also wrote two etudes for organ: *Harmonies* (1967) and *Coulée* (1969). In addition, he also wrote a two movement Cello Concerto (1966), a Chamber Concerto (1969-70), and a two movement Double Concerto for flute and oboe (1972). Another famous work from this period is *Clocks and Clouds* (1972-73) for twelve part female chorus and orchestra, which was inspired by an article by Sir Karl Popper, ”Of Clouds and Clocks.”

Ligeti’s only opera, *Le Grand Macabre* (1974-77), is a black comedy and witty satire on death in two acts. It is a transitional work for him because his musical style radically changed after its composition. Starting in the 1980s, he tried to approach new of

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6 Ibid, 96-104.
treating the past and other fields outside music, such as graphic art and chaos theory.\(^7\)

For example, *The Trio for Violin, Horn and Piano* (1982) reflects these changes in compositional style and was homage to Johannes Brahms. Before writing the horn trio, he often played classical and romantic chamber music, including Haydn, Mozart, Beethoven, Schubert, Schumann, and Brahms.\(^8\) When he completed the first movement, his mother died. The *lament* motif in the third movement might be an expression of sadness for losing her and his experience under Nazi and Communist oppression in the past.

Ligeti became interested in non-European musics such as Caribbean and Africa music. In addition, he was fascinated with chaos theory and computer-generated fractal images created by Heinz-Otto Peitgen. The combination of old enthusiasms and recent discoveries caused him to take some time to compose new works. He became interested in composing and playing piano again and wrote *Études Pour Piano* (1985-2001) and the Piano Concerto in five movements (1980-1988).

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\(^7\) Searby Michael, *Ligeti’s Stylistic Crisis*. (Maryland: Scarecrow Press, 2010), 87.

CHAPTER 2

LIGETI’S ÉTUDES POUR PIANO

2.1 Overview

Among his piano works, a series of etudes for solo piano are the most significant because it is the first composition for solo piano after *Musica ricercata* in 1953. He abandoned piano composition for thirty years before finally writing these etudes in the last years of his life. The etudes were published in three volumes, with the six etudes in the first book written in 1985 and receiving the Grawemeyer Award in 1986. The executive secretary of the Grawemeyer Award, Nelson Keyes, mentioned, “None of the pieces are longer than 3 and one-half minutes, but they are major, major music.” The works had their European premiere in 1985 and their American premiere was in Louisville when Ligeti went to receive the prize in 1986. The next eight etudes were published in the second volume, *deuxième livre*, and were composed from 1988 to 1994. The third volume, *troisième livre*, consists of four etudes written from 1995 to 2001.

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Given the short length of the eighteen etudes, they can be performed as a complete program because they all share a similar basic idea and approach. Moreover, the first book represents a self-contained cycle because No. 6 acts as a coda. The etudes also can be performed individually since each has a unique title and character, such as virtuoso, tender, playful, and sorrowful.\textsuperscript{10}

2.2 Eclecticism

In the 1980s, Ligeti struggled to find a new style of music beyond serialism or the avant-garde. He sought to compose in different ways utilizing various compositional techniques and styles in these eighteen etudes for piano. He adopted an eclectic manner that was driven by quotation and combining multiple styles from other music instead of developing a new musical language. Music that is eclectic is music that has been influenced by a variety of sources. But Ligeti went beyond eclecticism, and in the 1970s began to use specific allusions and quotations in his music. According to Ligeti, the concept of his approach to other people’s music is “Not quotations but allusion” and “Reflections, not quotations.”\textsuperscript{11} For instance, his etudes combine various musical styles and techniques including rhythms from sub-Saharan Africa, fourteenth-century notations, nineteenth-century piano repertoires, complex dynamics, fractal geometry, jazz pianism, and chaotic systems. Therefore, Ligeti’s etudes can be considered eclectic and they are oriented to a wide variety of sources rather than a new musical style or traditional music.

\textsuperscript{10} Marina Lobanova, \textit{Gyorgy Ligeti: Style, Ideas, Poetics}. (Berlin: Verlag Ernst Kuhn, 2002), 278.
\textsuperscript{11} Ibid, 10.
Therefore, the eighteen etudes are important and innovative in that they represent his first attempt to combine recent discoveries and old interests. These pieces show, in short, that Ligeti had become a traditionalist and an innovator at the same time. The piano etudes contain various types of notations, virtuoso technical devices, and expressive content ranging from the traditional to experimental. This paper will list the musical devices from the past to the contemporary that Ligeti used and will discuss several important composers who influenced him.

2.3 Non-Traditional Devices

Ligeti’s eighteen etudes for piano were influenced by many recent discoveries, the most important of which is non-European musical cultures such as the Bantu music of central and Eastern Africa, including polymeters and polyrhythms. In addition, he borrowed from chaos theory, and computer generated fractal geometry images created by Heinz-Otto Peitgen and Peter Richter also had an impact on his etudes. He also utilized various innovative notations and devices such as pulsation without bar lines, complex dynamic systems, and a wide range of pitches on the piano.

2.3.1 African Rhythm

In the 1980s, Ligeti began to incorporate global musical cultures into his compositions. He started to collect and listen to records and became interested in non-western music, including South-East Asian, Brazilian samba, Caribbean music, and

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music from the Central African Republic. Common features of Central African music include polyphony, patterns, background pulsation, counterpoint, and cross-rhythm.13

Ligeti commented on his etudes, saying, “The music of Conlon Nancarrow and Central African polyphony influenced the ideas of these pieces.”14 The influence of African music included the incorporation of complex polyrhythms, which can be challenging for pianists to play. This is because polyrhythms create different rhythms and speeds between the two hands. Moreover, motifs and phrases do not start or end together, nor do accents or beats coincide. For example, etude No. 13 “L’escalier du diable” includes four layers in different speeds that result from polyrhythms. The same pattern of short-long rhythms in the top and middle layers are played at different speeds at the same time. (see Figure 2.1)

Figure 2.1 Ligeti Etude L’escalier du diable, m.31

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Another principle of African music that Ligeti utilized is pulsation. According to the liner notes of pianist, Gábor Csalog’s recording of “Transcendental Etudes” by Liszt and Ligeti, to execute these complicated rhythms, Ligeti employs a pulsation technique borrowed from African folk music.\(^{15}\)

Ligeti said, “By combining hemiola with African additive rhythms a single performer is able to produce the illusion of several simultaneous layers of different tempi.”\(^{16}\) Additive rhythms are combinations of uneven length of asymmetrical patterns of uneven length, such as 2+3 or 3+2, which creates unequal pulsation and different layers of accents occurring simultaneously. This technique can be seen, for example, in the polyphonic percussion of sub-Saharan African nations.\(^{17}\) Ligeti included the following performance note for etude No. 7 \textit{Galamb Borong}: “Instead of a bar metre the piece has a structure of additive pulsations, whereby the constant, even pulsation of semiquavers remains in the back-ground.”\(^{18}\) As Ligeti explained, an additive rhythmic structure is used. It is based on the continuous pulsation of sixteenth notes in the background that never stop like a heartbeat. (see Figure 2.2)


\(^{18}\) From Ligeti’s Performance Notes in Etude No. 7 \textit{Galamb Borong}, p.4
2.3.2 Chaos Theory

Ligeti has always valued fields outside music, such as the fine arts and natural sciences. In 1984, Ligeti became intrigued by the computer generated fractal images created by Heinz-Otto Peitgen and Peter Richter and the mathematical principles behind them. This influenced him to involve chaos theory in his compositions. These fractal geometry pictures show how a simple mathematical graph can grow to become more complex. Ligeti realized that when small discrepancies happen with iteration, the simple figures could grow more complex. In other words, the amplification of error gives rise to dramatically different results and produces chaos.\(^\text{19}\)

Ligeti discovered “chaos” in regular and simple patterns and applied this concept to his piano etudes. To be specific, the etudes begin with a small musical idea that is continuously repeated, transformed, deformed, and expanded. According to Ligeti, “The etudes for piano are like organisms that grow from a simple germinal idea to reach a high level of complexity.” Ligeti applied the concept of chaos theory to his etudes in that simple figures grow more complex when these small discrepancies occur.

Etude No. 1 “Désordre” replicates a fundamental idea of chaos theory in that the tiny differences lead to a complex outcome. Even though this piece begins with an orderly and simultaneous melody in both hands, its reduction by one-eighth note in the right hand every four measures makes this piece more complicated. As a result, the sequence of accents in the left hand falls behind the right. This concept represents chaos theory in that tiny differences can lead to a complex outcome later or the “amplification of error.”

21 György Ligeti Works for Piano. Pierre-Laurent Aimard, Sony 01-062308-10, 1996, 12,
2.3.3 Meter

Nancarrow and Central African music had a crucial effect on Ligeti’s new metrical thinking, such as the breakdown of a traditional meter in his etudes.\(^2^2\) Many of his piano etudes do not include meter and time signatures and utilize additive pulsation instead of meter, but he did include the duration at the end for each. For example, the first etude, “Désordre” should be played within 2 minutes and 20 seconds, although it does not have a time signature. Therefore, the rhythm is only based on the groups of eighth notes and accents and meter becomes gradually compressed or extended according to rhythmic changes. In addition, bar lines have no meaning or function because they become

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The bar lines act only as a guideline or synchronization, but do not trace the beats.

According to his performance notes for No. 3 “Touches bloquées,” “A bar-line metre is not intended in this piece. The bar-lines only serve as a means of orientation. They have no metric function nor do they indicate any articulation. The duration of bars results only from the number of sounding and non-sounding keys struck in succession between two bar-lines.” 23

2.3.4 Score Indications

Ligeti used the unique articulation notation of diamond-shaped notes in etude No. 3 “Touches bloquées.” These indicate *a moto perpetuo*, or a silent sustain of pitches with the fingers. The other parts of the piece consistently ascend and descend by chromatic scales. One interesting feature of the etude is that he wrote two different sizes of notes for the chromatic scale, normal sized notes and smaller notes. The smaller note heads indicate that the note is silent because the same key has already been held by the other hand. To be specific, the right hand moves over the keys silently due to the depressed blocks of notes in the left hand, and it causes gapped scales automatically. 24 This score indication shows that Ligeti tried to write new techniques that are different from more traditional methods. In contrast to the traditional scales, the scale of this etude includes some gaps and holes because of the silently held chords. The effect of using *moto*

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23 From Ligeti’s Performance notes in Etude No. 3 *Touches bloquées*
perpetuo is to create a sustained sound, fast moving scales with holes, and a unique sound with irregular pauses.

Figure 2.4: Ligeti Etude Touches bloquées, mm.1-4

2.3.5 Key Signature

Ligeti utilized unusual key signatures in his piano etudes. No. 1 “Désordre,” for example, utilizes different key signatures between the treble and bass clef. Therefore, the right hand plays only white keys and the left hand only black keys, the right hand is heptatonic, the left hand pentatonic. The use of contrasting key signatures between the two hands creates unique sounds and special colors that are neither tonal nor atonal. The different key signatures demand that pianists must have independent hands. Pianists should pay attention to fingerings and hand positions for these simultaneously played heptatonic and pentatonic scales. No. 11 “En Suspens” also incorporates different key signatures between the right and left hands. Ligeti wrote a six-note series of hexachord in both hands in this piece. While the right hand plays D flat, E flat, F, G flat, and B flat, the
left hand plays G, A, B, C, D, and E. Later, the key signatures are exchanged several times between both hands.

![Figure 2.5: Ligeti Etude En Suspens, mm.18-21](image)

2.3.6 Dynamics

One compositional technique that Ligeti incorporates is the exploration of complex dynamic systems. He utilized unrealistically attainable dynamic markings in his etudes for piano. Ligeti’s use of an extremely wide range of dynamics is rhetorical instead of absolute. His dynamic indications attempt to express and depict nonmusical ideas, images, or events rather than just a particular degree of volume of sound. For instance, etude No. 13 “L’escarlier du diable” includes an extreme dynamic marking of $f_{\text{fffffff}}$, suggesting a shocking bomb or explosion in the climax.
In addition, Ligeti differentiated between *pp*, *ppp*, and *pppp*. In these instances, *piano* indicates a soft but intense sound. Etude No. 9 “Vertige,” for example, utilizes *pppppppp* that is almost impossible to play on the piano or any instrument for that matter. These types of extreme dynamic markings require pianists to have balance and exceptional tone control. 25 Therefore, it is very important for pianists to plan how they

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will create various degrees of volume overall. Even though this etude includes an incredibly soft dynamic marking, ppppppppp, the performer still should create sound. Therefore, the pianist should plan how to create a diminuendo from \textit{pp} to \textit{pppppppp} within eight measures. This means the \textit{pp} should be played louder than he or she thought in order to also be able to create the softest sound at the end. Ligeti indicated different dynamic markings for each layer in order to create several different simultaneously occurring sounds as if several performers are playing.

Figure 2.7: Ligeti Etude \textit{Vertige}, mm.136-141
2.4 Traditional Techniques

Ligeti’s etudes for piano not only present innovative technical devices, they also include traditional influences. Even though he was a member of the avant-garde movement during the 1960s, his compositions were still based on traditional techniques and genres. Ligeti respected tradition and he was deeply interested in the music of the fourteenth century. For example, he studied medieval and Renaissance polyphony and utilized multipart writing for two hands and hemiola from the Romantic period. In addition, he started to re-examine tonality and modality. He felt that his compositions stemmed from two different sources of inspiration: the Romantic era piano music of Chopin and Schumann and African music.

2.4.1 Tonal Harmony

In the 1980s, Ligeti’s musical composition radically changed from atonal to tonal harmonies. He rediscovered traditional harmonies such as tonal triads and dominant seventh chords. For instance, etude No. 4 “Fanfares” is built on consonant triadic harmonies based on constant chromatic scales. An interesting aspect of this piece is that he used major triads in the right hand and minor triads in the left from the beginning. The triadic harmony becomes gradually complex by the addition of seventh chords from measure 21, which eventually become dissonant later in the piece.

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A. Major harmonies, mm. 1-4

B. Minor harmonies, mm. 9-12

Figure 2.8: Ligeti Etude *Fanfares*, analysis of tonal harmonies

The last etude of the collection, No. 18 “Canon,” is also built on tonal harmonies. The most interesting feature of the harmony occurs in the slow, soft coda at the end. The dissonant harmonies in the coda finally resolve to an A minor chord. As the last of the eighteen etudes, this A minor chord seems to have an important meaning and represents his thinking about tonal harmony.
2.4.2 Perfect Fifths

The use of parallel harmonies became an integral part of Ligeti’s creative technique. Just as previous composers, especially Debussy, freely used perfect fifth harmonies in order to create a certain color and character, Ligeti also used them in his etudes; for example in No. 2 “Cordes á vide,” No. 8 “Fém,” and No. 18 “Canon.” Even though the three etudes are built on perfect fifths harmonies, each provides different features. For instance, Etude No. 2 “Cordes á vide” is built on perfect fifths in the shape of arpeggios in both hands. The arpeggiated eighth notes based on parallel fifth intervals create both melodies and harmonies.
A. Ligeti Etude Cordes á vide, mm.1-4

Figure 2.10: Open Fifth in Ligeti’s Etude

B. Ligeti Etude Fém, mm.1-2

C. Ligeti Etude Canon, m.1
2.4.3 Canon

Ligeti also combined canon and polymeter in his etudes. He wrote a strict canon at the octave or double octave in each of the pieces of the third volume of etudes except in Etude No.16 “Pour Irina.” Even the title of the last etude was titled a Canon that presents a constant melodic stream and continual flow. One voice imitates the others in the style of a canon with precise pitch. The effects of the canon are of creating individual voices and harmonies simultaneously.\(^{28}\) For instance, Etude No. 15 “White on White” opens with a strict canon at the octave. The left hand follows the right hand at the half note. This canon with slow rhythms suggests a four voiced choir.

In Etude No. 17 “Á bout de soufflé,” Ligeti also wrote a canon and ostinato in a fast tempo. The left hand follows the right hand on eighth note behind. Therefore, the accented note in the left hand follows the right like a shadow. In addition, six descending notes of Eb-D-C-D-C-B, appear around each new corner like an ostinato.\(^{29}\) The last etude, “Canon,” is built on perfect fifths in a fast tempo. The left hand is two eighth notes behind the right, and perfect fifth intervals are used in both hands to create consonant harmonies.

\(^{28}\) Marina Lobanova, *Gyorgy Ligeti: Style, Ideas, Poetics.* (Berlin: Verlag Ernst Kuhn, 2002), 364-5.

2.4.4 Ostinato

An Ostinato refers to a motif or phrase that constantly repeats with the same pitch. The earliest examples of ostinato appear in the medieval period with the melodic ostinatos found in a single voice as a short pattern. This repetitive musical pattern has been widely used in Western music, especially during the Baroque period such as
Chaconne and Passacaglia. Beyond Western influences, many African instruments also play ostinato melodies in various rhythms, including off beats and cross-beats.

Ligeti wrote repetitive ostinatos and a large number of melodies in his music. For example, “Etude No. 4 Fanfares” is built on an ostinato with a 3+2+3 aksak rhythm. The ostinato consists of the first four notes of the C major and F# major scale: C-D-E-F#-G#-A#-B. Ligeti emphasized C, F, and G# using accents, which creates the aksak rhythm. The short pattern of eighth note groups is persistently repeated throughout this piece. The infinitely repeatable ostinato alternates between the right and left hands. Even though the ostinato utilizes the same pitch continuously, it freely shifts and moves from the lowest to the highest range of the keyboard.

![Figure 2.12: Ligeti Etude Fanfares, mm.1-4](image)

31 For the definition of aksak, see appendix A.
2.4.5 Hemiola

Ligeti extensively utilized hemiola with African additive pulsation. In Ligeti’s “On My Etudes,” he noted “one often arrives at something qualitatively new by unifying two already known but separate domains. In the case of my Etudes, I have combined two distinct musical thought processes: the meter-dependent hemiola as used by Schumann and Chopin and the additive pulsation principle of African music.” Ligeti explained the meter-dependent hemiola, “It is possible to beat both a duple or a triple meter to these rhythmic patterns by handclapping or, for example, with a percussion instrument. This prevailing metric ambiguity produces, in theory at least, a kind of hemiola, which however in practice does not really exist: there can be no real ambiguity as there is no meter based on the bar-line, there are no accents and consequently no hierarchy of beats, only the smoothly flowing additive pulse.”

Hemiola was one of the most frequently used compositional devices in dance music of Baroque and piano music of the nineteenth-century. The effect of simultaneously dividing measures into two and three produces metric tension, that in itself is one of the strongest attractions of the music of Chopin, Schumann, Brahms, and Liszt. For instance, Etude No. 2 “Cordes á vide” utilizes a three against two rhythm and No. 5 “Arc-en-ciel” is made up of two basic groupings of sixteenth notes: two groups of six in the

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32 For the explanation of meter-dependent hemiola, see appendix B.
left hand and three groups of four in the right hand. Ligeti added more voices within these new hemiola layers based on the main rhythmic figuration of three against two.

Etude No. 6 “Automne a Varsovie” begins with arpeggiated sixteenth notes in four against five. It comprises a 5:4 polyrhythm between the accented right hand, lament motive and the arpeggios in the left hand.

![Figure 2.13: Ligeti Etude Cordes á vide, mm.12-14](image)

### 2.4.6 Lament Motive

The descending chromatic features of the *lament* motive have been used for centuries to symbolize sadness. Ligeti also utilized this dramatic device in his music from the 1980s in pieces such as the Horn Trio, piano etudes, Piano Concerto, Violin Concerto, and Viola Sonata. The lament motive was a functional expression of sorrow or loss in his music. It usually is made up of three descending stepwise phrases that move by half and
whole steps. In addition, the length of each phrase is extended. Ligeti’s lament motive occurs at different speeds against a background of continuous pulsation. For instance, he wrote a continuously descending chromatic lament in etude No. 6 “Automne á Varsovie.” The etude consists of three phrases above consecutive sixteenth notes in the left hand. The first two phrases begin on the same pitch, however, the second one becomes longer and ends lower. The third phrase is doubled in length, starts higher, and ends lower.

![Presto cantabile, molto ritmico e flessibile, \( \frac{3}{4} \)](image)

Figure 2.14: Ligeti Etude Automne á Varsovie, mm.1-10, continued

2.4.7 Allusive Titles

Ligeti frequently utilizes allusive titles that combine the poetic and technical aspects of composition, as did earlier composers such as Debussy and Liszt. The eighteen études have distinctive subtitles that help the performer and audience understand characters and imaginative emotions such as virtuoso, tender, playful, sorrowful, and
ingenious. For example, the successions of perfect fifths and soft sounds created by *una coda* in the beginning of Etude No. 2 “Cordes á vide” imitates the sound of “open strings” bowed on a violin or cello. Ligeti imitates violin sounds through repetitive perfect fifth intervals that make special colors and sounds.

In addition, Etude No. 13 “L'escalier du diable” (“The Devil’s Staircase”) incorporates many different techniques to express its title. For example, the etude utilizes a repetitive ascending scale with dynamics from tensed soft to loud in order to help the audience picture an endlessly climbing staircase.


### 2.5 Influential Composers on Ligeti’s Etude

Many earlier composers, including Chopin, Debussy, and Liszt, wrote piano etudes as both virtuoso technical exercises and expressive concert pieces. Ligeti also included various technical challenges and characteristics in his etudes. According to Ligeti’s own liner for the Pierre-Aimard recording, earlier composers such as Chopin,

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37 Ibid, 286.
Debussy, and Liszt influenced his piano etudes. In addition, jazz pianists Thelonious Monk and Bill Evans played a big role for his music, especially Etude No. 5 “Arc-en-ciel.” Ligeti often played piano music by earlier composers such as Bach, Beethoven, Schumann, Liszt, Rachmaninoff, Scriabin, Debussy, and Chopin. Therefore, multiple connections between Ligeti and various earlier models can be found in the etudes.

Just as many composers influenced Ligeti’s Etudes, many recent experimental pianists try to create unique performance programs pairing his etudes with the other composer’s works. For example, American pianist Michael Arnowitt performed a concert, entitled, “Ligeti and His Influences,” performing the etudes in the second half and music by composers who influenced Ligeti in the first. To be specific, he hoped through this program, that the audience would come to appreciate Ligeti’s piano etudes by hearing earlier works that inspired him. In addition, pianist Yuja Wang released a CD combining piano sonatas from Chopin, Scriabin, and Liszt with Ligeti’s piano etudes No. 4 “Fanfares” and No. 10 “Der Zauberlehrling.”

In what follows, I will provide guidelines to pianists to better understanding connection between Ligeti and other composers who had an impact on his etudes. Ultimately, pianists can present an effective and well-suited program that showcases his or her virtuosic piano skills and emotional expressions with works from diverse periods and by different composers.

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2.5.1 Frédéric Chopin (1810-1849)

Ligeti’s etudes incorporate the lyrical and emotional mannerisms typical of Chopin. According to Ligeti, the etudes are full of allusions to Chopin’s own etudes.\textsuperscript{41} For example, in discussing Etude No. 5 “Arc-en-ciel,” Ligeti noted this piece is the “Pattern, Poetry, and Power in the Music of Chopin.”\textsuperscript{42} This etude is the most lyrical of the eighteen etudes and clearly reflects Chopin’s influence. First of all, it is similar to Chopin’s music in its expressively singing melodic line above the accompaniment, freely flowing rubato tempo, and frequent use of hemiola. In addition, it is the only etude in the first volume that moves at a slow tempo. Unlike the other etudes, which utilize a fast tempo with insistent strict pulsations, the fifth etude is played freely in a varying tempo.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{ligeti_etude.png}
\caption{Figure 2.15: Ligeti Etude \textit{Arc-en-ciel}, mm.1-2}
\end{figure}

2.5.2 Claude Debussy (1862-1918)

The music of Debussy and Ligeti has a similar coloristic character in their use of unique harmonies. Parallel harmonies and perfect intervals play a big role in Debussy’s music and he often used parallel harmonies and open perfect fifths to create special colors. His parallel harmony emphasizes the melody and highlights the individual sonority of these intervals. For example, Debussy Prelude No. 10 “La cathédrale engloutie,” opens with perfect fifths and octaves in both hands. Furthermore, Ligeti’s Etude No. 2 “Cordes à vide” is similar to Debussy, the beginning of this etude is built on perfect fifths and parallel fifths are written not only vertically, but also horizontally throughout. Finally, both pieces incorporate horizontally flowing passages based on perfect fifths.

![Figure 2.16: Debussy Prelude La cathédrale engloutie, mm.1-7](image-url)
Moreover, both composers tried to incorporate “exoticism” and non-Western music into their compositions. Debussy was particularly interested in Javanese gamelan, and Ligeti was influenced by Balinese gamelan. For example, the beginning of Ligeti’s Etude No. 7 “Galamb borong” and the middle section of Debussy’s Prelude No. 7 Ce qu’a vu le vent d’ouest utilize similar textures and manners of composition. The repeated sixteenth notes are played in the background and the melodic line occurs at different speeds and articulations as if two people are playing different instruments at the same time. In addition, Ligeti used whole-tone and pentatonic scales to create a special color and to mimic the sound of the Balinese gamelan, which Debussy also often did in his music. Two different whole-tone scales are found between the right hand (B, A, G, F, Eb, Db) and the left hand (E, D, C, Bb, Ab, Gb). Given all this, it can be said that Ligeti’s Etude No. 7 “Galamb borong” reflects the significant influence of Debussy’s style in both its use of the whole-tone scale and the incorporation of gamelan-like sounds and harmonies.
Figure 2.18: Debussy Prelude *Ce qu’a vu le vent d’ouest*, mm. 25-30

Figure 2.19: Ligeti Etude *Galamb Borong*, mm.1-6
2.5.3 Franz Liszt (1811-1886)

Although many composers and pianists influenced Ligeti’s virtuosic etudes, the most influential was Franz Liszt. One of the most virtuosic Hungarian pianists and composers of the nineteenth-century, Liszt introduced numerous demanding techniques and expressive possibilities in his piano etudes. As a well-known pianist, due to his virtuosic piano skills, Liszt expanded piano technique, using an increased dynamic range, bigger sound, octave passages, and various other pianistic textures in the late Romantic period. Unlike Liszt’s etudes, which he designed to highlight his own talents and virtuosic skills, Ligeti composed his etudes in an attempt to improve his playing ability. According to Ligeti, his motivation for composing highly virtuosic piano etudes came from his own inadequate technique and desire to improve himself.43 “In spite of all the influences that have affected me, I would not label my etudes as Chopinesque, or Debussy-esque, neither African nor jazz, let alone mathematical constructions. They are not avant-garde, neither tonal nor atonal. They are virtuoso piano pieces: etudes, in both the pianistic and compositional sense.” 44

Ligeti’s approach to the piano etude could be described as transcendental in technical difficulties, as the tradition of the Liszt Transcendental Etudes. As a result, Ligeti’s piano etudes reflect a virtuosic and transcendental style, which is one reason they continue to be some of the most challenging pieces in the piano literature. For example, the first etude in the collection, “Désordre,” is regarded as one of the most challenging piano pieces of the twentieth-century because it requires the performer to maintain a

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44 Ibid, 11-12.
completely independent movement between both hands due to different rhythms. In addition, the octave melodic line and continuous eighth notes move with great speed. Furthermore, the climax reflects virtuosic dynamic markings, such as \textit{sfff} accents on every note, and the exploration of the full range of the keyboard moving up in the right hand and down in the left.

![Figure 2.20: Ligeti Etude Désordre, mm.93-102](image)

Recent pianists’ performances and recordings show this close relationship between Liszt and Ligeti. For example, Hungarian Pianist Gábor Csalog recorded several transcendental etudes by Franz Liszt and Gőrgy Ligeti in 2003, comparing and
contrasting their compositions. He felt the Etudes were virtuosic both pianistically and compositionally. An interesting feature of this recording is that he mixed and alternated the Liszt and Ligeti etudes. As a result, it is easy to hear the similarities and differences between them simultaneously. Ultimately, this recording shows the similarities between Liszt and Ligeti and their exploration of the sound of the piano, and playing technique. Not only are their etudes virtuosic, they also very illustrative, including descriptive programmatic subtitles.

Like Csalog’s recording, a program pairing their etudes can also be successful. For example, Liszt’s “Csárdás macabre” and Ligeti’s Etude No. 8 “Fém” could be performed together, as they share a similar character due to their harmonic progression based on perfect fifths. Both pieces open with vertically moving perfect fifths in both hands. Not only are the harmonies based on perfect fifth, but both pieces open with continuous repetition of the same rhythms and alternation between two adjacent pitches. Since the opening of the pieces is very similar, the two works could be successfully paired together in an effective program.

![Allegro](image)

Figure 2.21: Liszt’s Csárdás macabre, Opening
Moreover “Csárdás macabre” could also be paired with Ligeti’s Etude No. 2 “Cordes à vide.” Even though Liszt’s tense and overall loud music contrasts with Ligeti’s gentler and quieter mood, both of the aforementioned pieces are built on perfect fifths.

2.5.4 Conlon Nancarrow (1912-1997)

Colon Nancarrow is the most important inspiration for Ligeti’s music especially etudes for piano. Nancarrow was one of the first American composers to use musical instruments as mechanical machines. In the 1930s, he undertook a mechanical experiment, and finally he achieved polyrhythmic velocity. Much of his music was written for player piano and features of his music include ostinato, isorhythm, tempo canon, and acceleration. In an interview with Hans Joachim Erwe, Ligeti briefly discussed the development of his music. Polyrhythm and polymeter play an important role in his etudes, which reflects the influence of Nancarrow. In addition, Ligeti incorporated polymetric
layering in his etudes, i.e., playing different speeds at the same time. Furthermore, Ligeti also emphasized complex mechanical rhythms and used polymodal structures.\textsuperscript{45} One of the interesting aspects of Nancarrow’s piano pieces is that he intended to write music that was beyond human performance abilities. Despite his influence on Ligeti’s compositions, this is one aspect that is not shared between the two.\textsuperscript{46}

2.6 Composers Influenced by Ligeti’s Etude

2.6.1 Unsuk Chin (born 1961)

One of Ligeti’s pupils, Unsuk Chin is an accomplished twenty-first century South Korean composer. She moved to Hamburg in 1985 and studied with Ligeti at the Hochschule für Music. She has composed in various genres, including \textit{Acrostic-Wordplay} (1991-93) for soprano and ensemble, Piano Concerto (1997), Violin Concerto (2001), an opera \textit{Alice in Wonderland} (2007), and a series of \textit{Études for Piano}. She discussed her music and her influences in a New York Times article: “Ligeti was in a phase of transition and wanted to try something new. He spent a lot of time ranting and denouncing things.”\textsuperscript{47}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{45} Marina Lobanova, \textit{Gyorgy Ligeti: Style, Ideas, Poetics}. (Berlin: Verlag Ernst Kuhn, 2002), 364.
\item \textsuperscript{46} Richard Steinitz, \textit{György Ligeti: Music of the Imagination}. (Boston: Northeastern University Press, 2003), 269.
\end{itemize}
\end{footnotesize}
Many elements of her compositional style are inspired by Ligeti’s etudes, especially the high technical demands, independent finger movement, whole-tone and chromatic scales, complex polyrhythms, Balinese gamelan, and electronic music. For example, Chin’s Etude No. 3 “Scherzo ad libitum” presents aksak rhythmic patterns and polyrhythmic complexity. In the New York Times interview, Chin said, “I’m attracted by virtuosity. This enthusiasm and virtuosity of a player trying to go beyond his or her boundaries: I like that. Pushing the limits of your possibilities, not knowing whether you can do it and then somehow succeeding”

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CHAPTER 3

PERFORMANCE GUIDELINE OF DÉSORDRE

3.1 Overview of Désordre (Disorder), 1985

Ligeti’s first etude, “Désordre” consists of various demanding techniques, such as chaos theory, different key signatures in the treble and bass clef, polymetric layers, and asymmetrical rhythms in the right and left hands. Ligeti titled the piece variously, including “Hemiolák, Noir et Blanc, and Pulsation” “Etude de Septimes” “Trois Etudes polymétriques” “Pulsation 7/5 (Blanc/NOIR) Etude Polyrithmique” and finally, “Désordre.” 50 This etude can be divided into three sections based on rhythmic changes: section A (mm. 1 to 56), which includes three or five eighth-note groupings: section B (mm. 56 to 99), where the rhythm is shortened and at a different speed: and the return of section A (mm. 99 to 153).

Although this etude has recently increased in popularity and is frequently performed, its challenging techniques make it both difficult for pianists to play and for listeners to understand. It is for these reasons that few recordings exist and performers

often hesitate to include it in their programs. The purpose of this chapter is to facilitate
performers’ approach to *Désordre*, assist them in their preparation for performing the
etude, and to increase understanding of the work by offering several performance
guidelines. Since the three sections of the etude require different techniques and
approaches, this chapter will explain each individually.

### 3.2 Rhythms

As discussed previously, “Desordre” can be divided into three rhythmic sections.
The main rhythmic pattern is made up of eighth notes, which occur most often in *aksak*
patterns of combinations of three and five: e.g., 3+5, 5+3. (see Figure 3.1) Beginning in
the fourth measure, Ligeti introduces a one beat separation in the 3+5/5+3 pattern
between the right and left hands, which requires completely independent hand movement.
Even though the rhythms look complicated and disorderly, the performer ultimately can
understand the rhythms with several rounds of practice because the piece is written
orderly and structured overall.

![Figure 3.1: Ligeti Etude Désordre, aksak rhythmic patterns](image)

- a. 3+5
- b. 5+3

Figure 3.1: Ligeti Etude *Désordre*, *aksak* rhythmic patterns
This piece begins with exactly the same rhythms in the left and right hands, which are created by accents and slurs. However, things become shifted after measure 4 because the number of eighth notes in each unit becomes reduced in the right hand. Even though the left hand maintains the same number of eighth notes, the right hand is shortened to seven eighths. As a result, the melody and the bar lines are shifted by one-eighth note from measure 5. To be specific, the accents happen one-eighth note behind in the left hand relative to the right hand. In addition, the bar lines are also shifted. Since playing totally different rhythms and accents in both hands is the most challenging technique in this piece, the performer should analyze and study the rhythms carefully. Also, one should learn how to adjust to the rhythms before starting to learn this piece at the keyboard. Figure 3.2 shows the groupings and the shortened notes in the right hand at the end of the phrase.

Figure 3.2: Ligeti Etude Désordre, mm.1-4
The next rhythmic change happens in measure 8. While the left hand maintains
the earlier rhythmic formula, $3+5+3+5+5+3+8$, the right hand is shortened by one-eighth
note again. Thus, from measure 9 on the accents occur two eighth notes behind in the left
hand relative to the right from measure 9 on. The right hand is shortened by an eighth
note again in measure 12, causing the left hand to be delayed by three eighth notes. The
right hand maintains this reduction until the accented melodic line in both the right and
left hands coincides in measure 33. (see Figure 3.3). As the coincidental accents are
displaced between the right and left hands, the performer should frequently practice both
hands separately a lot in order to create different rhythmic muscle memories.

m.1 “order”  
m.5 (one quaver behind)

m.9 (two quavers behind)  
m.15 (three quavers behind)

Figure 3.3: shifting accents in Ligeti Etude Désordre, mm.1-33, continued
Figure 3.3: continued

m.19 (four quavers behind)  \rightarrow  m.23 (five quavers behind)

m.26 (six quavers behind) \rightarrow  m.29 (seven quavers behind)

m.33 “order” back

After the first cycle, the accents coincide in right and left hands and the same pattern appears again after measure 33. While the same melodic line is presented until section B, rhythmic formulae are changed after measure 44. Now, the eight-eighth notes are shortened in both right and left hands. For example, the seven-eighth notes are reduced to six in the right hand from measure 46 and in the left hand from measure 47. Finally, it is reduced to four-eighth notes in the right and left hands from measure 54.
It is very hard for the performer to follow the melodic line horizontally because the vertically displaced accents between two hands break the line. Therefore, it is very important to practice both hands separately in order to become familiar with the irregular rhythmic formulae. Moreover, I recommend playing only the accented long notes without eight rests with both hands in order to become familiar with the vertical rhythmic changes. The following table 3.1 provides five practice methods to help the performer adjust to the rhythms.

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<table>
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<tbody>
<tr>
<td>1.</td>
<td>Play both hands separate</td>
</tr>
<tr>
<td>2.</td>
<td>Both hands tapping the accented notes with the metronome</td>
</tr>
<tr>
<td>3.</td>
<td>Both hands play the accented notes with the metronome</td>
</tr>
<tr>
<td>4.</td>
<td>Right hand + accented notes in the left hand</td>
</tr>
<tr>
<td>5.</td>
<td>Left hand + accented notes in the right hand</td>
</tr>
</tbody>
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Table 3.1 Practice Methods for Rhythms

3.3 Voicing

The main eight eighth note groupings make up the melodic lines from the beginning to the end of the etude: (3+5)+(3+5)+(5+3)+8. Every first beat of each group makes the melodic line. The first melody is synchronized in the two hands from measures 1 to 4. Ligeti wrote the melody using octaves and long notes instead of the eighth notes.
used at the beginning of the piece. Given their length, the performer should hold the quarter or dotted quarter notes long enough to bring out the melodic line. Figure 3.4 shows the melodic lines that should be emphasized and held longer than the other eighth notes.

![Figure 3.4: Ligeti Etude Désordre, mm.1-4](image)

Ligeti also incorporated several techniques on the down beats to stress the melodic line such as strong dynamics, octaves, accents, and long notes. To further emphasize these techniques, one should play the downbeats long and strong enough to bring them out. A fast attack can also be utilized for the melodic line to create effective accents and a forte dynamic. The rest of the eighth notes, however, should be played soft and fast in order to help bring out the melodic line clearly. Clear voicing is very important so that the audience is able to recognize many appearances of the melodic line throughout this piece.
According to the note at the bottom of the first page of the piece, Ligeti indicated that the melody should be played legato in both hands. Therefore, one should not only strive to bring out the melodic lines, but also to make them connected. Performers can make the melodic lines contoured and connected using a finger legato, especially with their thumbs and little fingers. Since there are two different eighth note groups of three and five, the finger legato can be different for each. In three eighth note groups, both the thumbs and little fingers should hold the quarter notes long enough to make them legato and support the sound. In addition, the performer’s thumbs should be prepared to move quickly in five eighth-notes groups in order to cross over and play the next eighth notes quickly. Given this complexity, fingering has an important role in voicing and connecting the melodic lines.

In the beginning, the melodic line is written with octaves in both hands. Therefore, it is not hard to bring out this particular voicing. However, it becomes difficult to bring out the melodic line when it is hidden in the harmonic structure and tone clusters after the climax from measure 99 to the end. Therefore, the performer needs to bring out the top notes in these closely spaced dissonant groupings and to keep the rest soft. To create better voicing, it is necessary to keep your little finger firm, and to press down with a fast and strong touch. Also, the performer only projects the top note contrast to the rest of notes play soft and less.
3.4 Phrasing

The phrasing shows how the composition is mathematically organized. Ligeti organized his piece through a strict and methodical succession of phrase lengths. Since the phrases are regularly spaced, it is easy for the pianist to comprehend the work’s overall structure and picture by analyzing it. It is not hard to express the phrase lines for both hands separately and individually. However, it is challenging to play both hands together because of the uneven vertical phrasing. In addition to this difficulty is the fact that Ligeti ignored bar lines, which can be a clue to how phrases should be divided. Therefore, it is the performer’s job to create phrases regardless of the bar lines. I will analyze the phrases for both hands in order to help pianists practice them phrase by phrase so that one can ultimately create a longer line and better phrases. In what follows, I will discuss each section individually because each has different phrase patterns.

3.4.1 Section A: mm. 1-56

In the right hand, the main theme and the melodic line begin with an organized structure of 4+4+6 phrases. The four-measure motive reappears from measure 5 to 8 with transformed pitches and intervals. After presenting the motive twice, the phrase is extended to six measures from measures 9 to 14. (see Figure 3.5) This structure is presented four times in the right hand until section B, after which it appears in section A’.
While the phrase in the right hand is presented as 4+4+6, the left hand is 4+4+10. The first phrase begins with the main motive from measure 1 to 4 and is repeated with different pitches from measures 5 to 8. Then, the phrase is extended to ten measures from measure 9 to 18. (see Figure 3.6) Although the right hand includes four phrases, the left only has three in section A.
Figure 3.6: Ligeti Etude Désordre, phrasing in the left hand, mm.1-18

3.4.2 Section B: mm 57-99

As the rhythm increases from section B, the phrases are also shortened after measure 57. In the right hand, the pattern of phrases is presented as 2+2+3, which is exactly twice as short as its previous presentation. This time, the regular pattern of
phrases happens six times until the next section. The pattern of phrase in the left hand is also exactly shortened by half to 2+2+5 from section B. (see Figure 3.7) From measure 99, the same phrase pattern from section A reappears.

Although the structures of phrases in both hands are regular, it is not synchronized vertically between the two hands. Therefore, one should consider creating phrase lines as a way of better following the shape of lines. Since the phrases are displayed unequally

53
between the right and left hand, one should carefully play and listen to the main melodic lines in order to present clear phrasing for the audience. There are two ways to resolve the challenges with the displaced phrasing between both hands.

One option is to stress the beginning of every phrase with accents. It is better to utilize stronger accents on the first beat of every phrase. Another option is to stress the highest or lowest pitches in every phrase in an effort to help both performer and audience understand the phrase lines. In addition, it is helpful for the performer to contour the melodic lines and shape the voicing. The table below explains how Ligeti regularly arranged the highest note or most important note in every phrase. Although the phrase lengths are different between the right and left hands, overall they do have the same pattern. Once performers understand the pattern, they can better contour or voice the lines.

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<th>6 Right hand / 10 Left hand</th>
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Table 3.2 Phrasing in Section A: mm.1-56
3.5 Thematic Growth

The main theme is presented in both the right and left hands from measure 1 to 4. The theme shows simple features instead of complicated ones. This is because the rhythm indicates simple patterns that alternate between quarter and dotted quarter notes. In addition to this, Ligeti used a narrow interval of pitches in the theme. There are no leaps, brilliant elements, or fast notes. The theme is persistently repeated from measure 5 to 56. Although the same rhythmic pattern of 3+5+3+5+5+3 constantly appears, the pitches and intervals are transposed.

One of the interesting features of the developing theme is its transposition in a chromatically ascending motion. Its initial presentation, from the beginning to measure

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<tr>
<td></td>
<td>C C D C/ F F C</td>
<td>D D F D/ G G A</td>
<td>D D F F/ C A D F/ C A G F/ D A C F/ G F C</td>
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<tr>
<td>R (64-70) L (64-72)</td>
<td>G G A G/ B A F</td>
<td>F F B A/ C B E</td>
<td>B B D C/ E D F G/ C B F E</td>
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<td></td>
<td>D D F D/ G G D</td>
<td>F F G F/ A A C</td>
<td>F F G G/ D C F G/ D C A G/ F C D G/ A G D</td>
</tr>
<tr>
<td>R (78-84) L (82-90)</td>
<td>B B C B/ D C A</td>
<td>A A D C/ E D G</td>
<td>D D F E/ G F A B/ E D A G</td>
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<tr>
<td></td>
<td>A A C A/ D D A</td>
<td>C C D C/ F F G</td>
<td>C C D D/ A G C D/ A G F D/ C G A D/ F D A</td>
</tr>
<tr>
<td>R (85-91) L (92-97)</td>
<td>C C D C/ E D B</td>
<td>B B E D/ F E A</td>
<td>E E G F/ A G B C/ F E B A</td>
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<td></td>
<td>F F G F/ A A F</td>
<td>G G A G/ C C D</td>
<td>G G A A/ F D G A</td>
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<tr>
<td>R (92-98)</td>
<td>D D E D/ F E C</td>
<td>C C F E/ G F B</td>
<td>F F A G/ B A C D/ G F C B</td>
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Table 3.3 Phrasing in Section B: mm.57-99
14, is transposed up a half step with exactly the same intervals and rhythms. What is interesting in the right hand is that the theme moves up exactly one step, repeatedly, although exact same intervals are maintained. To be specific, the theme’s initial presentation begins on B and then shifts to C, D, E, F, G, A, B, and C. Although this etude seems to be asymmetric, irregular, and unpredictable, in reality, it is exactly the opposite. Therefore, it will be helpful for performers to understand this and keep in mind the chromatically ascending themes in the right hand in mind when they perform or memorize this piece. To help remember the theme’s ascension, the performer could mark the first note of the start of each presentation of the theme in order to trace its transposition and phrasing.

Figure 3.8: Ligeti Etude Désordre, reduction of melodic line, mm.1-56
Thematic variation occurs with the rhythms in section B. Even though Ligeti maintained the short and long rhythmic patterns and consistently ascending motion, he sped up the theme to shorter rhythmic values. To be specific, the rhythmic values of the theme are shortened from quarter and dotted quarter notes to eighth and quarter notes. Therefore, one should think of this portion of the piece as a fast version of the first section rather than an entirely new section. As the rhythm values are shortened, it is easy for performers to rush. Therefore, the performer should maintain a steady tempo in this section. Figure 3.9 shows shortened rhythmic value of the theme in section B.

Figure 3.9. Ligeti Etude Désordre, reduction of melodic line, mm. 57-99
3.6 Independent hands

The reason why “Désordre” is known as one of the most challenging pieces written in the twentieth century is that it requires completely independent hand movement. Ligeti wrote the treble and bass staves as completely individual and independent parts. For example, there are two different key signatures in the right and left hands; C Major in the right and B Major in the left. The different key signature requires performers to have independent hand movement because the right hand only plays white keys and the left hand only plays black keys. Therefore, the two hands should be placed on totally different planes: the left hand close into the black keys and right hand lower on the white keys.

In addition, the different timing of the accents and the number of eighth notes requires performers to have independent hand movement. The pianist must learn to keep a different sense of meter going from the start. Although it begins with the measures aligned, the hands slowly begin to shift. As a result, the bar lines in the left hand get behind the right. Since this etude requires totally different movement between the two hands, as if two performers are playing, one should carefully consider this independent movement. Therefore, the performer needs to spend much time practicing both hands separately in order to become familiar with their independent movement. When practicing both hands separately, one should also keep in mind articulations, dynamics, accents, voicing, and phrasing.
3.7 Tempo

Ligeti included the following tempo marking; *Molto vivace, vigoroso, molto ritmico*. In addition, he indicated the total duration of the piece as “2.20.” Given this, the piece requires the performer to play very quickly. This is one of the most challenging aspects of this etude because there is no break and or rest at all. The pianist should consistently move all her/his fingers very quickly and lightly once the piece has started without any tension.

Maintaining fingering is very important to the consistently moving eighth notes in both hands. The pianist should be careful especially when her/his thumbs cross over because this can create some unintended accents and delays. Therefore, one should move her/his thumbs smoothly without any additional weight. Also, one needs repeated practice for the fast moving and crossing over fingers measure by measure in order to reach of these fast movements and finger crossings in order to eventually reach the fast tempo Ligeti indicated. In addition, the pianist should also practice the eighth notes very evenly using control of arm and finger muscles. Practicing with a metronome set at the quarter note value is helpful in this regard.

3.8 Posture

Because Ligeti wrote slurs for each group of eighth notes, the performer should play them legato and follow the lines exactly. It is also important for the performer to relax her/his elbow and to have a flexible wrist to express the consecutive slurs without her/his muscles becoming tight. To be specific, the performer should drop her/his hands
down on the first beat and lift them up at the end of each slurred eighth note group in order to make them legato in one motion. This motion is helpful for bringing out the melodic lines naturally because the weight can create a louder sound and accents on the down beat. This hand motion is also helpful for performers to understand and adjust to the irregular rhythmic changes that occur later. In addition, it helps the performer relax and release tightened muscles that can be caused by the irregular rhythmic changes and different accents between the right and left hands.

3.9 Dynamics

Ligeti used dynamic markings only to bring out the melodic lines in the beginning. He indicated *forte* on every downbeat in order to emphasize the melodic lines and the rest of the eighth notes should be played very softly, as they are written *piano*. This alternation requires the pianist to play two completely different dynamic layers, given the contrast between *forte* and *piano*. Therefore, it is important for the performer to control all her/his fingers to create both accented loud voicing and evenly flowing soft eighth notes at the same time. For effective dynamics, the pianist should put weight on the voicing notes only, while the rest of her/his fingers move light and fast with less weight.
The piece finally explodes at the climax in the measure 99. The performer needs to plan the long passages of crescendo to reach to the climax by slowly increasing the volume and energy. For the greatest impact, it would be best to reduce the volume to pianissimo and increase the sound slowly to the climax. The use of a high and low register in both hands can help the performer create a louder and more effective sound at the climax. When the performer creates this fortississimo, s/he should use her/his whole body with bigger gestures. To achieve this, s/he should put all her/his weight into her/his shoulders and rotate her/his elbows in order to create a deep and loud sound without tension.

After the climax, agility is demanded due to the sudden dynamic changes in measure 99 from sfff to subito mf to p within a measure. Moreover, the large leap between two notes makes it difficult for the performer to change the volume quickly. Since the sound is changed so rapidly, the performer should practice this passage with special attention. In order to achieve the sfff, the performer should drop her/his hand down with a significant weight on the chords. To make this accented loud sound, s/he also should use
her/his shoulders and arms then abruptly move her/his hands with a rotated wrist. It is also helpful in situations where a sudden change is necessary to press the key down with less weight and a lifting motion of the wrist.

Figure 3.11: Ligeti Etude Désordre, mm 93-103

Ligeti often ends compositions very loudly and suddenly. The effect of ascending scales to the highest register and utilizing crescendo suggests that the music is continuing beyond the keyboard. For example, the ascending scale goes to the very highest note on the keyboard and it marked with a crescendo at the end, but it is more difficult to create a loud sound in the high register of the keyboard than in the low. Therefore, the performer needs to use a strong touch with firm fingers.
3.10 Pedaling

Ligeti indicated the use of the damper pedal twice on the first page and in the middle of the piece right after the climax. At the beginning of the etude, he wrote to use the pedal sparingly throughout, which allows the melodic line to be connected rather than sustained or ringing through the use of the damper pedal. Thus, performers should be careful to not hold the pedal too long in order to keep the sound clean and the melodic line smoothly connected. However, Ligeti indicates an increased use of damper pedal toward the end of the piece. Since the piece is very fast and the eighth notes chromatically ascend and descend, the performer has to be careful using the damper pedal in order to create a clear and clean sound.

3.11 Fingering

In addition to not giving pedal directions, Ligeti also did not include fingering numbers, which means the performer must choose a fingering very carefully. While both
thumbs and fifth fingers hold the octaves and make the melodic lines, the rest of the fingers must move up and down quickly. Pianists with small hands will likely have difficulty reaching the octaves in this work. Given the variability in finger length from performer to performer, one must try various ways to determine the best fingering. Figure 3.13 shows finger numbers in the beginning.

Figure 3.13: Ligeti Etude Désordre, mm.1-4
CHAPTER 4

PERFORMANCE GUIDELING OF L’ESCALIER DU DIABLE

4.1 Overview of L’escalier du diable (The Devil’s Staircase), 1993

“L’escalier du diable,” “Devil’s Staircase,” is the longest and the most dramatic piece of eighteen etudes. It was composed in the spring of 1993 in Santa Monica, California, where Ligeti was staying as a guest artist. For Ligeti, the title of the piece, “The Devil’s Staircase,” was a reference to endless climbing and a staircase that is almost impossible to ascend. 51 He used several techniques in order to express fear and tension.

First of all, he utilized ascending chromatic scales and recursive musical spirals to reflect infinite motion and endless repetition. The piece continually moves up and down and creating the illusion of relentlessness. The ascending notes in the right hand gradually get louder up as they built to the highest note. At the moment when they reach their highest point, the weight is shifted and the pattern is reproduced from the low register. 52

“L’escalier du diable” utilizes the Shepard scale, as the grouped notes climb without stopping and continuously ascend toward the high register of the keyboard. The Shepard scale is an auditory illusion of tone that continually ascends or descends in pitch. In addition, “L’escalier du diable” represents the mathematical phenomenon of the Cantor sets, which is a continuous construction formed by a simple recursive process and an infinite series of unequal steps. Ligeti composed the musical staircase using his own numerical system, and it also exhibits recursive qualities similar to the Cantor set. Ligeti subdivided the notes into $2+2+3/2+2+3/2+2+3/2+2+3/2+2+3/2+2+3/2+2+3/2+2+3/2+2+3/2+2+3$, which is repeated throughout the piece. As a result, the progression of subgroups makes listeners recall the irregular staircase graphically and the consistent pulse also helps this piece portray a feeling of constant chasing and tension. This etude is innovative in that it combines musical expression, mathematics, and the fractal image from the fine arts.

4.2 Rhythm

“L’escalier du diable” is also built on *aksak* rhythm, like “Désordre,” with two or three groups of eighth notes. This piece begins with the following groupings of eighth notes: $223/2223/223/2223/2223/2223/223/2223/2223/2223/223$. Even though the pattern seems quite simple, it takes time to become familiar with the rhythms due to their unpredictable patterns. The first step of the performer must take to become more familiar with this piece is to practice the rhythmic patterns because it is built on complicated eighth note groups. Before practicing on the keyboard, the performer should tap the rhythms on a flat surface to understand the rhythms physically and mentally. The left
hand should tap the downbeat and the right hand tap the upbeat. While tapping, the performer should imagine and sing the chromatically ascending bass line. This mental practice is as important as physical practice when a performer begins to study a new piece, especially a complicated contemporary one. After tapping the rhythms, the performer should then move to practicing them on the keyboard.

Figure 4.1 Aksak rhythm in Ligeti Etude L’escalier du diable

When beginning to practice the rhythms, the performer should first break the bar lines after every three eighth notes because these groupings are presented last in each section. The first measure, for example, can be divided into four groupings. The performer should rest after breaking the lines and repeat the small sections until her/his body becomes familiar with rhythmic patterns. The performer should also practice these small sections in various tempos and articulations, such as staccato and legato. Figure 4.2 shows how to divide the bar lines to create small sections from measure 1 to 2.
In contrast to the beginning and end of the piece, the middle section from measure 26 to 34 utilizes slow rhythms. The fast rhythms created by the infinite eighth notes are slowed down after measure 26. In addition to these slower rhythms, Ligeti also created thick textures in this section. To be specific, six individual voices chromatically move up in the right and left hands. Even though the rhythms become slower, several layers are difficult to understand because of the consecutive slurs and ties. Therefore, the performer should carefully practice the rhythmic timing. The pianist needs to practice the smallest rhythmical subdivision in this section. Since the smallest note value is the eighth note, the pianist should count twelve beats within each measure. Figure 4.3 shows the subdivision from measure 26 to 28.
The chromatically ascending lines and horizontally flowing slow rhythms change after measure 30. This new pattern of short and long rhythms represents wildly ringing bells and it is repeated with different pitches and harmonies. The textures also become thicker and utilize four staves. To be specific, in addition to the chromatically descending bass line, two layers of ringing bells and another layer of ascending harmonies are added. Since the four individual lines are vertically displaced due to the different rhythms, one should practice each line slowly with previously discussed the rhythmic subdivision. The performer should use the eighth note as a basic pulse in order to keep a steady tempo. It is helpful for the performer to analyze the exact timing of voices and draw vertical lines on the score before practicing because the four layers do not line up exactly together due to the different rhythms and consecutive ties. At this stage, the performer should try to not
affect the horizontally flowing lines that are easily broken by the short rhythmic pattern. The following example shows subdivisions of each layer and an analysis of exact timing of measure 30.

Figure 4.4: Ligeti Etude *L’escalier du diable*, measure 30

### 4.3 Phrasing and Voicing

The melodic line is indicated in the score using accents and tenuto. Ligeti provides specific notations on the melody notes for the voicing. From measure 1 to 6, the melodic line is presented with tenuto. The voicing occurs on every downbeat. Therefore, the pianist should play the melodic lines a little bit longer and louder in order to emphasize them and bring them out. Playing only the melodic lines is a good way to understand their progression. While practicing the voicing of the melodic lines, the performer should count steady eighth notes to maintain rhythmic groupings.
As the melodic line chromatically ascends, it is important for the performer to express the voicing with a long phrase. The chromatically ascending melodic line moves from B to A# as if climbing an endless staircase. The first step toward better phrasing is to break this long phrase into smaller sections and repeat them until the muscle memory is created. For example, since the first phrase extends from measure 1 to 3, it should be divided into three sections for practicing: measure 1, 2, and 3. The single melodic line in the first measure moves to unison in measure 2 then to fifths in measure 3. Moreover, the measures can be divided into even smaller sections by their rhythmic groups. One should practice the exact phrasing from small to big units, then repeat these small sections to create the complete melodic phrase. Since the phrasing changes according to the bass line, following it can help the performer to create better phrasing. Figure 4.5 shows one possible way to break the phrase lines into smaller sections.
The same rhythmic patterns and chromatically ascending melodic lines are presented in various intervals throughout the piece. Since the pitches and dynamics increase throughout each phrase, it is easy for the performer to understand the phrasing. However, it becomes difficult to bring out the melodic lines after measure 6 because new voice lines are added with accents. The performer should bring out all the four voices. Ligeti indicated tenuto on the down beats and accents on the up beats. Therefore, the
performer should practice to create four different voice lines with unique touches and tone qualities.

The middle section from measure 26 to 32 requires longer phrases than those before. Each layer moves one step higher with different rhythmic timing. This makes it difficult for the performer because the individual layers move at different speeds. For this passage, the performer should practice each layer separately and come to understand the progression of each line. After practicing the individual lines, the performer should practice the right and left hand separately. To better understand the voicing, s/he should sing all the notes equally instead only bringing out only the top or bass because each plays an important role in building the flowing lines.

The etude becomes more complicated after measure 30 as more layers are added with different rhythmic speeds and thicker textures. Practicing hands separate is strongly recommended in order to create better voicing. In addition, the performer can pair similar lines during her/his practicing: the chromatic descending bass and ascending harmonic lines, the bell sound of short-long rhythmic patterns. The difficulty in this section arises because the two pairs present very different rhythms, hand movements, postures, and articulations. In contrast to the two melodic lines in a horizontal motion with ties and slow rhythms, the other two layers utilize vertical motion with accents and fast rhythms. Therefore, the performer should use different touches and movements in order to create different sounds for the four layers so that the audience can hear the individual four voices simultaneously. Figure 4.6 presents a reduction of the two pairs of layers.
a. Full score of measure 31

Figure 4.6: Ligeti Etude *L’escalier du diable*, m.31
Finally, the performer should practice creating long phrases from measure 26 to 32. Since the bass line moves chromatically up and down, singing and following the bass line is helpful to create a long phrase. The chromatically ascending bass line is changed to descending after measure 28, and is doubled after measure 29. Finally, the bass line remains on a low A like a pedal point.

4.4 Tonal Harmony

One of the features of Ligeti’s late music is tonal harmony. The “Devil’s Staircase” is difficult to play because it includes of challenging techniques such as constant chromatic scales, unpredictable and non-patterned pitches, and complicated polyrhythms. However, the tonal harmonies can give the pianist a clue how to learn and memorize this piece faster. Since “Devil’s Staircase” presents some horizontal and vertical tonal harmonies, it is important for the pianist to analyze the piece in order to understand it better. This is very helpful especially in the beginning because undertaking a tonal analysis can be helpful for playing and remembering the notes naturally. Also, the harmonic structure can be useful for the performer to increase speed and memorization later.

In the beginning, the left hand plays chromatically ascending melodic lines and the right hand plays major thirds and seconds. The performer can begin by practicing the broken notes through to block chords. The intervals in measure 1 to 3 change from thirds and seconds to major sixth, perfect fourths, major thirds, major seconds, and finally
perfect fifths in measure 3. Practicing the piece after analyzing the harmonic structures and understanding the progressions helps the performer to play it easier.

Even though this piece is built on chromatics, the tonal harmonies become stronger and clearer near the end of the piece. Therefore, the performer should understand the harmonic progression not only vertically, but also horizontally in both hands. The best way to understand the horizontal harmonic structures is to practice both hands separately first. Figure 4.7 presents the tonal harmonies horizontally and vertically in measures 5 and 6.

Figure 4.7: Ligeti Etude L’escalier du diable, mm. 5-6
From measure 12 to 13, the right hand plays tonal harmonies while the left hand plays a chromatically ascending melodic line. In addition, the right hand plays long note value, each of which becomes higher and louder. The pianist should pay particular attention to the tonal harmonies here. Not only should the performer play the chords loudly with weight, s/he should also bring out the top note of the harmonies in order to emphasize the chromatically ascending line in the right hand.

Another clear tonal harmony occurs in measure 17. Ligeti wrote distinctive harmonies with very loud dynamics in the right hand as if bells are ringing. The harmonies in the right hand chromatically ascend to B major. After the B major chord is played with a strong forte, a new melodic line begins with tonal harmonies in both hands. The pianist should emphasize each harmony and make a deep and wild sound to imitate a huge bell. Figure 4.8 provides an analysis of the harmonic structures.
4.5 Bell Ringing

In measure 29, Ligeti wrote “wild ringing of bells” in the score. There is a sense that bells are ringing in various rhythms, dynamics, and registers, which is achieved through the use of two chords in short-long rhythmic patterns. In addition, Ligeti wrote chords with double accents and extremely loud dynamics in order to express this wild bell sound. It begins in measures 29 to 32 in the high register. First, it is introduced in one layer in the top voice, then becomes thicker and more complex with the addition of another layer after measure 31. The two layers occur at different speeds caused by the rhythms. The rhythm in the top voice is faster than the other. Therefore, the performer
should practice these different rhythmic speeds. The bell ringing reappears from measure 48 to the end in the low register. The figure 4.9 shows bell like chords from measure 30.

Figure 4.9: Ligeti Etude *L'escalier du diable*: mm.30-31

As indicated, the performer should mimic the sound of the bells, which are similar to gongs in the orchestra. Therefore, it is very important for the pianist to use her/his whole body in order to create a loud and deeply ringing sound. Moreover, the performer should put her/his entire weight on her/his shoulders and arms. It is also important that
the performer should relax her/his arms and wrists to avoid tension. The bell-like chords ascend with crescendo and finally the highest note is played with the highest of dynamics.

To achieve the sound of bells ringing, the performer should play all the notes in the chords dynamically the same. The notes should be played equally because the chords are repeated several times without any melodic line. To achieve this sound, the performer could imagine the huge sound of gong in the orchestra, big fat elephants, or ringing a huge bell in a cathedral.

The bell-like chords reappear at the end of the piece from measure 48 to 49. However, this time they are played under the chromatically ascending melody in the top line. Ligeti added one more forte and changed the two accents to two martellato. The bell-like chords move to the very low register in the measure 49. The use of eight fortés and three martellato on the chords sounds like an announcement that these will be the last bells of this piece. Therefore, the performer should put all her/his energy and weight into the chords in order to make them the most wildly ringing. The most challenging technique of this section is the opened arm position and continuously playing loudly. While the bell-like chords are played in the lowest bass A, the top voice ascends to the highest note C. It requires the performer to stretch her/his arms to reach the highest and lowest notes on the keyboard. Since the bass register is naturally louder than the high register, the performer should emphasize and project the top voice of the melodic line more. Using her/his arm and wrist can help the performer make the sound project more. One should lift her/his wrist up and down and rotate her/his arm when playing the
accented chords. Also, one should make her/his fingers firm and use her/his fifth finger more in order to bring out the melodic line more.

Figure 4.10: Ligeti Etude *L’escalier du diable*: mm.49-50

### 4.6 Dynamics

Ligeti wrote specific and detailed dynamics in the etude. Given this, it is very important for the pianist to follow them and to control a balanced sound from the softest notes to the loudest ones due to the extreme dynamic contrasts throughout. For instance, *subito piano* is indicated immediately right after the *fffff* in measure 33. Moreover, the
climax presents an extreme dynamic shift from \textit{ppp} to \textit{fffff} within a span of only four measures. Therefore, the pianist should analyze the dynamics in order to create a balanced sound overall. S/he should plan how to make the dynamic changes phrase-by-phrase.

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|                            | \textit{P} | cresc. | mp -mf | f-ff-fff |

| 3\textsuperscript{rd} phrase |  |  |  |  |  |  |
|-----------------------------|---|---|---|---|---|
| \textit{(mm.6-10)}          | 6 | 7 | 8 | 9 | 10 |
|                            | \textit{P sub} | mp | mf-f | ff | fff-ffff |

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<td>\textit{(mm.13-17)}</td>
<td>13</td>
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<td>ff-fff-ff</td>
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<td>\textit{(mm.18-25)}</td>
<td>18-19</td>
<td>20-21</td>
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<td>23</td>
<td>24-25</td>
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<td>\textit{p-mp}</td>
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Table 4.1: Overall picture of dynamic changes, mm.1-25
As the table 4.1 shows, the dynamics change measure by measure. One interesting feature of the etude is that decrescendo in not utilized once. The dynamics remain strong through the end of each phrase, beginning anew softly. Even though the dynamics crescendo throughout each phrase, the piece becomes louder and louder until the end. Therefore, the performer should carefully consider what will be the softest sound in order to create a structured dynamics.

In addition, the performer should practice how to deal with the sudden changes in dynamics because Ligeti often used sudden shifts in dynamics in this etude. For instance he wrote *subito piano* right after *fff* in measure 6. Since the contrasting two dynamics change suddenly, the one also should change the quality of sound quickly. The one should create the *subito piano* without any tension and weight. The most dramatic dynamic change happens in the climax from *fffff* to *p*. The following figures show sudden change in dynamics in measure 6 and 43.

![Figure 4.11: Ligeti Etude L’escalier du diable: measure 6](image)
Also, the measure 10 requires the performer to create contrasting dynamics between the right and left hands. While the right hand plays $f f f f$ in the high register, the left hand plays $s ubito p p p$ in the lowest B-flat. Therefore, the right hand should put more weight and make bigger gestures than left. The similar contrasting dynamics between two hands happen at measure 39 with hands cross over. The following figures show the extremely contrasting dynamics between the right and left hands.
Moreover, the pianist should control and create overall structured sound from the softest to the loudest. For example, the loudest section appears at the climax in measure 43 with \textit{ffffffffff}. Even though he indicated many loud dynamics before the climax, the pianist should save energy for creating more effective climax. Also, Ligeti wrote specific dynamic markings especially in the passages building to the climax. Since he wrote detailed dynamic markings in this passage, the one should control the volume and create the balanced sound. Figure 4.15 presents how to build the climax.
On the other hand, the softest part is from measure 32 to 34 with pppp and una corda. Even though the piece begins with pp and una corda, the one should play it louder than the measure 32. If one set the volume too soft in the beginning, it will be impossible to make softer sound later. For the continuation of the soft sound, the fingers should be flat and stay close to the keyboard. It is also helpful to touch and brush the keyboard smoothly without any tension in order to create very soft sound without accents. Therefore, it is important for the performer know the maximum and minimum sound of measures, and plan how to build the sound.
4.7 Technically Most Demanding Section

The rhythmically complicated section happens from measure 13 as the rhythms get displaced and unmatched between right and left hands. The most challenging part happens from measure 17 to 26 as the four and five quaver groups added. It shows two different rhythms between the right and left hands. To be specific, the different quaver groups and accented melodic lines between two hands make the performer to play this part hard. It is unpredictable because there is no pattern. Therefore, it is easy for the performer to lose following the two melodic lines from measure 18. The pianist should practice and study this challenging part with various ways as the below table 4.2 shows.

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<tbody>
<tr>
<td>1. Practice both hands separate (staccato and legato)</td>
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</tr>
<tr>
<td>2. Tap accented notes with metronome</td>
<td></td>
</tr>
<tr>
<td>3. Play only accented notes hand separately</td>
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</tr>
<tr>
<td>4. Play only accented notes both hand together</td>
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<tr>
<td>5. Mark the place that accents coincide in both hands</td>
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<tr>
<td>6. Right hand + accented notes in the left hand</td>
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<tr>
<td>7. Practice legato with slow tempo</td>
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Table 4.2: Practice Suggestions, mm. 17-26
First of all, practicing both hand separate is the basic practice way for who begin a new piece. Even though this consecutive chromatic ascending quaver notes are written with a staccato, the performer practices with the legato articulation in a slow tempo. When practice in a slow tempo, the articulation of grouping and accent should be followed strictly. Marking the place that accents between the right and left hand coincide, because it helps to follow the two different accented melodic lines easier. Also, the hand movement can help to bring out the melodic line with down-up motion. The performer puts wrists down on the first beat and up on the last beat of the quaver group. Figure 4.16 shows the way of following accented melodic lines from measure 18 to 19.

![Figure 4.16: Ligeti Etude L'escalier du diable, mm. 18-19](image)
4.8 Wide Intervals

The middle section from 26 shows horizontally slow movement of chords progression. This section requires the performer to stretch out fingers a lot in order to reach the vertical interval of the 9th and 10th. For the most performers with an average sized hand, it is quite challenging to play the wide intervals without any tension. One should have a relaxed wrist to freely reach the interval. However, the fingers and hand should keep firm shapes in order to make a clear sound.

Figure 4.17: Ligeti Etude L’escalier du diable, mm.26-28
The wide intervals become thicker textures from measure 37 in the left hand. The wide interval of thick chords infinitely ascends chromatically. The most challenging technique of this phrase is playing the chords being connected and horizontally flowing because Ligeti wrote a long slur line for both hands. Not only this, the right hand plays lower register than the left hand. Therefore, the performer should cross both arms over and lean to the right side because the higher register of left hand requires the performer to put more energy with strong dynamics contrast to the right hand presents subito ppp. For the thick chords in the left hand, the one should stretch each fingers out and try to move the thumb slowly sliding to the next note in order to make a legato. When the chords move to the next one, the performer should rotate the wrist to the right in order to help move smoothly without tension. Also, relaxing wrist and elbow can help the performer be free of tension. For the right hand, the fingering is very important to make a legato from measure 38. The performer should substitute the fifth finger to fourth one to make top voice connected without breaking a long phrasing. Figure 4.18 presents finger numbers for wild intervals of chords with legato in both hands.
4.9 Divisi

As this piece requires a fast tempo without stopping, the pianist should consider the comfortable finger numbers and appropriate hand postures in order to play evenly fast. In the measure 3, it is uncomfortable to play because the register is too close between the right and left hand. Since the perfect fifth appears in the left hand several times, it is easier for the performer to keep the pattern. Therefore, the performer can play every
down beats with the left hand instead of right hand as written on the score. Another chromatic ascending fifths in the bass happens from measure 7. At this time, the pianist should get ready to cross both hands since the register of bass becomes higher than the right hand. When play the hand crossing over, the performer’s body should face and lean to the right side.

Figure 4.19: Ligeti Etude *L’escalier du diable*, measure.3

Figure 4.20: Ligeti Etude *L’escalier du diable*, measure.7
4.10 Pedaling

As Ligeti indicated, quasi senza pedaling should be used from the beginning of the piece until measure 25. Section A is played without pedal. One should create a clear, chromatically ascending voice line without any pedal because this portion of the piece moves very quickly. Ligeti indicated pedal marks for section B, which utilizes longer rhythmic values and a horizontally connected melodic line. Three different types of pedaling are indicated in this section: whole pedal, half pedal, and sostenuto pedal. Because Ligeti wrote longer rhythmic values in this section, utilizing slurs and ties, the performer should be careful to use sophisticated pedaling in order to sustain and connect the melody smoothly without breaks.
Conclusion

Ligeti’s Études Pour Piano consists of various musical influences and innovative devices. The eighteen etudes simultaneously reflect traditional devices, non-Western music styles, and recent discoveries such as chaos theory and geometrical fractal images. Even though he intended the etudes to be performed by living musicians, pianists hesitate to study them due to their challenging techniques, such as polyrhythms, fast velocity, polymeters without bar lines, independent hand movements, wide intervals, and extreme dynamics. This document provides both physical and mental practice instruction for etude No. 1 “Désordre” and No. 13 “L’escalier du diable” in order to help the pianist who wants and begins to study those challenging etudes.

I strongly recommend advanced pianists who possess a wide range of technical skills and/or interest in this spectrum of the repertoire to play the Ligeti etudes because they are the most effective pieces for presenting virtuosic technical skills. As reflected in pianist Gábor Csalog’s pairing of transcendental etudes by Liszt and Ligeti, performers could consider a similar pairing for a successful and unique program. For example, my advisor, Prof. Caroline Hong, performed Liszt’s Toccata and Ligeti’s Etude No. 4 “Touches bloquées” at an American Liszt Society concert because of the similar approach of steadily streaming notes in both pieces.
Even though many contemporary composers write music that is beyond human abilities, many recent pianists try to perform these demanding pieces anyway to showcase their virtuosic technical skills. Ligeti’s piano etudes have also recently become more popular among many professional musicians who want to display their technical and musical abilities to the public.

This document can be used as a guideline to help pianists who wish to study and perform Ligeti’s piano etudes. Also, I hope this document will attract more pianists to be interested in his piano repertoires as well as stimulate musicians to undertake further research on his many compositions. As a representative composer of the twentieth century, Ligeti’s music should be more frequently performed as part of a standard repertoire in the twenty-first century.
APPENDIX A

DEFINITION OF AKSAK

The Turkish term, aksak means rhythmic sequences based on the alternation of two and three. It was defined by Constantin Brailoiu and used by Bartók. This asymmetric rhythm has two duration units: a long and a short one.  

For example, grouping of nine pulses can be divided into a pattern of 2+2+2+3. Ligeti often used aksak rhythm in his compositions. The speed of these shifting rhythms requires the performers challenging both technical and ensemble precision.

APPENDIX B

EXPLANATION OF METER-DEPENDENT HEMIOLA

Ligeti used “meter-dependent hemiola” in his etudes for piano. The term refers to beats grouped in sets of 2, 3 or 4 that contradict the written meter. Hemiola refers to the grouping of beats and can cross bar lines when groupings include a larger span. For example, in many 3/4 pieces, hemiola occurs over bar lines, such as three 2/4 measures in place of two 3/4 measures.

According to, Harmonic Practice in Tonal Music by Gauldin, “Some theorists insist that, in order to qualify as a true hemiola, all the voices in the texture must take part in the new apparent meter.” Within a measure, internal groupings usually occurs against the written meter, but when they cross bar-lines, they may ignore the written meter altogether.

DISCOGRAPHY


Bibliography


