AN ANALYSIS OF AND PERFORMANCE GUIDE TO
LOU HARRISON’S SUITE FOR PIANO
AND
KENNETH LEIGHTON’S SIX STUDIES: STUDY-VARIATIONS OP. 56

D.M.A. DOCUMENT

Presented in Partial Fulfillment of the Requirement for
the Degree of Doctor of Musical Arts in the
Graduate School of The Ohio State University

By

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2004

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The proposed study provides analysis and performance guidelines for two important solo piano works, Lou Harrison’s *Suite for Piano* (1943) and Kenneth Leighton’s *Six Studies: Study-Variations* Op. 56 (1969) (which will be referred to as *Six Study-Variations* for the rest of this discussion). These two pieces are selected from a group of many rarely played and recorded twentieth century solo piano pieces. Both pieces are written with twelve tone serial technique and they are excellent examples of contemporary masterpieces neglected because of their difficulty.

The first half of this document is dedicated to a performance analysis of Lou Harrison’s *Suite for Piano*. Lou Harrison (1917-2003) is one of the most renowned American composers and the importance of his *Suite for Piano* lies both in its being the composer’s only piano solo work using twelve-tone serialism and its having been influenced by the Viennese master Arnold Schoenberg’s *Suite for Piano, Op. 25* (1921-23). The discussion explores the overall structure and form of Harrison’s *Suite* with
reference to Schoenberg’s *Suite*, and provides performance guidelines for Harrison’s *Suite*.

The second half of this document is devoted to a performance analysis of the *Six Study-Variations Op. 56* by British composer Kenneth Leighton (1929-1988). Also using twelve tone serialism, each of the six studies is in the form of a free variation and features virtuosic examples of the variation. Combined with the genre of the etude, they display a variety of technical difficulties and the harmonic and rhythmic vocabularies in each piece are extremely intense. The discussion includes Leighton’s biographical and stylistic background, as well as a formal analysis and performance guidelines of his *Six Study-Variations*.

The pieces discussed in this document distinguish themselves as some of the most original works in the twentieth century piano repertoire. The live performances of both pieces were recorded in 2003 and they are available through a link in the document. As a result, this document will provide significant and useful information as well as performance guidelines for these unexplored solo piano masterpieces.
ACKNOWLEDGMENT

I would like to express my deepest gratitude to my advisor Dr. Caroline Hong of the Ohio State University, for her constant guidance and sincere support throughout the process of writing this document. Her intellectual and musical insight deeply inspired and motivated me during the years of my doctoral studies.

I am blessed to have met Dr. Kenneth Williams, who served on my D.M.A. committee throughout my four recitals and the candidacy examination. His generous attention was continuous from the time when I first came to the Ohio State University.

Sincere appreciation is expressed to Professor Charles Waddell for his genuine warmth and uplifting optimism. His expertise in chamber and orchestral repertoire has helped me to expand the vision of my work.

I express my great thanks to my beloved teachers, Jin Woo Chung, Wha Kyung Byun, Russell Sherman and Sergei Babayan for cultivating my artistic vision and enlightening me both as a musician and as a person as a result of their continuous support.
I am truly grateful to my two sisters and my brother for their hearty encouragement and assistance during the years of my studies abroad.

Finally, I owe my great indebtedness to my parents for their endless love and selfless support. Without them, this accomplishment would not be possible.
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CHAPTER 1

INTRODUCTION

Throughout music history, we encounter many composers who were not recognized in their lifetimes for their music. Even the music of J.S. Bach (1685-1750) wasn’t fully recognized during his lifetime, remaining unknown in wider circles of Europe. As composer-critic John Adolph Scheibe (1708-1776) stated in 1737, criticizing Bach’s music as artificial and unnatural, “this great man would be the admiration of whole nations if he had more amenity, if he did not take away the natural element in his pieces by giving them a turgid and confused style, and if he did not darken their beauty by an excess of art. Since he judges according to his own fingers, his pieces are extremely difficult to play.”1 This statement reveals the irony of the greatest music being underestimated and ignored during the composer’s lifetime, and it wasn’t until the nineteenth century when Bach’s music was fully revived, with the publication of his
biography by Johann Nikolaus Forkel in 1802.² Felix Mendelssohn (1809-1847) conducted the *St. Matthew Passion* in 1829 at the Sing-akademie, which was its first performance anywhere since Bach’s death.³

A similar attitude of regarding unfamiliar and difficult music peripheral, leading to its neglect, is still prevalent regarding twentieth century music, and it is important now not to repeat this historical mistake. This is why I selected Lou Harrison’s *Suite for Piano* (1943) and Kenneth Leighton’s *Six Study-Variations* (1969), among some of the most original, though rarely played twentieth century piano solo works, for the subject of this document.

Lou Harrison’s *Suite for Piano* was rarely played during Harrison’s lifetime and it is a clear example of unfortunate neglect. In fact, before a celebration of his music at The Ohio State University’s Contemporary Music Festival in 2003, Harrison suddenly passed away on the eve of hearing definitive performances of many of his works.

Harrison was traveling from his home in California to Columbus to participate in the Contemporary Music Festival 2003. Members of the Ohio State University were expecting Harrison to arrive in Columbus in a few hours. Devoted exclusively to Lou Harrison’s music, the Festival consisted of three concerts at OSU, including one concert
of his works for percussion, one for his composition of Gamelan music, and one for solo instrumental work and chamber music, as well as a performance of his Third Symphony with the Columbus Symphony Orchestra. Harrison was very excited by about the festival, going into great detail to prepare for it.

He sent out boxes in advance to the coordinator of the festival, Donald Harris, containing hand-outs and videos for the seminar with OSU students, as well as CDs and copies of his poetry book, Joys and Perplexities, to sell at the concerts. Harrison also sent his score of the Third Symphony for rehearsals with the CSO, and even sent his jacket to wear at concerts and in case of cold weather.\(^4\) When he departed from California, he preferred to take the train rather than fly. Two OSU students went to Chicago to pick him up because there is no train service between Chicago and Columbus. Unfortunately, perhaps due to the long train journey, he suffered a heart attack while he was entering a diner in Lafayette, Indiana, only a few hours after he was picked up. It was on February 2, 2003.

It is an irony that fate prevented him from coming to hear his music being played, and the festival became his memorial. I was one of the performers in the Festival and was supposed to play Lou Harrison’s Suite for Piano in one of the concerts. The
rehearsal with Mr. Harrison was supposed to take place the day after his unexpected
death. Like everybody else in the Festival, it was such a pity for me not being able to
have an opportunity to meet this great American composer, and this paper was written
partly as an homage to Lou Harrison.

Donald Harris recalls that Lou Harrison was very excited about the project and
was full of enthusiasm when he boarded the train, wanting very much to be at the
concerts. Harris stated:

“This is a great tragedy for the entire world of music. Lou was as excited
about the Festival as we were. Our sympathies go out to all in the world of
music and dance who treasured his great gift. I will always remember the
joy in his voice when we spoke over the telephone about the Festival. He
was an active participant in planning the concerts. He had also prepared a
special seminar for OSU students in composition. He was very much
looking forward to the CSO performances of his Third Symphony in a
final revision that he had just completed. He told me how honored he felt
to have so many of his compositions performed on the Festival. The
Festival went on as a tribute to this legendary American musician.”

He also stated:

“For all who knew him, Lou Harrison was a man who loved life. He had a
marvelous sense of humor. But he was also a deep thinker, a humanist, a
man of peace, and an artist steeped in world culture… He wanted so much
to be here for this Festival. Fate had it otherwise. But his music is here and
his spirit pervades throughout. The Festival then becomes a celebration of
his life. This is the way he would have wanted it.”
Chapter 2 provides a study of Lou Harrison’s *Suite for Piano*. The importance of this piece lies both in its being the composer’s most technically challenging solo piano composition,7 and in its being written with a twelve-tone technique influenced by the Viennese master Arnold Schoenberg’s *Suite für Klavier*, Op. 25 (1921-23). The twelve-tone system was invented by Schoenberg and first used consistently in his Op. 25. It consists of using a series of tone rows involving the twelve tones of the chromatic scale in an order chosen by the composer.8

The present discussion includes a comparative study between the Suites of Lou Harrison and Schoenberg. It provides a biographical sketch of Harrison, which outlines historical factors important for understanding the composition of the *Suite for Piano*, and explores the overall structure and form of Harrison’s work, the use of the tone row in comparison with Schoenberg’s *Suite*, as well as performance techniques. These techniques will enable the performer to capture the unique musical character and sonority of Harrison’s *Suite*, conveying both to listeners with an accessible sound.

Chapter 3 is devoted to the analysis and performance practice of *Six Studies: Study-Variations Op. 56*, composed by British composer Kenneth Leighton (1929-1988). From the Romantic period on, the variation genre has often been combined with another
purpose, namely that of the etude. Written in serial technique, each of the six studies in Leighton’s piece is in the form of free variation in rhythm, melody, and harmony based on a twelve-tone row, displaying examples of the virtuosic variation in completely new and different sonorities coupled with rhythmic inventiveness and harmonic intensity. The extended range of expression makes the music appear difficult both for a performer and a listener, but underneath the music lies a certain freedom and passion that can be conveyed to the listener with a performer’s deep understanding and technical mastery.

In the discussion a biographical and stylistic background of Kenneth Leighton as well as formal analyses and performance guidelines of each of the *Six Study-Variations* with musical examples are provided. The discussion also explores an overview of the variation genre in relation with the etude, and includes Kenneth Leighton’s use of twelve-tone technique in comparison with Lou Harrison’s to help with understanding and performing this piece better.

Both pieces discussed in this document distinguish themselves as some of the most original works in the contemporary piano repertoire, but they are unfortunately still among many neglected examples of music of the twentieth century. It is a performer’s responsibility to rediscover such valuable, unexplored works, and to translate the
composer’s new language into a compelling sound. David Burge’s statement in his book “Twentieth-Century Piano Music” brings forward the responsibility of pianists and the need for current study:

I am aware that many pianists today have not had the opportunity to become acquainted with more than a small fraction of this [twentieth-century] repertoire. This is due, to a considerable extent, to the unfortunate limitations of our present educational perspectives, which tend to enshrine that which is already established and to regard all else as peripheral. My aim is that what follows—a tour of what I consider the better repertoire for solo piano from the first nine decades of this century—will help to change these attitudes by awakening interest in this wonderful music. I also hope that pianists will come to see that if piano playing is to remain a living, relevant art, the performance of this music is essential.9

The fact that there have been few attempts to explore Lou Harrison’s *Suite for Piano* and Leighton’s *Six Study-Variations*, both in performance and in academic research, demonstrates the need for the current study. Harrison’s *Suite* is rarely played and although Michael Boriskin recorded it once in 1995 with Newport Classics, this recording is out of print and currently unavailable. The situation of Leighton’s *Six Study-Variations* is similar to Harrison’s *Suite*, with the exception of Steven Hough’s rediscovery of this piece in his recent performances and 2002 recording. Even though there are books written about the two composers, there is little critical analysis on either piece, a fact that justifies this study.
In the process of the study for Lou Harrison’s *Suite for Piano*, I frequently referred to Heidi Von Gunden’s *The Music of Lou Harrison* and Leta E. Miller and Frederic Lieberman’s *Lou Harrison: Composing a World*. Gunden’s book is a critical analysis of Harrison’s music which is organized by following the chronological order of Harrison’s compositions, providing brief musical analysis of each work. Miller and Lieberman’s book is a thorough biography of Harrison up to 1998, which explores Harrison’s creative output of music and dance, intonation, instrument construction, and music of Asia, as well as his personal philosophy and values. The unpublished dissertations of Neil C. Rutman and Lynnette V. Celso were also helpful references.

Little has been written about Kenneth Leighton’s *Six Study-Variations* and Robert Markham’s D.M.A. dissertation, “Kenneth Leighton 1929-1988: An Assessment of His Importance as Composer, Performer, Teacher, and Thinker” from the Julliard School of Music was one of the most valuable sources written about Leighton’s music. Even though I never met him, I wish to thank him, and also thank Jane Gottlieb, Vice President for Library and Information Resources at the Julliard School for letting me review Markham’s dissertation during my visit to the Julliard. Cockshoot’s article “The music of Kenneth Leighton,” in *The Musical Times* and the recently published book
British Organ Music of the Twentieth Century, by Peter Hardwick were also helpful sources for me. Even though Hardwick’s book discusses about Leighton’s organ music, it helped me to understand Leighton’s musical style in general. Access to Kenneth Leighton’s website provided me with valuable information, including his catalogue of keyboard music. This catalogue appears in Appendix B.

This study was conducted along with actual performance experience, which is crucial in order to provide useful and practical information. In the process of the study, I recorded a live performance of both Lou Harrison’s Suite for Piano (1943) and Kenneth Leighton’s Six Study-Variations, the former for the 2003 Contemporary Music Festival at the Ohio State University and the latter for a DMA Solo Recital. The recordings are available on Harrison & Leighton. As a result, this dissertation is expected to serve as a helpful resource of both background knowledge and performance guidelines of these unexplored solo piano masterpieces for musicians and scholars alike.
CHAPTER 2

LOU HARRISON’S SUITE FOR PIANO (1943)

2.1 A Brief Biographical Sketch of Lou Harrison

Childhood

Lou Silver Harrison was born in Portland, Oregon on May 4, 1917, the first child of Calline Silver and Clarence Maindenis Harrison. His mother Clarence was the granddaughter of a wealthy businessman. With the fortune she inherited from her grandfather, she bought an elegant thirty-unit apartment building in Portland soon after Lou’s birth.\(^{10}\) Clarence’s elegant taste led her to decorate her house with Persian carpets and Asian artwork. These two contrasting visual styles in the apartment where Harrison spent his childhood influenced his taste, causing “a fascination with both the music of Asia and that of pre-Mozartean Europe.”\(^{11}\) Harrison stated:
My drama is to try to recapture childhood riches, the beauties of Asian things. Somewhere along the line I learned that if you couldn’t buy it, like Mom did, you could, maybe, make something, and that’s part of my creative urge-to make riches. That’s why I decorate the gamelan instead of using plain wooden boxes. And I still would like to paint. I love to decorate things.”

Already at the age of three, his acting talent led him to be cast as the young orphan “Buster” in *Daddy Long Legs*, and as the result of his success in the show, he toured the Northwest with the production. In 1926, when he was nine, his family moved to northern California. From then on, his family moved quite frequently, once every year or two. The fact that Harrison attended eighteen different schools before he graduated from high school in Burlingame gave him little chance to develop long-lasting friendships. Instead, Harrison as a teenager enjoyed spending his free time at home playing the piano, studying scores and reading books. His creativity also drove him to experiment with instrument building and reassembling electronic equipment like the phonograph at this early age, a sign of his future inventiveness in creating new instruments.

Owing to his father’s interest in the artistic and religious training of his sons, Harrison began taking piano and ballroom dancing lessons and was enrolled Sunday schools when he was six years old. In Sunday school, he developed an interest in
Gregorian chant, the root of his later compositional device, “melodicles.” He wrote his first composition for piano at the age of ten, and later in high school he studied composition with Howard Cooper. In his high school years, he composed piano and chamber music and was involved in many musical activities, including conducting the school orchestra and singing as a soloist in choir. Harrison was placed at the head of his class and his creative power and his artistic ability were already evident at an early age.

West Coast (1934-1942)

One of the most powerful influences on Harrison’s musical life was Henry Cowell (1887-1965), who Harrison describes as “a central information booth for two or three generations of American composers.” In 1934, Harrison entered San Francisco State College. By this time he had met Cowell through a course entitled “Music of the Peoples of the World” at the University of California Extension Division, in which Harrison enrolled to study with him. Cowell taught Harrison various styles of writing, with techniques involving rhythmic complexities, the use of melodic cells, serialistic writing, as well as nourishing Harrison’s interest in non-Western music and “new sound-producing media.” Cowell’s instruction later urged Harrison to challenge and
experiment with existing percussion ensembles. They became life long friends, and it was also through Cowell that Harrison connected with Charles Ives (1874-1954) and John Cage (1912-1992).

In 1936, Cowell suggested that Harrison write a letter to Ives to gain a deeper understanding of Ives’ compositions, and Harrison received from Ives many scores and manuscripts of Ives’ compositions to study, including the *Concord sonata for piano* and *Third Symphony*. Later Harrison transcribed Ives’ *Third Symphony* and premiered this work in New York in 1945. Ives was awarded the Pulitzer Prize for this symphony, and insisted on sharing it with Harrison.

From 1937 to 1940, after graduating from San Francisco State University, Harrison was already an established male dancer in the San Francisco area. He taught music as applied to dance at Mills College in Oakland, and it was at this time that Harrison made a long lasting friendship with John Cage. Having both worked as dance accompanists, Harrison and Cage shared a love of modern dance as well as new ideas regarding performance media. They collaborated on percussion ensembles using new found instruments such as buffalo bells, old brake drums, and a variety of non-Western instruments, and their performances were well received by audiences and critics.
Harrison recalls Cowell’s remark at a concert referring to Schoenberg as the “greatest composer since Beethoven,” and this inspired him to move to Los Angeles to study with Schoenberg in 1942. Harrison got a teaching position in the music department of the University of California at Los Angeles and by attending a seminar held by Schoenberg in U. C. L. A, Harrison had an opportunity to study with Schoenberg for six months. Harrison learned from Schoenberg a focus on simplicity and musicality in the idiom of contemporary music:

The most profound influence was toward simplicity. Nothing but the essential. And from that I learned very greatly. Whenever I would get bogged down, just stop and thin it all out and come to the essentials and proceed in a lighter, thinner way. Never force, never overcomplicate! Never get caught in a pudding or tar pit.... In part, it was meant that I needed a lighter, more essential touch. I was heavy! He (Schoenberg) complained of the same thing. Somehow the question of lightness once came up and he looked around sadly at us and said, “I try, but everything I touch turns to lead,” which must have been a terrible statement to us from a born Viennese.”

It was at this time that Harrison composed his *Suite for Piano* (Further discussion about Schoenberg’s influence on Harrion’s *Suite for Piano* will be continued in the next chapter). Harrison also said, upon leaving Schoenberg:

There was more and much of musical interest. When I was about to leave for New York, he asked me why I was going there and I replied that I really did not know. “I know why you are going,” he said, “You are going for fame and fortune. Good luck. And, do not study anymore--only Mozart.”
New York (1943-1953)

In 1943, after being invited to join Lester Horton’s dance company as an accompanist, Harrison left for New York. There he rejoined his old friends, John Cage and Henry Cowell. John Cage introduced him to Virgil Thomson (1896-1989), a critic for the New York Herald Tribune, with whom Harrison worked at the Tribune from 1945 to 1948. A lively exchange of ideas and vivid discussion of musical thoughts with Virgil Thomson refined both Harrison’s compositional and writing skills. Though the assignments from Thomson seemed heavy, reviewing as many as three concerts in one weekend, they gave Harrison the opportunity to learn much of traditional European concert repertoires as well as compositions from modern music. Of his reviewing experience, he noted:

“This is in fact is how I really learned my repertoire. I was so happy when I could review the Waldstein Sonata as though I had heard it more than once. So I really learned my classical European concert repertoire by sitting in concert halls and writing about it. Of course, I got a fair doses of modern music too.”

In addition to his work at the Tribune, Harrison also wrote articles also for Modern Music Quarterly, Modern Music, View, and Listen.
Another job Harrison was occupied with during his stay in New York was transcribing and reconstructing several of Charles Ives’ manuscripts including his *Third Symphony*. After the thorough study of Ives form his student years in San Francisco, Harrison was so well acquainted with Ives’ composition that he could completely reconstruct several missing pages of the symphony, which even astonished Harrison himself when they found the original manuscript a few years later. In 1946, Harrison premiered Ives’ *Third Symphony*, conducting the New York Little Symphony in Carnegie Hall. The performance was a big success, but when it was suggested to Harrison that he conduct more, he resigned humbly, saying “I’m much too concerned with the music to be a good conductor…The music? Yes, I can do that. But a lot of people can handle music. It takes more than that to be a real conductor.”

In spite of the exposure to the dynamic world of music and society, Harrison wasn’t satisfied with the stresses of life in New York. In 1947, the intolerable noise and struggle to earn a living finally caused a nervous breakdown for this composer who was devoted to the sensitivity of art. He was hospitalized for nine months, but to the amazement of everybody, his will and determination were strong enough to effect a recovery. With a typically optimistic attitude, Harrison didn’t stop composing while in the hospital, and after his recovery, he embarked on the second phase of his life.
During the years following his hospitalization, Harrison was recharged. He taught at Reed College in Portland, Oregon for two years. Harrison’s undying creativity and curiosity for during this period are well characterized in Judith Malina’s statement:

Lou’s inventiveness comes from a kind of energy fostered by hopefulness, by beautiful art, by the sense that one is grasping for truth…Lou’s music particularly engenders this ecstatic aspect. For me, Lou Harrison’s music stands for ecstasy, for what would it be like if we were already there. Lou’s form of “throwing yourself into the ineffable” and coming out with the very ecstatic purity that his music breaks into is exemplary.28

From 1947 to 1950 his creative energy led him to compose much of his most representative work, including The Perilous Chapel, Solstice, the Air in G minor for flute, the Suite for Cello and Harp, two suites for strings, four of his seven Pastorales, Marriage at the Eiffel Tower, and The Only Jealousy of Emer.29 Harrison’s fondness for calligraphy also grew during this period. In 1951, he moved to Black Mountain College for a teaching position and remained there for two years, escaping the hectic city life and completing works from earlier years, including the Suite for Violin, Piano, and Small Orchestra, Seven Pastorales and the Mass for St. Anthony.30 While traveling to Rome for a composer’s competition and convention in 1954, where he was awarded the “Twentieth Century Masterpiece Award for The Best Composition for Chamber
Orchestra and Voice,” Harrison felt an urgent need to learn a second language. He immediately learned Esperanto, the simplified international language,\textsuperscript{31} which he incorporated into several of his compositions.

Asia and New Sound (1953-1975)

Upon returning from Rome, Harrison returned to California and chose to remain there for the rest of his life. Even though he was awarded several grants, including second Guggenheim fellowship, economic necessity led him to work several odd jobs, including fire fighter and animal nurse. Harrison worked during the daytime and took medicine to sleep less at night, and never stopped his musical pen as he composed several works, including \textit{Simfony in Free Style}, \textit{Cinna}, and the \textit{First Violin concerto} from 1955 to 1960.

Harrison’s visits during the 1960’s to the Asian countries of Japan, Korea and Taiwan, funded by a Rockefeller Grant, widened Harrison’s musical horizon. He particularly fell in love with Korean traditional court music and visited Korea twice between 1961 and 1962, staying there for six months in order to study with Professor Lee Hye-Ku of Seoul National University College of Music. Harrison not only learned the
principles of Korean court music, he also mastered several Korean instruments including the Piri (Figure 2.1), which he later taught in America. He also transcribed ancient Korean court music for both western and Korean orchestras. With Professor Lee, who visited California to work with Harrison, they worked on a book in English on Korean court music, which unfortunately, to this day, remains unfinished. The manuscript of this book survives both in a typescript and in fifty-three folio-sized pages in Lou’s calligraphic hand, which is preserved in his archive, with a copy at UCLA dedicated to Mantle Hood. It is hoped that further research by a musicologist or ethnomusicologist on this valuable work will be made and eventually enable this unfinished work to be completed.

Fig 2.1: Korean traditional wind instrument Piri
Following his second trip to Korea, Harrison accepted an invitation to Taiwan from the Chinese Classical Music Association and studied Chinese music with Liang Tsai-Ping. Upon his return to California he reconstructed the traditional Chinese opera *White Snake Lady*.\(^{35}\) In 1963 he composed *Pacifika Rondo* in which he combined Korean, Chinese and Western instruments. Regarding Harrison’s unique and original ability to find new possibilities in an existing source and articulate them in his own musical language, Virgil Thomson stated:

> The result was a mixture executed with infallible imagination….There is nothing labored about it. Lou Harrison is not making plastic roses for funeral parlors. He is simply speaking in many personae and many languages. The message itself is pure Harrison. And that message is of joy, dazzling and serene.\(^{36}\)

During a journey to Mexico funded by the Phebe Ketchem Thorne Fellowship in 1966, Harrison wrote *Music Primer*, “a collection of compositional guidelines and general musings about music, society and the art of composition,”\(^{37}\) written in his favored calligraphy. Meeting his life companion William Colvig in 1967, an electrician and amateur musician, enabled Harrison to unite his longstanding interests in percussion music and instrument building. Together they built the American gamelan “Old Granddad” for Harrison’s work *Young Caesar*. They later built a set of gamelans called
“Si betty” for San Jose State University, where Harrison was on the faculty from 1967 to 1983. Another set, “Si Darius and Si Madeleine,” was built for Mills College. This institution gave Harrison security both philosophically and financially by honoring him with two successive endowed chairs, the Milhaud chair in 1980 and the Mary Woods Bennett chair in 1981-83, and by giving him an honorary doctorate in 1988. 

Gamelan Music (1975-1988)

After Harrison’s meeting with the prestigious Indonesian gamelan performer and teacher Pak Cokro in 1975, he composed many works for the traditional Indonesian ensemble. He brought the Western concerto idiom into gamelan composition by joining the ensemble with Western solo instruments in the concerto form, including the *Concerto for Piano with Javanese Gamelan* (1987), *A Cornish Lancaran for Soprano Saxophone with Javanese Gamelan* (1986), and *Double Concerto for Violin, Cello and Gamelan* (1982). The setting of these concertos during performance is very unique, because the ensemble performers sit on the floor and by tuning western solo instruments like the piano to match the intonation of the gamelan, the performance produces very unique and exotic sonorities.
In the process of composition, experimenting and exploring all the possibilities and searching for an ideal sound, Harrison was never satisfied with his initial work. According to Miller and Liberman, “Up to the very day of the concert, he was frantically revising, repairing, manipulating, and inserting.”\(^{39}\) On the day of the premier of his \textit{Second Symphony}, Harrison edited the fourth movement and attached fifteen additional measures to the scores on the stage right before the musicians came in for dress rehearsal. This occasion is described by Paul Hertelendy: “The ink will be barely dry. Harrison is like that. As if they were his children, his scores are rarely sent off into the world in final form. He reworks, rethinks and philosophizes at every encounter.”\(^{40}\)

He composed and conducted \textit{Three Songs} for the Gay Men’s Chorus and as a result of this occasion, he later he revised his earlier opera \textit{Young Caesar} for that chorus in a larger scale production for human singers and actors with an orchestra of Western instruments. The opera was performed in its revised version in 1988 to the acclaim of its audience in Oregon.\(^{41}\)

In 1989 while actively serving to the world of music, Harrison endured heart surgery. After this and his previous nervous breakdown in New York, Harrison claimed to be given a third life. His passion and enthusiasm towards music knew no exhaustion, and in 1995 he composed the *Parade for M. T. T.*, commissioned by the San Francisco Symphony. This was the first work conducted by Michael Tilson Thomas as music director of the San Francisco Symphony. They played Harrison’s work four times during the season, including the *Third Symphony* and *Canticle #3.*

When Harrison was asked by Leta E. Miller to assess his role in the history of western music, following a 1995 concert at the University of California’s Lick Observatory, he replied “I haven’t the faintest idea, I can only say, ‘Lou Harrison is an old man who has had a lot of fun.’”

Harrison also enjoyed a productive relationship with the choreographer Mark Morris, who used several of his works for dances. "Rhymes With Silver," a commissioned piece for chamber ensemble with Yo-Yo Ma as cellist, was completed in 1996. In 2002, Harrison completed a new composition, "Nek Chand," for a specially constructed Hawaiian slack guitar in just intonation, meaning pure intervals uncompromised by the Western tempered scale.
In 2003 the Contemporary Music Festival at The Ohio State University featured a considerable amount of Lou Harrison’s compositions in the format of four concerts between February 6 to February 9. To the shock and grief of everyone, Harrison passed away on his way to the site of the festival in Columbus, Ohio. It was a heart attack that took his life at the age of 85 in Lafayette on Sunday, February 2, 2003. The festival was subsequently held as his memorial. The programs of the four concerts are included as appendices.

Recently Harrison’s book "Poems and Pieces" has appeared, which includes some of Harrison's poems and gamelan scores, as well as drawings of Harrison and Colvig.

2.2 Influence of Schoenberg and His Op. 25 on Harrison’s *Suite*

Consisting of five movements- *Prelude, Aria, Conductus, Interlude, and Rondo*, Lou Harrison’s *Suite for Piano* achieves its importance in the catalogue of his piano compositions by being the composer’s only multi-movement serial work for piano solo, and is regarded as the longest and most technically demanding of his solo piano work. Lou Harrison composed the *Suite for Piano* in 1943 while he was teaching in the dance
department at the University of California at Los Angeles and studying with the Viennese composer, Arnold Schoenberg. In composing his *Suite*, Harrison took the precedent of Schoenberg and his *Suite für Klavier Op. 25* (1921-23). Accordingly, this piece shares many musical ideas with Schoenberg’s piece, such as its twelve-tone serialism, the neo-classical gesture of its suite form, as well as its structure, character and musical style. It is interesting that Harrison even adopted the same title of “Suite for Piano.” Harrison’s *Suite* displays many influences of Schoenberg, but this piece also shows how Harrison transformed the existing compositional method of the twelve-tone idiom and Schoenberg’s neo-classical concepts into his own musical language. The *Suite* was dedicated to Peter Yates’ wife Frances Mullen and was premiered by her on May 8, 1944, at an “Evenings on the Roof” concert in Los Angeles, California.

2.2.1 Compositional Background

The compositional roots of Harrison’s *Suite* lay in his own history of self-directed study, even before Harrison’s formal study under Schoenberg. Harrison was well acquainted with Schoenberg’s twelve-tone music by his late teens, due to his thorough study of almost Schoenberg’s entire published work available at the San

25
Francisco Public Library. Harrison was already an established composer in the San Francisco Bay Area by 1942, but his constant search for new compositional methods and his admiration of Schoenberg led him to move to Los Angeles with the hope of studying with the Viennese master at the University of California. During the period when Harrison was studying with Schoenberg, he met Peter Yates and his wife Frances Mullen, an accomplished concert pianist who was devoted to contemporary music. Mullen’s performance of Schoenberg’s *Suite for piano, Op.25* during one of their gatherings gave him the idea of composing a suite for her. Even though it took only a few weeks for Harrison to compose the *Suite for Piano* in the twelve-tone idiom, he reached a compositional block in the third movement during its composition and brought the piece to Schoenberg for advice. After performing for Schoenberg, Lou Harrison recalls:

…I played the Prelude. There was a rather long moment of silence, and then he asked me, thoughtfully, “Is it 12-tone?” I simply said, “Yes.” He reached for the page, saying, “It is good! It is good!…He asked me to continue, and I played Movement II. Again, “It is good! It is good!” He seemed fascinated by the very wide, soft spacing in measure 4-8 (Figure 2.2) By the time I had played the point of my blockage in Movement III, he plunged directly in, already aware of my structure, and, with splendid illuminating instructions, permanently disposed of for me not only that particular difficulty but also any of the kind that I might ever encounter.
Schoenberg’s advice for Harrison was to “thin out, lighten it, only the essentials…and it means that you have to bring things to the salient reality of the ideas…”\textsuperscript{54}.

Figure 2.2: Lou Harrison’s \textit{Suite for Piano, II. Aria}, mm. 4-8

The influence of Schoenberg’s instructions on the third movement of the suite can be discerned in the middle section beginning at measure 37, where Harrison must have been struck by the distinctive change of texture and the value of the long notes. Taking Schoenberg’s advice, he changed the thick chordal activity of sixteenth notes around the whole note at the beginning to those of single sixteenth notes and reduced the length of whole notes in half (Figure 2.3).
Interestingly, this middle part sounds similar to a section of the *Gigue*, from measure 20 to measure 23, the last movement of Schoenberg’s Op.25. The similar but thinner texture here, with the same rhythmic pulse and activity of held half notes and other notes surrounding them, testifies to Schoenberg’s specific influence on Harrison’s *Conductus* (Figure 2.4)
2.2.2 Twelve Tone Method

The twelve-tone system was invented by Schoenberg and first used thoroughly in his *Suite für Klavier* Op.25 (1921-23), which Harrison adopted as a model for his *Suite for Piano*. The twelve-tone system consists of using a series of tone rows involving the twelve tones of the chromatic scale in any order chosen by the composer. No tone may be repeated until the other eleven have appeared, and the order of the series remains unchanged throughout the composition. There are three modifications of the original version; inversion, retrograde, and retrograde inversion—any tone of the series can be changed in octave position. These four versions can be transposed to any step of the chromatic scale, thus making available 48 modifications.

After fifteen years of trying to develop a new method, Schoenberg created the twelve tone method gradually during the time he composed the *Fünf Klavierstücke* Op.
23 and the *Suite für Klavier* Op.25. Of his new method, Schoenberg wrote,

“...I was occupied with the aim to base the structure of my music consciously on a unifying idea which produced not only all the other ideas but regulated also their accompaniment...I became suddenly conscious of the real meaning of my aim: unity and regularity, which unconsciously had led me this way.”

Schoenberg also wrote to Hauer in December of 1923 that the twelve tone method allowed him to compose with freedom and fantasy. This was an emancipation of dissonance with the rejection of any basic principles regarding harmonic progression, and in this expanded harmonic vocabulary twelve distinctively placed sounds are undifferentiated by key.

Reflecting Perlis’s statement that “if Ives taught Harrison freedom, Schoenberg taught him method,” Harrison took the model from his master and used the twelve tone method in his *Suite for Piano*, the only major serial piano work completed by Harrison. This piece, however, shows some differences from Schoenberg’s *Suite* Op. 25 in the composer’s manipulation of the tone row.

Harrison’s tone row has a variety of intervals, but it doesn’t have the tritone, (Figure 2.5) whereas Schoenberg’s tone row features more dissonant intervals including three tritones (Figure 2.6).
In his suite, Harrison uses the twelve notes in a horizontal sequence, one after another, creating a unique sense of lyricism in the music. Harrison never combines two forms of the tone row together, such as one row of melody and another row as
accompaniment. Instead, Harrison used the row as a vehicle for writing dissonant counterpoint with the vertical combination of a fourth and a seventh. With the particularly melodic shape of his tone row, Harrison creates lyrical cantabile lines such as the consoling melody at the end of Aria (Figure 2.7).

Figure 2.7: Lou Harrison’s Suite for Piano, II. Aria, mm. 20-22

On the other hand, Schoenberg often combines the row vertically and uses it in a vertical juxtaposition of the tetrachord, in groups of four notes, dividing the twelve notes in three sub-groups (see a, b, c in Figure 2.6). This can be seen at the beginning of the Präludium (Figure 2.8).
At the beginning of the *Gavotte* (Figure 2.9) and *Menuett* (Figure 2.10), Schoenberg changes the order of the tone row, and in the *Trio* section of the *Menuett* from measure 34 to measure 39 he displays a contrapuntal combination of the tone row (Figure 2.11).

Figure 2.8: Vertical juxtaposition of the tone row, Schoenberg’s Op. 25, *Präludium*, mm. 1-5
Figure 2.9: Schoenberg’s *Suite für Klavier* Op.25, *Gavotte*, mm. 1-4

Figure 2.10: Schoenberg’s *Suite für Klavier* Op.25, *Menuett*, mm. 1-2
2.2.3 Neo-Classicism Reflected in the Suite Genre

A suite is a genre of instrumental music in the baroque period consisting of a number of movements, each in the character of a dance and all in the same key. The vertical combination of tone rows in Schoenberg’s *Suite für Klavier* creates a thicker texture and a more dissonant sound than Harrison employs in his *Suite for Piano*. 

Figure 2.11: Schoenberg’s *Suite für Klavier* Op.25, *Trio* in *Menuett*, mm.34-39
standard scheme of the suite in this period is in the order of allemande, courante, sarabande, an optional dance, and gigue. The optional dance may include the minuet, bourree, gavotte, passepied, polonaise, or air. Bach composed six English Suites, six French Suites, six Partitas, and some single suites, often slightly changing the standard scheme of the suite in these works. He used the prelude as an opening movement in the English Suites and Partitas. Except for the first suite, the prelude in his English Suites is similar to a concerto grosso movement, while the prelude in his Partitas displays the style of an invention in the first three partitas, a French overture in the fourth partita, and a toccata in the last two partitas.

Schoenberg’s adoption of the baroque dance suite in his Op. 25 is fully in line with neo-classical impulses, justifying his decision as a “the matter of comprehensibility.” He says that “if comprehensibility is made harder in one way, it must be made easier in another. In new music it is often hard to grasp the ‘harmonies’ and melodic intervals and their succession. Therefore one should choose a form which will ease things in a different way, since it ensures a familiar course of events.”63 In his Op. 25, the tonal expectation that results from adopting the eighteenth century suite form is systemically denied by the twelve tone idiom, producing a “disturbing sense of alienation.”64
Harrison's take on the suite form is in line with Schoenberg’s thinking, and manifests by his naming the piece with exactly the same title, *Suite for Piano*, as Schoenberg’s piece.

### 2.2.4 Structure

Lou Harrison’s *Suite for Piano* is in the five movements of *Prelude, Aria, Conductus, Interlude* and *Rondo*, while Schoenberg’s *Op. 25* is in six movements that include a *Präludium, Gavotte, Musette, Intermezzo, Minuette* and *Gigue*. The dance titles of each movement, except the first piece, and the number of movements are different in the two suites of Harrison and Schoenberg. However, considering that the *Gavotte* and *Musette* in Schoenberg’s *Op. 25* are played without break because of the *attaca* and *da capo* indications, it could be seen as five-movement scheme, which Harrison adopts in his *Suite*. On the other hand, a comparison of the structure in suites of Bach, Harrison and Schoenberg shows Harrison’s *Suite* is digressed more from the traditional scheme of the suite than Schoenberg’s *Suite*, whose structure is relatively close to the traditional one (Table 2.1).
Bach | Harrison | Schoenberg
---|---|---
Partita No.1 | Suite for Piano | Suite für Klavier
Praeludium | Prelude | Präludium
Allemande | Aria | Gavotte
Corrente | Conductus | Musette
Sarabande | Interlude | Intermezzo
Menuet I | Rondo | Minuette
Menuet II | | Gigue
Gigue | | 

Table 2.1: Comparison of the Structure in Suites of Bach, Harrison and Schoenberg.

2.2.5 Character and Musical Style

The musical characteristics of Harrison’s *Suite for Piano* show influences from Schoenberg’s *Op. 25*. The use of an angular melody, as well as abrupt changes and contrasts of dynamics in short periods of time are characteristics of Schoenberg’s *Op. 25*, and are exemplified in measures 9 to 11 of the *Prelude* (Figure 2.12). These characteristics are also found in many passages of Harrison’s *Suite*. 
Another distinct influence of Schoenberg’s Op. 25 on Harrison’s *Suite* is seen in the fifth movement, *Rondo*. Harrison took the repeated staccato note pattern between measures 1 and 3 that dominated this movement (Figure 2.13) from the motive between measures 7 and 9 of Schoenberg’s *Präludium* (Figure 2.14).
In an interview with Rutman, Harrison said that when he wrote the *Rondo*, he had in mind Schoenberg’s *Op. 25*. He said he liked Schoenberg’s use of staccato in the *Prelude* and said that the *Rondo* is a “laugh riot” or a “laughing game.” It is interesting to note that Harrison put slurs on the staccatos. It seems to me that Harrison wanted to make them sound like those of Schoenberg’s *Op. 25*. As seen in Figure 2.13, in Schoenberg’s piece they are not exactly marked staccato every time and when performed, sound like portato with which the notes are not tied but gently separated. On the other hand, the nervous musical character in the *Rondo* can remind one of the last movement of Schoenberg’s *Op. 25, Gigue*.

The use of wide registers in general, ascending or descending gestures at the end of a phrase or movement, frequent tempo changes, and characteristic motives such as patterns of three repeated notes or broken chords are also influences of Schoenberg.
It is clear that there are many direct and indirect influences of Schoenberg and his *Op.25* on Lou Harrison’s *Suite for Piano*. But it seems likely that to a certain degree, Harrison’s deep familiarity with Schoenberg’s music caused his compositional process to manifest many of Schoenberg’s characteristics on an unconscious level.

### 2.3 Formal analysis of Harrison’s *Suite for Piano*

#### 2.3.1 Tone Row

All the movements of a baroque suite are written in the same key, and in Harrison’s *Suite*, the use of the twelve-tone row throughout the entire piece is a unifying device that replaces the unity of the key signature.\(^{67}\) Harrison felt that the pitch succession in a tone row should be selected rather arbitrarily, according to how one feels at the moment.\(^{68}\) Gunden states that the tone row in this piece has a variety of intervals that present all eleven intervals of the tempered scale except for the tritone, and that there are four versions of the tone rows Harrison uses in this piece.\(^{69}\) Similarly, Rutman shows examples of four versions: the original row as prime, \(P^0\) (Figure 2.15.1), the original inverted and transposed a perfect fourth higher, \(I^5\) (Figure 2.15.2), the retrograde of the prime, \(R^0\) (Figure 2.15.3) and the retrograde of inverted and transposed version, \(RI^5\)
(Figure 2.15.4). Although following examples are based on Rutman’s, I notated the seventh note F of the prime one octave higher than Rutman to clarify the arch-like musical shape of Harrison’s tone row.

![Figure 2.15: Tone rows in Lou Harrison’s Suite for Piano](image)

All the movements start with the original version $P^0$, except the *Aria*, which starts with $I^5$. As discussed in chapter 2.2.2, Harrison uses the twelve notes in horizontal order, one after another, which creates a lyrical quality in each movement.
2. 3. 2 Formal Analysis

I. Prelude – Allegro moderato

This movement is in da capo ABA form. It is mostly in 4/4, except the last measure of each section (the A section ends in 3/4 and the B section, in 5/4). The A section starts with a “jaunty opening”\(^71\) of a four-note motive, with the original tone row \(P^0\) followed by \(I^5\) and \(R^0\). The following is Gunden’s illustration of the first appearance of tone rows in the opening of this movement (Figure 2.16):\(^72\)

![Figure 2.16: First appearance of tone rows in Lou Harrison’s *Suite for Piano, I. Prelude*, mm. 1-3](image)

It is interesting to note that each phrase, starting with a down beat on an eighth note rest, starts on the weak beat. This creates rhythmic intensity and a feeling of forward motion. The length of phrases is rather short, often only one or two bars. According to
Harrison’s instructions, the accent in this movement should be strongly accented. The extreme contrast between marcato and cantabile, the wild dynamic shifts and sudden halts with rests are all distinct hallmarks of this movement.

There is another interesting unifying motive in this movement, along with the tone row. A motive of two repeated notes between measures 16 and 17, which closes the first movement (Figure 2.17.1), can be seen throughout the entire piece. The motive manifests with a weeping and grieving character in a slow tempo, as between measures 4 and 5 of the Aria (Figure 2.17.2), while playing an active rhythmic role between measures 1 and 2 of the Conductus (Figure 2.17.3). Elsewhere, the motive extends the melody line, as from measure 1 to measure 3 in the Interlude (Figure 2.17.4), as well as creating the driving rhythmic characteristic of a “laughing” motive at the beginning of the Rondo (Figure 2.17.5).
2.17.1: Prelude, mm.16-17

2.17.2: Aria, mm. 4-5

2.17.3: Conductus, mm. 1-2

2.17.4: Interlude, mm. 1-3

2.17.5: Rondo, mm. 1-2

Figure 2.17: Two repeated notes motives in Harrison’s *Suite for Piano*
II. *Aria – Largo*

The Second movement is in da capo ABA form. The first two measures show the alternation of tone rows $I^5$ and $P^0$. This is a lyrical aria with melody and accompaniment. In the B section, from measure 12, the left hand takes over the melody for a moment. The wide spacing in between measure 4 and measure 5 (see Figure 2.2) enables the listener to clearly hear the voice leading, and the swelling motion of the melody between measure 17 and measure 18 creates a burst of emotion. The phrase length here is longer than in the first movement.

III. *Conductus – Allegro, as fast as possible*

The *Conductus* is in simple ternary form. This is the longest and the most complicated movement in this *Suite*. The title *Conductus* is from the medieval *conductus motet*, which consists of freely invented parts added to the tenor. Harrison uses the tone row as a whole note “tenor,” with one note in one measure. Consequently, every twelve measures complete one row (Figure 2.18).
Figure 2.18: Lou Harrison’s *Suite for Piano, III. Conductus*, mm. 1-12
The tenor in the first twelve measures presents the original version of the tone row. The tenor in the second group of twelve measures starts from the second note of the original row, and the tenor in the third group of twelve measures starts the third note of original row. In other words, this movement contains twelve consecutive repetitions (or variations) of the original row \( P^0 \). As a result of this process, the rhythmic motives surrounding the tenor, which include all four transposed versions of the row, are transposed too. Thus, Harrison uses all forty-eight versions of the tone row in this movement. As discussed earlier, in the middle part the note value of the tenor is reduced in half and the texture is thinner than in the outer parts, due to Schoenberg’s influence.

The note patterns surrounding the tenor alternate between an active rhythmic section and a cantabile section. As the tone row itself shapes a musical line (as seen in Figure 2.15.1), one twelve measure section creates one long musical phrase with a sensation of rising and falling. The conventionally tonal-like motion of an ascending major second and descending perfect fifth in the last three notes of the row lends a feeling of resolution to the end of each variation, even though there is no other musical indication between each row.
IV. Interlude – Adagio

Harrison described this movement as “delicate, pastoral,” and this free form Interlude is a parenthetic pause between the Conductus and the Rondo. The melodies at the beginning three measures and the last three measures mirror each other (Figure 2.18)

Figure 2.19: Mirror Structure in Lou Harrison’s Suite for Piano, IV. Interlude
Between measure 6 and measure 9, the melody is distributed between both hands, and measures 11 to 13 contain a voice exchange of the same melody. The perfect fifth drone creates an effect of tonal emphasis in this movement.

V. *Rondo – Allegro Giocoso*

This final movement is written as a five part rondo with coda: ABAC-da capo A-coda. The A section features unique repeated note patterns with different rhythmic phrasing in each voice. The characteristic syncopated rhythmic pattern seen between measure 16 and 17 shows off Harrison’s sense of humor in this movement (Figure 2.20).

Figure 2.20: Rhythmic pattern in left hand, Harrison’s *Suite for Piano, Rondo*, mm. 16-17
The B section alters the mood by cutting back from “forced jubilance” to a “flowing gracefulness.”

This is achieved with the special effect of a broken chordal motion that explore the low and high registers of the keyboard. When the A section comes back after the B section, the motives are in a higher register and each voice is exchanged. The intense C section contains the most forceful sound in the Suite with its full, accented chords. In the Coda, the motive is more fragmentary, and it concludes the piece with an accelerated ascending gesture.

### 2.4 Performance Guideline

Lou Harrison’s *Suite for Piano* is understood to be the composer’s most technically demanding solo piano work, and it also showcases Harrison’s original and unique lyrical abilities. Donald Harris states:

More than anything else, he is a melodist. At all times his music sings. It is never violent or harsh; there are no punishing dissonances...But whatever the circumstance, whether the emphasis is on timbre or rhythm, whether serious or playful, it is always at the service of a higher melodic order. His is a lyric gift, at times passionate, at others gentle, but always singing.”
The difficulty of playing Harrison’s *Suite* lies in expressing the unique lyrical quality in the intricate twelve-tone writing. It is a formidable technical challenge for a pianist to play this piece, and as Gunden states, this piece has not been played often because of its complexities. Based on the experience of learning this piece myself, the performance challenges and solutions for playing Harrison’s *Suite for Piano* are discussed in this chapter.

2.4.1 Prelude

In the dialogue-like opening of this movement, Harrison’s instructions for articulation are highly detailed, and the player should carefully adhere to the instructions in order to communicate Harrison’s intentions regarding the character of the music. For example, measure 1 shows a variety of articulations; the top voice starts with an accented eighth note followed by two staccato eighth notes and an accented half note. While holding this half note with fifth finger of the right hand, the thumb and second finger of the same hand have to play a motive in a different rhythm of sixteenth notes and quarter note. This middle voice should be played softly to voice the top melody and this requires finger independence. The left hand also plays a different articulation of four eighth notes,
the first two slurred and the next two in staccato (see Figure 2.16). This extremely contrasted articulation and control of balance between voices are the basic challenges in this piece, and the player should use greater expansion in each hand, with a dropping motion in the hands and arms above the key for the accented and staccatos. The slurred notes should be played gently with the fingers close to the keyboard.

Harrison utilizes the tone row in horizontal order; it creates a lyrical melodic line within a contrapuntal writing style. The player should listen for sustained sounds and make them even longer while voicing the important melodies and connecting the shapes of long lines to make the lyrical line more expressive. The torso should be relaxed in order to make each side of the body feel independent and to distribute the weight differently for the arms and hands at each side.

In this piece, each phrase begins on the weak beat with the rest on the down beat, creating a rhythmic intensity with the rhythmic displacement of the down beat in each hand. The player should count the weak beat, feeling the pulse inside, and exaggerate the accent to make the syncopation more effective.

Harrison’s writing often interrupts the musical flow with a sudden stop and an extreme contrast of the dynamic. This creates an effect of surprise, and the player should minimize their body movements at these sudden stops to make the effect more vivid.
Visualizing the music with physical gestures is a very effective technique for communicating the character of twentieth century music in general.

2.4.2 Aria

The *Aria* features a sad and somber melody. In order to express the crying, grieving character of the polyphonic writing in this movement, the player should imagine the melody in measure 1 and 2 as a duet of alto and bass voices with an accompanying duet of cello and double bass, following the phrase with their breathing (Figure 2.21).

![Figure 2.21: Lou Harrison’s Suite for Piano, II. Aria, mm. 1-2](image)

Such an aural imagination of the sound affects the player’s contact with the keyboard, making the touch gentler and deeper. With both hands close to the keyboard,
the player should use a pulling motion with relaxed hands and arms, which helps to produce the singing quality that the melody demands. Paying attention to the awkwardness of certain intervals will make this melody particularly haunting (see Figure 2.2).

The dynamic level between measures 16 and 17 should not get soft too early, because it is still forte afterwards. The player should maintain the force of gravity in the fingertips and sustain the notes to make the volume last longer. The player should make the beautiful nostalgic melody between measure 20 and measure 23 especially espressivo, while singing inside (see Figure 2.7).

2.4.3 Conductus

This is the most difficult movement in the whole Suite. It features lyrical tenor melodies surrounded by fast-moving rhythmic motives. It is like a mental state of peace and calmness opposed by nervousness and hysteria. The texture at the beginning is so thick and complicated that it is hard to make it accessible to the listener. It is almost impossible to play all the notes that are scattered everywhere on the keyboard in the prescribed “as fast as possible” tempo, while still holding the tenor’s whole notes. For
the whole piece, the player should bring out the tenor while reducing the volume level of
the other voices. For example, in measure 1 to measure 12, the player should realize the
tone row as one long phrase in one breath. One should sculpt the rising and falling shape
of the row in order to create continuity and make the tone row appear as one singing line.
In order to create this singing line in the tenor melody, isolating the tenor and practicing
it in a fast tempo is highly effective for getting the overall shape of the melody line,
which spans the whole page (see Figure 2.18). Dividing the tone row into three sub-
groups and following the tension and relaxation of the intervals are also both useful
techniques for creating the natural shape of the tone row. The player should always have
the larger structure in mind and plan ahead while playing each section, maintaining the
flow of the music at all times.

Another difficulty is starting the movement right way with precisely controlled
voicing and rhythm. Internally making a connection from the previous movement is a
good way to assuredly start this movement. The player should stay as steady as possible
while performing the rhythmic gestures to let the tenor be heard clearly and without
confusion. To give oneself room to control the pace, the player should try to feel the
space between the hands, thus attaining both a sense of subtlety and lightness of fingers.
When the dynamic level increases, conceptualizing this amplification as getting broader rather than louder will be helpful to make the touch gentle and maintain a singing tone. The extreme contrast between \textit{fff} and \textit{sub. pp} at the end should be well planned and controlled, since the composer specifically marks it \textit{senza legato}.

In measure 49, the tenor is in the upper register and the sonority should be unique and mysterious. The composer creates a totally different beauty in the effects in practice in this section, and the player should adjust the touch with a pulling motion in the hand with very sensitive fingertips. Active and careful listening with an aural imagination also helps to achieve this section’s elusive sonority.

2.4.4 Interlude

The atmosphere in this slow and short movement is sad and mysterious, and making the single melody line of the dissonant interval in the right hand expressive and lyrical is a challenge for the performer. The eighth note motives at the beginning between measure 1 and measure 3 shouldn’t feel square or straightforward and the player can employ more freedom in taking time on the long A flat in measure 2 (see Figure 2.19.1). All the intonation and nuance of the melody in the right hand should be expressed. In
order to accomplish this the player should feel the interval in the muscle of the palm, reaching the interval with flexible fingers, hand, and a relaxed arm, while using an expanded handspan.

Appropriate and careful use of pedal at the beginning is important to not muddle the tone row and allow it to be heard, and the player should use subtle pedaling to make the listener follow the tone row clearly.

2.4.5 Rondo

The rhythmic drive and nervousness created by the repeated staccato note are distinctive characteristics of this movement. Playing these repeated note motives with a staccato articulation in both hands is one of the most challenging technical difficulties in this piece (see Figure 2.13). Making the repeated notes steady and light is difficult because the repeated motion can cause tension in the hands. The player should use a shaking motion in the wrists. The wrists should be relaxed and raised with the fingers close to the keys. Any two repeated notes should not sound the same, and the player should feel the direction of repeated notes and group them together, treating them like a melody.
Another difficulty in playing this piece is pacing the frequent tempo changes. Harrison was a well-trained pianist when he composed this piece, after his experience as a dance accompanist. The frequent tempo changes between *ritardando* and *a tempo* come from this experience, and making these transitions occur smoothly and naturally is important for mastering this piece. The player should maintain a constant inner pulse, slowing it down gradually to successfully pace the tempo change.

In general, a willingness to take risks with technique and to be daring rather than cautious while using relaxed arms and hands are important strategies for solving most of the mechanical problems that arise. Trying to be imaginative and creative with the sound and musical character of the piece, along with careful listening, are all necessary strategies for creating the right sonority and expressing the fundamental character of Harrison’s *Suite*. 
3.1 Biographical background of Leighton

British composer Kenneth Leighton was born in Wakefield, Yorkshire, on October 2, 1929. Not only was he a highly gifted composer, he was also a virtuoso pianist, a conductor, a beloved teacher and a scholar who majored in Classics and music. He received his early education at the Queen Elizabeth Grammar School and showed exceptional musical ability from his childhood, becoming a chorister at Wakefield Cathedral in 1938. As Leighton recalls, “singing at that stage of life in a cathedral choir is the best musical education anyone could have.” This experience as a chorister, which lasted until 1942, gave him a priceless musical education and cultivated his musical foundation at an early age. His future contributions to the musical community by composing church music, lasting throughout his life, were also nourished from this
experience. After leaving the Cathedral Choir, Leighton developed exceptional proficiency in piano playing as well as composing, and was awarded a Licentiate of the Royal Academy of Music diploma in piano performance in 1946.

Even though he was already an outstanding musician, in 1947 Leighton went to Queen’s College, Oxford with a Hastings Scholarship, majoring in Classics. At Oxford, Leighton studied composition with Bernard Rose, and his talent ripened under the influence of composers such as Ralph Vaughan Williams, William Walton and Benjamin Britten. Through the academic study of the eighteenth-century fugue and of Renaissance secular and sacred polyphony, he learned the skill of writing counterpoint and fugues\(^\text{82}\) and his compositions during this time show a propensity for clear tonality, clear-cut tunes, and attractive melody.\(^\text{83}\) During his Oxford years, his fondness for chromaticism and his characteristic “elegiac romanticism”\(^\text{84}\) were already evident, and were later reflected in his *Symphony of Strings Op. 3* (1949) and *Veris Gratia Op. 9* (1950).

Upon graduating from Oxford with both a BA in Classics and a Bachelors in Music in 1951, he was awarded the Mendelssohn Scholarship. This funding enabled Leighton to study in Rome with Goffredo Petrassi. It was in Rome that he studied the works of Bartok, Hindemith, Berg, and Dallapicolla in depth, through which Leighton
began to adapt a more chromatic style and integrate twelve-tone serialism into his compositions. Nevertheless, Cockshoot states that Leighton’s vocal works such as Three Carols and A Christmas Caroll still display tonality with a quasi-madrigalian and fugal style, reflecting his Oxford training. It is in the writing of his instrumental works where a vague or non-existent tonality exists.85

After one year of fruitful study in Rome, Leighton came back to England and was appointed Professor of Theory at the Royal Naval School of Music in 1952, beginning his career as a teacher. This was followed by the position of Gregory Fellow in Music at the University of Leeds (1953-1955), and the position of Lecturer in Composition at the University of Edinburgh (1955-1968). He served in Oxford as a Fellow of Worcester College between 1968 to 1970 and it was during this time that he composed his Six Study-Variations, the work examined in this paper. Unsatisfied with the conservative atmosphere of Oxford, he returned to Edinburgh as Reid Professor of Music, the position he held until his death in 1988. For his achievement as a composer, he was made an Honorary Doctor at the University of St. Andrews in 1977, and also made an Honorary Fellow of the Royal College of Music in 1982.
To the sorrow of musical world, Leighton was diagnosed with throat cancer in early 1988, and died the same year on August 24th at the age of fifty-nine. He was a musician with exceptional intellectual brilliance and a kind heart, as described in the obituary written in *Musical Times*, November 1988;

Leighton was a dedicated, talented and much-loved teacher, whose traditional views stressed the importance of communication and craftsmanship rather than dry theory. He was also a fine pianist who gave many recitals and broadcasts. Above all, “A modest, sincere man who won great respect and affections.”

3.2 Musical Style of Leighton

Leighton left a large number of compositions including three symphonies, ten concertos, an opera *Columba*, chamber and piano works, and church music. Each of his compositions reflects Leighton’s uniquely characteristic style of highly lyrical melodies, dynamic rhythms, and colorful instrumentation in the style of romanticism. These qualities are especially evident in his piano concertos and virtuoso works for solo piano and organ.

Even though he never forced himself or struggled to compose, Leighton’s compositions were always finely crafted and his music shows a “compelling balance of
intellectual rigor.” Hardwick describes how the characteristic Yorkshire qualities of “vigor, forthrightness, emotionalism tempered by common sense” in Leighton’s music matured during his early Wakefield period.88

He went through a brief serialist period, influenced more by Berg and Dallapiccola than Schoenberg, owing to his study in Rome. But it was the thematic possibilities that made him interested in serial technique, and his music remains basically tonal. There is always a lyrical feeling in Leighton’s music and his later works, especially in his choral works with their mellow diatonic writing, and his Romantic writing.

As well as his “lyrical melody and colorful orchestration, direct expression and masterly control of large structures,” Leighton exploited 4th and 2nd intervals and often used toccata-like textures in his compositions. Resonant sonorities and his intricate, often fugal use of counterpoint are also distinctive characteristics of Leighton’s writing style.90

3.2.1 Serialism in Leighton’s music

Leighton always pursued lyricism in his music no matter how intellectual its form, and saw the twelve-tone technique as the most significant feature of the modern style. His first serial work is Variations for Piano Op. 30, composed in 1955, and at this
time, his concern in using the twelve-tone method was not for the technique itself but for
“thematic transformation within a tonally oriented chromaticism.” He didn’t see
serialism as the final goal, but only one part among others in the modern style of writing.

Leighton’s view of serialism is well described in Cockshoot’s writing,

He [Leighton] regards it [serialism] as being only one characteristic part
(the most characteristic part) of a much wider conception of modern style,
in which the intervallic nature of musical material has achieved a new
kind of importance. This is a free chromatic technique (which may or may
not have tonal implications) in which an intervallic pattern is closely
adhered to, and provides the main logic and impetus in place of the old
feeling of chord progression. Tonality he believes to be essential, but a
wider concept of tonality than we have hitherto known. It is in the
reconciliation of free chromaticism (or serialism) with the form of the past,
that the most fruitful possibilities seem to lie.92

Clearly, Leighton thought serialism was an important tool in the modern style of
composition and he himself passed through a brief serialist phase. However, he believed
that technique shouldn’t be the ultimate goal itself, but that it should always be used as a
means to a goal, and his music remained basically romantic throughout his life.
3.2.2 Musicianship reflected in teaching and composing

Leighton started teaching when he was twenty three years old and put great value in this activity. He was a devoted and an excellent teacher who was worshiped by his students. His skill and enthusiasm as a teacher were described as “superhuman” or even “frightening” by John Ireland, a pupil of Leighton’s at Edinburgh.\(^93\) Ireland describes how Leighton had the ability to go through any kind of composition not knowing any difficulty in demonstrating or writing any example.

Leighton had a strong belief in the wide variety of disciplines of a university education and valued the highly stimulating environment of Edinburgh University. This belief is evident in a conversation with Robin Fulton in 1969, quoted in Markham’s writing:

“I still believe that a student who has it in him to become a composer- or indeed any kind of musician-will do so, provided that opportunity is there in the first place. The determination is part of a musician’s make-up, and these days there is little lack of opportunity. On the whole I think that most of the old disciplines of university music are of value to the musician – not specifically to the composers. But then the composer should be a musician in the fullest sense of the world. And here is the great justification for University music- that it has breadth and tries to teach a wide variety of disciplines.”\(^94\)
As a composer, Leighton was open-minded to the influence of music from both the past and of his contemporaries. Having been influenced by his early education in the choral Christian tradition, Leighton highly valued the music of the pre-Romantic period. On the other hand he remained alert to new styles of music. He believed that having an open mind to new influences makes one remain truly alive as an artist and ultimately didn’t see how any influence could be harmful as long as one makes good come of it.

Leighton also believed that the Christian musical heritage was the foundation of Western music, and thought twentieth century composers should be inspired to renew and experiment with that tradition while striving to find a “channel of communication” with people in contemporary Christian civilization.95

With this attitude, Leighton had been composing enthusiastically throughout his life. He admitted that the endless inspiration in his music comes from his instinctive need to create and from the experience of great music. Leighton’s writing, quoted by Markham, demonstrates Leighton’s philosophy and musicianship as a composer.

I have actually been composing (i.e. putting notes down on paper) since the age of eight – continuously doing it- and I mean by ‘continuously’ from day to day, in between all the other things like playing the piano, teaching, and alas, administrating! Why, one many ask, does one do this? We composers, particularly at a time of crisis in the development of western art, are often asked this question – and the answer cannot be
simple. First of all there must have been an instinctive need to create in terms of musical notes. Secondly, those first and most fundamental experiences of really great music (which by the way remain with us throughout life) came to me at a very early age; these experiences are a constant source of stimulus and inspiration which in the end drive one to the desire to do something of one’s own, and to explore the incredibly rich and powerful possibilities presented by a page of blank music paper.96

3.2.3 Leighton and Piano

Being a brilliant pianist himself, Leighton always maintained a great interest in virtuoso pianism. This abiding interest and affection for piano music led him to compose a large piano repertoire including three piano sonatas, the *Five studies*, the *Fantasia Contrappuntistica*, the *Variations op.30*, *Nine Variations Opus 36*, *Six Study-Variations*, *Op. 56, Conflicts: Fantasy on Two Themes*, *Opus 51*, *Scherzo* for two pianos, as well as three piano concertos.

This illustrative story in the Leighton’s obituary written by Donald Webster captures how the composer’s sincere spirituality and self-disciplined personality combined in his brilliant pianism as an inspiration to his contemporaries:

He would play for himself Bach’s entire Well-Tempered Clavier -It was his custom each New Year’s Eve to leave his guests at 8:30 pm in order to play Bach’s ‘48’ in private in his music room. This was invariably completed before midnight, thus ensuring, as he put it, “That I start the New Year in the right physical, mental and spiritual condition.”97
Reflecting this originality and determined personality in his music, Leighton’s piano compositions bear the uniqueness of texture and sonority with his own imaginative resources that differentiate his music from other composer’s works. Described in Cockshoot’s writing, Leighton believed that there is much that remains to be done in contemporary writing for the piano, particularly in the direction of fugal and contrapuntal styles.\textsuperscript{98}

Kenneth Leighton’s website complies the entire catalogue of Leighton’s piano music, including his solo piano work, works for piano duet, works for two pianos, as well as works for harpsichord, which is attached at the end of this paper as an appendix.

3.3 Formal Analysis of Leighton’s Six Study-Variations Op. 56 (1969)

This piece was written in 1969 when Leighton was at Oxford as University Lecturer in Music at Worcester College. This two year period in Oxford was not the most productive for the composer, because his self esteem was low, and Leighton suffered from personal depression and homesickness.\textsuperscript{99} Nevertheless, his creative instinct transformed depression into music with originality and a unique sonority. This piece was published by Novello and premiered by Colin Kingsley in Freemasons' Hall, Edinburgh on January 11, 1972.\textsuperscript{100}
3.3.1 The Variation Genre reflected in Leighton’s Op. 56

An interesting question is posed by viewing Leighton’s *Six Study-Variations Op. 56* as part of the genre of variations in which it is written. As the title suggests, the work is in a form that combines the variation and study genres. Leighton titled this piece *Six Studies*, and added the subtitle *Study-Variations*. This suggests that the composer clearly intended to combine the variation genre with the purpose of the study. The practice of combining the variation and study (or etude) genres initially comes from the Romantic period, when composers such as Brahms and Schumann challenged the existing traditions of the variation genre.

Throughout the history of the western keyboard music, composers have constantly used the variation genre as a device for expressing their creative power, and the variations in different periods show the changes and developments of its style. But until the Classical period, during which time the variation genre held a central importance for composers, the variation kept its traditional form. Characteristics of the form included a theme often borrowed from popular songs, operatic melodies or themes by other composers, and the harmony and the melody of the theme were often preserved along with changes in rhythm, texture, and figurations. Beethoven used the variation
genre with the central goal of incorporating it into a larger-form work, such as the sonatas of his late period, where the theme and variations often became the spiritual centerpiece of the work.\textsuperscript{101}

It was during the Romantic period that composers began to explore new directions within the variation genre. Schubert, who was a follower of the classical tradition, still maintained a relatively traditional style within his variations, preserving the essence of the theme. Others, however, such as Schumann and Brahms, used the genre combined with another genre, such as the etude. Brahms’ \textit{Paganini Variations Op. 35} and Schumann’s \textit{Symphonic Etudes Op. 13} are good examples of the “virtuoso variation type in the pedagogical sense of studies for piano.”\textsuperscript{102}

Leighton took this practice of combining the variation and etude in composing his \textit{Six Study-Variations Op. 56} and transformed it into his own form, using serial technique as another unifying device. With Leighton, the combination of these two genres takes a slightly different form from the conventions adopted during the Romantic period. In making six pieces into a large-scale piece, his formal technique relied not only on the combination of genres, but also on the inclusion of serial technique. At first glance, the two words in Leighton’s title, “six” and “variations,” give one the assumption that
this piece has a theme at the beginning followed by six variations, as it is in Beethoven’s *Six Variations* in F major or *Thirty Two Variations* in C minor. But this piece contains separate six studies in totally different styles, each in free variation form, and Leighton connects these six pieces together by using the same whole tone-row or its fragments in each piece as a unifying device. It is similar to how Harrison uses the twelve-tone row in his *Suite for Piano (1943)* as a unifying device instead of a traditional key signature, but Leighton goes even further. He explores new possibilities in the tradition through the three dimensions of study, variation and serialism. In other words, this piece could be seen as “variations on variations,” if the first word “variations” refers to each of the six pieces in a free variation form and the second “variations” refers to the whole piece as the variations based on a twelve tone row. This exemplifies Leighton’s attitude towards composing by “renewing and experimenting the tradition.” Lou Harrison also held the same attitude, as can be seen in the discussion of the genre of suite (see Chapter 2.2.3), and thus two contemporary composers of different backgrounds reacted similarly but in different ways against existing traditions, creating their own musical innovations.

Along with the innovations discussed above, Leighton’s piece showcases the twentieth century style of a variation theme, undergoing change in its melodic, harmonic,
rhythmic, and structural aspects. In the case of free variations such as in Leighton’s piece, the structural outlines of the theme are often hard to recognize. Dissonant harmonies and chromaticism, various meter changes, nonfunctional tonality, pentatonic passages, irregular phrasing and rhythms, detailed articulations, clusters, and various styles within one piece are all conventions of twentieth century variations, many of which are reflected in Leighton’s *Six Study-Variations*.

Leighton composed three pieces in the variation genre, *Variations Op. 30* (1955), *Nine Variations Op. 36* (1959), and *Six Study-Variations, Op. 56* (1969), each of them with serial techniques. The *Six Study-Variations Op. 56*, however, is the only piece in which he adapted the Romantic characteristic of combining the genres of the variation and the etude. A more detailed performance analysis of this piece will follow in later chapters.

### 3.3.2 Tone Row

This piece consists of six sets of studies, each in free variation form, based on a twelve tone row. Unlike Lou Harrison, who followed the principle of writing a tone row in which once a note or pitch in the tone row is used, the same pitch doesn’t appear again
until the entire twelve notes are stated, Leighton treated the tone row as a device of free expression and freely manipulated the tone row. He often repeats the same pitch before the entire row is stated, uses the tone-row in segments, and also applies common chord progression as seen in tonal music. This view of Leighton’s treatment of the tone row is clarified in his statement, quoted in Markham:

The treatment of the note-row is however sometimes segmental – I do not hesitate to take a group of notes out of the series and dwell on that group before moving on to the next group. Nor do I avoid the sound of the common chord, of chords which suggest more traditional progressions. But these suggestions are the natural result of the serial procedure, they are thrown up incidentally, as it were, in the course of working on a purely serial principle. I ought to emphasize that the working out of a tone–row in this way is, or can be, a completely natural way of composing, and as instinctive, and dependent on musical feeling, as any other method. The feeling need not be one of limitation, but can be one of absolute freedom, since the imagination is stimulated by the infinite possibilities, the melodic and harmonic variety and resource offered by the original series and its three variations.  

The tone row in *Six Study-Variations* consists of D-G sharp-E-C sharp-C-F sharp-F-A-E flat-B flat-G-B (Figure 3.1). Leighton’s choice of the twelve notes is very interesting because not only does the row include three tritones, along with minor seconds and a minor seventh, all creating dissonant sonorities, but it also contains third and sixth intervals, each in major and minor, which consequently creates a feeling of conventional tonality.
3.3.3 Formal Analysis

The opening four bars of the Study-Variation No. 1 *Adagio molto* consist of a tone row that shows how Leighton creates motives from the tone row, and their development. The row is first stated dramatically in three alternating ascending motions from measure 1 to measure 4 (Figure 3.2).
The first measure, which is the first four notes of the row, (see Figure 3.4, a) includes a vertical combination of a C sharp minor triad, creating a tonal feeling. The next measure, however, denies this tonality with more dissonant intervals, including a tritone and major and minor sevenths. In the third measure, the first half again returns to a feeling of tonality, employing an E flat major triad, but this consonance is rejected right away by the dissonant minor ninth interval and its extension in the fourth measure where the B flat pitch is redirected as an enharmonic A sharp on which the music stops with a fermata (see Figure 3.2). This entrance, with continuous tension between consonant and dissonant sounds, and the alternating ascending motion climbing higher in each measure, creates a dramatic effect akin to the irresistible conflict of human emotion between hope and despair. It is true that he composed this piece during a period of depression, perhaps proposing some deep and profound emotional question to his listeners.

The unique rhythmic gesture of two sixty fourth notes and one long note in the right hand on the left hand bass reminds one of the gesture in playing the timpani or drum. With a pedal point of D in the left hand, another unique characteristic of Leighton’s free use of tone row, he creates a dramatic bell like sonority that uniquely colors this opening (see Figure 3.2). These two materials, the timpani-like rhythmic
gesture and the pedal point in the first measure that is the first four notes of the row, are
the primary materials from which the entire piece unfolds.

Unlike Lou Harrison, Leighton employed vertical use of the note groups in a row. For example, from measure 5 to measure 8, the vertical combination of intervals of the first four notes of the row (a’) become the interval of the chord (a’’). and the vertical combination of intervals of the second four notes (b’) become that of the chord (b’’). Likewise, intervals in chord (c’’) are the vertical combination of the last four notes’ intervals of the row (c’) (Figure 3.3 and Figure 3.4).

![Figure 3.3: Vertical combination of tone row in Leighton’s Op. 56, No. 1](image)

Figure 3.3: Vertical combination of tone row in Leighton’s Op. 56, No. 1
The lyrical choral melody in the right hand between measures 5 and 8 (see Figure 3.4) derives from the chord progression of $a'\ '-'b'-'a'-'c'$ (see Figure 3.3) and the D pedal point in the left hand is now ornamented by three descending sixty fourth notes. With the indication pianissimo and sempre e misterioso in pianissimo, Leighton creates a strange and mysterious atmosphere (see Figure 3.4).

Leighton manipulates the serial technique further, and from measure 9 to measure 15, both hands mirror each other using the figurations (\textit{a''}) and (d) from...
measures 5 to 8 (see Figure. 3.3). Consequently, the composer explores entire range of
the keyboard using four staves, and with the use of pedal throughout the piece, creates a
colorful and mysterious sonority (Figure 3.5).
Figure 3.5: Six Study-Variations, No. 1, mm. 9-15  (Continued)
The texture thickens and dynamics increase towards the middle of the piece, building up to the dramatic climax in measure 23 that reaches ffff. After a decay of the sound on a long fermata, marked as pp and delicatissimo, in measures 24 to 29 the descending thirty-second note figuration in the right hand fills in the lyrical choral melody in the left hand that originated in measures 5 to 8 (see Figure 3.4). Here Leighton manipulates the tone row taking the first group of four notes (a) (see Figure 3.3), reversing it in measure 24, and inverting it in measure 26. The whole tone scale procession is derived as a result of repeating the inversion a whole step lower from measure 26 to the end, and it recalls the sonority of a galactic, Messiaen-like sonority (Figure 3.6).
Figure 3.6: Six Study-Variations, No. 1, mm. 23-27
The length of the phrase is irregular, being 4 measures–4 measures–7 measures–5 measures–5 measures–3 measures, and the meter changes from 4/4 to 4/2 and 3/4 shift the mood with frequent tempo changes. Covering the full range of the keyboard in chords and finger work passages with accompanying pedal, Leighton exploits all the possibilities for creating a variety of colors and produces sounds ranging from the soft and mysterious to full and dense.

The Study-Variation No. 2 is marked Allegro molto e secco, molto ritmico. The first seven measures show that the rhythmic theme consists of three characteristic elements, (a), (b) and (c), which derive from materials in No. 1. The interval of (b) is an inversion of (a), and the minor ninth interval and descending motion of the right hand come from the left hand motive (d) in measure 5 of No. 1, while (c) in No. 2 comes from measure 4 of No. 1. This use of materials from earlier movement shows the cyclic nature of Leighton’s Six Study Variations (Figure 3.7).
3.7.1: *Six Study-Variations*, No. 2, mm. 1-7

3.7.2: *Six Study-Variations No. 1*, mm. 4-5

Figure 3.7: Unifying motives in Leighton’s *Six Study-Variations*
In measure 7, these three elements are synthesized (see Figure 3.7.1) as a unique motive featuring an exciting rhythmic drive and crescendo, and this motive returns throughout the entire piece and finally drives into the end, as seen from measure 112 to 117 (Figure 3.8). This showcases how Leighton can, as reflected in Hardwick’s statement, organize “his material logically so that it unfolds seemingly inevitably, always maintaining a sense of forward thrust and growth.”

Leighton’s use of a motivic element that is expanded in form and functions throughout the whole piece echoes the work of Beethoven and Brahms.

Figure 3.8: Six Study-Variations, No. 2, mm.112-17
The note progression of D-E flat-C sharp-D reminds one of the *Etude Fantasy* of Corigliano (Figure 3.9). Even though the intervals are slightly different, it is obvious that both twentieth century composers had in mind, at least on an unconscious level, the prodigious sound of the B-A-C-H progression, as J. S. Bach himself used in his Fugue in C sharp minor from the *Well-Tempered Clavier, Book I* (Figure 3.10), while still creating their own musical language.

Figure 3.9: John Corigliano, *Etude Fantasy, No.1* ending of m. 1
The rhythmic motive, with the rest alternating in both hands, moves the perfect fourth higher in the right hand from measure 8, and develops further by employing stepwise motion and repeated notes. In the middle section, from measure 34, the rhythmic drive intensifies, and the endless string of the notes with figurations of turning notes which came from (d) (see Figure 3.7.2) in the right hand above the left hand accompaniment with its variety of rhythm and intervals creates a breathtaking effect (Figure 3.11). In the third section, from measure 97 onward, Leighton’s use of the rhythmic right hand and broken chords marked with a downward arrow in both hands draws the piece to an exciting conclusion.
Figure 3.11: Six Study-Variations, No. 2, mm.34-61
Third Study-Variation is the slowest and longest piece in the entire set. It is marked *adagio molto, mysterioso ma molto espressivo*, and in this piece Leighton takes the notes freely from the transposed original tone row $P^{10}$, creating densely chromatic sonorities.

The harmony heard at the beginning two measures in this piece is a highly dissonant chromatic cluster of G sharp-A-B-B flat played in the middle register of the keyboard, and these notes are repeated in each voice as an ostinato pattern. This contrapuntal piece, with its syncopated rhythm and constantly changing meters, creates a highly intense sound (Figure 3.12).
This piece features irregular phrase structure of 10+9+9+12+10+7+8 measures, and it can be divided into three parts, with the parenthetical middle part being from measure 41 to measure 57. At the beginning, the murmuring repeated notes in the ostinato pattern of the middle voice creates a mournful melody, expanded from single notes to octaves in measure 11, then moving to the bass in measure 20. They become
thick chords with pedal thickening the texture, along with increased dynamics, towards the middle part. From the middle part *movendosi un poco di più* in measure 41, Leighton mirrors both hands, keeping the repeating notes inside of each hand. The music rises “inexorably in thickening clusters to a fist-shaking climax of defiant intensity,”\(^{105}\) colliding into the interval of a *fff* tritone (Figure 3.13). With a sudden halt on the fermata, the ostinato heard at the beginning is brought back in unison and now expanded into a four octave range, *pp*, with pedal, in measure 58. The music fades away and stops on the low A, on which pitch the whole piece is expanded. This gives a final tonal feeling of A major, as if trying to relive all the tension and frightening atmosphere built up in this slow and gloomy piece.
Figure 3.13: Six Study-Variations, No. 3, mm. 41-53
Both the rest on the down beat in the right hand at the beginning and the syncopations with ties constantly occurring in different places in each voice in slow tempo create a highly complicated and irregular rhythm. This rhythmic displacement intensifies the character of the mournful melody in this piece.

Study-Variation No. 4, Allegro leggiero e capriccioso, is based on the first four notes of the original tone row and recalls the turning notes figuration in the rhythmic second variation (see Figure 3.11). Steven Hough describes this as a rhythmic “pointillism.”106 The fast moving motive (a) and a sudden rest and alternatively ascending staccatissimo notes (b) create an exciting rhythmic drive, as in the second variation (Figure 3.14).

Figure 3.14: Six Study-Variations, No. 4, mm.1-8
The rhythmic excitement comes from Leighton’s use of polyrhythm involving a frequent change of meters. In the first eight measures the meter changes of 2/4 are followed by groups of 3/8 or 5/8 and measures in the pattern 2+1, 2+1, 1+1, and this poly-metric rhythm creates rhythmic exuberance (see Figure 3.14).

Different from previous movements, the texture is relatively thin with the use of fewer pedals, and the style of writing in this piece is motivic with a repetitive pattern, creating a crispness of sound.

*Study-Variation No. 5* is indicated *allegro molto, nervoso*, and at the beginning of this study the dissonant motives are doubled with the upper voice moving in thirds and the lower voice moving in intervals of a second. As a result, there occurs a doubling of a minor third and major third (Figure 3.15).
Figure 3.15: *Six Study-Variations, No. 5*, mm.1-22
Later on these intervals are transposed as a minor sixth and minor seventh, reminiscent of the finger work in the Brahms Paganini Variations or the Chopin Etudes. Leighton uses only one note value, the eighth note, in the entire piece, with the rests occurring in unexpected places without specific patterns. Both elements help create the nervous character in this piece.

This piece is divided in three section of ABA’. In the middle part from measure 38, Leighton changes the articulation from legato to staccato with the unexpected accent on the off beat, with left hand punctuation creating a nervous rhythm. The third part is preceded by the passage in alternating motion in both hands from measure 68 to measure 74, and the initial motive is brought back in measure 75 in full chords with the pedal, recalling the sound of a trumpet (Figure 3.16). The sound gets softer with legato articulation on the pedal, briefly creating a mysterious mood, only to make the surprise ending with two notes.
Marked *presto con bravura*, the final *Study-Variation No. 6* is the largest scale piece of the set and the all twelve notes from the original tone row are employed in the theme, from measure 1 to measure 12 (Figure 3.17).
The theme in this variation creates an unusual rhythmic impetuosity. The repeated eighth notes pattern in a single voice, from measure 11 to measure 16 of the Study-Variation No. 2 (Figure 3.18), combined with the rests and offbeat accents create “snappy, jazz-like syncopations.”

Figure 3.17: Six Study-Variations, No. 6, mm.1-12
This variation could be divided into four large sections, A-B-C-Coda by the change of motives present. In the first section, A, from measure 1 to measure 38, Leighton expands the rhythmic theme in eighth notes by doubling the repeated eighth notes at tritone intervals from measures 13 to 21, and by increasing the volume to *fortissimo* with added notes and pedal from measures 22 to 38.

The second section, B, is between measure 39 and measure 109. From measure 39 to measure 41 Leighton uses an inversion of the row showing the entire twelve notes of I² and manipulates the first four eighth notes motive in measure 39 by transposing it a minor third higher in measure 45, retrograding it in measure 49, inverting it in measure
53, and so on. He increases the intensity and the volume of sound gradually and the six repeated quarter notes marked *esitando* (meaning “hesitant”), preceded by a short rhythmic tremolo, proclaim the beginning of the C section in measure 110. This motive is derived from the repeated eighth notes motive at the beginning of the piece and its continual reappearance characterizes this section. Between measure 171 and measure 174 more notes are added and the rhythm is changed to prepare for the final coda.

The coda starts from measure 175, with only an indication that the value of the sixteenth notes is the same as in the previous section, without meter marking. Marked as *precipitosa, il piu presto possibile al fine*, the sixteenth note fortissimo chords alternating in both hands create a breathtaking drive towards the end of this piece (Figure 3.19).
precipitoso, il più presto possibile al fine

con Ped.
The rhythmic energy created in this piece by its irregular rhythmic pulse, the syncopations with displacement of accents, the sudden stop and rest at the end of the fast movement, and the use of polyrhythm and frequent meter change is very unusual. Leighton uses a limited range of the keyboard, mostly in the middle register, and with staccato and a minimal amount of pedal he elicits a dry, percussive sound from the piano in this piece.
3.4 Performance Guidelines for Leighton’s *Six Study-Variations Op. 56*

Composers in the twentieth century have been writing etudes that display both a variety of techniques in piano playing, as well as a highly artistic quality within the specific aspects of the genre. Leighton composed his *Six Study-Variations* using twelve-tone serial technique, and these six studies, along with their differing styles in each piece, demonstrate a variety of technical and musical difficulties. Playing this seventeen-minute work in its entirety is very challenging to the performer because it requires not only a thorough understanding of the twelve-tone idiom, but also a virtuosic pianism to execute the various technical passages in the most artistic way possible while making the piece accessible to the audience. Based on the performance experience of the author, the performance challenges and solutions for this piece are suggested in the following chapters.

3.4.1 No. 1 : Adagio molto

This piece starts with a single note marked *fff* in the low register of the piano. Producing the right sonority for this D pedal point at the very beginning is a crucial aspect of successfully playing this piece. In order to create a more intense sound from
this single note, before playing, keep the pedal pressed while silently pressing down the white keys of C, E, F, and G without sound with the right hand near D, then hit the D with the left fist with a bouncing motion. This is a very effective method for producing the correct sonority while giving the player the necessary security for playing it.

Leighton frequently writes the tone row in a vertical combination, as seen in measures 5 to 8, so voicing the melody at the top of the chords and making the rest notes as soft as possible are important. Also, shaping a rising and falling of the top notes while singing inside is important for bringing out the lyrical quality of this melody.

To play the descending figuration in the low register in measure 8, moving the torso to the left in order to create an alignment between the arms and the keyboard is helpful.

From measure 9 to measure 15 (see figure 3.5), the texture gets thicker using the full range of the keyboard in four staves. However, the melody is still on top of the chords in the right hand, so the outer voices in each hand should be played very quietly. Placing the second and first fingers close to the keys, employing a motion of rotation using supination in both the hands and arms, and a pulling outward motion in relaxed upper arms are all useful for producing a mysterious color from the outer voices and for differentiating them from the inner chords.
From measure 16, the dynamic increases to fortissimo with a *subito clamoroso* indication, meaning “suddenly sensational.” It is important to make the articulation of thirty seconds notes clearly heard, making each note louder than previous one. It is easy for the body to get tense while playing this kind of abrupt, loud chord, and the player should avoid any tension, especially in the neck and the shoulders. Choosing the right fingering will be beneficial for creating more sound without tension in single notes. In this case, 3-2 in the right hand and 1-3 in the left hand, employing a falling hand motion with relaxed arms and wrist, will prove helpful (Figure 3.20).
In this section, the player has to lean the body forward in order to transfer the weight of the whole body to the keyboard when playing the alternating chords in both hands. In order to make the crescendo in the tremolo chords in measure 17 more
effective, start from a lower dynamic level and make each chord clear with relaxed arms and firm fingertips with a throwing motion.

The *delicatissimo* finger work passage in the right hand in measure 25 should be extremely soft in order to make the melody in the middle register clear. Because the melody line is played with the thumb of left hand, the torso should move to the right side, giving better alignment of the left thumb and keyboard. The fingertip of the right hand should be very light but active, and each four note group should be grouped in one position. They should be played with a pronating motion in the hand, with an empty feeling in the upper arms to produce a glittering, Messiaen-like sonority. The player should feel the melody as one phrase by associating the melody with one long breath while playing.

3.4.2 No. 2 : Allegro molto e secco, molto ritmico

In the second study, the performer should strive to find the right character and sound of each motivic element. From measure 1 to measure 7, by using a rotation motion in the hand and a grabbing motion in the fingertips, the accent in the fifth fingers of the right hand will be clearly punctuated. To make the staccattissimo and staccato
articulations clear, the player should take the arms out after each attack of the finger, and
the finger should be vertical to the keyboard with a rapid pulling motion to release the
tension immediately after the attack.

Measure 10 should begin softly to make the sforzando in measure 13 more
effective, where the weight should be falling on the second finger with a dropping
motion of the hand. In the middle section, from measure 34 to measure 96, the player
should plan the dynamics carefully, because reaching the climax takes a long time and
the player should avoid getting too loud too soon by cutting back at each entry of the
phrase in measure 46, measure 56, measure 65 and measure 74. The rhythmic pace
should also be controlled in the sixteenth notes in order not to lose the steadiness of
rhythm necessary to create more excitement (see Figure 3.11).

In this middle section it is also difficult to play staccato in the left hand and
legato in the right hand while maintaining a fast tempo. The player should control the
balance on each side of the body and distribute the weight evenly in both arms. The
staccato articulation in the left hand should be distinct and clear, with a fast attack and
rapid release of the keyboard. The writing style is percussive, but the sound shouldn’t be
harsh in the left hand of the either the middle section or most of the third section, where
the two note broken chord motive is exclusive (Figure 3.21). The player should keep the hands and arms relaxed, using a throwing motion while playing the two note broken chords, and should keep the ear alert in order to maintain a robust tone quality in this rhythmically charged piece.
Figure 3.21: Six Study-Variations, No. 2, mm.96-117
3.4.3 No. 3 : Adagio molto, mysterioso ma molto espressivo

The biggest challenge in this contrapuntal piece is tone production, specifically, creating differing layers of colors and impressionistic, unreal sounds in tangled, dissonant chords while producing a voluminous sound that builds to the climax of the middle section. Because the texture is very thick, with highly dissonant chords, and the voices are so close to each other, the sound can easily get muddy and chaotic. The dynamic range in this piece ranges from \textit{pp} to \textit{fff}. To produce this range of dynamics, the player should cultivate various tone qualities with a variety of touches in each finger, and the weight of each body part with proper coordination of playing mechanism.

At the beginning there are three rhythmically displaced contrapuntal voices with the intervals of a minor second and a major second moving independently (see figure 3.12). The player should decide which voice to bring out the most, and should play the rest of the voices very softly, with very sensitive fingers and active listening, to create impressionistic colors. Because the intervals are so narrow, the fingers should be contracted and very close to the keys. On each tied note, the performer should feel the sensation of sinking into the keyboard, with their hands and arms transferring the full weight of the arms to the keys without any pressing from the wrist. This will help to play the pianissimo syncopations more effectively.
From measures 20 to 28, playing the ninth intervals in both hands with hands overlapped is difficult, and physical tension in the hands might lead one to attempt the easy solution of dividing the notes between each hand. However, dividing the notes can decrease the musical intensity derived from the actual physical tension in this section, which might have been the composer’s intention. The player should coordinate the hands and body properly to play this passage. With expanded hands, the player should prepare the proper hand position. Whichever hand plays chords on the black keys should move towards inside of the keyboard with a raised wrist, while the wrist of the other hand playing the white keys should be lowered, with the hand outside of the keyboard. This hand should touch the edge of the keys to increase the space between the hands and to avoid the hands colliding (Figure 3.22). This alternation of the hand position between the hands, while keeping enough room between the torso and arms and taking the freedom to lengthen the long notes while preparing the hand position, will make playing this passage easier, at the same time presevering the original expression and intensity of the music.
From measure 41 to measure 50, two-melody lines are the work of each thumb while the rest of the fingers in each hand should play chords that mirror each other. It is challenging to bring out the melody, at the same time playing chords in each hand,
because the hands are moving in the opposite direction. While employing an up and down motion in the wrists and rotation of the hands in each slur, the player should relax the thumb with gravity at the fingertip for the tenuto articulation. The rest of the fingers should be completely independent from each other in order to produce the legato line holding the thumbs (see Figure 3.13).

Another difficulty in this piece is connecting each phrase as one, because the tempo is very slow. With the phrase structure clearly in mind (as discussed in chapter 3.3.3, it has the irregular phrase length of 10+9+9+12+10+7+8) the player should play each phrase with one breath, thus building up the climax in measure 51 with maximum effect.

The full chords in measure 51 should come from the shoulder to create the $fff$ sound. The player should generate the weight from the shoulders by raising the shoulders up and letting them fall down with relaxed arms and firm fingertips. A rebounding motion in the arms must occur immediately after the attack to relax the tension and to produce a more sustained sound.

A player should indulge the dissonant sounds with the use of a blurry pedal in order to create the mysterious impressionistic sound in the first and last parts of this
piece. Most of all, it is important for a player to have the proper characteristics of the sound in one’s aural imagination, constantly listening to the moments between notes in this slow piece.

3.4.4 No. 4: Allegro leggiero e capriccioso

The greatest concern in this piece is bringing out each characteristic element clearly with a variety of articulations. In measure 1, the left hand and wrist should fall down on the first note, and then move up on the staccato. The staccatos in this piece should be played with a fast attack and release with a “taking” motion in the fingertip. The touch should be very light and reactive, with a fast attack and release. The right hand in measure 1 should use a rotation motion with light fingers close to the keys in order to produce a crisp, soft sound.

It is also important to keep the rhythm steady, because of the polyrhythm with constant change of meters that Leighton employs. Counting eighth notes as a basic pulse will help to avoid unevenness in rhythm.

When playing the C-sharp in measures 24 and 26 a player could use the second, third and fourth fingers together with a contracted hand position. The hand and arm
should be relaxed with a bouncing motion after the previous falling motion, which will be effective for warmly producing a longer and louder sound from the single syncopated note with the sforzando and accent (Figure 3.23).

An up and down motion while dropping the wrist with a relaxed arm is recommended when playing long chords preceded by a short staccato chord, as seen in the left hand of measures 30 and 31, and in the right hand of measure 37 (Figure 3.24). This gives more weight on the long note and makes the short note lighter.
The player should clearly express all the different intonations and nuances, listening actively to each attack, while maintaining a clarity of articulation with sensitive and active fingers.
3.4.5 No. 5: Allegro molto, nervoso

This study is one of the most technically challenging pieces for the player in the whole set of these variations, because of the difficulty of playing a variety of intervals that includes thirds, fourths, fifths, sixths and sevenths with double fingers in fast tempo. It requires a high degree of finger independence and endurance in each finger, especially in the weak fingers, particularly the fourth. Choosing good fingering is important to ease the difficulties of the fifth variation. The basic principles for choosing good fingering involved here are to keep the natural hand position and to avoid the use of weak fingers such as fourth finger. From measures 1 to 5, using fingers 2-3 and 1-5 is more beneficial than using 1-3 and 2-4, to avoid the repetitive use of the fourth finger (Figure 3.25).

Figure 3.25: Six Study-Variations, No. 5, mm.1-5
In the passage from measure 19 to measure 22, the left hand is an inversion of the right hand. As a result, both hands move in opposite directions, and the player should use a supination motion in hands and arms on both sides (Figure 3.26).

![Figure 3.26: Six Study-Variations, No. 5, mm.19-22](image)

The length of the eighth notes, the only note value used in this piece, should be maintained precisely and without rushing throughout the piece to generate the piece’s nervous rhythmic character. The eighth note rests occur on unexpected beats, without a regular pattern, and the meter keeps changing between 6/8 and 5/8, so it is also important to always feel where the down beat occurs and to not lose the control of the rhythm.

While keeping the rhythm precise, in each phrase the player should create a musical shape that crescendoes to the highest point and then gets off of it with a
diminuendo. Also, because the notes are doubled, the top ones should be brought out more to create a variety of colors. The musical shape and voicing are crucial for playing this piece. Because of the motivic writing style of this piece, without musical shape, the piece could become just a dry finger exercise.

From measures 68 to 74 the hand should fall on the accented notes, employing a rotation motion in the forearm of each hand in order to create enough volume on the accented notes. This will help to build up to the climax in measure 75 where the ff chords in both hands should be oriented from the shoulders to create a powerful, ringing sound (see Figure 3.16).

3.4.6 No. 6 : Presto con bravura – precipitosa, il piu presto possibile al fine

Described by Steven Hough as “ferociously virtuosic,” this piece is highly demanding for the player, requiring both physical and mental endurance. There is no melody to sing in this piece, so control of the rhythm and dynamics of each motive are the keys to build up the entire piece. Consequently, the player should control the rhythmic pace steadily and plan the dynamics systematically. Because the process of arriving at the real climax in the coda is very lengthy, mental and physical energy should
be saved for the explosive final climax. The player shouldn’t show his or her cards too early. In order to accomplish this, one should always find moments to cut the volume back along during the long process of overall increase.

The writing style of the rhythmic staccato motives changes, which require the use of different parts of the body. From measure 1 to measure 21, while the left hand is playing octaves, the right hand staccatos are repeated in single notes from measure 1 to measure 12 (Figure 3.27), and doubled from measure 13 to measure 21 (Figure 3.28). From measure 22 to measure 34 both hands play the staccato forte in the same rhythmic pattern (Figure 3.29).

Figure 3.27: *Six Study-Variations, No. 6*, mm.1-4
Figure 3.28: *Six Study-Variations, No. 6*, mm.13-15

Figure 3.29: *Six Study-Variations, No. 6*, mm.22-26
The repetition should occur in one circular motion of dropping and rebounding, in the fingers with a relaxed hand for single note staccato (see Figure 3.27), and in the hand with a relaxed forearm for double note staccato (see Figure 3.28).

From measure 22 the player should use the weight of the whole arm, using the shoulders as a base, and with a dropping motion of the arms from far above the keys. This also should be in one dropping and rebounding motion—the drop is on the first note and the next note is derived from a course of rebounding after the drop. When performing the dropping motion, the player should constantly check that the arms are free, with the elbows moving outward (see Figure 3.29).

The staccatissimo in unison in measure 22 and 23 in both hands should fall on each note with a fast and sharp attack of the fingers to make each note clear and loud (see Figure 3.29).

The accents should be clearly projected to produce a percussive sound and give the feeling of a displacement of the down beat, creating a jazz-like rhythm with the syncopations and the polyrhythm in the left hand in measures 1-4 and the right hand in measures 5-6 and measures 11-12 (Figure 3.30).
When the accent is on a chord marked piano, the performer should bring out and emphasize only the top note and play the rest of the notes softly to avoid creating an excessive amount of volume at the given dynamic level.

Measure 94 onwards shows a variety of articulation in both hands. For example, in measures 94-95, measures 100-101, measures 101-102 and measure 103, the
articulation and length of the chords are the same in both hands, displaying the pattern of
an accented, tied long note preceded by a short staccato note. The accents on the long
notes should be agogic in timing, lengthening the duration slightly from their original
length to make the contrasting articulation more effective.

From measure 120 to measure 132 the articulation in both hands is the same
short staccatissimo. This section is written polyrhythmically with a grouping of three
eighth notes and two eighth notes. It is important for the player to make the articulation
of both hands match and to feel the change of the down beats naturally and smoothly,
without change of tempo.

From measure 134 the articulation in each hand is different, the right hand
pattern being long-long and the left hand pattern being long-short. From measure 142,
both hands adopt the long-long pattern. The player should pay close attention to the
changes of articulations in each section and execute them carefully to make the piece feel
more alive.

The alternating descending runs in both hands in measure 170 should begin
slowly and the tempo should increase dramatically at the very last moment, going into
the next measure with a crescendo.
Similar to No. 5, Leighton uses eighth notes exclusively throughout the piece, except in the final coda which is written in sixteenth notes. It is important to keep the rhythmic pulse steady and unrushed in order to maximize the rhythmic intensity.

The alternating chords in both hands played in \textit{ff} are extremely demanding technically. The player should have both physical endurance and proper coordination of the body. Use of the pedal should be minimized to create clarity with each note, and hand and fingers should be firm. Wrists and arms should be relaxed to avoid tension, and their down and up motion should be connected smoothly in one circular motion in order to obtain the required velocity of the sixteenth notes. Twenty-three measures pass before the end of the crescendo, and the player must be vigilant about not reaching maximum volume too soon (Figure 3.31).
Figure 3.31: Six Study-Variations, No. 6, mm.175-198 (Continued)
Figure 3.31: (Continued)
American composer Lou Harrison’s *Suite for Piano* is his only solo piano composition written in twelve tone serial technique. Harrison composed this piece in 1943 when he was a student of Arnold Schoenberg. The importance of this piece lies both in its being influenced by Schoenberg and his twelve tone method and in its reputation for being the composer’s most technically challenging work for solo piano.

To communicate the unique lyrical quality of this piece to the audience by distilling its lyricism from its myriad complexities and rigorous contrapuntal writing style is the real challenge the piece represents for pianists. Many pianists, unwilling to engage with Harrison’s challenges, have unwittingly caused its neglect among the public.

Harrison’s *Suite for Piano* is in a five-movement baroque dance form, each movement based on a twelve tone row. Harrison utilizes the tone row in a horizontal order, creating a highly lyrical effect. Being influenced by Schoenberg’s *Op. 25*, the two
pieces share many elements, including the structure, musical style and character, and some rhythmic motives. At the same time, Harrison’s *Suite* also shows the composer’s unique propensity for lyricism and cantabile melody, distinguishing itself from its influential predecessor. Using existing traditions, Harrison created his own invention in an original musical language.

Also written in serial technique, although with a serial technique freer than Lou Harrison’s *Suite*, the *Six Study-Variations Op. 56* by British composer Kenneth Leighton was composed in 1969. Combining both the genres of etude and variation, a synthesis inherited from the romantic tradition, this piece showcases Leighton’s harmonic, melodic, and rhythmic inventiveness along with a virtuosic pianism.

Each of the six studies are based on a twelve tone row in the form of a free variation, displaying a variety of technical difficulties. Each piece uses a different styles of writing that include motives in chords, double and repeated notes, and complicated finger work passages. Its harmonic and rhythmic vocabularies are inventive and extremely intense, and Leighton unifies the six pieces as a whole piece using materials and motivic elements from previous variations.
With a variety of pianistic colors, a monumental $fff$ climax, a ferociously virtuosic technique and an endless rhythmic drive, this piece is highly challenging for pianists and is another example of a neglected contemporary masterpiece.

Both chapter 2 and chapter 3 include discussions of performance guidelines for Lou Harrison’s *Suite for Piano* and Kenneth Leighton’s *Six Study-Variations*. Both pieces are written with twelve tone serial technique and playing this kind of music can be an off-putting experience for many pianists. However, as Burge states, “the twelve tone technique is a compositional matter being an aid for the composer and not only a dodecaphonic understanding but other more traditional aural concerns like phrase structure, voicing, rhythmic integrity, clarity should be studied with the greatest care.”

While playing twelve tone music, a pianist should define the exact mood and character of each phrase of each piece, projecting them clearly, expressively, and with unusual intensity.

In the process of researching and learning these two pieces for public performance on different occasions, I was able to experiment with the technical and musical challenges these pieces present. With the actual performance experience, I devised some solutions to help solve the challenges of these two works. The discussions
provided are based on my personal experimentation and the attempt is not to cover all the musical and technical challenges in these pieces but to provide some important and helpful ideas for performing these rarely played masterpieces. Many ideas of the musical and technical analysis were gleaned under the light of my beloved teachers Dr. Caroline Hong of the Ohio State University, and Sergei Babayan of the Cleveland Institute of Music who brought my attention to Kenneth Leighton’s *Six Study-Variations*.

This study brings forward many possibilities for future study on this subject. There has been no definitive study of Lou Harrison since the publication of Miller and Lieberman’s book in 1998. To trace the composer’s recent footsteps between 1998 and 2003 until his death and to compile Harrison’s output between those years should be an excellent subject for future study. The study also motivated me to perform these pieces over and over in my concert repertoire, along with other traditional repertoire. For example, Kenneth Leighton’s piece will make a good contrast in a solo recital if programmed together with a set of variations of Beethoven.

Russell Sherman states that “The composer composes the notes, the performer composes the sound” and the performer should be “creative and imaginative” in composing the sound. This document was written based on this belief, and the purpose
of analyzing Lou Harrison’s *Suite for Piano* and Kenneth Leighton’s *Six Study-Variations* in this document and playing them is not just for scholarly concerns, but to serve art by not letting them be forgotten. It is hoped that this document serves as a helpful resource for today’s musicians who are dedicated not only to exploring themselves in these unknown pieces, but also to making them compelling to listeners with an artistic point of view.
ENDNOTES


2 Hanning, 275.


11 Ibid., 5.


13 Ibid., 4.

14 Miller and Lieberman, 7.

15 Ibid., 8.


17 Miller and Lieberman, 11.
18 Rutman, 8.
19 Leta E Miller, Lou Harrison (program note for Contemporary Music Festival 2003, School of Music, Ohio State University), 6.
20 Miller and Lieberman, 18-19.
21 Lynnette V. Celso, “A Study and Catalogue of Lou Harrison’s Utilization of Keyboard Instruments in His Solo and Ensemble Works, including a detailed Analysis of the Third Piano Sonata” (M.A. theses, San Jose State University, 1979), 5.
22 Rutman, 11.
23 Lou Harrison, Suite for Piano (New York: C. F. Peters Corporation, 1964)
24 Miller and Lieberman, 27.
25 Rutman, 14.
26 Ibid., 16.
27 Miller and Lieberman, 39.
28 Ibid., 46.
29 Ibid.
30 Ibid., 48.
31 Celso, 10.
32 Original Korean piris are made by bamboo but after coming back to the States Harrison made his own piris with wood, which could stand longer against the changing climate of San Francisco.
33 Celso, 11.
34 Miller and Lieberman, 59, 144, 330.
35 Ibid., 59.
37 Miller and Lieberman, 62.
38 Ibid., 72
39 Ibid., 70.
40 Paul Hertelendy, “A Harrison Symphony Takes Time and Love,” Oakland Tribune, 7 December, 1975, quoted in Leta E Miller and Frederic Lieberman, Lou Harrison:

41 Ibid., 75-76.
42 Ibid., 76.
43 Miller, 8.
45 Rutman, 64.
46 Celso, 92.
47 Rutman, 42.
48 Gunden, 53-61.
49 Celso, 5.
50 Gunden, 53-61.
51 Ibid.
52 Miller and Lieberman, 23.
53 Lou Harrison, Suite for Piano (New York: C. F. Peters Corporation, 1964)
54 Celso, 94.
60 The manner of citing and numbering of the rows in this document is based on Georgy Perle’s Serial Composition and Atonality.
61 Gunden, 56.
62 Ibid.
63 Burge, 57.
65 Rutman, 71.
67 Ibid, 64-66.
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68 Ibid.
69 Gunden, 56.
70 Rutman, 65.
71 Celso, 92.
72 Gunden, 57.
73 Rutman, 64.
75 Rutman, 68.
76 Celso, 93.
78 Don Harris, introduction to “The Music of Lou Harrison” (program notes for Contemporary Music Festival 2003, School of Music, Ohio State University), 3.
79 Gunden, 60.
80 Celso, 28.
81 Ibid.
84 Ibid.
85 Ibid.
88 Hardwick, 259.
90 Cook and Miller, 508-509.
91 Ibid.
92 Cockshoot, 196.
94 Ibid., 17.
Ibid., 47.
Ibid., 45-46.
Cockshoot, 195.
Markham, 26.
Ibid.
Hardwick, 260
Ibid.
Ibid.
Harvard Dictionary of Music, s.v. “etude.”
Hough, 5.
Burge, 57.
APPENDIX A

Four Concert Programs for 2003 Contemporary Music Festival at the Ohio State University Featuring Music of Lou Harrison

Concert No. 1

Music for Percussion by Lou Harrison

Thursday, February 6, 2003
8 pm
Weigel Hall Auditorium

Suite (1942)
I. Moderato
II. Slow
III. Moderato, allegro

The Drums of Orpheus (1969)
Susan Powell, conductor

Fifth Symphony (1939)
I. Vigorous
II. Slow and dramatic
III. Brisk

First Concerto for Flute and Percussion (1939)
I. Earnest, fresh, and fastish
II. Slow and poignant
III. Strong, swinging, and fastish

Katherine Boswain Jones, flute
Joseph Krygier, Susan Powell, percussion

Intermission

Canticle #1 (1940)
Alyssa Smith, conductor

Symphony #15 (1941)
Members of the Greater Columbus Youth Percussion Ensemble
Joseph Krygier, conductor

Concerto for Violin and Percussion Orchestra (1959)
I. Allegro, maestoso
II. Largo, cantabile
III. Allegro, vigoroso, poco presto

Michael Davis, violin
Susan Powell, conductor
Concerts Nos. III & V
The Columbus Symphony Orchestra

Alessandro Siciliani, Music Director
George Manahan, Guest Conductor
Friday & Saturday, February 7 and 8, 2003
8 pm
The Ohio Theatre

Ricercare #2 from The Musical Offering ...................................................... Webern/Bach

Symphony No. 3 ................................................................. Lou Harrison
I   Allegro moderato
IIa  A Reel in Honor of Henry Cowell
IIb  A Waltz for Evelyn Hinrichsen
IIc  An Estampie for Susan Summerfield
III  Largo ostinato
IV   Allegro

Intermission

Petrouchka (1947) ................................................................. Igor Stravinsky
I    The Shrovetide Fair
II   Petrouchka's Cell
III  The Moor's Cell
IV   The Fair (towards evening)
Concert No. IV
Chamber Music of Lou Harrison

Saturday, February 8, 2003
3 pm
Weigel Hall Auditorium

Suite for Piano (1943)

I. Prelude
II. Aria
III. Conductus
IV. Interlude
V. Rondo

Na Young Kim, piano

Trio (1946)

Seraphim String Trio
David Edge, violin
Steve Wedell, viola
Richard Bell, cello

Solo for Robert Hughes, from Group on a Rose the Same (1962-72)
Christopher Woot, bassoon

Sonata for Frank Wigglesworth (1952)
Music for Bill & Me (1967)
Sonata in Sharpton (1974)
Air from Sonata for Guitar (1978)
Round from Sonata for Guitar (1978)

Daniel Bolshoy, guitar

Suite for Cello and Harp (1949)

I. Chorale
II. Pastoral
III. Interlude
IV. Aria
V. Chorale Reprise

Jeanne Norton, harp
William Connable, cello
Concert No. VI
Music for Gamelan Ensemble of Lou Harrison*

Sunday, February 9, 2003
3 pm
Weigel Hall Auditorium

Members of the
Indonesian Embassy Gamelan
Charlottesville Gamelan
Gamelan Alas Arun
Gamelan Wratmala of Boys Maryland
under the direction of
Muryanto and I Gusti Agung Ngurah Jenggala

Bonieta O’Deal, Ms. Tantri, Poppy Budisutri,
Cindy Grover, Wendy Limdhoe, Mrs. Muryanto, Joseph Perna, John Singer,
Francine Liem, I Gusti Agung Ayu Budayawati

Concerto for Piano with Japanese Gamelan (1987)
Caroline Hong, piano

James Hill, soprano saxophone

Intermission

Double Concerto for Violin, Cello and Gamelan (1982)
1) Ladrang Epikuros
2) Stampede: Allegro molto, vigoroso
3) Gending Hephaestus

Charles Wetherbee, violin
William Comber, cello

*This concert is presented in honor of the sixtieth birthday of Zoe Johnston.
APPENDIX B

Catalogue of Kenneth Leighton’s Keyboard Music

Piano

- SONATINA 1 Opus 1a (1946)
  - Duration c9 minutes
  - Publisher Lengnick
- SONATINA 2 Opus 1b (1947)
  - Duration c9 minutes
  - Publisher Lengnick
- SONATA 1 Opus 2 (1948)
  - Duration c15 minutes
  - Publisher Lengnick
- SONATA 2 Opus 17 (1953)
  - Duration c15 minutes
  - 1st per BBC, February 10 1956; Eric Parkin
  - Publisher Lengnick
- FIVE STUDIES Opus 22 (1953)
  - Duration c13 minutes
  - 1st perf London, Wigmore Hall, March 7, 1957; Eric Parkin
  - Publisher Novello Cat No 100088
- VARIATIONS Opus 30 (1955)
  - Duration c13 minutes
  - 1st perf London, Arts Council of Great Britain, October 24 1955; the composer
  - Publisher Novello Cat No 100090
- FANTASIA CONTRAPPUNTISTICA (Homage to Bach) Opus 24 (1956)
  - Awarded the Feruccio Busoni prize, Bolzano 1956
• **NINE VARIATIONS Opus 36 (1959)**
  o Duration c12 minutes
  o 1st perf Edinburgh, National Gallery of Scotland, November 25 1959; the composer
  o Publisher Novello (Virtuoso series, with commentary by John Ogden) Cat No 100181

• **JACK IN THE BOX (1959)**
  o Commissioned by Ricordi for Modern Festival Pieces
  o Duration c1.5 minutes
  o Publisher Ricordi

• **PIECES FOR ANGELA Opus 47 (1966)**
  o 1 Clockwork Doll
  o 2 The Swan
  o 3 Little Minx
  o 4 Cradle Song
  o 5 A Sad Folk Song
  o 6 Leap-frog
  o 7 Lament
  o 8 Final Fanfare
  o Duration each of the pieces under 3 minutes
  o 1st perf BBC Radio 3, October 12, 1967; the composer
  o Publisher Novello Cat No 100189

• **CONFLICTS (FANTASY ON TWO THEMES) Opus 51 (1967)**
  o Duration c19 minutes
  o 1st perf Manchester, Institute of Contemporary Arts, February 1 1968; the composer
  o Publisher Novello Cat No 100189

• **SIX STUDY- VARIATIONS Opus 56 (1969)**
  o Duration c18 minutes
  o 1st perf Edinburgh, Freemasons' Hall, January 11 1972; Colin Kingsley
  o Publisher Novello Cat No 100198
• STUDY (1965)
  - Commissioned by Trinity College of Music, London for the piano examinations syllabus
  - Duration c1.5 minutes
  - Publisher Trinity College of Music (Grade 5 studies, Book A)

• LAZY BONES (1965)
  - Commissioned by Trinity College of Music, London for the piano examination syllabus
  - Duration c minutes
  - Publisher Trinity College of Music (Grade 5 pieces, Book A)

• SONATA Opus 64 (1972)
  - for Peter Wallfisch
  - Duration c22 minutes
  - 1st perf Edinburgh, Aberdeen etc., February 1974; Peter Wallfisch
  - Publisher Novello Cat No 100294

• HOUSEHOLD PETS (A Suite for Piano) Opus 86 (1981)
  - 1 Cat's Lament
  - 2 Jolly Dog
  - 3 Goldfish
  - 4 White Rabbit
  - 5 Bird in Cage
  - 6 Squeaky Guinea-pig
  - 7 Animal Heaven
  - Duration c 16 minutes
  - 1st perf London, Wigmore Hall, November 24 1982; Eric Parkin
  - Publisher Novello Cat No 100254

• FOUR ROMANTIC PIECES Opus 95 (1986)
  - Duration c23 minutes
  - 1st per Birmingham, BBC November 21 1987; the composer
  - Publisher Novello

Piano Duet

• SONATA (for four hands) Opus 92 (1985)
  - Commissioned by the Markham/Nettle Duo with financial assistance from
West Midland Arts
  o Duration c24 minutes
  o 1st perf Shropshire, Ellesmere College, January 1986; Richard Markham, David Nettle
  o Publisher Novello

Two Pianos

- SCHERZO Opus 7 (1948)
  o Duration c4 minutes
  o Publisher Lengnick
- TOCCATA BRASILIANA (1952)
  o Duration c3 minutes
  o Availability Reid Music Library, University of Edinburgh
- PRELUDE, HYMN and TOCCATA Opus 96 (1987)
  o Commissioned by Richard Markham and David Nettle
  o Duration c20 minutes
  o 1st perf October 12 1988; Richard Markham, David Nettle
  o Publisher Novello

Harpsichord

- IMPROVISATIONS (De Profundis) Opus 76 (1977)
  o Duration c17 minutes
  o 1st perf Edinburgh, St Cecilia's Hall, June 7 1978; the composer
  o Publisher Maecenas Music
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