THE IMPACT OF STRAVINSKY'S SERIAL CONVERSION ON COMPOSERS OF THE "AMERICAN STRAVINSKY SCHOOL": AN EXAMINATION OF SELECTED WORKS FOR PIANO

by

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A dissertation submitted to the Graduate Faculty in Music
in partial fulfillment of the requirements for the degree of
Doctor of Musical Arts, The City University of New York.

2006

UMI Number: 3204955

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This manuscript has been read and accepted for the Graduate Faculty in Music
in satisfaction of the dissertation requirement
for the degree of Doctor of Musical Arts.

November 2005
Date

Richard Kramer, Chair of Examining Committee

November 2005
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ABSTRACT

THE IMPACT OF STRAVINSKY'S SERIAL CONVERSION ON COMPOSERS OF THE "AMERICAN STRAVINSKY SCHOOL":
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Advisor: Professor Joseph N. Straus

The purpose of this research is to assess the impact of Stravinsky's serial conversion in 1952, encountered in the works of composers of the "American Stravinsky School" in the 1940s and 1950s who followed Stravinsky's Neo-Classicism. My research evaluates this period, investigates the American Stravinsky School, and analyzes its music--in particular, selected works for piano by five composers of the school: Arthur Berger, Irving Fine, Lukas Foss, Harold Shapero, and Leo Smit. Stravinsky's stylistic change directly influenced their compositional methods, and prompted completely disparate and diverse responses from each individual composer. After the 1952 turning point, composers of the school evaluated their years of Stravinskian Neo-Classicism, and re-oriented themselves independently. Stravinsky's serial conversion led the composers of the American Stravinsky School to stylistic independence, with their unique compositional voices grounded in the music of their Stravinskian Neo-classic period.

ACKNOWLEDGMENTS

I am most grateful to Professor Dr. Joseph Straus, my dissertation advisor, and I thank him for his brilliant guidance, support, and encouragement. As a well-known theorist, author, and academic teacher, his classes deepened my interest in the twentieth-century music theory, and later helped me to initiate and to complete my dissertation.

I thank Professors Dr. Philip Rupprecht and Dr. John Graziano for having so spontaneously agreed to be my dissertation readers and for their valuable comments and suggestions. In addition, I thank my final committee, Professors Dr. Richard Kramer, Dr. David Olan, and Dr. Nils Vigeland for their evaluations and comments.

I am especially indebted to Dr. Nils Vigeland for his mentoring from the earliest stage of my studying abroad for my master's degree at the Manhattan School of Music. His sophisticated discussion and awareness in his classes developed my artistic enlightenment and motivated me to undertake this project.

I also extend my thanks to my piano teacher, Professor Morey Ritt, for her teaching and caring, and to Professor Dr. Raymond Erickson for his encouragement and support.

I have learned much from my doctoral studies and enjoyed the fruitful time at the CUNY Graduate Center, for which I would like to thank all my professors and their teachings. The inspiring and intensive atmosphere at the G.C. also promoted the development and fulfillment of my dissertation.

Finally, with deep gratitude, I dedicate this book to my parents and Christian for their unwavering support, encouragement, and caring.

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CHAPTER 1: INTRODUCTION

The 1940s and 50s were particularly important periods for American piano music. A number of young composers, influenced by Igor Stravinsky, came to be known collectively as the American Stravinsky School[1], or alternatively as the American Neo-Classicists. They initially took part in this musical flourishing but have fallen into neglect since their heyday in the mid-century.

What Copland dubbed the "American Stravinsky School" included Arthur Berger (*b.*1912 - *d.*2003), Irving Fine (*b.*1914 - *d.*1962), Harold Shapero (*b.*1920), Leo Smit (*b.*1921 - *d.*1999), and Lukas Foss (*b.*1922), among others. This younger generation of American and European composers admired and followed Stravinsky's Neo-classic turn beginning in the 1920s. They saw Stravinsky as the bearer of "Tonality," as counterpart to Schoenberg's post-tonal theories. While not strictly defined by its members, this group shared friendship, ideas, and even severe mutual criticism; youth--all were in their twenties and thirties; Copland's encouragement and support; and formal recognition of their compositional talents in the form of awards, premiere performances, and publication.

In 1952, when Stravinsky was seventy years old, he ended his thirty-year exploration of Neo-Classicism in music and turned to twelve-tone methodology. Stravinsky was not receptive to the virtues of serial music until encountering that of Webern. Stravinsky's serial conversion was a significant turning point in the history of

[1] Arthur Berger, "Stravinsky and The Younger American Composers," *The Score and I.M.A. Magazine* 12 (June 1955), 38.

twentieth-century music; while a radical move in its own right, this change also directly influenced the compositional methods of the members of the American Stravinsky School, with reverberations lasting well into the second half of the twentieth century.

The purpose of this research is to assess the impact of Stravinsky's serial conversion on the American Stravinsky School by evaluating and investigating this period and its music. Stravinsky's serial conversion had a completely disparate impact on the individual members of the American Stravinsky School. Arthur Berger followed Stravinsky into experimenting with serialism in the early 1950s before turning to avant-garde music. While adopting the twelve-tone series in his music, Leo Smit continuously integrated traditional tonal components and formal structure into his work, uniquely synthesizing two different schools. Irving Fine was essentially a traditional diatonicist. Although his post-1952 piano compositions are more dissonant and his small chamber ensembles follow the serial technique, twelve-tone methodology never appears in his piano compositions. Fine's Neo-Classicism is a compositional technique which does not entail the repudiation of tonality and diatonicism. Lukas Foss, one of the most communicative and prolific composer-performers of his time, has been predominantly interested in Neo-Classicism among many of his compositional styles. However, he eventually adopted serialism "in a free manner."[2] He revisited Neo-Classicism later, evident in the piece to be analyzed. As the most extreme or negative case, Harold Shapero, arguably the most promising composer of the group, almost entirely stopped composing just a few years after 1952.

Although Stravinsky inspired this group, those who turned to twelve tone writing

[2] G. Chase and D. Wright, "Lukas Foss," in *The New Grove Dictionary of Music and Musicians,* ed. S. Sadie

did so independently rather than out of idolization of that great composer. Indeed, some ignored what Stravinsky was doing in the 1950s and continued to explore Neo-Classicism. These contradictory responses--either adopting the new serial methods or continuing with Neo-Classicism--are even found within the work of a single composer, as with Berger and Fine.

The remainder of this chapter reviews the relevant literature about Stravinsky: Stravinsky's Neo-Classicism; Stravinsky's serialism--in particular, the influence of Stravinskian Neo-classical trends on classical music in America. Chapter 2 describes the American Stravinsky School in more detail, introducing the young composers forming the school and their compositions, and comparing the stylistic development between their pre-1952 and post-1952 piano compositions.[3] In Chapter 3, four musical works for piano are analyzed that reflect the impact, or lack thereof, of Stravinsky's serial conversion. These pieces are Arthur Berger's *Three One-part Inventions* (1954), Irving Fine's *Little Toccata* (1958), Lukas Foss's *Scherzo ricercato* (1953), and Leo Smit's *Concerto* for Piano and Orchestra (written in 1968; revised in 1980). Chapter 4 considers the different approaches each composer took in responding to serialism, delineating a methodological spectrum ranging from strict twelve-tone technique, to a fusion of serialism with traditional tonality, to a free adaptation of serialism within a Neo-classic framework.

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and J. Tyrrell (London: Macmillan, 2001), ix, 116.

[3] The stylistic development comparison of individual composers is divided by pre- and post-1952 year. The four analyses-works are the post 1952-piano compositions, and they reflect directly that Stravinsky's serial conversion in 1952 impacts on them.

Stravinsky's Neo-Classicism (1922-52) [4]

In the 1920s, 1930s, and 1940s, the new style, *Neo-Classicism* appeared in the works of many of the leading composers in France, Germany, and England. In the early 1920s in Europe, the movement of going back to a simpler and more natural order, and clarity and accessibility in arts became the important order of the time. The desire to communicate directly to a larger audience was also expressed by contemporary painters and writers. The movement of Neo-Classicism was adopted by a large number of composers in Europe and America between the wars. Composers assimilated and reinterpreted the forms, genres, and styles of music from Europe in the eighteenth and nineteenth centuries. Triads and diatonic pitches, for example, were favored; easy straightforward melody and homophonic textures were mainly used; traditional instrumental and vocal types were emphasized; compositional techniques of earlier times were revived, but in a modern way. The particular musical language of an earlier composer was often imitated, and many of earlier masterworks gained a new respect. These features of a style termed Neo-Classicism appeared in diverse artistic manifestations.

The Russian composer Igor Stravinsky (1882–1971) was the leading classical composer in the popular imagination in the early twentieth-century. As one of the founding fathers of modern music, with Schoenberg, his work touched the younger generation of European and American composers deeply. Stravinsky himself was conspicuously trendy, using modality, bitonality, and polytonality; however, he never completely abandoned tonality. At the end of World War I, he began to emphasize the necessity of tradition in

[4]My research regarding this topic is based on: Bryan Simms, "Neo-Classicism in France, Germany, and England," *Music of the twentieth-century: Style and Structure.* (New York: Schirmer Books, 1986).

music, and to show his interest in immediate accessibility by imitating popular or familiar genres like the march, tango, waltz, ragtime, and hymn:

> Tradition is entirely different from habit, even from an excellent habit, for habit is by definition an unconscious acquisition and tends to become mechanical, whereas tradition results from a conscious and deliberate acceptance. A real tradition is not the relic of a past irretrievably gone; it is a living force that animates and informs the present. In this sense the paradox which banteringly maintains that everything which is not tradition is plagiarism is true. . . Far from implying the repetition of what has been, tradition presupposes the reality of what endures. It appears as an heirloom, a heritage that one receives on condition of making it bear fruit before passing it on to one's descendants.[5]

His resulting 'Neo-Classicism' lasted from the early 1920s until the early 1950s. During this period, Stravinsky exploited many productive traditions, adopting the spirit of earlier composers such as Bach, Pergolesi, Beethoven, Weber, Tchaikovsky, and Verdi.

Stravinsky's Serialism (1952-1966) [6]

Stravinsky adapted serialism well after Schoenberg had initially codified its methodology. Stravinsky capped his thirty-year Neo-classic explorations with the masterful *Rake's Progress*; having spent three years completing that opera, he gradually adopted serial methodology starting in 1952. Among the many reasons that Stravinsky

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[5] Stravinsky emphasized the 'necessity of tradition' in music in his *Poetics of Music* (translated by Arthur Knodel and Ingolf Dahl, Cambridge, Mass.: Harvard University Press, 1970). Cited in Bryan Simms' book (1986), 277-8.

altered his compositional approach was competition; in the 1950s he became aware of the low value placed on his music by outspoken members of the younger generation of avant-garde composers,[7] including Boulez. Stravinsky began to acquaint himself with the music of Schoenberg[8] and Webern, as well as that many other younger figures such as Ernst Krenek (1900-1991), Pierre Boulez (*b*. 1925), and Milton Babbitt (*b.* 1916). Among these, the most decisive and profound motivation towards his serial conversion was his encounter in the early 1950s with the music of Webern:

> In the years between 1952 and 1955 no composer can have lived in closer contact with the music of Webern. Stravinsky was familiar with the sound of the Webern Cantatas and of the instrumental songs at a time when some of these works had not yet been performed in Europe. The challenge of Webern has been the strongest in his entire life. It has gradually brought him to the belief that serial technique is the possible means of musical composition. [9]

As Stravinsky gradually adopted the serial approach, he experimented with various serial compositions during this period. Nonetheless, his interest in music of the past didn't diminish, and indeed, Stravinsky's serial music connected to, and engaged with, his earlier music as well.

He presented many styles in music; the primitivism of the early ballets, the Neo-Classicism of the period 1920-51, and the serialism after 1952 while continuing with

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[6] My research and knowledge regarding Stravinsky's Serialism is based on the book, ***Stravinsky's Late Music*** (2001) by Joseph N. Straus.
[7] Straus (2001), 2.
[8] "Stravinsky is suffering the shock of recognition that Schoenberg's music is richer in substance than his own." Robert Craft wrote this statement in *Chronicle* (revised and expanded edn. Nashville: Vanderbilt University Press, 1994). Straus (2001), 3.
[9] The statement of Craft about Stravinsky was cited by Eric W. White in his book, ***Stravinsky: The Composer and His Works.*** (Berkeley: University of California Press, 1979), 134.

the studies of old music. He followed no single path, but consistently worked with many styles. As Copland wrote:

> It is one of the curiosities of contemporary musical history that Stravinsky has been able to influence two succeeding generations in ways completely opposed; Primitivism, the period 1917-27 was the decade of the displaced accent and the polytonal chord, and of emphasis on furious rhythms and pitiless dissonances; Neo-Classicism, then suddenly, with no warning. Many composers rallied to the new cause of neoclassicism. Once more Stravinsky had called the tune; Serialism, a third type of Stravinsky influence, based on his recent commerce with Central European serialism immersed in the seminal scores of Anton Webern. Only Stravinsky managed to mix his elements, including even the familiar ones, in such a way that no one can predict just where he will be taking us next. [10]

Although Stravinsky's compositional style of serialism began with stimulus provided by his knowledge of the music of Schoenberg and Webern, his engagement with the music of these predecessors gradually ceased[11] in his serial compositions from the 1960s: his late works differ in approached from his earlier ones, each highly individuated from each other as well. [12]

[10] Aaron Copland, "The Composer: Igor Stravinsky." *Copland on Music,* 95.
[11] Straus (2001), 41.
[12] Straus (2001), 5.

CHAPTER 2: THE AMERICAN "STRAVINSKY SCHOOL" [13]

The American "Neo-Classicists" in the 1940s and 1950s

American classical music flowered between the world wars, as Americans composed major works comparable to those of European composers. French-influenced and -trained composers took important positions in America's most prestigious music departments; the tradition of Parisian study, with Boulanger as the chief attraction, touched many Americans who passed on that influence to their students. Rachmaninov, Prokofiev, Schoenberg, Bartók, Stravinsky, Milhaud, Hindemith, and others visited or emigrated to America, often teaching at American schools. The 1940 and 1950s were particularly fruitful for American piano music; Copland, Barber, Carter, and Sessions all composed important piano works during this time, contributing greatly to the twentieth-century piano repertoire.

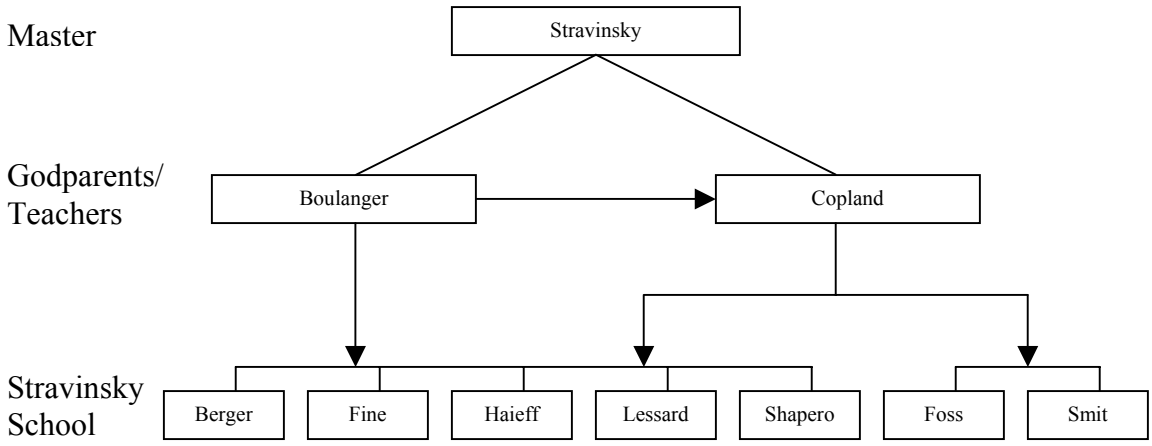
Beginning in the 1940s, American composers were encouraged through prizes, commissions, public performance, publication, and recordings. The works of this young generation did not show a unified tendency, but rather reflected a wide variety of compositional interests, as evidenced by their personal contacts with and encouragement by Stravinsky, Hindemith, Schoenberg, Milhaud, and Martinu.

The group of composers was first identified by Copland in *Stravinsky in the Theatre* (edited by Minna Lederman, New York: Da Capo Press, 1949): "Among our younger generation it is easy to discover a Stravinsky School: Harold Shapero, Alexei

[13] My understanding and research regarding this group is based on the articles, "The New 'School' of American Composers (1949)" by Aaron Copland and "Stravinsky and The Younger American Composers (1955)" by Arthur Berger.

Haieff, Arthur Berger, John Lessard, Lukas Foss, and Irving Fine." These artists, in addition to Bernstein, were discussed as the "generation of the 1940s" in Copland's survey of young American composers, "The New 'School' of American Composers (1949)." My understanding of the interconnection (diagram 2.1) among Stravinsky, Boulanger, Copland, and the members of the "American Stravinsky School" is reflected in the diagram below.

Diagram 2.1: Inter-connection between the American Stravinsky School and the Master



This loose grouping[14] of separate Stravinksy-inspired figures was brought together in friendship, exchange of ideas, joint performances and mutual inspiration. These composers admired Stravinsky's Neo-classic "re-evaluating [of] tradition," particularly given the approachability of the Neo-classic musical syntax in comparison with the thorny language of Schoenberg's post-tonality. [15]

Copland and Boulanger's contribution to and parentage of the group cannot be

[14] Six years after Copland christened the school, Berger himself adapted the idea and expanded Copland's list to include Charles Jones, Paul Des Marais, Leo Smit, Louise Talma, and Ingolf Dahl. Berger (1955), 38.
[15] Copland (1949), 169.

overestimated: "Certain works of this group might have been very different if not for Copland's contribution.[16] Copland's parentage of composers of the group at that time would have been very incomplete if Nadia Boulanger were not mentioned, who was a key figure in linking the relationship between Copland and Stravinsky." [17]

Boston was the center of the group, which originated in and around Harvard University; in its early days, it was the "Harvard" or "Boston" group. Several members were natives of the Boston region (Fine and Shapero), enrolled at Harvard University (Berger, Fine, and Shapero), or had spent long periods there (Berger and Foss). Stravinsky, Copland, and Boulanger had each visited Boston from time to time, creating a profound impression through their lectures at Harvard and Radcliffe.[18]

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[16] Copland had close relationship with many of the composers in the group in the late 1940s and 1950s. He dedicated individual songs from his *Twelve Poems of Emily Dickinson* to Berger, Dahl, Haieff, Fine, Foss, and Shapero, and the first of his *Four Piano Blues* to Smit. Howard Pollack, "Copland and Younger American Composers." *Aaron Copland: The Life and Work of An Uncommon Man* (New York: Henry Holt and Company, 1999), 199.

[17] Berger (1955), 39.

[18] Stravinsky came to Harvard University to give the *Charles Elliott Norton* lectures (1939-40), and was impressed with what he called "the Harvard music factory". Karen Joy Follingstad, "The three sonatas of Harold Shapero: historical, stylistic, and performance analysis" (D.M.A. Thesis: University of Texas at Austin, 1989), 13.

An Introduction to the Composers

Arthur Berger (*b.*1912 - *d.*2003), born in New York City, was an influential composer, critic, and teacher. The following biographical sketch is based on three sources: John Mac Ivor Perkins's article, "Arthur Berger: The composer as Mannerist" in the journal *Perspectives of New Music* (Fall-Winter 1966); Charles H. Kaufman's "Arthur Berger" in *The New Grove Dictionary of Music and Musicians* (2001); and Stephen Peles's "Serialism and complexity" from the book, *The Cambridge History of American Music* (1998).

Berger devoted the major share of his compositional activities to chamber and solo piano music while also making notable contributions to the orchestral repertoire. His 1940s compositions were heavily influenced by Stravinskian Neo-Classicism; his 1950s works were both serial and diatonic.[19]

At the age of 11 Berger began learning piano and composition. After attending City College, he received his first formal instruction in composition at New York University in 1934. During these years, he became acquainted with the music of the American avant-garde (Ives, Varese, Cowell) and joined the Young Composers Group formed by Copland. In 1935 he enrolled in the Longy School of Music as a fellowship student of Nadia Boulanger, concurrently attending Harvard and studying with Piston and Milhaud. After receiving his Master's degree in 1936, Berger studied in Paris, where his interest in

[19] Berger was receptive to serialism in the early 1950s. In a review of Berger's composition, *Duo for Cello and Piano* (1951), Milton Babbitt characterized Berger as a "diatonic Webern," in regard to his emphasis on registral differentiation and ensemble intricacy. Berger's shift to the twelve-tone method was gradual, although Berger himself described the *Chamber Music for Thirteen Players* (1956) as "Neo-classic twelve-tone." John Mac Ivor Perkins, "Arthur Berger: The composer as Mannerist," *Perspectives of New Music* (Fall-Winter 1966), 77.

Stravinsky's music deepened its influence on his developing style.

Berger taught at Mills College (1939-42), Brooklyn College (1942-3), the Juilliard School and Brandeis University (1953-79); in 1979 he joined the faculty of the New England Conservatory, where he taught until his retirement in 1998. The awards he received include an American Council of Learned Societies Grant Fellowship (1936), a Fulbright scholarship (1960), and a Guggenheim Fellowship (1975-6). He was a member of the American Academy and Institute of Arts and Letters.

A long time writer and editor, Berger was a music critic at the *Boston Transcript* (1943-7), *New York Sun* (1943-46), and *New York Herald Tribune* (1946-53); he served as editor of *Musical Mercury* (1934-7) and *Perspectives of New Music* (1962-3). As a critic, Berger was a principal spokesman for music of that period, writing numerous articles on composers such as Stravinsky, Ives, and Copland. [20]

Berger developed compositional procedures that married a range of technical schools. Somewhat insecure regarding his talent, Berger never established a consistent compositional style; this, in my personal view of him, may be related to his non-performer status, which set him apart from many of his contemporaries. To maintain the clarity of vertical pitch relationships he used lean, spare texture; horizontal connections are delineated by widely-spaced leaps. In his vocabulary of linear procedures, sevenths and ninths are commonplace and function as they would in traditional tonal music. Rhythmically fragmented lines also contribute to the openness of the textures (Refer to the analysis of Berger's work in chapter 3). Berger considers such treatments as enhancing the

[20] Charles H. Kaufman, "Arthur Berger," in *The New Grove Dictionary of Music and Musicians,* ed. S. Sadie and J. Tyrrell (London: Macmillan, 2001), iii, 333-35.

beauty of pitch relationships and sonorities. During the early 1950s Berger's harmonic idiom was essentially diatonic, but he often displaced chordal elements, exploding them by means of fragmentation, vertical octave spacings, or delayed progression. These techniques derive from those of Webern, yet the diatonic skeleton connects Berger with Stravinskian Neo-Classicism. *Chamber Music for 13 players* (1956) hints at the merging of these two stylistic schools. [21]

Table 2.1: Piano compositions of Arthur Berger

Pre-1952	**Post-1952**
• 2 Episodes, 1933 • Entertainment pieces, 1940 • Ballet music, 1940 • Fantasy, 1942 • Rondo (revised in 1980 as Duet for Harold Shapero), 1945 • Capriccio, 1945 • 3 Bagatelles, 1946 • Partita, 1947 • Intermezzo, 1948 • 3 Two-part Inventions (revised in 1993 as 4 two-part inventions), 1949	• 3 One-part Inventions, 1954 • 3 Pieces, 1961 • 3 prepared piano, 1961 • 5 pieces, 1969 • Composition for piano 4 hands, 1976 • An Improvisation for A[aron] C[opland], 1981 • Perspectives III for piano 4 hands (arranged for orchestra in 1983), 1982 • For Elliott [Carter] at 75, Study in 7ths and 9ths, 1983

After 1961, Berger's serialism tended to be less rigorously systematic. By the mid-1960s atonality had become so varied in its individual manifestations that distinguishable regional in the U.S. "schools" emerged (table 2.1). Berger participated in this development while at Brandeis; the "Boston sound" of the time was strongly indebted

[21] Kaufman, Ibid., 334.

to his blend of atonality, and serialism.[22] Berger showed increasing stylistic independence, having signaled the end of his reliance on dodecaphony and Neo-Classicism in *Three Pieces for two prepared pianos* (1961); his use of prepared piano indicates the emergence of the avant-garde as a new stylistic influence on him. Later in life, Berger paid considerable attention to revising of earlier works.

His music was recorded on the CRI and New World labels, and principal publishers include Associated, Boelke-Bomart, C.F. Peters, E.B. Marks, G. Schirmer, Lawson-Gould, Mercury, and New Music. [23]

[22] Stephen Peles, "Serialism and complexity." *The Cambridge history of American Music,* (Cambridge: University Press, 1998), 514.
[23] Kaufman, Ibid., 335.

Irving Fine (*b*. 1914 - *d*. 1962), an American composer, teacher, and conductor, was born in Boston, and died prematurely of a heart attack in 1962. He studied composition with Edward Burlingame Hill (1872-1960) and Walter Piston (1894-1976) at Harvard University (BA 1937, MA 1938), and later studied with Boulanger; he also studied conducting with Koussevitzky.[24] Some of Fine's early works were influenced by Hindemith as well as by Stravinsky. He was attracted to Stravinskian lyricism and delicate sonority, which are characteristics of Fine's music more than by matters of tonal function and structure (table 2.2). He was highly evaluated by Virgil Thomson (1896-1989), one of America's leading composers. Like the other members of the group, Fine used a twelve-tone series in his early 1950s non-piano composition *String Quartet* (1952). This impressive work provoked many other American composers, including Louise Talma (1906-1996), to adopt his idea of serialism.[25]

The reviews of Fine's *Music for Piano*, composed in 1947 and dedicated to Nadia Boulanger, evaluate his style. Thomson, who regarded Fine as an American Henri Sauguet (1901-1989, a French 'Neo-romantic' composer), characterized his style as follows:

> Fine has a Gallic quality, which falls very pleasantly on the ears, and has taste and polished detail. [26]

The review by Leonard Bernstein of *Diversions* elaborates on that quality:

> It is all too easy to speak glibly of Irving Fine's *Diversions* as a "charming" piece, and let it go at that. But, in fact, true charm is one of the most difficult things to

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[24] My research regarding the biographical information of Fine is based on: Kaufman, "Irving Fine," in *The New Grove Dictionary of Music and Musicians,* ed. S. Sadie and J. Tyrrell (London: Macmillan, 2001), viii, 827.
[25] Kaufman, Ibid., 827.
[26] Arthur Berger (1955), 43.

> achieve musically; and Fine has achieved it by simple and honestly revealing the man in the music. In these four brief pieces we can behold a personality: tender without being coy, witty without being vulgar, appealing without being banal, and utterly sweet without ever being cloying. Such a man (and such a work) is rare enough to cause rejoicing. [27]

Fine taught at Harvard (1939-50) and then joined the faculty of Brandeis University. The awards he received include two Guggenheim Fellowships, a Fulbright Research Fellowship, an award from the National Institute of Arts and Letter and several MacDowell Association grants. His main articles and reviews were conveyed in *Modern Music, Notes, Musical America,* and the *New York Times.* His principal publisher is Boosey & Hawkes.

Among his many works are: *Toccata concertante* (1947); *Serious song*: a *Lament* (1955); *Blue Towers* (1959); *Diversions* for orchestra (1960); Symphony (1962): choral pieces: 3 choruses from Alice in Wonderland (1942); *The choral New Yorker* (1944); A short Alleluia (1945); In gratio jubilio (hymn, 1949); *The Hour Glass* (song cycle, 1949); *Old American Songs* (1952); An old song (1953); 3 Choruses from Alice in Wonderland (the 2nd series, 1953); *McCord's Menagerie* (1957): *Mutability* (song cycle, 1952); *Childhood Fables for Grownups* (1955): Sonata for violin (1946); Partita for wind quintet (1948); *Notturno* for string and harp (1956); String Quartet (1952); *Fantasia* for string trio (1956); *Romanza* for wind quartet (1958).

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[27] Leonard Bernstein, *A review of Fine's Diversions*. Bennett Lerner, *In editor's note* (September, 1995): *Diversions for piano*. Boosey & Hawkes, Inc. (1963).

Table 2.2: Piano compositions of Irving Fine

Pre-1952	**Post-1952**
• Music for piano, 1947	• Children's piano pieces, 1956 • Hommage à Mozart, 1956 • Little Toccata (1958) from *Diversions* for piano

Lukas Foss, born 1922 in Germany, was a precociously gifted "Wunderkind". He became an important American composer, conductor, and pianist. He began his piano and theory studies in Berlin with Julius Goldstein, and in 1933, he went to Paris for further studies. Having moved to the United States with his family in 1937, he continued his studies at the Curtis Institute and also studied composition with Hindemith at Yale University (1939-40), and conducting with Koussevitzky during summers at the Berkshire Music Center (1939-43).[28]

At the age of 22, he won wide acclaim for his cantata, *The Prairie,* on Carl Sandburg's poem. He received many awards, including the New York Music Critic's Circle Award (1944), a Guggenheim Fellowship (1945), a Fellow of the American Academy in Rome (1950-51), a Fulbright grant (1950-52); his international reputation was enhanced with the premiere of his *Piano Concerto no.2* in Venice (1951), in which he was the soloist.

Foss's development as a composer can be divided into three main periods; the first showed his predominant interest in eclectic Neo-Classicism (1944-60); his Neo-classic period lasted until the 1960s, while the other members of the Stravinsky School already turned to serialism or avant-garde. Then he abandoned tonality and fixed forms, and adopted serialism, indeterminacy and graphic notation. His point of departure was serialism, but used "in a free, willful manner".[29] With the more conservative tastes of the 1980s and 90s, Foss revisited Neo-Classicism and Americana, composing again in traditional instrumental and choral genres, but mingled with the experimental techniques

[28] The biographical information of Foss in this chapter is based on: G. Chase and D. Wright, "Lukas Foss," in *The New Grove Dictionary of Music and Musicians,* ed. S. Sadie and J. Tyrrell, (London: Macmillan, 2001), ix, 116.

of his second period.

For all his diverse styles, Foss is often characterized as enthusiastic, curious and receptive to every kind of musical idea. He became one of the most representative American composer-performers of his era.

His principal publishers are C. Fischer, Salabert, and G. Schirmer.

Table 2.3: Piano compositions of Lukas Foss

Pre-1952	**Post-1952**
• Grotesque Dance, 1938 • 4 Two-part Inventions, 1938 • Sonatina, 1939 • Set of 3 pieces for two pianos, 1940 • Passacaglia, 1941 • Fantasy Rondo, 1944 • Prelude in D, 1950	• Scherzo ricercato, 1953 • *Solo*, 1981 • For Lenny: variations on New York, New York for solo piano, 1988

[29] G. Chase and D. Wright, "Lukas Foss," Ibid., ix, 116.

Leo Smit (*b.*1921- *d.*1999), born in Philadelphia, was a composer and pianist. He studied the piano with Isabelle Vengerova at the Curtis Institute of Music (1930-32) and composition with Nicolas Nabokov (1935). In 1936-7, as a pianist with Balanchine's American Ballet company, he was associated closely with Stravinsky; he prepared three of Stravinsky's ballets.[30] Smit's work with Nabokov and Stravinsky established the integration in his career as a performer and composer. Since his solo debut recital in 1939 at Carnegie Hall, Smit met Copland in 1943, with whom he had a lifelong association culminated in his recording of the complete piano works of Copland.

Smit's music is strongly tonal, even when generated by serial technique, as in his late piano composition *Concerto* for Piano and Orchestra written in 1968 (table 2.4). Although Smit was an acclaimed pianist, his interest in vocal music has been present throughout his career. "His large-scale work *The Ecstatic Pilgrimage* (1988-90), six song cycles on poems by Emily Dickinson, is characteristic of his entire output. Its forms and textures are eminently clear yet diverse and highly contrastive, while lyrical and dramatic elements vie with each other over the course of the work in response to poetry which is both intimate and grand." [31]

Smit taught at Sarah Lawrence College (1947-9), UCLA (1957-63) and SUNY, Buffalo (1962-82); he was composer-in-residence at the American Academy, Rome (1972-3), and at the Brevard Music Center (1980). Several awards and honors Smit earned include Fulbright (piano) and Guggenheim (composition) Fellowships in 1950, a

[30] My research regarding the biographical information of Smit was based on Nils Vigeland, "Leo Smit," in *The New Grove Dictionary of Music and Musicians,* 2nd ed., S. Sadie and J. Tyrrell (London: Macmillan, 2001), xxiii, 564-65.
[31] Vigeland, Ibid., 565.

fellowship at the American Academy in Rome for 1950-51, the Boston Symphony Merit Award in 1953, and the New York Critics Circle Award in 1957.

His principal publishers are Broude Bros., C. Fischer, and T. Presser.

Table 2.4: Piano compositions of Leo Smit [32]

Pre-1952	**Post-1952**
• *Seven Characteristic Pieces* for piano solo, 1949 • *Variations* in G, 1949 (completed in 1954) • *Sonata* in one movement, 1951 (completed in 1955)	• *Fantasy: the Farewell* for piano solo, 1953 • *Concerto* for piano and orchestra, 1968 • *Martha through the Looking-Glass*: three pieces for piano solo, 1974 • *A Visitor's Album*: three pieces for piano solo, 1974 • *Variations* for piano and orchestra, 1981 • *Toccata* for piano solo, 1984 • *Dance Card*, 1985

[31] The following information of Smit's work list (shown in table 2.4) is based on the online database from University at Buffalo Libraries (Accessed April 2000). The library preserves a transcription of a handwritten work list that Leo Smit gave the Music Library in 1998 (http://ublib.buffalo.edu).

Harold (Samuel) Shapero, born 1920 in Lynn, Massachusetts, studied the piano with Eleanor Kerr and composition with Sergey Slonimsky (1936-7) and Ernst Krenek (1937). At eighteen, he enrolled at Harvard and studied composition with Walter Piston (1938-41), with Paul Hindemith at the Berkshire Music Center (1940-41), and Boulanger at the Longy School of Music (1942-3).[33]

Shapero was considered one of the most promising young composers during the 1940s and 50s. He already received considerable publicity in his early career. By Stravinsky and Copland, he was noted as the most gifted composer of his generation:

> Harold Shapero, it is safe to say, is at the same time the most gifted and the most baffling composer of his generation. This young Bostonian, now twenty-seven, has a phenomenal "ear" and a brilliant (though sometimes erratic) mind. The ear and mind were subjected to a methodical training under Krenek, Piston, Hindemith, and Boulanger. These teachers left their mark; Shapero now possesses absolutely perfected technical equipment. To examine one of his scores closely is a fascinating experience. Few musicians of our time put their pieces together with greater security either in the skeletal harmonic framework, in the modeling of the melodic phrases, or in the careful shaping of the whole. Shapero knows what he's doing, but that is the least of it: the exciting thing is to note how this technical adroitness is put at the service of a wonderfully spontaneous musical gift. Despite this there is, as I say, something baffling about what he has proved thus far. [34]

His works from 1940s got high praise and a series of awards, including the Prix de

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[33] Howard Pollack, "Harold Shapero," in *The New Grove Dictionary of Music and Musicians* (2001), 2nd ed., S. Sadie and J. Tyrrell (London: Macmillan, 2001), xxiii, 214.

Rome (in 1941) and Naumburg Fellowship (in 1942). The most interesting factors of his music composed in the early 1940s are his search for directness and purity of musical thought, and strong tonal functions and structure. His musical style includes mostly homo-rhythmic textures, unisons and simple triads, dissonant counterpoint, quartal harmonies, and driving rhythms. Shapero has shown his firm relation to traditional musical forms. Indeed, the subject of his Harvard senior honors thesis was Twentieth-century "Neo-Classicism". [35]

While Copland admired Shapero's musical ability, he was also skeptical of the composer's stylistic parody of Beethoven's compositions in his late 1940s compositions, *Variations* in C minor (1947) and *Sonata* in F minor (1948):

> Stylistically Shapero seems to feel a compulsion to fashion his music after some great model. . . For the present he seems to be suffering from a hero-worship complex-or perhaps it is a freakish attack of false modesty, as if he thought to hide the brilliance of his own gifts behind the cloak of the great master. No one can say how long this strange attitude will last. But when Shapero decides to make a direct attack on the composing problem, to throw away all models, and to strike out unconcernedly on his own, I predict the whole musical world will sit up and take notice. [36]

Shapero stopped composing just a few years after Stravinsky's serial conversion in 1952. Despite the general interest toward Schoenberg and expressionism; and early formal training under Krenek's guidance in 1941, Shapero never became identified with the twelve-tone method. His predilection towards tonality disallowed compromise; therefore,

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[34]Copland (1949), 169-70.
[35] Karen Joy Follingstad, "The three sonatas of Harold Shapero: historical, stylistic, and performance analysis" (D.M.A. Thesis: University of Texas at Austin, 1989): 11.
[36] Copland (1949), 170.

when Stravinsky turned to serial methodology, Shapero did not explore serialism along with other composers of the school (table 2.5).[37]

Table 2.5: Piano compositions of Harold Shapero

Pre-1952	Post-1952
• *Sonatine* for piano, 1938 • *Sonata* for 4 hands, 1941 • 3 *Sonatas*, 1944 • *Variations* in C, 1947 • *Sonata* in F, 1948 • *Arioso Variations* for piano, 1948 • *American variations*, 1950 (Incomplete)	• *Partitia* for piano and Orchestra, 1960 • *Improvisations* in B and $C^{\#}$ for Piano and Synthesizer, 1969, 1970

During the 1940s, Shapero formed close associations with three fellow students in Piston's class at Harvard: Berger, Fine, and Bernstein. With them, Shapero formed Brandeis University's first music department, taught there for over 30 years, and eventually founded and directed its electronic music studio where he experimented with electronic media. His students include Joel Spiegelman, Richard Wernick, David Epstein, and Sheila Silver. His Principal publisher is Southern.[38]

[37] Howard Pollack, "Harold Shapero," in *The New Grove Dictionary of Music and Musicians* 2nd ed.,S. Sadie and J. Tyrrell (London: Macmillan, 2001), xxiii, 213.
[38] Pollack, Ibid., 214.

Stylistic Development: A Comparison between Pre- and Post-1952 Piano Compositions by the composers of the School

This chapter researches the stylistic comparisons of five composers in the school. Stravinsky's serial conversion in 1952 brought up the compositional changes of the individual composers in this group. In tables 2.6 through 2.10, I briefly compare the stylistic development between the pre- and post-1952 compositions by these composers.

Arthur Berger

As seen in table 2.6, Berger showed increasing stylistic independence after Stravinsky's serial conversion.

Table 2.6: Berger, Stylistic Development: A Comparison between pre- and post-1952 compositions

Berger, Arthur *(b.*1912 - *d.* 2003)	
Pre-1952	*Post-1952*
• followed the example of Stravinsky, composing traditional forms, e.g.: *Early Ballet music, Fantasy, Rondo, 3 Bagatelles, Partita,* and *Inventions* (through 1940-49)	• followed Stravinksy's serial conversion, but only experimented with twelve-tone methodology, e.g.: the second movement from *Three One-Part Inventions* for Piano (1954). • mainly applied into his chamber music, e.g.: *Duo* for Cello and Piano (1951). • entered a completely different path by turning to the avant-garde music, e.g.: 3 *Pieces* for two *Prepared* pianos (1961).

Berger did not simply follow Stravinsky explorations. The strongest feature in Berger's post-1952 compositions is his blending technique--the mingling of tonality with atonality, serialism, and other compositional formats rooted in Neo-Classicism--clearly observable in the *Three One-part Inventions* for piano. Like others in the school, Berger's twelve-tone methodology might have grown out of a reassessment of Stravinskian Neo-Classicism, while pointing towards a vibrant contemporary practice. This possibility is present in the *Three One-part Inventions*, where he places a serialist composition between two other compositional formats--the first movement is equivalent to a sonata-allegro and is tonal, while the third is atonal but maintains a strong tonal feeling centered on F. Berger's musical contents (i.e.: all three movements of the *Three One-part Inventions*) feature rhythmically fragmented lines, as well as a lean and spare texture (See the analysis of Berger in chapter 3). Berger considered this openness and clarity to enrich the beauty of pitch relationships and sonorities. His blending of two stylistic schools is characteristic of Berger's compositional aesthetic while at Brandeis University in the 1950s.[39]

Berger did not establish himself within a consistent compositional style. Instead, he followed a completely different path by turning to the avant-garde, through his strong blend of atonality, serialism, and other compositional formats. Berger grew increasingly confident in his own stylistic explorations. Having ended his reliance on dodecaphony and Neo-Classicism, the emergence of the avant-garde as a new source of influence was signaled in works such as *Three Pieces* for two prepared pianos.[40]

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[39] John Mac Ivor Perkins, "Arthur Berger: The Composer as Mannerist," *Perspectives of New Music* (Fall-Winter 1966), 77.
[40] Kaufman, "Arthur Berger," Ibid., iii, 334.

Irving Fine

Little stylistic development is apparent between Irving Fine's pre- and post-1952 piano compositions, although this is possibly due to his early death in 1962. However, several factors apparent in his post-1952 compositions, such as "Little Toccata" from *Diversions* for piano (1958), reveal that he tried to avoid consistent reliance on Stravinskian Neo-Classicism (table 2.7).

Table 2.7: Fine, Stylistic Development: A Comparison between pre- and post-1952 compositions

Fine, Irving (*b.* 1914 - *d*. 1962)	
Pre-1952	*Post-1952*
• showed the influence of Stravinsky's lyricism and delicate sonority, while continued using traditional forms, e.g.: *Sonata* for violin and piano (1946), *Music* for piano (1947), *Toccata-concertante* (1948), *and Hommage à Mozart* (1956).	• while continuing his preference for Stravinskian lyricism and delicate sonority, his post 1952 piano compositions show contemporary compositional techniques, e.g.: *Little Toccata* from *Diversions* for piano (1958). • applied, on the other hand, twelve-tone methodology to his ensemble and orchestral compositions, e.g.: *String Quartet* (1952), and *Symphony* (1962).

More traditional titles, forms, and key relationships between movements appear in his earlier work, such as *Prelude* in E-flat, *Waltz-Gavotte* in A-flat, *Variations* in B, and *Interlude-finale* in E-flat from *Music for Piano* in 1947. Fine's emphasis on beautiful melodic lines in his earlier pieces is fundamental, superseding mechanical or systematic

procedures, such as repetition, ostinati, and inversion.

The fundamental musical contents above continued to dominate his post-1952 compositions. Many factors in *Little Toccata* create dissonance; alteration of mode and tonality, mixture of repetitions and *ostinati*, and frequent use of temporary key signatures. The musical content is motivic, with short phrases occurring throughout augmentations and reductions, repetitions, inversions, and transformation. The whole piece is tonally centered on G; "*Little Toccata*" begins in G mixolydian mode, with the G Lydian of the A sections modally distinct from the G minor B section (See the analysis of Fine in chapter 3). However, these contrasting alternations of mode and scale are the application from Stravinsky's method of musical development. Although the *Little Toccata*'s trichord (G-B-D) undergoes standard atonal methods (See the analysis of *Little Toccata* in chapter 3), Fine's Neo-Classicism, built on tonality and diatonicism, did not disappear.

Fine's interest in contrapuntal and rhythmic organization appears most strongly in his later works, and is balanced by his characteristic delicate sonorities, and by appealing melodic simplicity and textural clarity.[41] Most of Fine's works after 1952 are for small chamber ensembles, and most of these follow serial techniques. That Fine's serialism was selectively presented in his small chamber ensemble supports the theory that his use of twelve-tone methodology was related to a general concern for the growing adoption of twelve-tone music.[42]

[41] Kaufman, "Irving Fine," Ibid., viii, 827.
[42] Berger (1955), 44.

Lukas Foss

Foss acquired his fame as a performer--a pianist and conductor--and composer simultaneously, although his current main reputation fits more as a composer.[43]

Table 2.8: Foss, Stylistic Development: A Comparison between pre- and post-1952 compositions

Foss, Lukas (*b*.1922-)	
Pre-1952	*Post-1952*
• investigated traditional musical forms, e.g.: *Grotesque Dance* (1938), *Inventions* (1938), *sonatine* (1939), *Passacaglia* (1941), *Fantasy rondo* (1944), and *Prelude* (1950).	• continued his Neo-Classicism until 1960s, e.g.: *Scherzo ricercato* (1953). • abandoned tonality and fixed forms, and turned briefly to serialism. • experimented with the avant-garde trend: indeterminacy and graphic notation, *e.g.: Ni bruit, ni vitesse* for two pianos & two percussions (1972). • returned to Neo-Classicism in 1980s and 1990s while using modern experimental techniques, e.g.: *For Lenny*: variations on "New York, New York" for solo piano (1988).

[43] Foss's main claim to fame as a composer was enhanced especially with his experiment in improvisation in *Time Cycle* (1960) for soprano and orchestra, a setting of texts about time by Auden, Housemam, Kafka and Nietzsche. It was first performed by Leonard Bernstein and the New York Philharmonic and received the New York Music Critics' Circle Award for 1961. This information is based on the online database written for New Albion Records.

Foss is also an essentially traditional composer working with tonality and diatonicism; although not resistant to stylistic changes, he returned to the Neo-classic style in the 1980s and 90s (table 2.8). Like other members of the group, Foss's predominant interest in Stravinsky lay in the latter composer's 1940s Neo-Classicism; his own Neo-classic period lasted until the 1960s, while the other members of the Stravinsky School had already started turning to serialism or avant-garde (See table 2.8 above).[44] Foss's adherence to the earlier school of composition is evident in his post-1952 compositions such as *Scherzo ricercato* for piano.

The *Scherzo ricercato* for piano in 1953, was composed well after Stravinsky's Neo-classic period yet is characteristic of that earlier school style. Nonetheless, it has features of compositional development: polytonality, alternation of mode and tonality, alternation of sections and themes, fluctuation of meter, and frequent use of temporary key signatures. Like Fine's post-1952 composition, these features function as a general amplification of Stravinsky's method of musical development; the *Scherzo ricercato*'s polytonality/modality centered on G undergoes (See the analysis of Foss in chapter 3).

Eventually Foss abandoned tonality and fixed forms, and adopted serialism, indeterminacy and graphic notation; he consistently varied his compositional style. In the 1980s and 90s, Foss returned to a more American and tonal style with his local patriotic taste (See table 2.8). However, that he revisited Neo-Classicism after the late 1980s didn't cancel all he did in the 1960s and 70s.

[44] G. Chase and D. Wright, "Lukas Foss," Ibid., ix, 116.

Leo Smit

The most interesting development, and also the most closely related to Stravinsky, is Leo Smit's "dualist" approach: While following Stravinsky's new stylistic diversion, he maintains Neo-classical traditions by integrating both concepts into a single piece, in his *Concerto* for piano and orchestra (1968). The following biographical information of Smit is based on the sources below: Nils Vigeland's "Leo Smit" in *The New Dictionary of Music and Musicians,* and Aaron Copland's "The New 'School' of American Composers, 1949" in *Copland on Music* (1976).

Table 2.9: Smit, Stylistic Development: A Comparison between pre- and post-1952 compositions

Smit, Leo (*b*. 1921 - *d.* 1999)	
Pre-1952	*Post-1952*
• initiated his music career more acclaimed as a pianist than as a composer. • followed the example of Stravinsky, e.g.: *Variations* in G (1949), *Sonata* in one movement (1951)--through the late 1940s and early 1950s.	• His late 1950s compositions seem to follow Shapero's late 1940s compositions, as regarding the imitation complex, e.g.: *Variations* in G and *Sonata* in one movement (in 1954 and 1955) • went to twelve-tone writing later with his composition, e.g.: *Concerto* for piano and orchestra (1968). • used serialism to integrate traditional tonal components with twelve-tone rows to combine pitch-relation with formal structure. • integrated two different schools creating a unique synthesis-dualist approach.

While adopting twelve-tone serialism in his music, Smit also continuously integrated traditional tonal components and formal structures into his work. His synthesis of these two compositional currents is exemplified by his 1968 *Concerto* for Piano and Orchestra. Like many other contemporaries of his time, his continuous use of traditional forms even for serialist compositions followed Schoenberg's ethos of applying new musical language to his tonal structures.

Smit embraces diatonicism and a strong tonal sensibility while simultaneously adopting intense chromaticism. Despite the post-tonal methodology in *Concerto for Piano,* the music remains resolutely in C. The tremendous reliance on C as a pitch-center signals Smit's consideration of the role of tonality in post-tonal composition; the opening C in *Concerto* for Piano functions as the tonal center throughout the movements to create a strong tonal sense of tonality (See the analysis of Smit's composition in chapter 3).

Smit creates a non-modulatory version of the traditional tonal structural device of the expositional primary and secondary theme in a sonata-allegro movement. Smit integrates traditional tonal structures and pitch relations with serial methodology; the correspondence of the primary exposition theme, P_0 (X) and secondary theme, P_0 (Y) to the sonata-allegro movement synthesizes the two schools, fusing tonality and serialism.

Harold Shapero

Although still young and arguably the most promising composer of the school, Shapero never found a method that would increase his confidence in composing music. As his contemporaries found musical direction, whether turning to serial writing or not, Shapero gave up composing when his model turned to serialism. Little stylistic development is apparent in his short period of musical activity; Shapero stopped writing a few years after Stravinsky's conversion in 1952, and did not compose again until the 1970s, spurred by a new interest in electronic media (table 2.10).

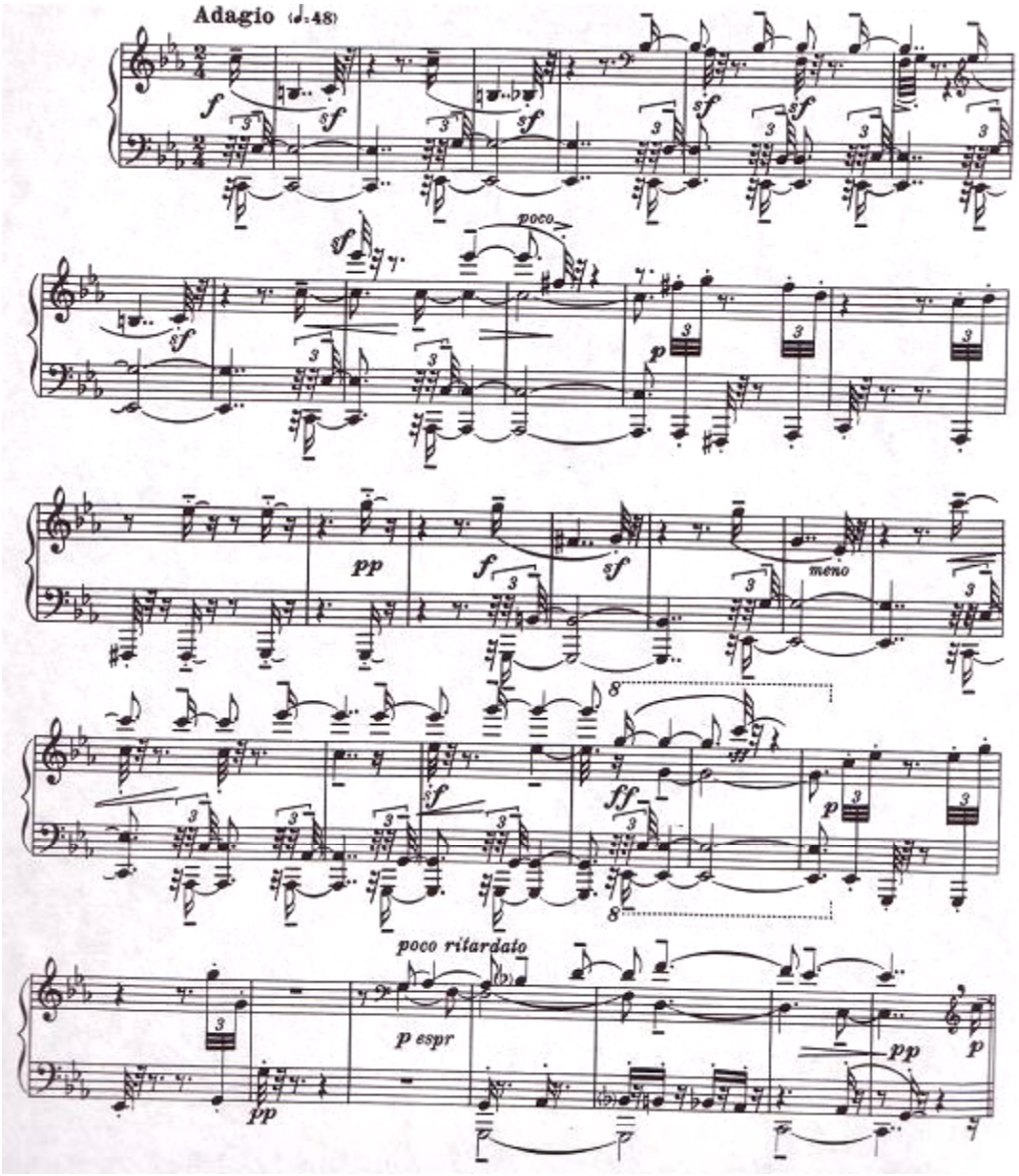
Table 2.10: Shapero, Stylistic Development: A Comparison between pre- and post-1952 compositions

Shapero, Harold (*b*. 1920-)	
Pre-1952	*Post-1952*
• was acclaimed for his craftsmanship through his early 1940s compositions, e.g.: *Sonata* for 4 hands (1941), and *3 sonatas* for piano (1944), and *Symphony* (1948). • faced with "a hero-worship complex" [45] in his late 1940s compositions, e.g.: *Variations* in C (1947) and *Sonata* in F (1950).	• never became identified with serialism in his music, as he stopped writing just a few years after Stravinsky's serial conversion 1952. • began composing again with his new interest in acoustic and electronic media in 1970s.[46] • retired teaching in 1988.

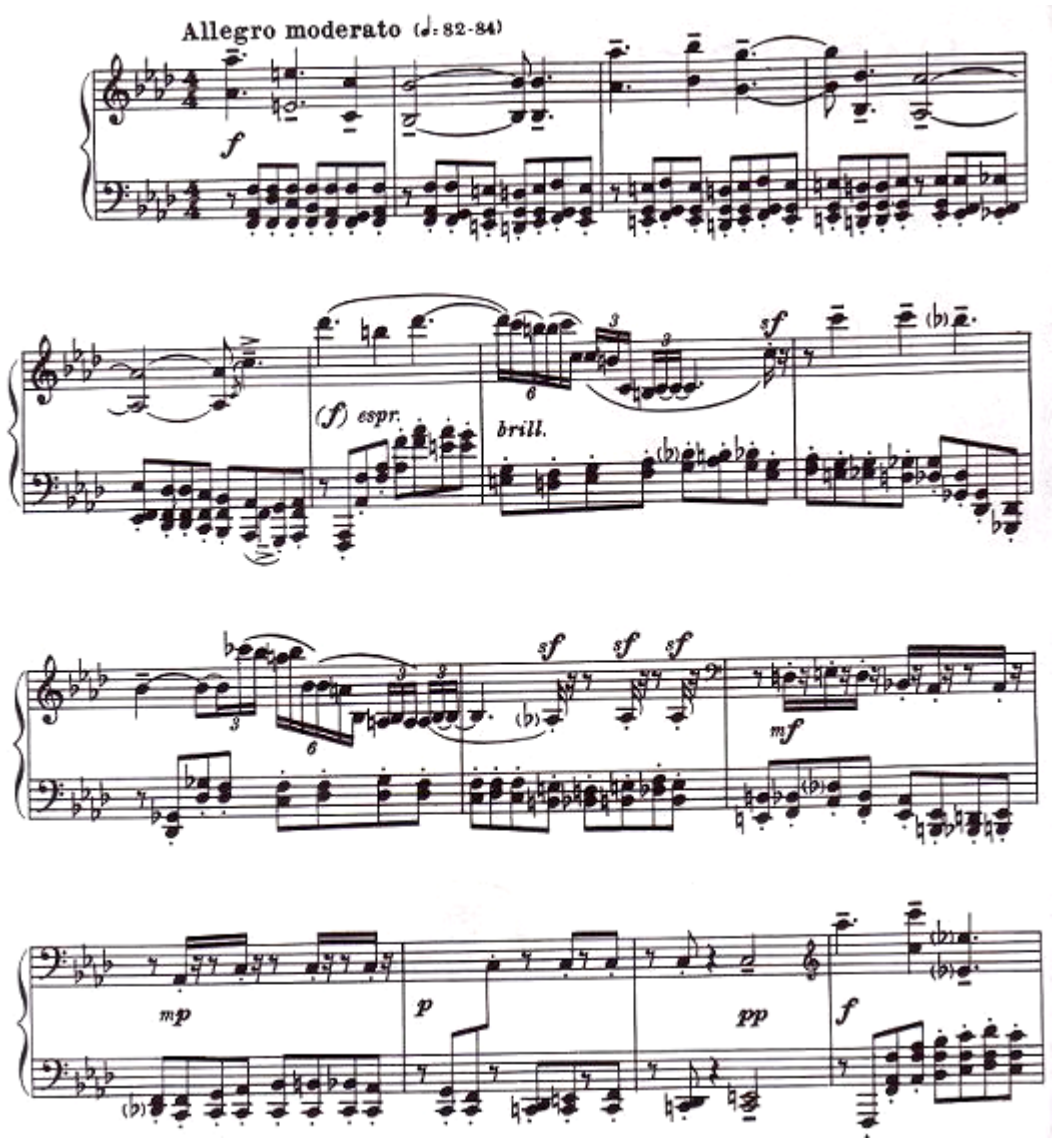
[45] As to what Copland dubbed the skeptical "hero-worship complex" regarding Shapero's 1940s compositions, Copland worried that Shapero was in thrall to Beethoven and Stravinsky. Copland (1949), 70.
[46] Howard Pollack, "Harold Shapero," in *The New Grove Dictionary of Music and Musicians* 2nd ed., S.Sadie and J. Tyrrell (London: Macmillan, 2001), xxiii, 213.

While Shapero's early 1940s compositions such as *Sonata* for 4 hands and *Three Sonatas* for piano received high praise and a series of awards, and even admiration from major composers at the time, his late 1940s works were greeted with skepticism. That certainly did not increase his confidence.

Example 2.1: *Variations* in C minor (1947) of Shapero



Example 2.2: *Sonata* in F minor (1948) of Shapero



Shapero admired the old great masters, in particular, Haydn, Mozart, and Beethoven, and was astonished by their great mastery of natural phraseology. Shapero's stylistic imitation--in particular of Beethoven[47] --was evidenced in his late 1940s

[47] Berger (1955), 43.

compositions (examples 2.1 and 2.2 above) like *Variations* in C minor (1947) and *Sonata* in F minor (1948). Shapero was certainly aware of his imitation of these great models:

> As the composer continues to work exercises in imitation of his models he will be surprised to find that along with the thousand subtleties of technique he will absorb from his masters, he will discover the personal materials of his own art. These will often be presented to him in dreams, or in the half-waking state of consciousness, before the inner critical faculty has had the opportunity to act in selecting and repressing the given material. From these experiences he will gradually accumulate the technical stuffs of a private creative world, possessing capabilities of change and expansion according to his expressive needs.[48]

He was undoubtedly motivated by Stravinsky's reinstatement of classical principles. However, Shapero applied this reinstatement more literally.[49] This stylistic parody obviously hid the brilliance of his own gifts, uniqueness, and creativity.

Shapero certainly suffered from Stravinsky's radical turn to serialism. He probably thought Stravinskian Neo-classicism would be the absolute solution consistently to develop his compositional styles without turning to twelve-tone music. Indeed, Stravinsky's conversion was probably too sudden for Shapero either to follow or not. Thus, the impact of Stravinsky's serial conversion on Shapero was most dramatic and negative among the composers of the school, for Shapero's response was to stop composing.

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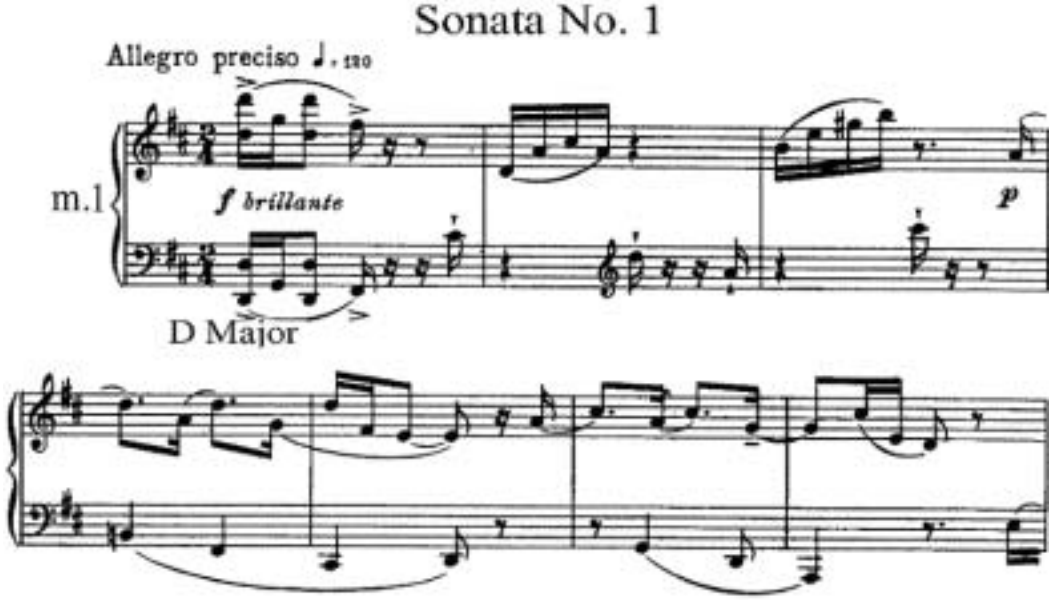
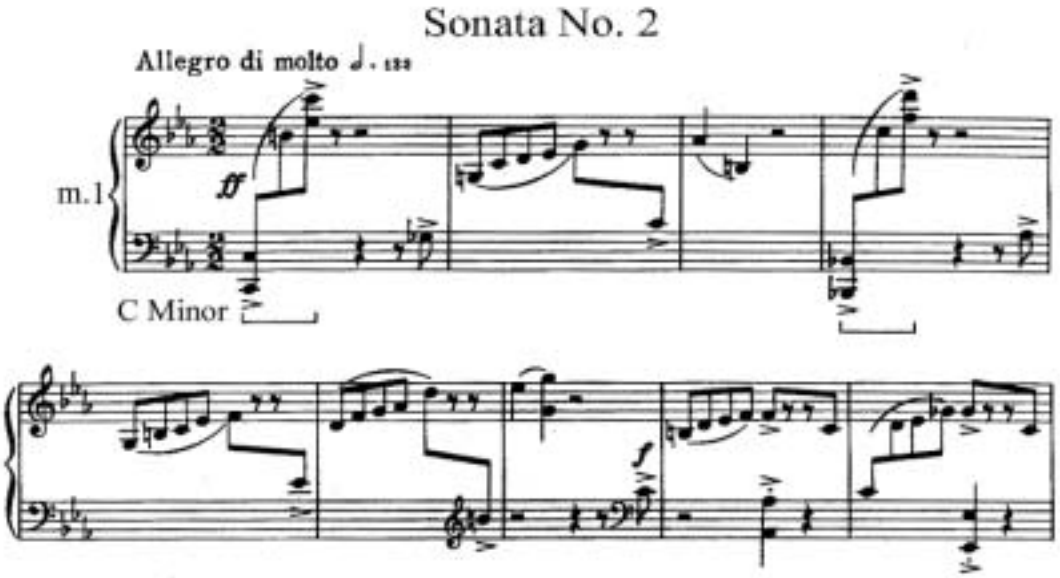
[48] Harold Shapero, "The Musical Mind," *Modern Music* 23, no.1 (Winter-Fall 1946), 33-4.
[49] Berger (1955), 42-3.

Harold Shapero's music composed in the early 1940s maps his search for directness and purity of musical thought, and strong tonal function and structure. Based on my performing experience of his sonata, *Three Sonatas* (1944) characterize his compositional style in that period (example 2.3).

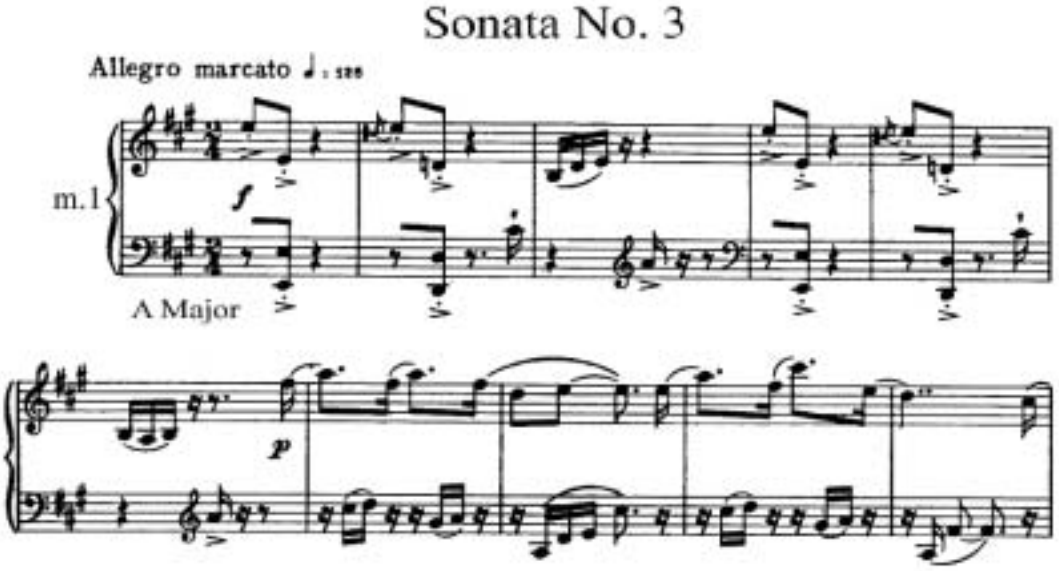
Example 2.3a: *Sonata* No.1 from *Three Sonatas* (1944) of Shapero



Example 2.3b: *Sonata* No.2 from *Three Sonatas* (1944) of Shapero



Example 2.3c: *Sonata* No. 3 from *Three Sonatas* (1944) of Shapero



All musical materials in *Three Sonatas* are constructed by short and small units--four movements are miniature-size; and thematic phrases are motivic length consisted of three or four notes. Inserted rests between thematic phrases create a variety and vividity. Shapero's simple texture in the sonatas produces clear melodic lines. Although the keyboard range is broad and the right and left hand are often across, the thematic phrases and progression produce clear and vivid acoustic sound. Owing to diatonic progression, key tonality, and metric regularity, all musical materials in his *Three Sonatas* are evident of his style in that period.

As seen in musical examples above, the three sonatas are tonal: Sonata, *No. 1* is in D major; *No.2* is in C minor; and *No. 3* is in A major. Each sonata consists of four movements, presenting the standard classical format--sonata Allegro; slow three-part song form; minuet or scherzo; and rondo or sonata form (table 2.11 and example 2.4).

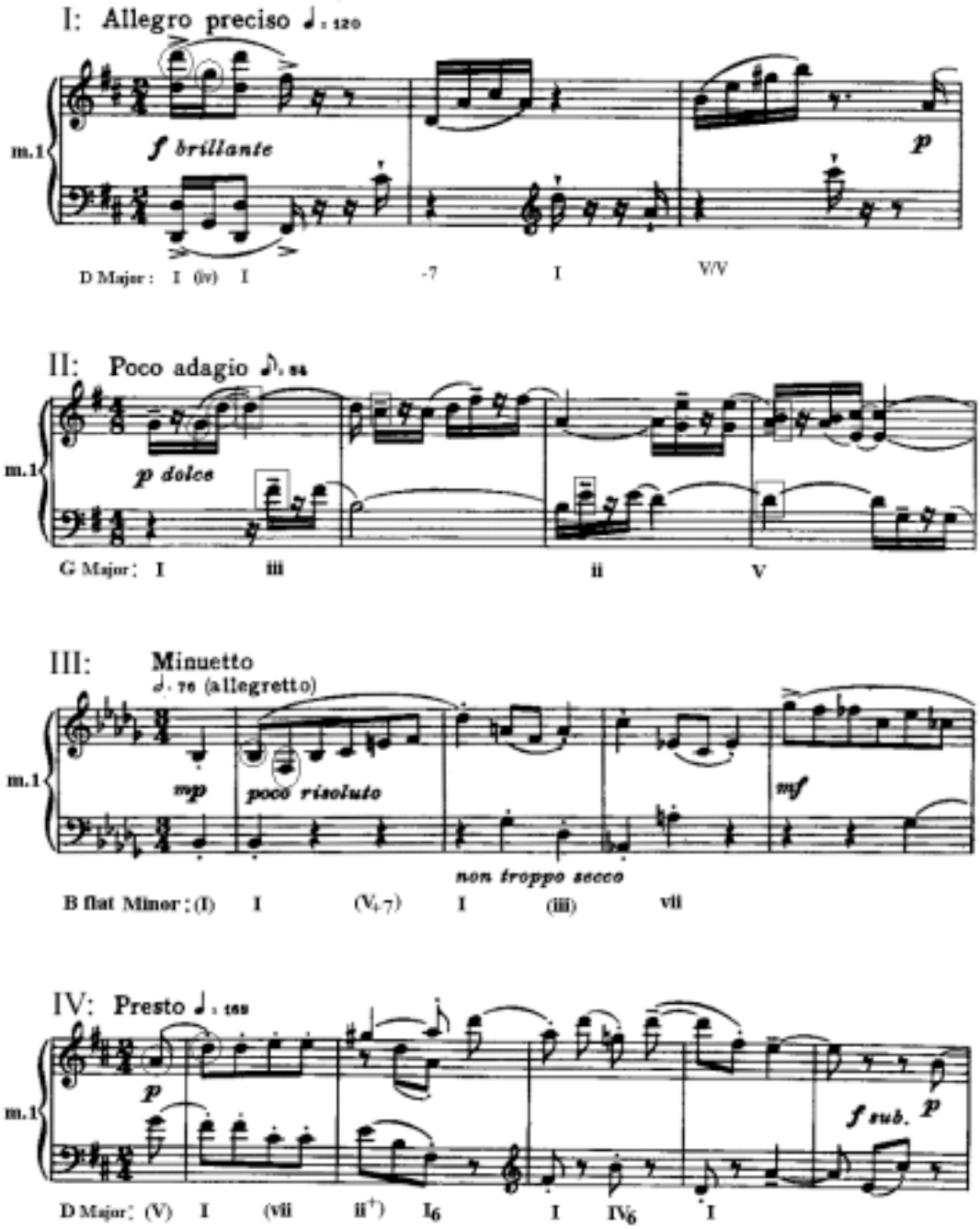
Table 2.11: Summary of *Sonata No.1*: Shapero: from *Three Sonatas* (1944)

Movement	**I**	**II**	**III**	**IV**
Tempo/ Dynamic	*Allegro preciso* *f.* *brillante*	*Poco adagio* *p.* *dolce*	*Minuetto* *(Allegretto)* *mp.* *Poco risoluto*	*Presto* *p.*
Meter	2/4	4/8	3/4	2/4
Tonality	D Major	G Major	B-flat Minor	D Major
Measure-proportion	94 mm.	51 mm.	59 mm.	159 mm.
Form	Sonata-allegro	Song form: A-B-A′	Three-part: Minuetto- Trio- Minuetto	Sonata-Rondo
Formal Structure/ Sub-Structure	*Exposition* (35:mm.1-35) in D major *Development* (21: mm. 36-56) in III/, II/, and I/D * *Recapitulation* (38: mm. 57-94) in D major	A (mm. 11: mm. 1-11) in G major B (mm. 10: mm. 12-31) in D major, B/C-flat minor A′ (mm. 20: mm. 32-51) in G major	Minuetto (19: mm. 1-19) in B-flat minor Trio (18: mm. 20-37) in E-flat major Minuetto (22: mm. 38-59) in B-flat minor	A i: a (10: mm.1-10) in D major ii: bridge (10: 10-19) iii: b (5: 19-23) iv: bridge (5:23-27) B i: a (37: 27-63) consisting of 4 themes in F-sharp / D A’ i: a’ (12: 62-72) in D major ii: bridge (14: 2-85) iii: b’ (18: 85-102) in B-flat major C i: scale-passage (18:102-119) in D major ii: a’’(22: 119-140) in D / A minor iii: scale-passage (14: 140-153) in D major A’’ a: Coda (7:153-159) in D Major

*Refer to example 2.4 below.

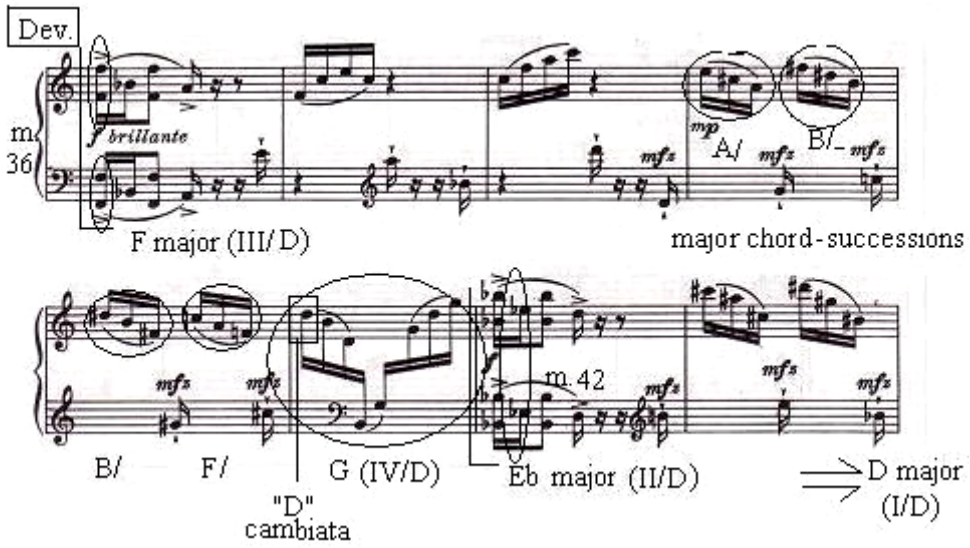
In table 2.11 above, *Sonata* No. 1 from the *Three Sonatas* (1944) consists of four movements, which show Shapero's predilection for traditional musical forms (example 2.4).

Example 2.4: Tonal relationship between the four movements: *Sonata* No. 1: Shapero



As a tonal composition, the development section of the sonata follows a logical harmonic progression. It starts in F major (at bar 36), as a minor third relation, eventually arriving on the tonic D major at bar 57, the start of the recapitulation. After major chord-successions of A, B, B, and F (at bars 39-40), the G major chord at bar 41 comprises a "D" *cambiata* functioning as an escaped lower passing tone. Simultaneously, the "G" tonic note functions as an escaped upper passing tone; from F to E^b (example 2.5).

Example 2.5: The harmonic progression of development section: the first movement of *Sonata No. 1*



Shapero's musical style encompasses diatonic characteristics, homorhythmic textures, unisons and simple triads, dissonant counterpoints, quartal harmonies, and driving rhythms. The length and pattern of his sonata-form compositions are as simple as *sonatine.* His compositions are characterized by simplicity, clarity, and wit.[50] This clean style was never replaced in Shapero's work.

[50] Karen Joy Follingstad, "The three sonatas of Harold Shapero: historical, stylistic, and performance analysis" (D.M.A. Thesis: University of Texas at Austin, 1989), 70.

Copland hopefully predicted that if Shapero had directly attacked the problem of composition, throwing away all models and striking out on his own, the whole musical world would sit up and taken notice of him.[51] Unfortunately Shapero never did engage the problem musically. Shapero never became identified with 12-note method, rather, he stopped composing until 1970s; his new compositions were inspired by his interest in electronic media.

[51] Copland (1949), 170.

CHAPTER 3: ANALYSES

Arthur Berger: Three One-Part Inventions for Piano (1954)

Like other members of the Stravinsky school, Berger's music of the 1940s was heavily influenced by Stravinsky and Neo-Classicism. However, his works from the late 1950s, which mingled both serial and diatonic aspects, could be categorized as serial or post-Webern.

As a relatively unknown figure in twentieth-century piano literature, Berger composed *Three One-part inventions* for Piano (1954) as a commission for the Association for the Promotion of New Music.[52] In analyzing Berger's *Three One-Part Inventions* the main focus is the twelve-tone second movement; the other movements have different compositional formats. For the first and third movements, I describe the ways in which they create a sense of key tonality (E-minor in the first movement and F-major in the third one) while I explain the way in which the second movement is a twelve-tone piece.

Completed on August 8, 1954 in Dublin, New Hampshire, this three-movement composition presents Berger's characteristic technique of blending tonal, atonal, and serialist methods.

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52 Founded in 1975 by composer and conductor Jacques-Louis Monod, the *Association for the Promotion of New Music* (APNM), located in New York City, is a composer consortium dedicated to making available a broad and significant range of contemporary musical compositions for performance and study.

Table 3.1: Summary of Berger's *Three One-part Inventions* for Piano (1954)

Movement & Dedication	**I** To: Charles Rosen	**II** To: Jacques-Louis Monod	**III** None
Tempo & Dynamic	*Allegro moderato e grazioso* *f. deciso*	*Poco Lento con espressione* *mp. teneramente*	*Allegro Vivace* *f. Sonoro*
Dominant mode / Tonality	E Minor	Twelve-tone The initial series (Prime 5) on F	F Major/A Minor integrated in atonality
Consistent Meter*	4/4	4/4	4/4
Formal Structure	mm. 50 i: Introduction (mm. 2) : initiated in iv & vi / E Exposition (mm. 15): re-initiated in i / E ii: Development (mm. 27) : in g → d (in the 4th interval relationship) i′: Recapitulation (mm. 6) : re-stating in i / E minor	mm. 44 i: 1-8 (mm. 8) 9-18 (mm. 10) ii: 18-28 (mm. 10) 28-36 (mm.8) at the bar 18, "Overlap" ** i′: 37-44 (mm.8)	mm. 104 {Exposition: mm. 34} i: 1-16 (mm.16) on F/A ii: 17-34 (mm. 18) on E^b {Development: mm. 34+4} iii: 35-46 (mm.12) on F/A iv: 47-68 (mm.22) w./ Atonality 68-71 (mm.4): "Stretto" {Recapitulation: mm. 33} v: 72-104 (mm.33) :on F/A "Tempo I° "
Musical Contents	Rhythmically fragmented lines and lean and spare texture. For vocabulary of linear procedures, sevenths and ninths are common; diatonic intervals are mostly favored		

* There are meter-fluctuations, but the main meter 4/4 is consistently kept throughout the piece.
** Through the overlapping at the bar 18, there some changes are provoked those of dynamic, row, and note value: *molto legato* → *cantabile,* P_5 (from the sixth to twelfth tone) → (the first to twelfth with a breaking between the seventh and eighth tone), and a thirty sixth note → eighth note in value).

Three One-part Inventions for Piano (1954) consists of three short movements of ten-minute playing duration. The first movement, dedicated to Charles Rosen, is an *Allegro moderato e grazioso* in 4/4 meter. It is a tonal piece in E minor, marked *forte deciso* at the beginning. The fifty-measure length of the first movement is divided into three sections (a-b-a′) equivalent to those of the sonata-allegro, but rather in miniature format *Sonatine* (table 3.1) -- introduction (mm.2) / exposition (mm. 15), development (mm. 27), and recapitulation (mm. 6).

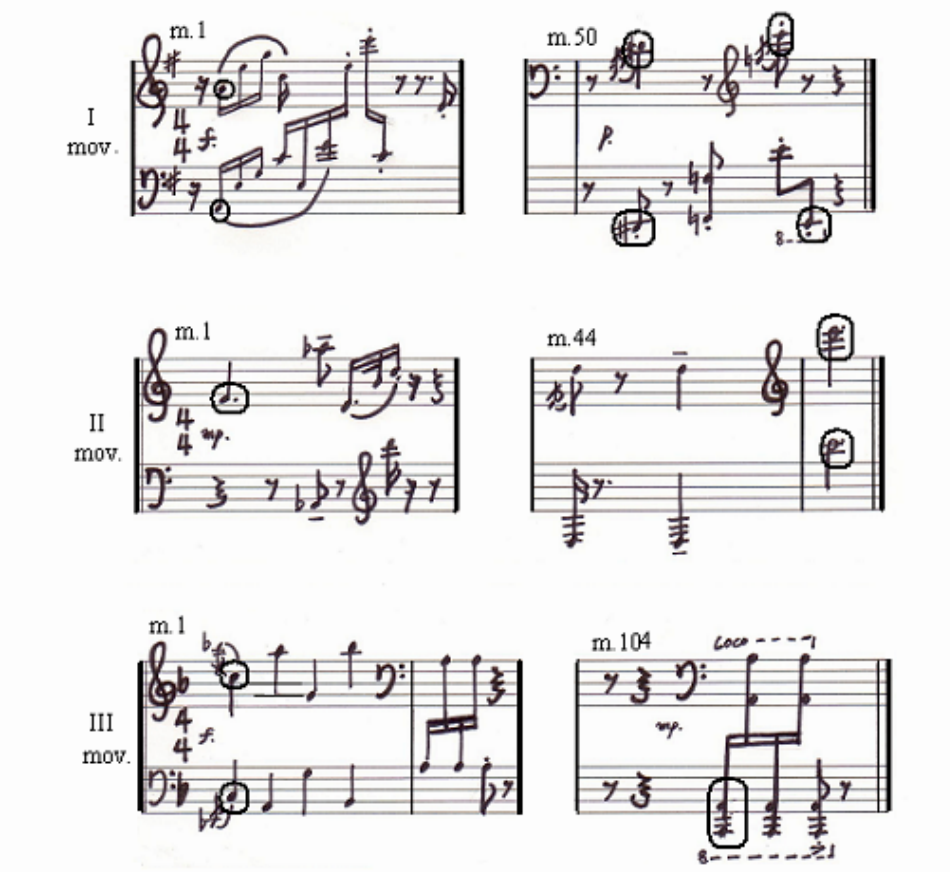
The second movement, dedicated to Jacques Monod (*b.* 1927), is *Poco Lento con espressione* in 4/4 meter. This twelve-tone composition is a slow movement initiated by the series Prime 5 on F. The 44 measures are divided into three sections (a-b-a′) with five sub-divisions. The third movement, *Allegro Vivace,* in 4/4 meter, is primarily tonal (A minor / F major), but mingled with atonality. The 104 measures of the last movement are divided into several multi-sectional sub-divisions of equal measure-proportion, suggesting either a free sectional form or a sonata-rondo form. Each larger section--exposition, development, and recapitulation--has almost equal measure- proportion (i.e.: mm. 34, 38 (34+4), and 33), and features a mixture of tonal and atonal methodology.

"Variety in Unity and New in Old"

The inventions are almost a single *united* composition. Berger's compositional methodology--his intention for *variety* of formal structure and a sense of key center--is imprinted throughout the movements. Above all, this composition starts and ends on A. Initial and final notes of each movements create relative tonal connection; the starting

notes of each movement, A-F-C, comprise the F major trichord, while the ending notes E-E-A sound the root and fifth of the A minor-chord. F major and A minor are relevant keys that are used in the third movement. The progress of the ending measures smoothly lead to the following movement (See example 3.1). In the first movement, the progression $D^{\#}$ to E ascends to F, the starting note of the second movement. Similarly, the second movement progresses from F to E and descends to C, the starting note of the third movement as well.

Example 3.1: Starting and ending measures of the movements: Berger's *Three One-part Inventions* for Piano



Based on the relationship of the initial and ending notes between movements, the piece seems driven to the key center of F. Tonality and atonality are inter-mingled throughout all movements. 'F' as the tonal center is consistently displayed whether in serial or non-serial movements.

In addition, as each section changes, so do the dynamic markings. The marks used for each sectional change are arranged with consistent unity (Refer to table 3.1); the first movement: i--*deciso (forte),* ii--*commodo come sopra (mezzo forte)*, and i′--*commodo (meno forte);* the second movement: i--*teneramente (mezzo piano),* ii--*cantabile (mezzo forte),* and i′--*Come prima (mezzo piano);* and the third movement: i--*sonoro (forte)*, ii--*capriccioso e staccatissimo (piano),* iii--*grazioso (piano),* iv--*amabile poco meno mosso (mezzo piano)*, and v--*lontano (piano)*.

Berger's extended idiom for dynamic markings is an application of Stravinsky's compositional fashion. Stravinsky's extension of dynamic markings is exemplified in the second movement of *Three Movements from Petrouchka* (arranged for two pianos by Victor Babin [1922]): the first section A: i--*impetuoso* (♩ =100), ii--*doppio valore* (♩ =50), iii--*allegro* (♩ =76), and iv--*furioso* (♩ =108); the second section B: andantino (♪ =80); and the last section A': allegro (♩ =100). As each section and tempo change, so do the dynamic markings accompanied with metronome markings. The subject dynamic markings and accurate metronomic markings appear when a section and tempo change.

Meter and Rhythm

A consistent 4/4 meter runs throughout the piece. A meter-fluctuation rooted in 4 (i.e. 2/4, 3/4, and 5/4) is briefly used during the piece. Though the fluctuations themselves lack significant consistency, the number of fluctuations per movement is clearly deliberate. In the first movement, the meter changes three times within five measures; in the second, there are four fluctuations over four measures. This increase continues into the third movement, which has five meter changes over the course of five measures (figure 3.1a).

Figure 3.1a: Meter Fluctuation: Berger's *Three One-part Inventions* for Piano

"*I* " movement (50 mm.= 45+5): 3 times						
4/4 *13*	2/4	3/4 *2*	2/4	4/4 *26*	2/4	4/4 *6*

"*II* " movement (44 mm.= 40+4): 4 times								
4/4 *7*	2/4	4/4	3/4	4/4 *17*	2/4	4/4	3/4	4/4 *14*

"*III* " movement (104 mm. = 99+5): 5 times										
4/4 *3*	5/4	4/4 *5*	5/4	4/4 *4*	5/4	4/4 *6*	3/4	4/4 *7*	3/4	4/4 *74*

As seen in figure 3.1a, the meter-fluctuations are of a very short duration--mostly one measure long, except two measures of 3/4 in the first movement, and all movements begin and end with 4/4 meter. The real fluctuation thus is not convincing, but rather seems to provide a short bridge or variety. Given the brevity of the switches and their similar roots in quarter-time, Berger's use of metric fluctuation is easily mistaken as an unskillful or

insignificant compositional technique. Paradoxically, it could be considered an intentionally hidden or anti-visual compositional manipulation; the momentum for meter-fluctuation is apparent in his use of the consistent meter (4/4) and deliberate number order (3, 4, and 5). Regarding the issue of metric irregularity, Stravinsky's reputable barring material like meter and phrase often form a phrasing or grouping.[53] Berger's metric manipulation as a musical development might be accounted as a general amplification of Stravinskian compositional fashion. For comparison of this idiomatic metric-shifting, Figure 3.1b shows Stravinsky's idea of metric irregularity appearing in the second movement of *Three movements* from *Petrouchka,* arranged for two pianos version in 1922.

Figure 3-1b: Meter-Fluctuation: Stravinsky: the second movement of the *Three movements* from *Petrouchka*.

Part "A" (mm. 42: 1-42)																	
2/4 *38*						3/4 *1*						2/4 *4*					
Part "B" (mm. 37: 43-70)																	
2/4 *37*		3/8 *1*		4/8 *8*		3/4 *1*		2/4 *2*		3/4 *1*		2/4 *7*		3/4 *1*			
Part "A' " (mm. 50: 71-121)																	
2/4 *51*	3/4 *1*	2/4 *1*	3/4 *3*	2/4 *1*	3/4 *1*	2/4 *16*	3/4 *1*	2/4 *1*	1/4 *1*	3/4 *1*	1/4 *1*	2/4 *11*	3/4 *3*	2/4 *1*	3/4 *4*	3/2 *2*	4/4 *1*

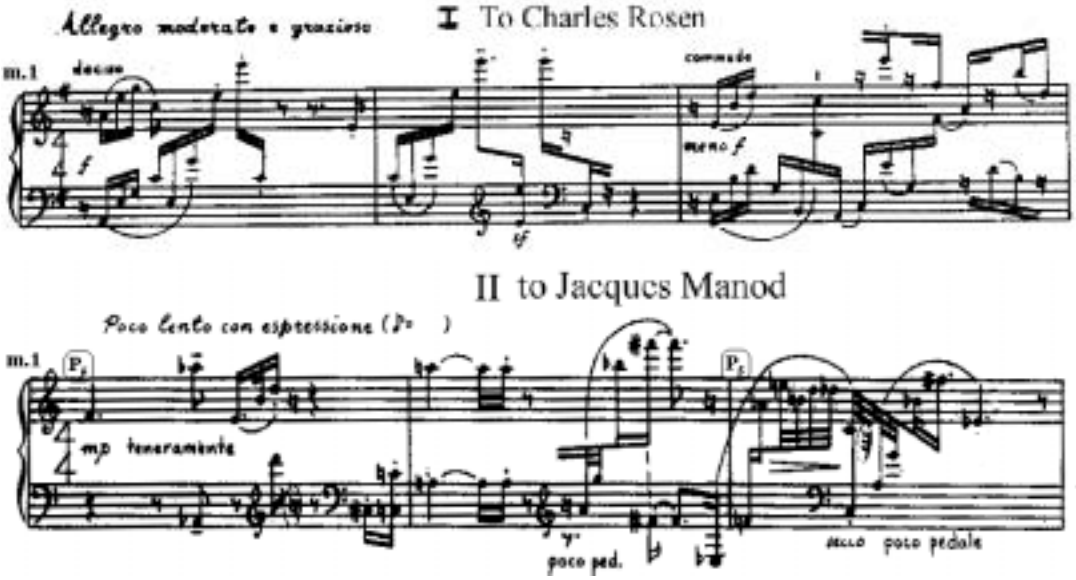
Stravinsky initiates all three sections (A-B-A') with the meter 2/4, and the sections end with different meters but similar roots in quarter-time (i.e.: 2/4, 3/4, and 4/4), given in the

[53] Pieter C. Van den Toorn, "Stravinsky Re-barred," *Stravinsky and The Rite of Spring*. *(*Berkeley: University of California Press, 1987), 57.

brevity of the switches. Stravinsky's use of metric fluctuation in this movement seems moderate with consistent metric shifts while delivering increased number of shifts. However, Berger's metric fluctuation is differently manipulated in his *Three One-part Inventions* for Piano as seen in figure 3.1a above. This different method of metric shifts offers persuasive support for Berger's later tendency towards stylistic independence.

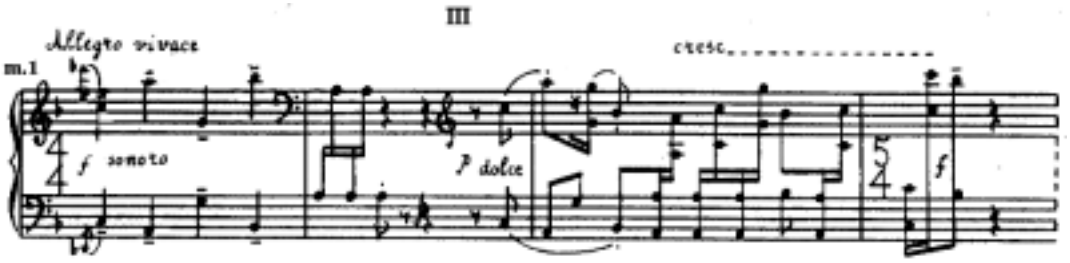
The three movements, in Berger's *Three One-part Inventions* for Piano, consist of rhythmically fragmented lines rendered in a lean and spare texture. Berger considered this openness and clarity as enriching the beauty of pitch relationships and sonorities.[54] For that purpose, mostly diatonic intervals are favored; octave and unison in progression are common; and wide intervallic leaps like sevenths, ninths, and larger often occur. Rhythms combining with rests and notes are supported by dynamics, register, and articulation. The juxtapositions of legato/ staccato, lower/ higher register, and slurred or *tenuto* correspond with and reinforce each other (example 3.2).

Example 3.2: Opening measures from each movement: Berger's *Three One-part Inventions.*



[54] Perkins, "Arthur Berger: The composer as Mannerist," *Perspectives of New Music* (Fall-Winter 1966), 77.

Example 3.2: continued



Commissioned by Association for the Promotion of New Music, Printed by Cameo Music Papers, HO. 5. 3124 in Calif.

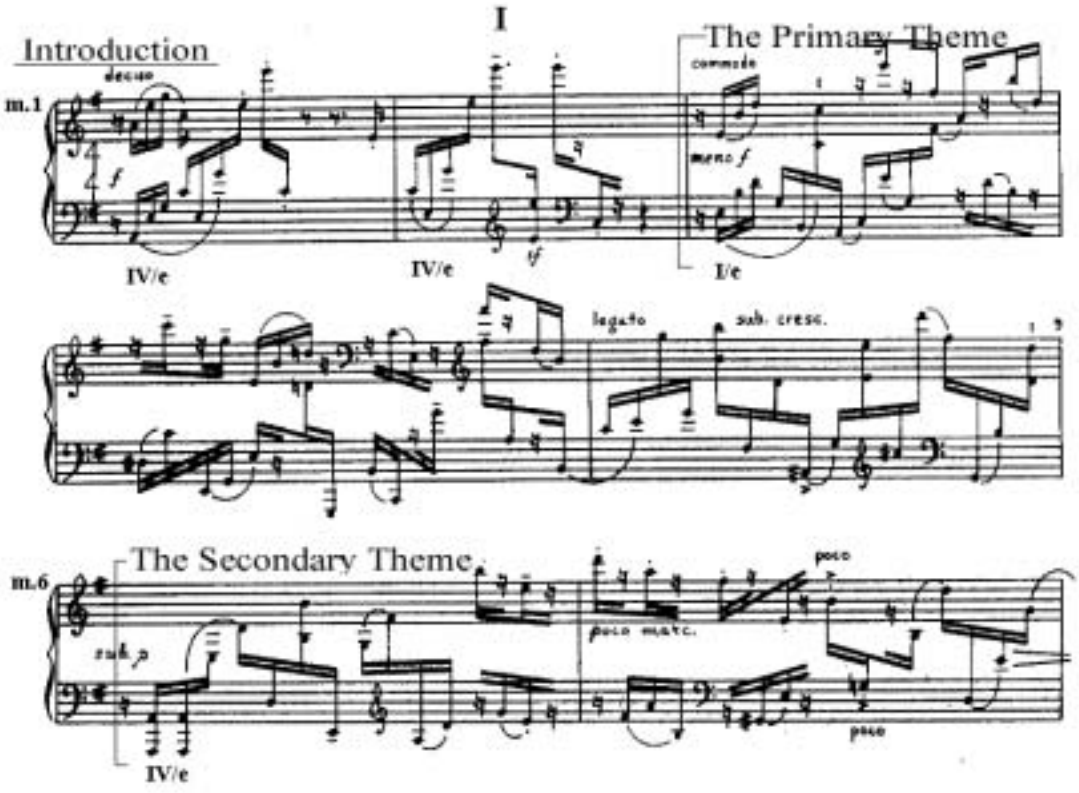
A rhythmic motive pairing long and short notes divides thematic phrases, which are often started and ended by rests (See example 3.2). Within the distinct phases, Berger broadens the register [55] and varies the rhythmic values of note divisions and dottings, creating pointillistic character. However, the octave unison progresses continuously throughout the three movements. Along with rhythm and note-combination, Berger favors melodic fragmentation whether in tonal or atonal/ twelve-tone writing. These fragmentation-manipulations play a key role in the second movement.

[55] Perkins, "Arthur Berger (1966)," 77.

"A Sense of Key Tonality: Movements I and III"

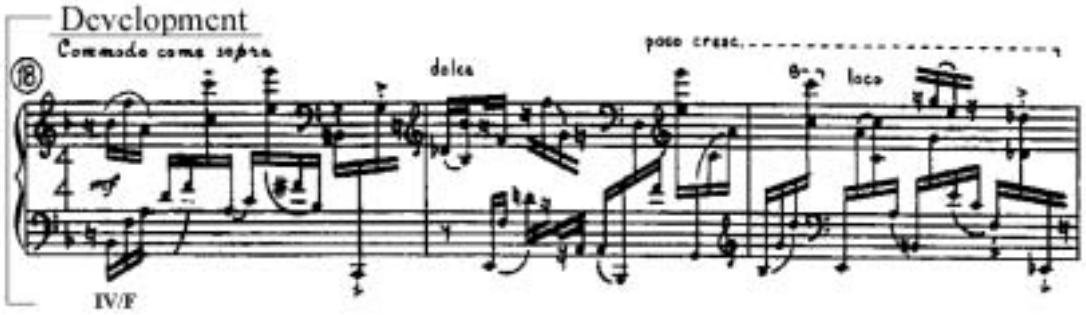
The first and third movements reflect the structural principles of sonata-allegro form through both formal divisions and key relationships. Indeed, the divisions correspond to key signatures, although these are not strict and fluctuate frequently. A two-measure phrase resolving the sub-dominant and sub-mediant of E minor (IV and VI / E at bars 1 though 2) to the tonic (I / E at bar 3) introduces the first movement exposition. The primary and secondary themes show typical contrasting characteristics: respectively, they appear in the tonic and sub-dominant; *meno forte* and *subito piano;* and on a single note versus in octave unison (example 3.3).

Example 3.3: Exposition of the first movement, mm.1-7: Berger's *Three One-part Inventions*

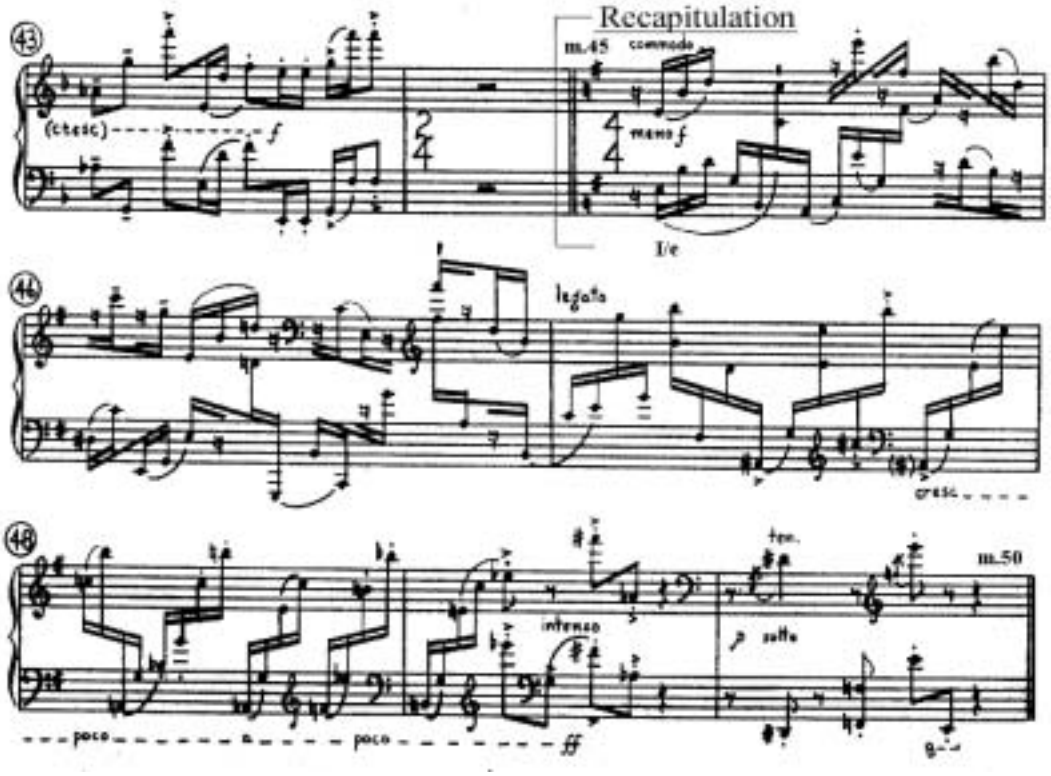


The 27-measure development transforms the primary theme on the sub-dominant of F (IV / F at bar 18), which continues developing throughout the section (example 3.4). In the short recapitulation (at bar 45), the primary theme returns in E minor, but the secondary theme is absent (example 3.5).

Example 3.4: Development of the first movement, mm.18-20: Berger's *Three One-part Inventions*

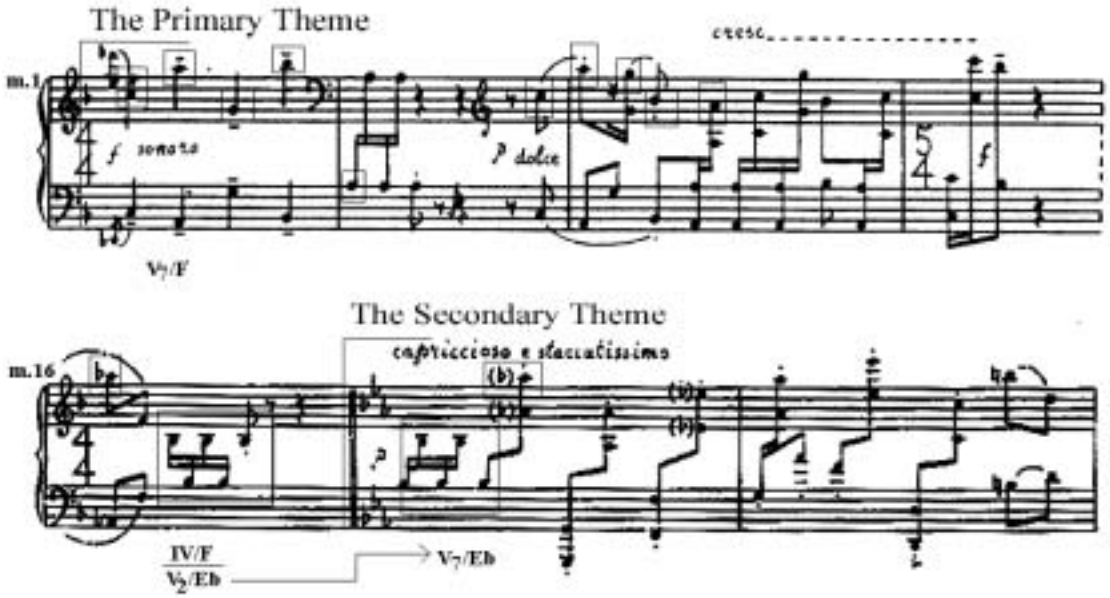


Example 3.5: Recapitulation of the first movement, mm. 43-50: Berger's *Three One-part Inventions*



The 104-measure third movement contains several multi-sectional sub-divisions corresponding to a sonata-rondo form in large. Each sections--exposition, development, and recapitulation--are in almost equal measure-proportion (i.e.: mm. 34, 38 (34+4), and 33). The key is ambiguous; the possibility of either F major or A minor allows less sense of key than the first movement. It features frequently fluctuating key signatures, atonality, and voice-leading and note-groupings rather than chord or tonal progression. The descending C-B^b-A at bars 1 and 2 is a voice-leading derived from the F tonic chord; the root F is missing, and a passing-note B^b is inserted. The primary theme of this exposition is built on the dominant seventh of F (V_7 / F), and pivots through a common chord--IV/ F, equivalent to V_2 / E^b--to reach the secondary theme on E^b at bar 17 (example 3.6).

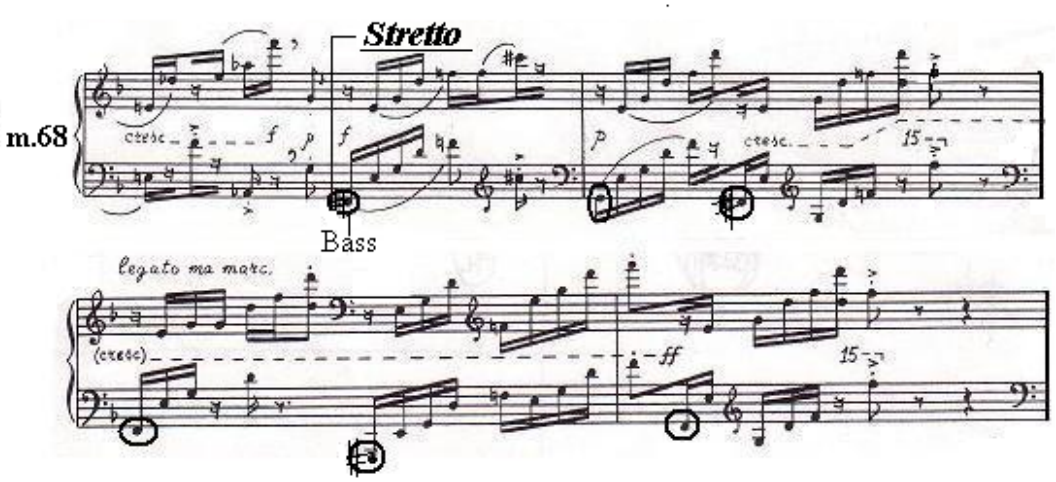
Example 3.6: Exposition of the third movement, mm.1-4, and 16-18: Berger's *Three One-part Inventions*



Stretto is clearly seen in the example 3.7 below. Berger melds this common compositional practice of the Baroque period with both tonal principles and atonality.

Stretto creates the bass lines in half step movements (circled on the musical excerpt), with $F^{\#}$ - G - $F^{\#}$ at bars 68-69 and F - $F^{\#}$ - F at bars 70-71. Meanwhile, the tempo primo restates the primary theme at bar 72. The synthesis of such techniques reflects Berger's firm grounding in Neo-Classicism despite his adaptation of twentieth-century compositional methodologies, such as atonality.

Example 3.7: *Stretto* at bars 68 through 71in the third movement: Berger's *Three One-part Inventions*



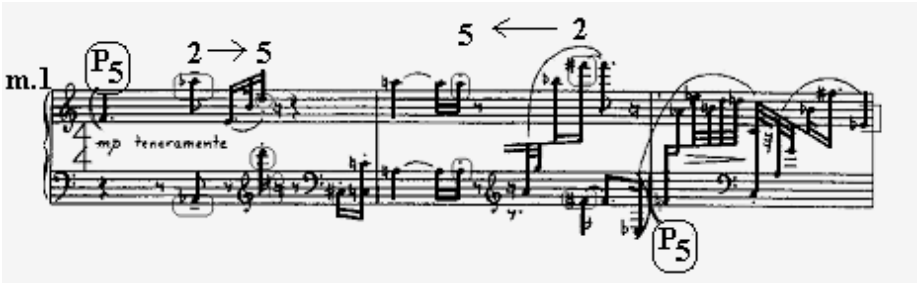
"The Twelve-Tone Organization: Movement II" [56]

In contrast to the sense of key corresponding to sonata-allegro form, the second movement of *Three One-part Inventions* for Piano is a twelve-tone composition. The series Prime 5 initiates this movement (example 3.8). The row-form P_5 --F - A^b - E - B - D - $C^{\#}$ - C - A - G - B^b - $F^{\#}$ - E^b --and its pitch-class integers (5-8-4-11-2-1-0-9-7-10-6-3) is manifested through varied development.

Example 3.8: P_5 from the second movement: Berger's *Three One-part Inventions*

Properties of the series include preference for diatonic intervals, such as the minor third (F to A^b, G to B^b, or $F^\#$ to E^b), perfect fifth (E to B), and major second (A to G). Static diatonic progressions and wide leaps predominate, although the chromatic descending progression D - $C^\#$ - C bridges the middle span of the series. P_5 is first presented in mm. 1-2, with a reduction following at bar 3 (example 3.9). The twelve-tone series in this movement develops largely through tone-doubling or grouping of pitches, repetition, reduction or extension, and addition or omission. The note-doublings of P_5 are interestingly ordered (example 3.9).

Example 3.9: Note-doubling numbers in P_5: 2 & 5 (mm.1- 3)



At the beginning (mm. 1-2), the note doubling on the account order numbers 2 and 5 (A^b and D) is the same as for order numbers 11 and 8 ($F^\#$ and A)--those being the second and

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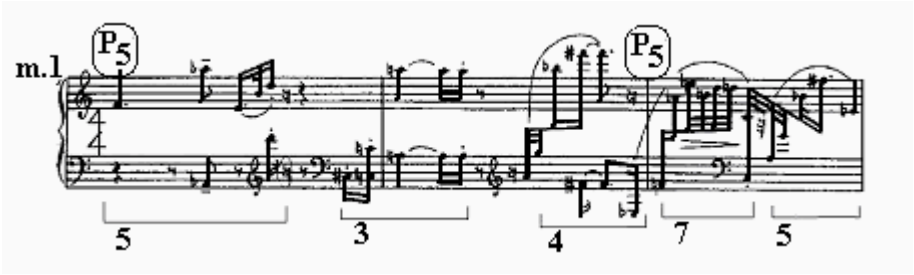
[56] Abbreviations: P=Prime; I=Inversion; R=Retrograde; and RI=Retrograde-Inversion.

fifth from the end of the series. At bar 3, the twelve notes of P_5 are coherently reintroduced, reduced to a one-measure presentation.

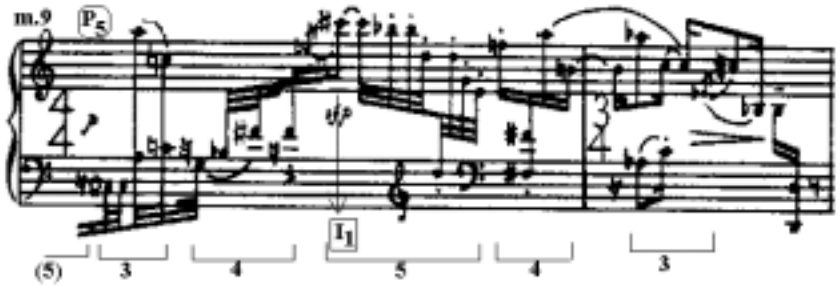
The opening P_5 note-groupings (at bars 1 through 3) also show interesting partition numbers. On the order numbers 5, 3, 4, 7, and 5, the first presentation of P_5 is divided (marked below the excerpt). The two groups are differentiated visually with rests. The first group consists of 5 notes, 3 notes, and 4 notes; the second has 7 notes plus 5 notes (example 3.10).

Example 3.10: Note-partition numbers in P_5: 5-3-4 & 7-5



The grouping--5, 3, 4, 7, and 5--appears continuously within other series. For example, in the presentations of P_5, I_1, and I_1 (mm. 9 through 11), the groupings of the first two rows are divided by 5 notes (although omitted), 3 notes (marked by the sixth tone $C^{\#}$), and 4 notes (marked by the ninth note G). The marked notes $C^{\#}$ and G function as common notes between the first two row-presentations, designated as $-T_5$ I. The notes of the next row are divided into group of 7 and 5, which differentiated by A and E^{b} as axial notes functioning between P_5 and I_1 (example 3.11).

Example 3.11: Note-partition numbers applied in I_1: 5-3-4 and 7-5



As seen in the example 3.11, the fragmented-sized row segments from P_5 start on the sixth note C-sharp and conclude with E-flat. Following this, I_1 appears as $C^{\#}$ - B^{b} - D - G - E - F - $F^{\#}$ - A - B - A^{b} - C - E^{b}, with pitch-class integers: 1-10-2-7-4-5-6-9-11-8-0-3 (example 3.12).

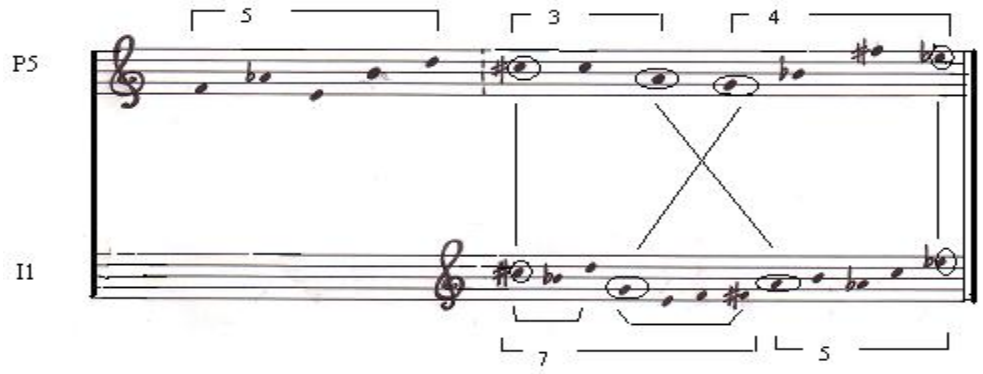
Example 3.12: I_1 from the second movement: Berger's *Three One-part Inventions*

Beyond sharing starting and ending notes ($C^{\#}$ and E^{b})--a major second intervallic relationship--P_5 and I_1 show numerous correspondences (figure 3.2 and diagram 3.1). Many segments between the rows are interrelated representatively through their note-grouping segmentations (5, 3, 4, 7, and 5) and tritones ($C^{\#}$ / G and A / E^{b}). These segments, influenced by the beginning of the movement, are often applied to other series such as I_1 (m. 9, although the order is reversed, 7 and 5 →5 and 7).

Figure 3.2: Related Segmentations between P_5 and I1

P_5	**I_1**	Comment
{5} + 3 + 4	5 + (4 + 3) = 5 + 7	These two rows construct the same segmentations of an aggregate.
($C^{\#}$ / G) as the first / fourth tone in a fragmented Septachords	($C^{\#}$ / G) as the first / fourth tone in a full series	Those two notes are tritone-related, and function as Axis within the series.
(A / E^{b}) as the eighth/ twelfth tone in a full series	(A / E^{b}) as the eighth/ twelfth tone in a full series	Those two notes have the same partitions as the eighth and twelfth in the series. They consist of tritone, and function as common tones.

Diagram 3.1: Related Properties within P_5 and I_1

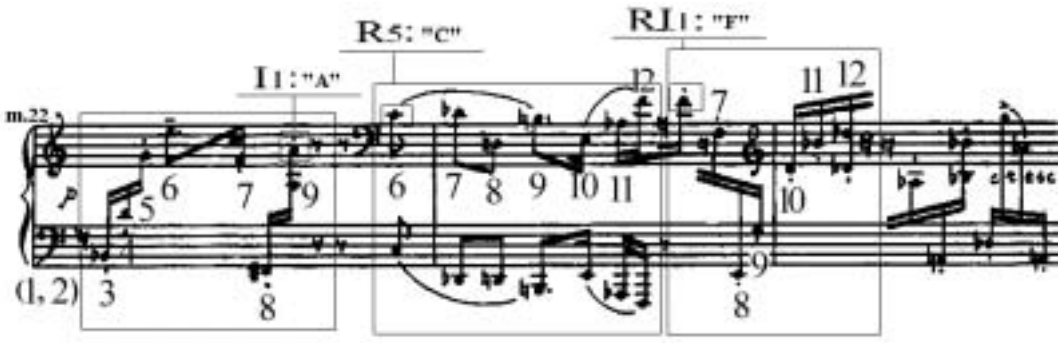


As stated in figure 3.2 and diagram 3.1, P_5 and I_1 share the same ending notes (on $C^{\#}$ and E^{b}), but they also share the fourth and eighth account numbers (G and A, although the first "5" notes from P_5 are omitted). These four notes stand as exchangeable common tones and an axial center between P_5 and I_1. While static diatonic intervals are favored, Berger also

uses the tritone interval relationship. In selected rows, some important intervals are constructed by tritones: for instance, F and $C^{\#}$ (which are not in tritone though) are start P_5 and I_1; while E^b and A / G and $C^{\#}$ have a structural function (as mentioned in diagram 3.1).

Fragmentation dominates the series progression in this movement. Numerous versions occur, including segmentations in hexa-, septa-, octachord, and full series (mm. 18-29). In conjunct distance, the progressions, a fragmented seven- (of P_5 and R_5), six- (of RI_1), eight- (of P_3), and twelve-tones (of P_{10}) are variants of tri-, tetra-, and pentachord from series work (mm. 13-14 and 30-31). A fragmented three- (of P_5 and P_8), four- (of P_5), and five-tones (of P_3) appear in disjunct progression. The starting and ending tones of the three fragmented series are conspicuously related (mm. 22 through 24).

Example 3.13: Trichord (A-C-F)

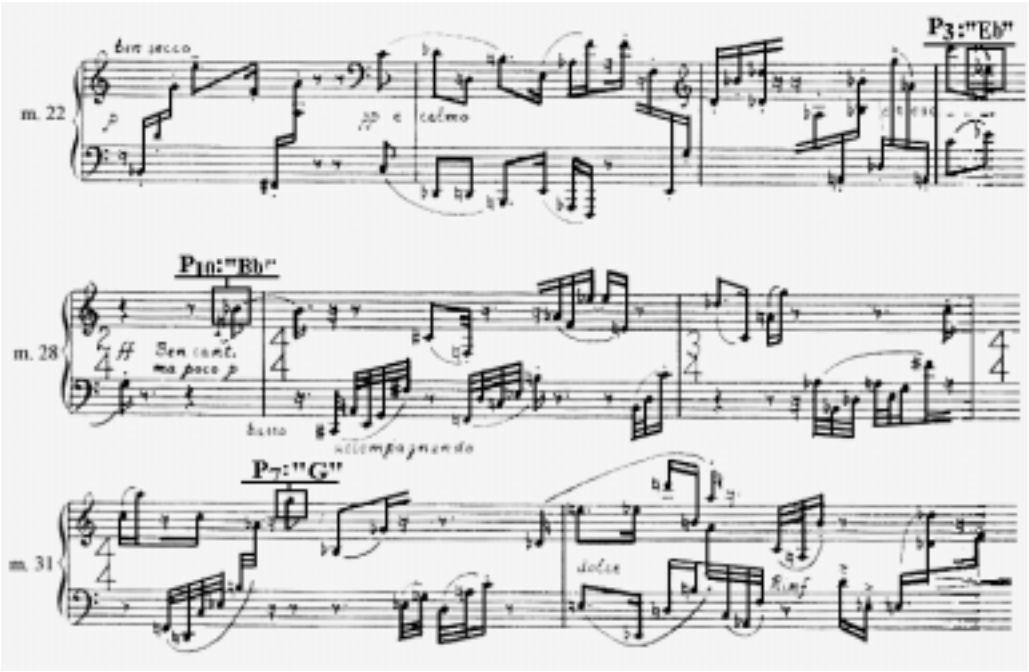


The octachord of I_1 ends on A; septachord of R_5 starts on the sixth tone C and ends on F; and hexachord of R-I_1 starts on F. The A - C - F taken from the three fragmented series create a first-inversion F major trichord, F being the tonal goal throughout the three movements (example 3.13).

Similarly, the starting tones of each P (mm. 24 through 32) create another trichord (marked in the musical excerpt below in form of the row), as made up of E^b (from P_3), B^b

(from P_{10}), and G (from P_7). The resultant E^b major trichord (E^b + B^b + G) has a major second intervallic neighboring relationship to F (example 3.14).

Example 3.14: Trichord (E^b - B^b - G), mm.25, 28, & 31



The major second (i.e.: F and E^b) neighboring-intervallic relationship is also applied to all series relationship (as seen in the matrix below). Corresponding to starting and ending tones of all series, the 48 possible rows relate by major second neighboring intervals (i.e. F→G / F→E^b in P_5 / I_5). In addition, the major second neighboring intervallic relationship is seen corresponding to the sixth and last tone of series too (i.e. $C^{\#}$ → E^b in P_5: A → G in I_5). Select fragmentations inter-mingle these relational elements. In viewing the important rows (i.e. P_5, I_1, P_{10}, R_5, and R-I_1), Berger's intent becomes clear. He consistently kept the rows in relationships based on either the ordering partition number of "sixth", the major "second" neighboring-intervallic connection, or the trichord content (table 3.2).

Table 3.2: Matrix of *Movement II* (1954): Berger's *Three One-part Inventions* for Piano

P_5-letter names & pitch-class integers

P. →

I. ↓											
F 5	Ab 8	E 4	B 11	D 2	C# 1	C 0	A 9	G 7	Bb 10	F# 6	Eb 3
D 2	**F 5**	C# 1	Ab 8	B 11	Bb 10	A 9	F# 6	E 4	G 7	Eb 3	C 0
Gb 6	A 9	**F 5**	C 0	Eb 3	D 2	C# 1	Bb 10	Ab 8	B 11	G 7	E 4
B 11	D 2	Bb 10	**F 5**	Ab 8	G 7	F# 6	Eb 3	C# 1	E 4	C 0	A 9
Ab 8	B 11	G 7	D 2	**F 5**	E 4	Eb 3	C 0	Bb 10	C# 1	A 9	F# 6
A 9	C 0	Ab 8	Eb 3	F# 6	**F 5**	E 4	C# 1	B 11	D 2	Bb 10	G 7
Bb 10	C# 1	A 9	E 4	G 7	F# 6	**F 5**	D 2	C 0	Eb 3	B 11	Ab 9
Db 1	E 4	C 0	G 7	Bb 10	A 9	Ab 8	**F 5**	Eb 3	F# 6	D 2	B 11
Eb 3	F# 6	D 2	A 9	C 0	B 11	Bb 10	G 7	**F 5**	Ab 8	E 4	C# 1
C 0	Eb 3	B 11	F# 6	A 9	Ab 8	G 7	E 4	D 2	**F 5**	C# 1	Bb 10
E 4	G 7	Eb 3	Bb 10	C# 1	C 0	B 11	Ab 8	F# 6	A 9	**F 5**	D 2
G 7	Bb 10	F# 6	C# 1	E 4	Eb 3	D 2	B 11	A 9	C 0	Ab 8	**F 5**

↑ **RI**

← **R.**

Like other members of American Stravinsky School, Berger's twelve-tone methodology might have developed out of a reassessment of his prior Stravinskian Neo-Classicism and took shape as an individual exploration of compositional means. Not content to merely follow Stravinsky's example, Berger refused to establish himself within a consistent compositional style. Rather, Berger showed increasing stylistic independence, as exemplified in *Three One-part Inventions* for piano. After this blending of two stylistic schools characterized Berger's 1950s works, his serialism grew less thoroughly systematic in its various 1960s manifestations.[57]

[57] Kaufman, "Arthur Berger," iii, 333.

Irving Fine: Little Toccata (1958) from Diversions for piano

The second piece I will analyze is Irving Fine's *Little Toccata* (composed in 1958, orchestrated[58] in 1960) from his *Diversions* for piano. The piece *Little Toccata,* one of Fine's shorter pieces, is relatively unknown in twentieth-century piano literature. There is no existent analytical reference to this piece. Thus, I will apply a method of my own creation to discuss the music that embraces tonal and modal qualities, in addition to somewhat post-tonal methodology.

Fine's compositional process makes him an ideal subject for the study of post-1952 compositions by American Neo-Classicists in response to Stravinsky's serial conversion in 1952. Fine's *String Quartet*,[59] his first serial work which later inspired many other American composers to adopt his interpretation of serialism. Besides of his general concern of growing adoption of twelve-tone device, a reassessment of his Stravinskian Neo-Classicism provoked Fine's initial interest in his twelve-tone methodology. Fine's later works show his strong interest in contrapuntal and rhythmic organization.[60] Most of Fine's works after 1952 are for chamber ensembles, and most of these show Fine's serialist techniques; however, none of his piano works presents serialist methodology.

The *Diversions* for piano is thus aptly named: it is one of only three piano works Fine produced after 1952, each of which conspicuously lacks the twelve-tone methodology

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[58] In 1959-60, Fine orchestrated his four short piano pieces (*The Red Queen's Gavotte, Flamingo Polka, Little Toccata,* and *Koko's Lullaby*), which he wrote earlier, and he grouped them under the title *Diversions for orchestra*. The orchestral version was posthumously published by Mills Music, Inc., and the performance of the composition was recorded on Delos DE 3139 by the Moscow Radio Symphony conducted by Joel Spiegelman. Lerner Bennet, "editor's note," (added in September, 1995): *Diversions for piano*. Boosey & Hawkes, Inc. (published in 1963).

[59] Copland's *Piano Quartet* (1950) was the motivation for Fine to compose his twelve-tone *String Quartet* (1952). Berger (1955), 44.

in his contemporaneous chamber works. For Fine, piano composition itself seems a diversion from his twelve-tone technique; the *Children's piano pieces* and *Hommage à Mozart*, both from 1956, show those characteristics evident in his pre-serialist works (See table 2.7 in chapter 2), which also appears in the *Diversions*.

Diversions for piano was published in 1963, and although the original piano pieces were not intended as a set, this edition uses both the titles and order of 1960 orchestration, published that same year.[61] The four pieces in the *Diversions* date from very different times, the first two being composed in 1942 and the latter couple written in 1958 and 1959, respectively. The 1942 pieces were composed for a production of Lewis Carroll's *Alice in Wonderland*. Both "*Red Queen's Gavotte"* and *"Flamingo Polka"* take their names from Carroll's story; Fine translates the scenes into appropriately picturesque music. Fine composed the *Little Toccata* for his friend, the painter Ethel Cott, in exchange for one of her paintings. *Koko's Lullaby*, the final work in the collection was written expressly for Fine's Royal French poodle, Koko. Thus *Little Toccata* is an exception even within this exceptional collection: it is the only Diversion that is abstract referring not to some outside picture of person but existing purely as a compositional form.

Little Toccata consists of 54 measures divided into three sections as in song form: A (mm. 1 - 16), B (mm. 17 - 25), and A′ (mm. 26 - 54; including Coda). This sectionalization emerges from contrasting dynamics, articulations, and placement of accents and pauses over the course of the composition (table 3.3).

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[60] Kaufman, "Irving Fine," in *The New Grove Dictionary of Music and Musicians*, viii, 827.
[61] Lerner Bennett, "editor's note," (September, 1995): *Diversions for piano*. Boosey & Hawkes, Inc. (1963)

Table 3.3: Summary of Fine's *Little Toccata* (1958)

Section	A	B	A′
Tempo & Dynamic	*Vivace* *mf. Poco martellato*	(Slow down) ** *p. dolce Legato*	*Come Prima* *mf. Martellato*
Dominant Mode/ Tonality	G mixolydian (→G Lydian)	G minor	G mixolydian
Dominant Meter*	4/4	2/2	4/4
Formal Structure	i: 5 mm. ii: 5 mm. (in g minor) iii: 5 mm. (in G Lydian) (Plus one-measure pause inserted)	i: 4 mm. (g″ to d″) ii: 4 mm. (d″ to a″) 'Inversion of the i' (Plus one-measure pause inserted)	i: 11 mm. (Plus one-measure pause) ii: 5 mm. Half-measure pause inserted iii: 5 mm. Coda: 7 mm.
Musical material (Contents)	Motives created by repetition and reduction.	Phrases created by inversion and transformation.	Motives created by repetition and augmentation

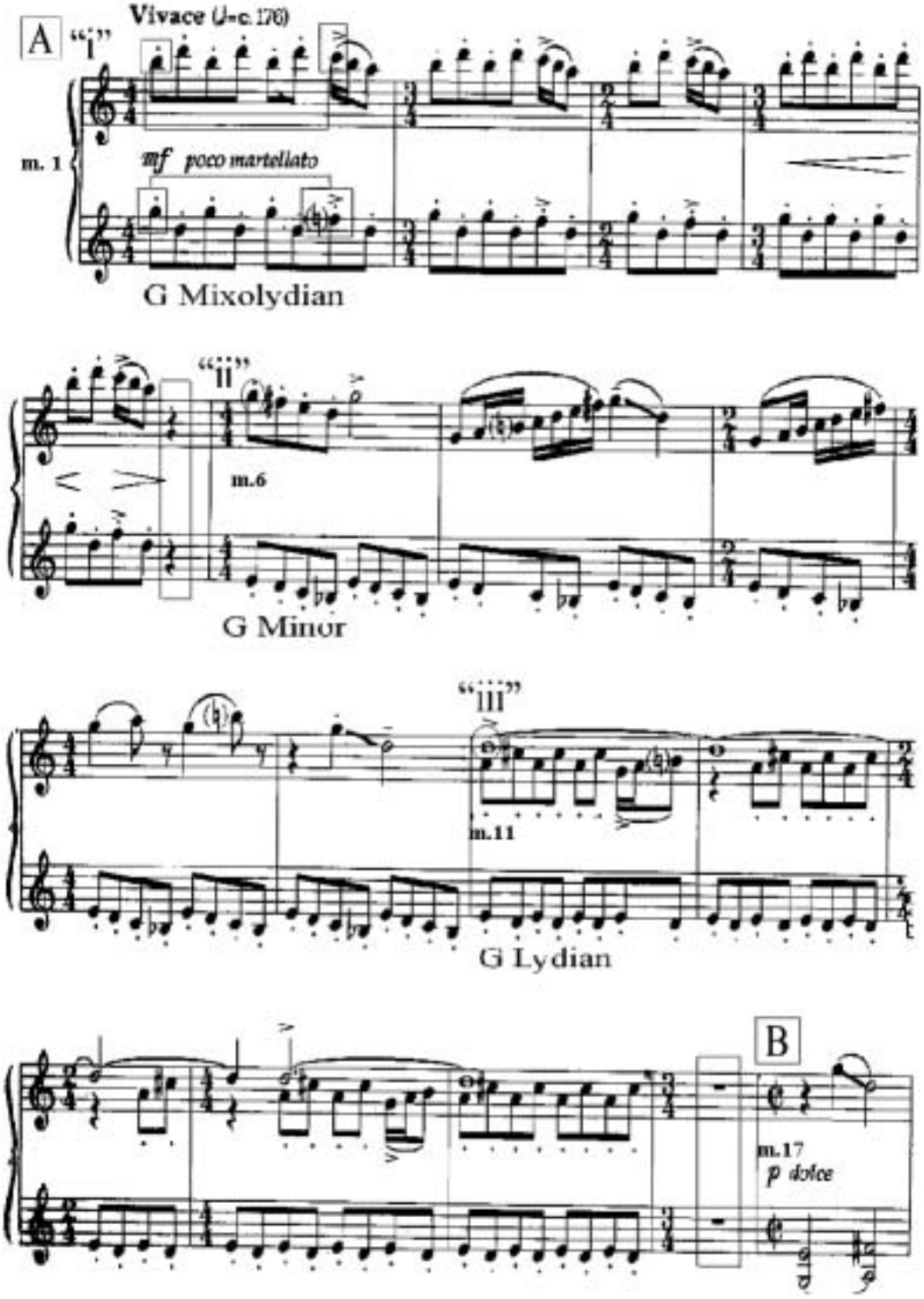
* Multiple-meters appear within each section; the given meters dominate those sections.

** Fine designated "Slow down" in the B section instead of any other temporal designation.

The opening A section, marked *Vivace,* with indications of *mezzo forte* and *poco martellato* is toccata-like, with staccato and *ostinati*. Strong dynamic and temporal contrasts signal the beginning of the B section; this section marked *dolce* and *legato* creates slurred phrasing and soft expressiveness. A′, *Come Prima,* restates the opening theme, and closes with a brief coda. The initial A section is subdivided into these 5 measures parts, in A′ section the material is similar symmetries, although the first chunk of musical material is more or less doubled in size to 11 measures. The B section is also equally subdivided,

into two 4-measure subsections.

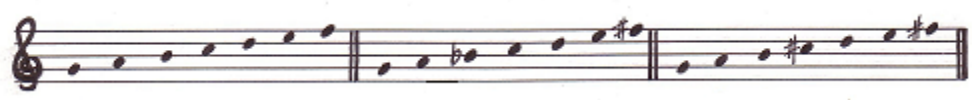
Example 3.15: The opening section, mm. 1-17: Fine's *Little Toccata*



The placement of pause-rests sectionalizes the piece; for instance, a whole-rest separates the A and B sections, and a quarter-rest similarly distinguishes material i from material ii (example 3.15). Both pauses and rests are intentionally treated as important factors in structuring the piece. Accents and pause-rests are placed irregularly but deliberately, as with the fluctuating meters. Accentuation consistently occurs, in bars 1 to 5, falling on the weak upbeats; (i.e., b″ goes to c‴ and g″ goes to f″); bars 6 to 10 show the tonal center emphasized by its increased size and placement on the strong downbeats--i.e., sixteenth note to half-note and half-note to whole-note.

Following the formal pattern ABA′, the *Little Toccata* as a whole is tonally centered on G, with the A sections modally distinct from the B section. Initially in G mixolydian mode, the G Lydian (diagram 3.2); the B section picks up on the G minor from the middle chunk of A and adheres to that tonal system; A′ returns to the mutating modes of A, concluding with G mixolydian coda.

Diagram 3.2: Alteration of Mode and Tonality on 'G'



G Mixolydian G Minor G Lydian

As the piece begins and ends with G mixolydian, that mode clearly defines the musical space despite forays into other areas centered on G.

The meters fluctuate throughout each section. 4/4 opens the piece, but is immediately diminished to 3/4, and again to 2/4 --all within the first subsection of 5 measures. A subsections ii and iii are more stable, remaining in square meters until the

one-measure pause in 3/4. Similarly, the B section has only square meters, and provides relative security by staying in 2/2 for a full six measures (figure 3.3).

Figure 3.3: Meter Fluctuation: Fine's *Little Toccata*

" A " (mm. 16: 1-16)									
4/4	3/4	2/4	3/4 *2*	4/4 *2*	2/4	4/4 *4*	2/4	4/4 *2*	3/4
" B " (mm. 8: 17-25)									
2/2 *6*	4/4 *2*	2/4							
" A′ " (mm. 21: 26-47)									
4/4	3/4	2/4 *3*	4/4 *6*	2/4	4/4 *5*	3/4 *5*			
"Coda" (mm. 6: 48-54)									
3/4	2/4 *6*								

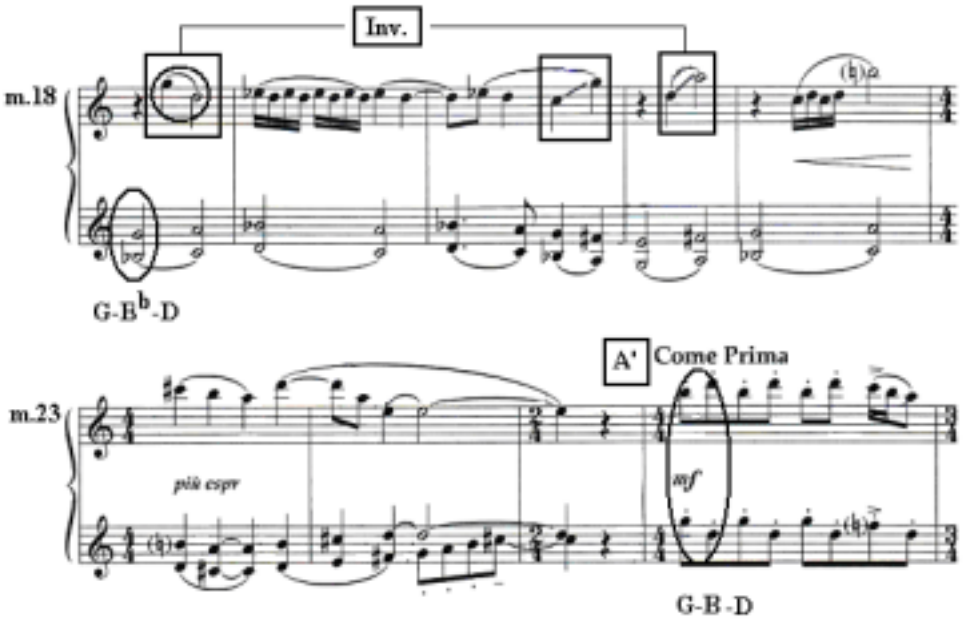
A′ subsection i returns to jumpy metronomics; the repeat mirrors A by settling into more stable meters for subsection ii and iii, each of which contains only a single meter (4/4 and 3/4, respectively). The coda is combining the A and B sections, following one measure in 3/4 with six measures in 2/2; Thus the dominant meter of the piece 4/4, is effectively replaced with 2/2 at the end.

Fine's use of metric fluctuation clings closely to Stravinsky's method of metric shift. This meter-fluctuating method of Fine seems less intentional or more liberal than Berger's metric manipulation (See figure3.1a and 3.1b). This apparently supports Fine's little stylistic variety and independence.

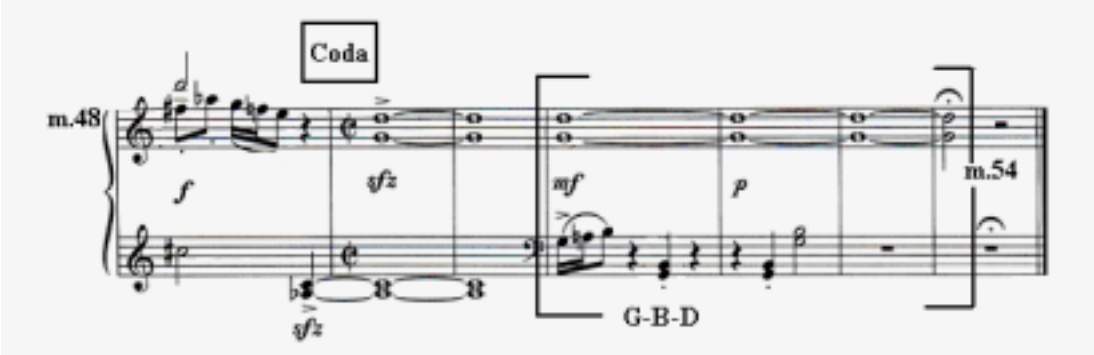
The musical content is motivic, with short phrases occurring throughout

augmentations and reductions, repetitions, inversions, and transformation. These compositional progressions are the common factors between the A and B sections. For example, the main motive in the A section (g″ to d″, which appears five times in mm. 6 – 10 in example 3.15) is freely inverted in the B section (c″ to g″, and d″ to a″, at bars 17 and 18). Predictably, this motive reoccurs in A′ from bar 26 (example 3.16); finally, the coda transforms the motive by finalizing key with a G major chord and by playing the two notes simultaneously (example 3.17).

Example 3.16: Trichord (G-B-D), mm. 18-26

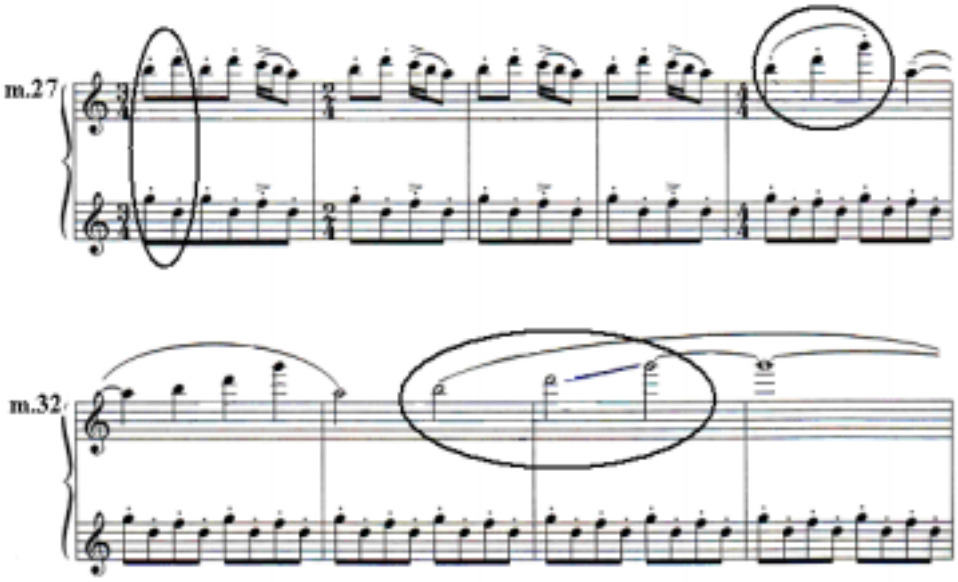


Example 3.17: Trichord (G-B-D) at Coda, mm. 48-54



The *Little Toccata* is centered on G, and thus treats the three notes, g″ - B (B^{b}) - d″ as the principle trichord. Fine manipulates this note collection to reinforce structural divisions. The A section states the chord vertically and fully, with both B and B-flat when necessary (See examples 3.16 and 3.17). The B section also uses these notes vertically, but only two at a time; the chord is never complete. The musical transformation of the A section is emphasized by the trichord development in A′: here, the trichord is stated horizontally. Furthermore, the tri-notes are horizontally transformed by augmentation in section A′. Originally, the trichord appeared in eighth-notes; at bar 31 they become quarter-notes, and half-notes at bar 33 (example 3.18).

Example 3.18: Augmentation of the trichord in A′



Culminating the vertical and horizontal transformations of these three notes, they ultimately join as a single chord to close the piece (example 3.18). A parallel procedure in the metrical shifts follows in response to the chordal augmentation: the 4/4 of section A

shifts to 2/4 in section B, and finally reaches 2/2 in the coda.

Many stylistic differences might have emerged in his post-1952 compositions, if Fine had lived longer. Nonetheless little stylistic development is apparent between Fine's pre- and post-1952 piano compositions, several factors shown in his post-1952 compositions present that he did not consistently rely on his Stravinskian Neo-Classicism. In his earlier piece *Music* for Piano (1947), Fine's fundamental musical contents such as beautiful melodic line, superseding mechanical or systematic procedures, like repetition, ostinati, and inversion continued to dominate his post-1952 compositions.[62] More traditional titles, forms, and key relationships between movements appear in his earlier works such as *Prelude* in E-flat, *Waltz-Gavotte* in A-flat, *Variations* in B, and *Interlude-finale* in E-flat.

Although his post-1952 compositions are more dissonant, Fine is essentially a traditional diatonic composer. Many factors in *Little Toccata* create dissonance; alteration/alternation of mode and tonality, mixture of repetitions and *ostinati*, and frequent use of temporary key signatures. Similar to other contemporaries of this school, these compositional devices are found as a general feature of Stravinsky's method of musical development. The *Little Toccata*'s trichord (G-B-D) undergoes throughout the piece. However, this post-1952 composition persists presenting Fine's Neo-classic trend which he built it on tonality and diatonicism.

[62] Kaufman, "Irving Fine," in *The New Grove Dictionary of Music and Musicians*, ed. S. Sadie and J. Tyrell (2001), viii, 827.

Lukas Foss: Scherzo ricercato for piano (1953)

The *Scherzo ricercato* for piano (composed in 1953) is also a relatively unfamiliar contribution to the twentieth-century piano literature. Stravinsky's new style, Foss's adherence to the earlier school of composition is evident Foss is one of the most prolific composer-performers of his time; a highly communicative pianist and conductor, his works are often characterized as enthusiastic, curious and receptive to all kinds of musical ideas.[63] Similar to other contemporaries in the group, Foss's predominant interest in Stravinsky lay in the latter composer's 1940s Neo-Classicism. Foss's own Neo-classic period lasted until the 1960s, while the other members of the Stravinsky School had already started turning to serialism or avant-garde. Showing a lack of influence by in the *Scherzo ricercato,* which, although composed well after Stravinsky's Neo-classic period, is characteristic of that style.

Ricercare means "to search for"; the genre is known for its esoteric nature, either a technical exercise or illustrative compositional some device. The imitative ricercare, similar to the *Fantasia*, was the most common type. They are multi-sectional, each section marked off by pauses; such markings probably indicate possible terminations during religious performance. Although the term implies a severe fugue, few modern composers have used it in that way.[64]

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[63] Gilbert Chase and David Wright, "Lukas Foss," in *The New Grove Dictionary of Music and Musicians*, 2nd ed. S. Sadie and J. Tyrrell (London: Macmillan, 2001), ix, 116.
[64] John Caldwell, "Ricercare," Ibid., xxi, 325.

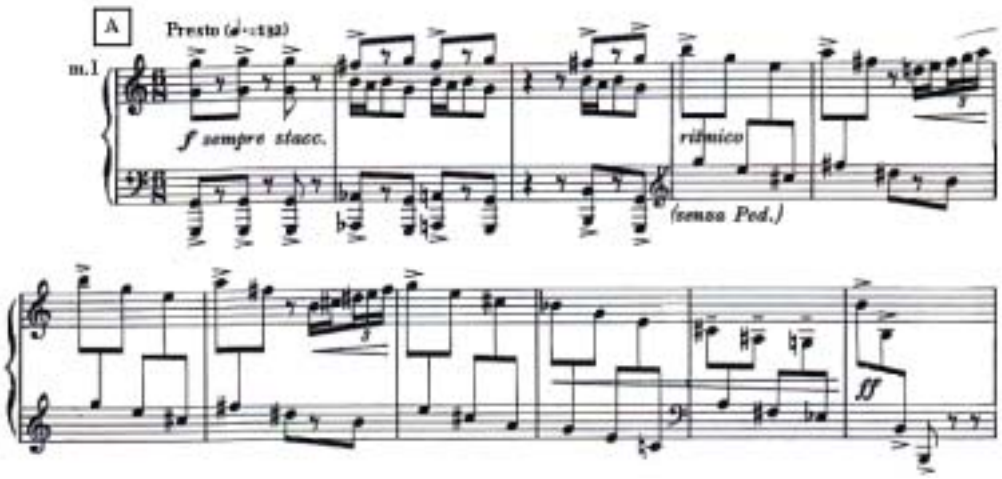
Table 3.4: Summary of Foss's *Scherzo ricercato*

Section	A (54 mm.)	A^1 (31 mm.)	B (62 mm.)	A^2 (54 mm.)	B^1 (71 mm.)	Coda / A^1 (31 mm.)
Tempo & Dynamic	*Presto* *f. sempre staccato*		*L'istesso Tempo* *pp. leggero ma legato*	*Presto* *P. sub.*	*L'istesso Tempo* *pp. leggero ma legato*	*Presto* *PP.* ends with *sf.*
Main Meter	6/8		6/8 - 9/8 - 6/8	6/8	6/8 - 9/8	6/8
Tonality/ modality (tonal center)	G Lydian- B minor		G minor	B-flat minor/ D major	G Lydian/ Mixo-lydian	G Lydian/ Mixo-lydian/ G Major
Formal Struc-ture	a: 1st theme (21: mm. 1-21) b: 2nd theme (29: mm. 22-50) -bridge: (4: mm. 51-55)	a^1: (12: mm. 55-66) b^1: (6:mm. 67-73) a^2: (4: mm. 74-77) -a closing passage: (5: mm. 78-82)	i: (31:mm. 86-116) *One-measure pause at the bar 117 ii: (22: mm. 118-139) *One-measure pause at the bar 140 -bridge: (7: mm. 141-147)	a^1: (12: mm. 148-159) b^1: (28: mm. 160-187) -bridge: (4: mm. 188-192) a^2: (10: mm. 193-199) -a closing passage: (2: mm. 200-01)	i^1: (38: mm. 202-239) *One-measure pause at the bar 240 ii^1: (33: mm. 241-273)	a^3: (4: mm. 274-277) i^2: (13: mm. 278-290) b^2: (9: mm. 291-299) -closing passage : (5: mm. 300-304)

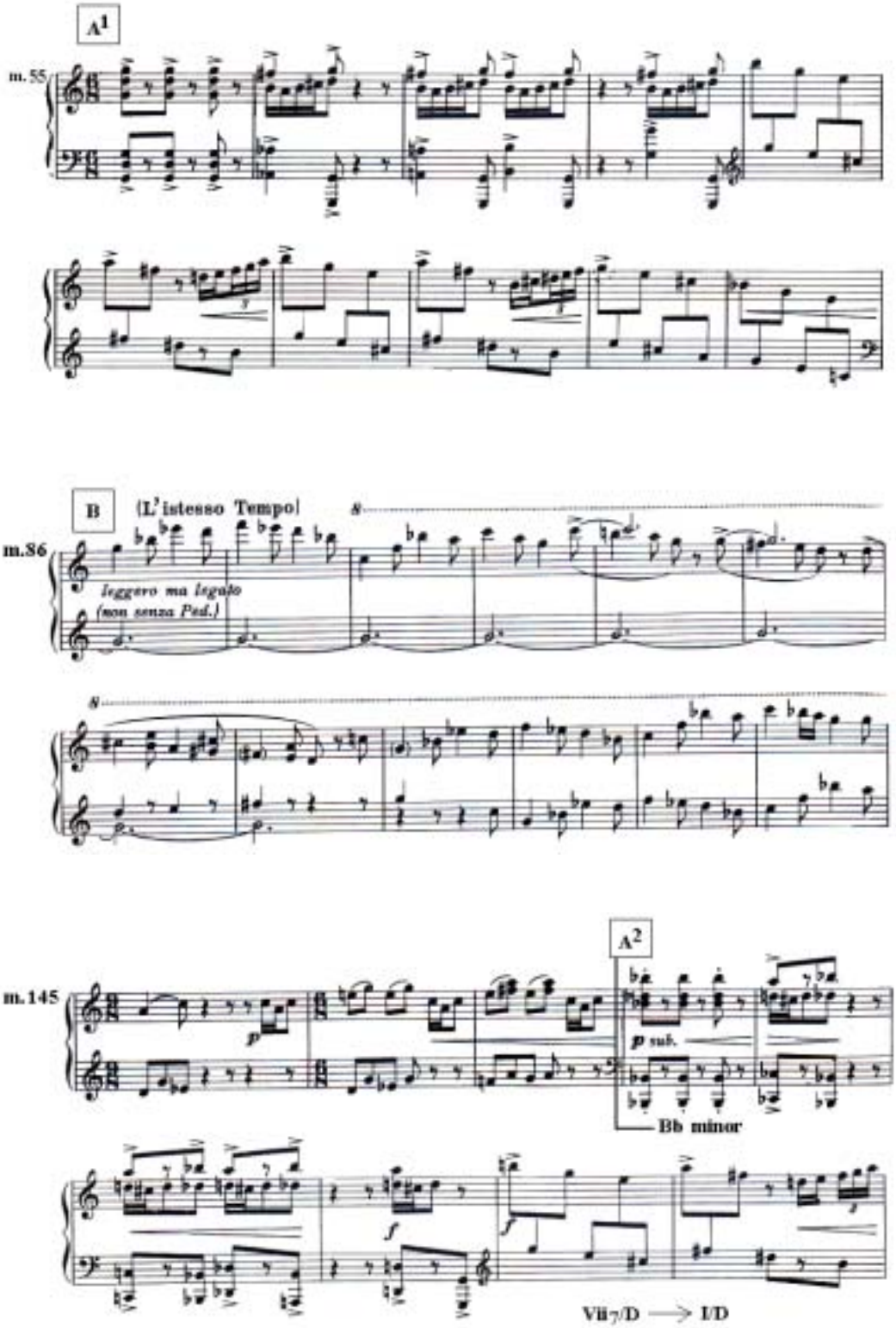
Foss's *Scherzo ricercato* consists of 304 measures tonally centered on G, dominated by 6/8, and marked largely in *presto.* The relatively brief piece has six sections gathered into two larger groups: A (mm. 1 - 54), A^1 (mm. 55 - 85), B (mm. 86 - 147), || A^2 (mm. 148 - 201), B^1 (mm. 202 - 273), and Coda (mm. 274 - 304). These divisions are based on rhythmic and dynamic contrasts (table 3.4).

The opening A section is scherzo-like, with a cheerful staccato (example 3.19). The A^1 section continues in *forte sempre* and *presto;* the B section thus creates a strong contrast with its *L'istesso Tempo,* and *pianissimo leggero ma legato.* Slurred, extended phrases characterize this lengthy--62 measure-- section. The A^2 section enters *Presto*, but *piano subito*; B^1, the longest section, returns to *L'istesso Tempo* and *pianissimo leggero ma legato.* The coda reverts to *presto,* starting *pianissimo* but crescendoing to a dramatic *Sforzando* ending.

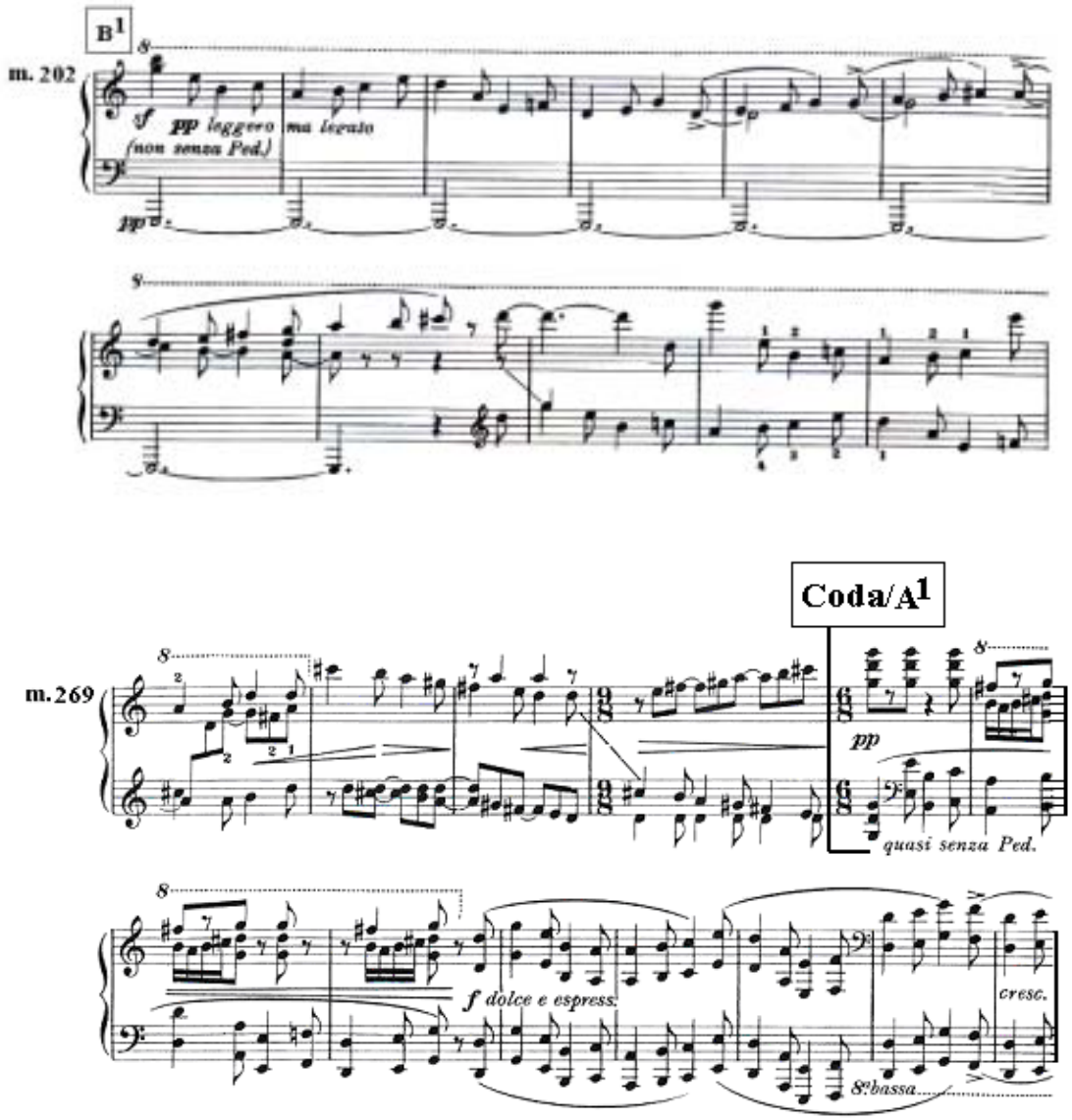
Example 3.19: Main sections: Foss's *Scherzo ricercato*



Example 3.19: continued

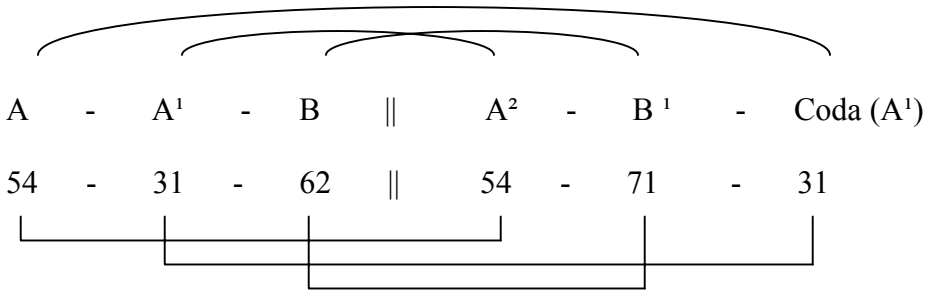


Example 3.19: continued



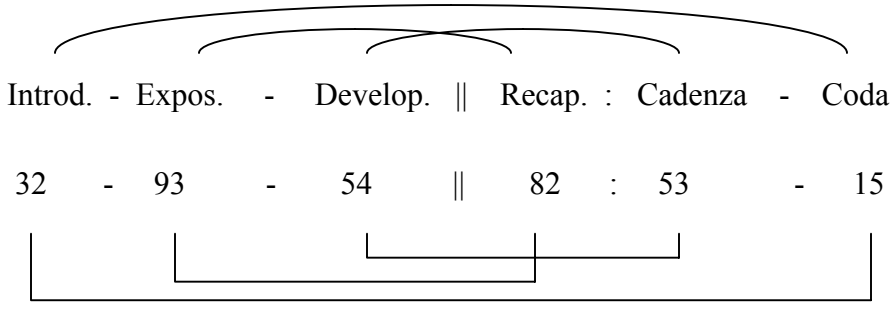
The two larger divisions (A- A^1- B || A^2-B^1-Coda) trade material across sections. A consists of 54 measures, as does A^2; A^1 is 31 measures, as is the coda, or A^1. Both B and B^1 are relatively long, albeit not quiet equal in length (diagram 3.3a).

Diagram 3.3a: Symmetrical measure-proportion in shared materials: Foss: the *Scherzo ricercato.*



A can be subdivided into motivic units *a* and *b*, which appear in A¹ as a^1 - b^1 - a^2. This organization of A¹ (a^1 - b^1 - a^2) is reprised in A². B is subdivided into musical material, *i* and *ii*; predictably, B¹ contains i^1 and ii^1: The coda can be considered A¹ because it embraces all the preceding musical material by inserting i^2 between a^3 and b^2. The formal structure of the piece shows an interesting symmetry of measure proportion and shared materials. This formal division, appearing in Foss's *Scherzo ricercato,* can be compared with that appearing in Stravinsky's 1924-composition (revised later in 1950) *Concerto* for Piano and Winds (diagram3.3b).

Diagram 3.3b: Symmetrical measure-proportion in shared materials: Stravinsky: the first movement from *Concerto* for Piano and Winds.



Similar to diagram 3.3a, this larger division in diagram 3.3b (Introduction: Exposition - Development || Recapitulation: Cadenza-like - Coda) corresponds to both material sections across and measure proportions. Foss's formal subdivision seems more uncompromising, however, this similar method appearing in Foss's post-1952 composition might have emerged from his long-termed interest in Stravinskian Neo-Classicism which lasted until the 1960s.

Regarding the subdivisions of Foss, Table 3.4 charts their thematic content under "Formal Structure". Subsection *a* is the 21-measure first theme (mm. 1 - 21), and *b* the 29-measure second theme (mm. 22 - 50); a 4-measure "bridge" follows (mm. 51 - 54). The first theme and the bridge are combined and mutated to form a^2. A^2 embodies this same procedure: a varied first theme (mm. 148 - 159), varied second theme (mm. 160 - 187), and a short bridge (mm. 188 - 192). Following the bridge is a subsection labeled a^2 in table 3.4. This subdivision is more difficult to label because it incorporates the second theme. Essentially, A^2 is two matching divisions:

a^1 - b^1 - bridge || a^2- (*a* and *b* material)

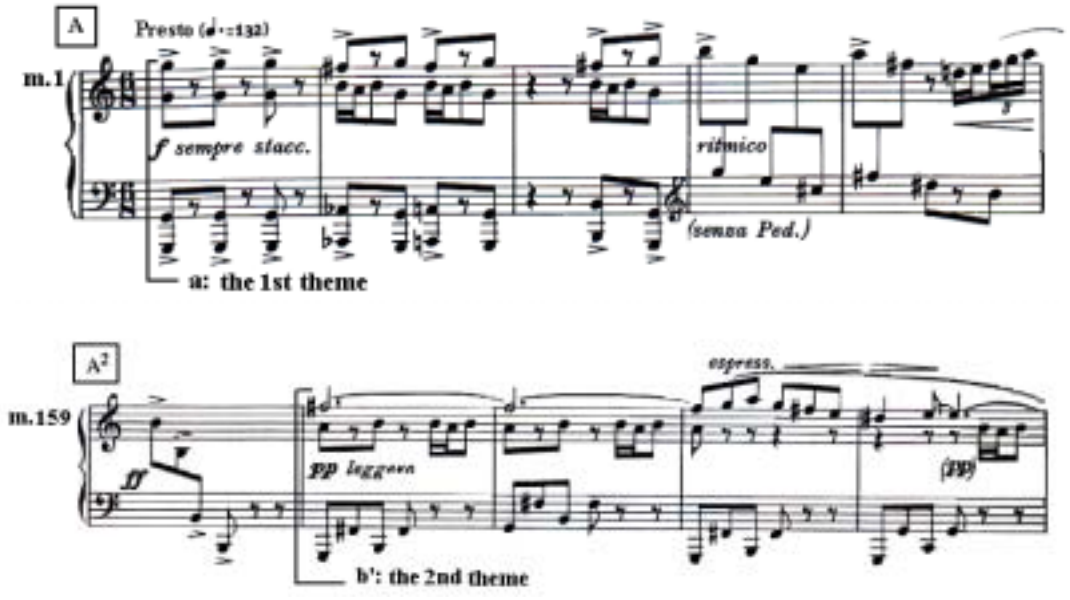
The distinction between the a^2 in A^1 and the same label under A^2 is simply a matter of increased length by virtue of second theme material added to the reprise of the first theme. The section C reassesses the fundamental structure set forth in A: musical material *i* and material *ii* are followed by a bridge. B^1 reprises musical materials i^1 and ii^1, but it eliminates the bridge; in this way, B^1 reflects the influence of B. In A^2, the final subdivision, a^2, was lengthened to create a two-part super-structure for that section; B^1, lacking the third-wheel bridge, is also now a two-part structure. The coda as A^1 confirms

the structural mutation shared by each 'prime' section; its interpolation of musical material from B sets up a two-part structure where $a^3 + i^2 = b^2$ + closing passage.

Foss's manipulation of the thematic material thus effects a structural mutation over two-parts, where the first (A- A^1- B) is subdivided by two and the second (A^2-B^1-Coda) is also subdivided by two. This metric interplay of two is the underlying game that creates the piece's superstructure.

The first and second themes are also defined by contrast (example 3.20). The first theme is characterized by syncopation and accents, whereas the second theme is slurred, underlining this contrast.

Example 3.20: the first and second theme (*a*: mm.1-5 and b^1: mm. 159-163): Foss's *Scherzo ricercato*



The first theme continues in the inner voices while the second theme takes the top voice, and the first presents a *forte staccato* dynamic in octave unison while the second takes

pianissimo leggiero in a single line. Thus, A and A¹ are layered in texture; this texture is sharply contrasted by the long phrases, regular rhythm, and clear large divisions that characterize B.

A contrary motion contrasts sections B with B¹; while the B section ascends, B¹ descends. A¹ section appropriately sums up the textural contrasts by pairing a^3 with i^2 from B material (See example 3.19). The last closing passage at bar 300, follows, delivering a polytonality--the top voice runs with a D major ascending scale, $f^{\#\prime}$ to a″ while the low voice runs with the F-sharp Phrygian mode, $d^{\#\prime}$ to $f^{\#\prime\prime}$ (simultaneously being the third augmented B minor scale). Both lines end with g″, resolving the dominant D to the tonic on G, passing by both lower and upper neighboring notes at bar 304.

The dominant meter is 6/8, but meter-shifts occur more or less regularly throughout the piece (figure 3.4).

Figure 3.4: Meter-fluctuation: Foss's *Scherzo ricercato*

" A " (mm. 1-54)								"A¹ " (mm. 55-85)		
6/8 *15*	3/8	6/8	3/8 *2*	6/8	5/8	6/8 *32*	9/8 *2*	6/8 *20*	9/8	6/8 *10*

" B " (mm. 86-147)									"A² " (mm. 48-201)		
6/8 26	9/8	6/8 *25*	9/8	6/8 *4*	9/8	6/8	9/8	6/8 *2*	6/8 *42*	9/8 *2*	6/8 *10*

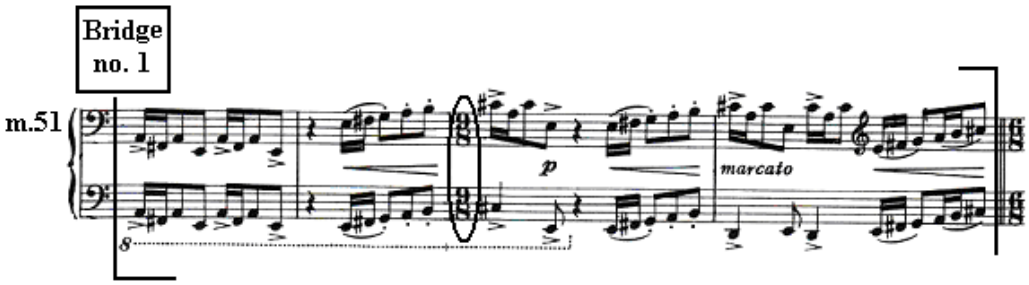
" B¹ " (mm. 202-273)						"Coda" (mm. 274-304)		
6/8 *27*	9/8	6/8 *8*	9/8	6/8 *34*	9/8	6/8 *19*	9/8	6/8 *11*

The fluctuating meters below are interrelated, by virtue of a rhythmic pattern based on the numbers 'three'. The first, third, and fifth sections, A, B, and B^1, each contain many material shifts (eight, nine, and six, respectively); the second, fourth, and final sections, A^1 A^2, and Coda, undergo only these metrical shifts. This regular interspersion of rhythmically mercurial passages with metrically consistent sections is itself another structural skeleton for the piece grounded in the aesthetic principle of contrasting elements.

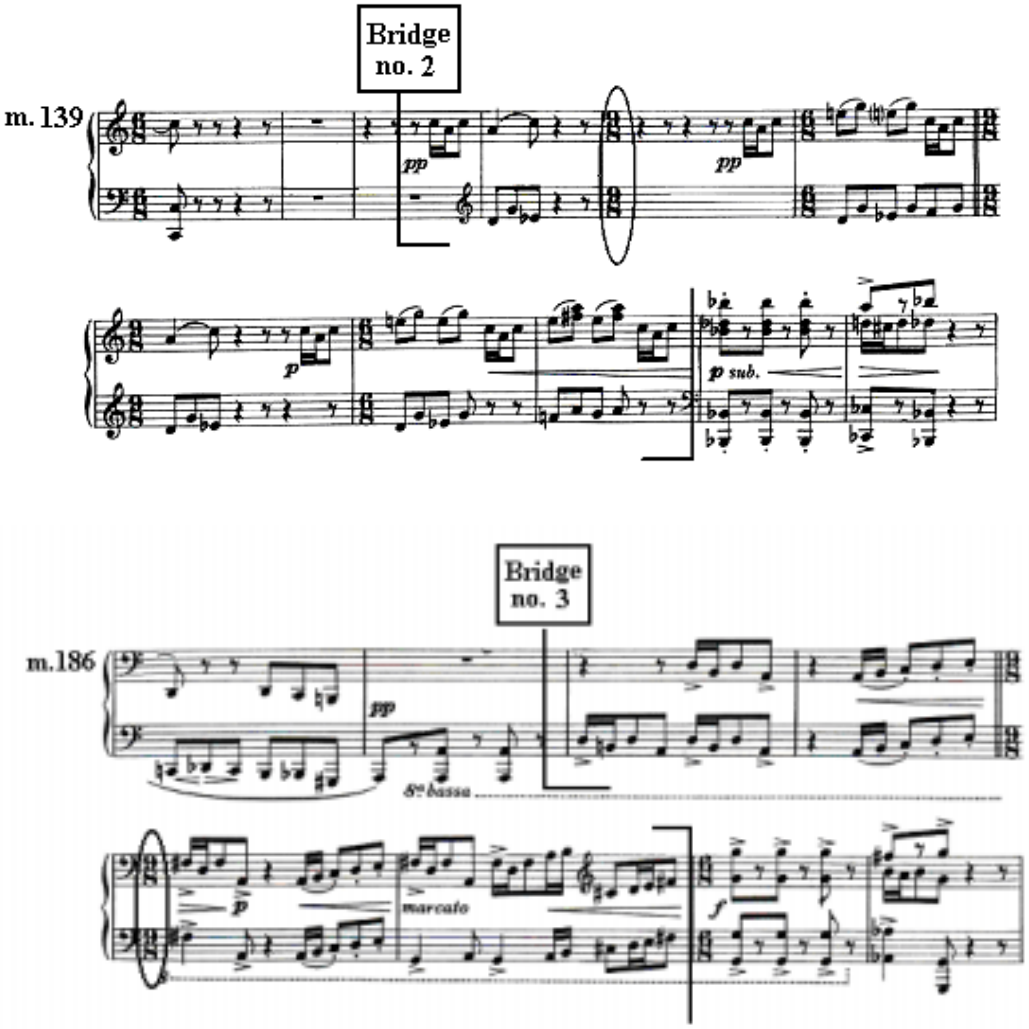
As shown in figure 3.4, 6/8 begins every section; meter fluctuation tend to occur during structural delineation separating the first theme from the second theme, the second theme from section A^1, A^1 from the first bridge, material i from ii, material ii from the second bridge, A^2 from B^1, and B^1 from the coda.

The three bridges and closing passages regularly inserted between subsections are both structural breaks or indication divisions, and links, leading logically into the next musical section. The three bridges are characterized by unison, the dominant rhythmic figure, and accents combined with rests. An alternative meter, 9/8, is often inserted (example 3.21).

Example 3.21: Bridges no. 1 (m. 51 between A and A^1), no. 2 (m. 141 between B and A^2), and no. 3 (m. 188 between a^1 and a^2 in A^2): Foss's *Scherzo ricercato*



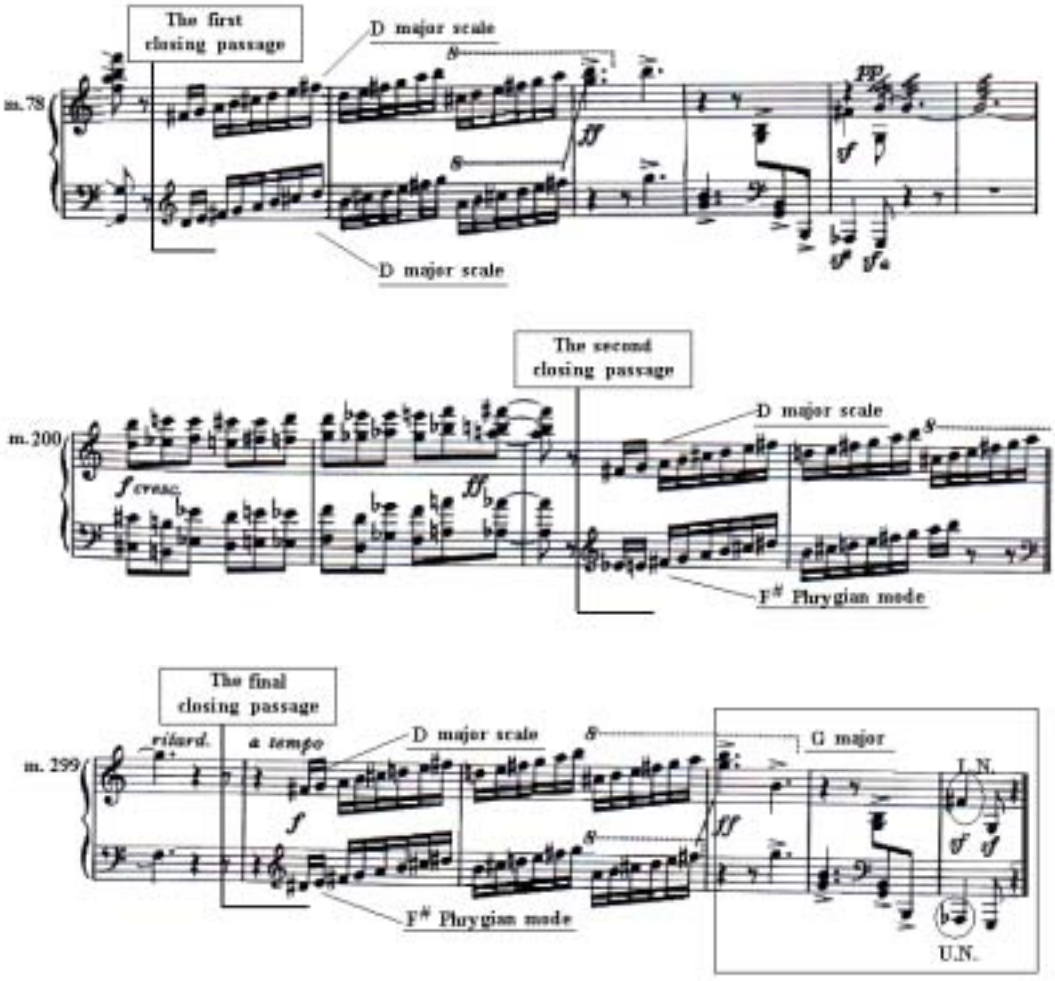
Example 3.21: continued



The three closing passages share a D major ascending scale, $f^{\#}$ to a″ in the right hand and $d^{\#\prime}$ to $f^{\#\prime\prime}$ in the left hand--although the first closing passage runs on both dominant D. The right hand's scale passage, $f^{\#\prime}$ to a″, deliberates a poly-tonal function; that is, being dominant D, simultaneously being $F^{\#}$ Phrygian mode (example 3.22a). The left hand's scale passage, $d^{\#\prime}$ to $f^{\#\prime\prime}$, plays its roles as supportive company in minor third

interval below; both lines end with g″, resolving the dominant D to the tonic on G. Foss's portrayal of textural, rhythmic, and super-metric structural contrasts on the different levels in this piece concludes through simply using the fundamental chord, the dominant D resolving to the tonic G.

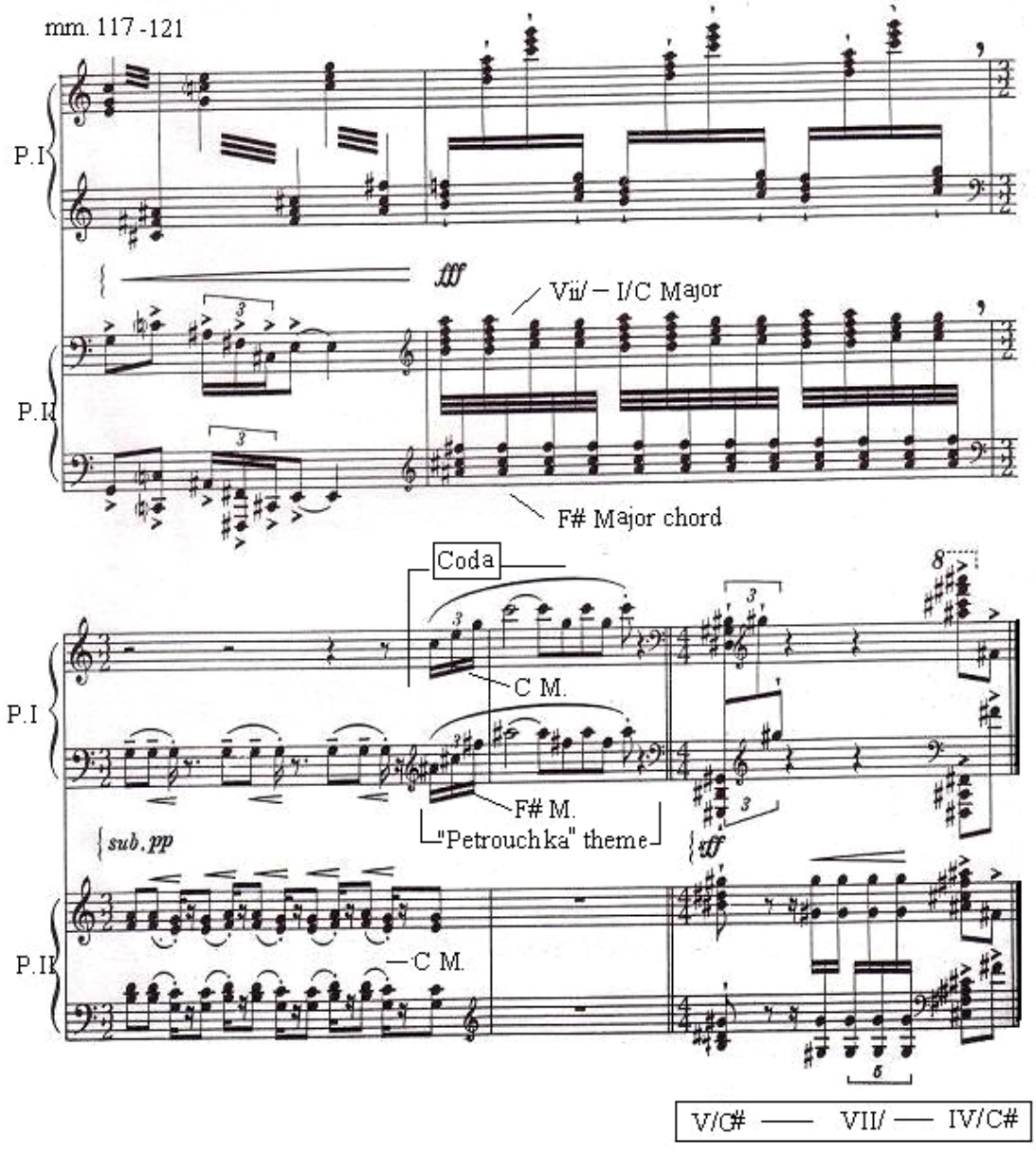
Example 3.22a: Closing passages no. 1 (m. 78 between A^1 and B), no. 2 (m. 200 between A^2 and B^1), and no. 3 (m. 300 / Coda): Foss's *Scherzo ricercato*



As seen in example 3.22a, a juxtaposition of scale and mode deliberates a polytonal function. Foss's use of poly-tonality seems to be a manipulating technique for layering

texture instead of obscuring tonality. For comparing Foss's poly-tonal idiom, Stravinsky's music examples are inserted below (example 3.22b).

Example 3.22b: Polytonality: Stravinsky: mm.117-121: in the second movement of *Three movements* from *Petrouchka*



Stravinsky's polytonality is exemplified in example 3.22b above (*Three movements* from *Petrouchka).* While Stravinsky's juxtaposition of different tonalities often features

aspects of a polytonal combination, it also intensively exercises a polyphonic texture. An interesting scene of polytonality is applied for the closing theme in the second movement of *Petrouchka* (at Coda, mm. 117 through 121). The right hand's tone-cluster alternates the dominant and tonic of C major chord, while the left hand's tone-cluster plays the F-sharp major chord at bar 118 of Piano II. This juxtaposition of different chords lasts until the end, spurred by a final appearance of the "Petrouchka" theme at bar 120. While tone-clusters in different tonalities depict contrasting dialogues in progression, *Petrouchka*'s inner-chaotic and combative state of mind is expressed by polytonality and dynamics. Pianos I and II eventually conclude the movement on the same tonality and dynamic indication at m. 121, dramatically resolving by the fundamental dominant of $C^{\#}$ major passing through a diminished, which goes to the finalizing sub-dominant of $C^{\#}$.

As seen in the earlier analysis of Foss's closing passages, no. 3 as the final closing passage at m. 300 in Coda, Berger's juxtaposition of polytonality was exemplified (See example 3.22a). Foss's polytonality clearly belongs to compositional developments of Stravinskian fashion. However, Stravinsky's polytonal method apparently features more rigorous manipulations and it is largely thoughtful while Foss's polytonal combination features a small variety extension.

Foss' post-1952 composition Sc*herzo ricercato* has little to do with Stravinsky's new style. His post-1952 compositions include often many contemporary compositional systems: polytonality, alteration of mode and tonality, alteration of sections and themes, meter-fluctuation, and frequent use of temporary key signatures. However, Foss is essentially a traditional tonal and diatonic composer like other contemporaries of the school. The analysis of the piece Sc*herzo ricercato* shows that such techniques,

concentrating on metric issues and juxtaposition of tonality and mode centered on G, but these function as Foss's general application of Stravinsky's method of musical development. Foss did not give up his adherence to Neo-Classicism, using tonality and traditional forms in his post-1952 compositions.

Leo Smit: Concerto for Piano and Orchestra (1968)

Leo Smit's *Concerto* for Piano and Orchestra (1968, revised in 1980*),* nominally a twelve-tone series composition shows the most interesting development closely following Stravinskian twelve-tone procedure. But, this piece is almost entirely neglected in academic literature.

Among the members of the American Stravinsky School influenced by Neo-Classicism during the 1940-50s, Smit (*b*.1921 - *d*.1999) appears as the most interesting figure with his dual stylistic approach: While following Stravinsky's stylistic change towards serial technique, he developed his Neo-classical traditions by integrating both concepts into a single piece; while consistently embracing diatonicism and a strong tonal stasis, simultaneously adopting intense chromaticism. His synthetic feature of these two compositional currents is exemplified by his *Concerto* for Piano and Orchestra*,* which was premiered by the Buffalo Philharmonic under Lukas Foss with Smit as soloist; the piano score has yet to be published.[65]

Through Smit's use of the twelve-tone system, the *Concerto* for Piano and Orchestra reflects the impact of Stravinsky's serial conversion. In opposition to Schoenbergian strictness, the melody generated from the tone row develops with a great deal of freedom.

Smit's concerto is both considerably shorter than the traditional virtuosic showpiece and much longer than many serial compositions by composers like Webern.

[65] The recording was on 24 and 26 November, 1968 for the first version.

Table 3.5: Summary of Leo Smit's *Concerto* for Piano and Orchestra *(1968)* [66]

Movement	**I ***	**II**	**III**	**IV**
Tempo & Dynamic	*Allegro-Dramatico*; *Forte*	*Adagio-espressivo*; *Piano*	*Movimento-agitato e cadenza*; *Forte-Marccato*	*Fuga-alla Marcia*; *Piano*
Meter	3/4	4/8	Multi-meters	2/2
Measure proportion	173 [Exposition: 50 Development:91 (43+48), Recapitulation: 32]	55 [A:10+3,9+7 A′: 7+14+4]	61 [i: 25 ii: 29 Closing : 7]	105 [i:48 ii: 35 coda:22] {an added bridge: 14}
Form	Sonata-allegro	Two-part Song (A-A′)	Toccata; two parts (with quotation of Beethoven in Cadenza)	Fugue; freely composed in two parts
Entries and exits in relation to Orchestra	Orchestra and piano start together Ends *Attacca*; *Piano*	Orchestra leads the piano Overlaps** at bar 55	Orchestra stops and piano starts simultaneously *Cadenza*; *Lunga* at bar 61	Piano leads orchestra Ends *Attacca*
Rows (Melody)	P_0 (X) and (Y) I_0 (X) and (Y) R_{10} (X) (also, briefly) R_0 (X) RI_0 (X)	P_0 (X) and (Y) I_0 (X) R_{10} (X)	P_0 (X) and (Y) I_0 (X) R_{10} (X)	P_0 (X) and (Y) I_0 (X) R_{10} (X)

* The Roman numbers show the movement orders of the original 1968 version.
** The end of the second movement overlaps with the beginning of the third movement at bar 55.

[66] Two movements (an introduction and finale) were added to these four movements in a 1980 revision. My analysis of this concerto, using a method inspired by Straus (2000), is based on this first version, which responds more closely to the impact of Stravinsky's serial conversion on Smit's composition. Thus my analysis begins with the first movement of 1968 version.

The first movement is an *Allegro dramatico* that lends a heroic tone to the piece. The second incorporates descriptive variations into an *Adagio espressivo*. The third movement features a percussive toccata, complete with *ostinato* and a closing *cadenza*. The final movement is a pointillistic *Fuga alla Marcia* (table 3.5).

Smit was deeply pre-occupied with the meaning of classical music.[67] His continuous use of traditional forms even in his serial compositions followed Schoenberg's ethos of applying new language to standard structures. This piece shows Smit's engagement with earlier music by using traditional formal devices. As seen in table 3.5 above, the four movements are cast in traditional forms: a varied sonata-allegro form, two-part A-A′ song form, a two-part toccata, and a freely composed fugue.

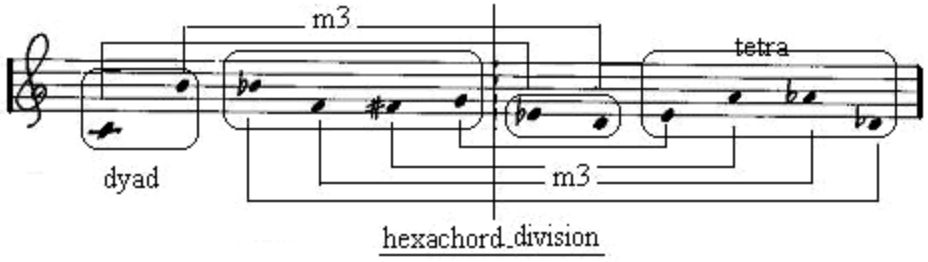
The piano solo is typical of the concerto genre; the spotlighted instrument--as Smit's instrument of choice--gets the most memorable musical material. While this relationship between the orchestra and the concertant is standard, Smit reinforces the contrast through his application of tonal and serialist techniques. The serialism is most evident in both solo and the orchestra, which mainly state notes in their tone-row form; the orchestra functions as background, and holds little interest as an independent musical entity. The pianist plays more freely with this musical material, straying from the strict serial pattern in order to create a memorable melody. The concertante is appropriately pianistic, featuring octave presentations, fast double-note successions, fugal complexity, fast and far-reaching leaps, small note-value divisions, and quick repetitive notes and octave successions.

[67] This statement is the opinion of Smit's pupil, Nils Vigeland, currently the chair of composition at the Manhattan School of Music.

"The Twelve-Tone Organization: P_0 (X) and P_0 (Y)" [68]

Tone-rows are used melodically, under certain restrictions but with considerable flexibility. All twelve pitch classes of the first melodic row--designated P_0 (X)--are first presented by the orchestra at bar 5 in horizontally parallel (Refer to example 3.23): C - B - B^b - F - $F^\#$ - G - E^b - D - E - A - A^b - D^b. The second melodic row, P_0 (Y): C - D - F - E^b - B - B^b - $F^\#$ - E - $C^\#$ - $G^\#$ - A - G, is presented at bar 30, simultaneously accompanied by P_0 (X), I_0 (X), and I_0 (Y) in vertical juxtaposition. Thus, different indications are clearly necessary for each independent P_0. In the thematic introduction of the first movement, P_0 (X), I_0 (X), and R_{10} (X) are repeatedly presented in order by both orchestra and piano. P_0 (X), clearly stated as the main melodic line from bar 5, consists of wide skips, octaves, major thirds and sevenths, and perfect fifths intervals (diagram 3.4).

Diagram 3.4: Properties of the series, P_0 (X)



This disjunctive contour is often intermingled with chromatic gestures; thus, to create the initial series, chromaticism and diatonicism are synthesized in Smit's unique duality.

The opening C functions as the tonal center throughout this composition, creating a strong tonal feeling by maintaining a distinct sense of C major or minor. P_0 (X) is divided into two hexachords, each consisting of a dyad and a tetrachord (in diagram 3.4 above). The

[68] The tone rows, P_0 (X) and P_0 (Y) are differently applied in each movement.

dyads C - B and E^b - D are inversions of each other (i.e. C inverts to E^b and B inverts to D), while the tetrachords B^b-F-$F^{\#}$-G and E-A-A^b-D^b show their relationship in minor-third intervals to one another.

P_0 (X) expands on this interesting minor-third intervallic relationship: within each hexachord, the tetrachord shows a minor third interval relationship. In addition, the hexachords are complementary inversions based on that interval. For instance, the pitch-classes 10-5-6-7 are minor third relations to 4-9-8-1 (figure 3.5), as are 0-11 to 3-2 [D^b inverts to B^b, A^b inverts to F, A inverts to $F^{\#}$, E inverts to G, D inverts to B, and E^b inverts to C]. Thus, each tetrachord (within each hexachord) has a retrograde inversional relationship of a minor third. Following this structure, P_0 (X) is a pair of inversionally related pitch-class groupings, divided into a four-note and eight-note chord.

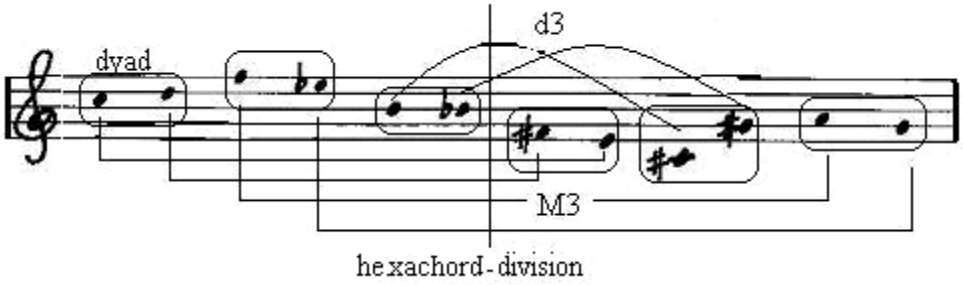
Figure 3.5: P_0 (X): its pitch-class integers (PCI) and ordered pitch-class intervals (OPCI)

	1		3				1		3			
Po (X):	C	B	Bb	F	F#	G	Eb	D	E	A	Ab	Db
PCI:	0→11		10	5	6	7	3→2		4	9	8	1
OPCI:	11	11	7	1	1	8	11	2	5	11	5	

* Numbers (i.e. 1 and 3) on the top describe the numbers of semi-tones for internal row-segments.

A major thematic event occurs at bar 30; while P_0 (X) continues in the music, a completely new tone-row--P_0 (Y)--is suddenly presented (See example 3.23). Seemingly, Smit states this row without any obvious relationship to the first row, P_0 (X) beyond starting on C. The first thematic solo (*Solo I*) enters at this measure, using contrary motion to suggest the question-answer motif: P_0 (X) is presented by the left hand, while P_0 (Y) is the top voice (diagram 3.5).

Diagram 3.5: Properties of the series, P_0 (Y)



While P_0 (X) shows the minor third intervallic relationship, P_0 (Y) has a mixture of major- and diminished-third intervallic relationships, as seen in diagram 3.5. Each hexachord consists of three dyads; two are complementary inversions based on the major-third interval and one dyad is based on the diminished-third relation (i.e., B inverts to $C^{\#}$, as does B^{b} to $G^{\#}$). The pitch-set 0-2 is in major-third relation to PCS 6-4, as is 5-3 to 9-7 (figure 3.6): C inverts to E, D inverts to $F^{\#}$, and F inverts to A. Thus, each duo-chord (within each hexachord) has a retrograde inversional complement by both a major- and diminished-third. Following this structure, P_0 (Y) is a pair of inversionally related pitch-class groupings, divided into a four-note and eight-note chord, as is P_0 (X).

Figure 3.6: P_0 (Y): its pitch-class integers (PCI) and ordered pitch-class intervals (OPCI)

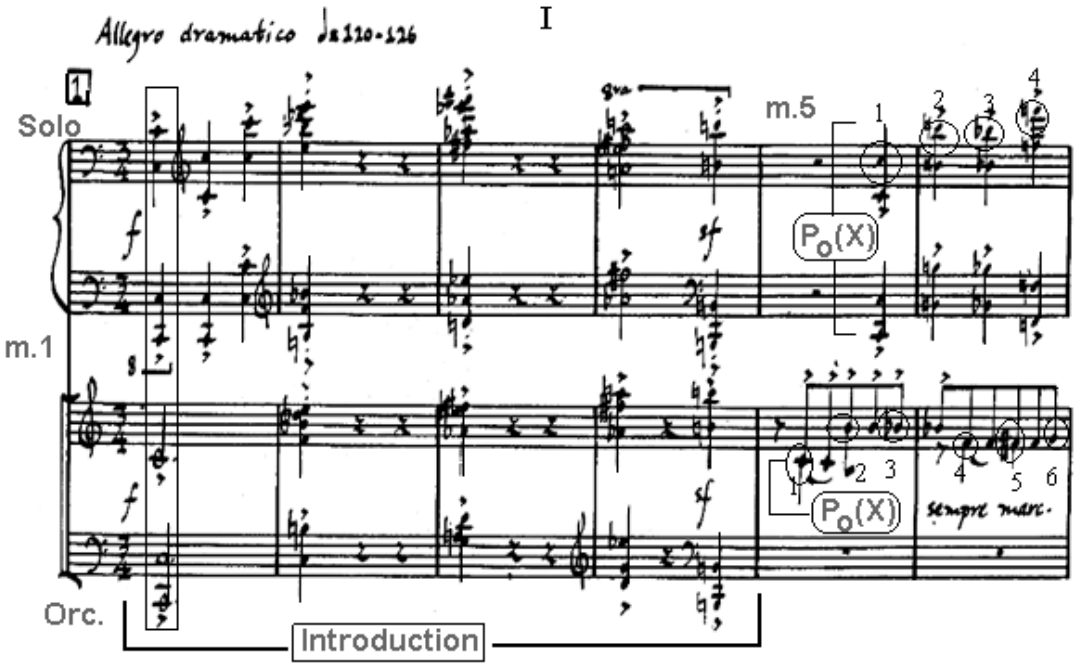
	m.	m.	d.	m.	d.	m.
Po (Y):	C D	F Eb	B Bb	F# E	C# G#	A G
PCI:	0 → 2	5 ← 3	11 10	6 → 4	1 8	9 ← 7
OPCI:	2 3	10 8	11 8	10 9	7 1	10

By using both the major and diminished third intervallic relationship at bar 30, Smit creates a contrasting mood while retaining the same tonal C ethos for both P_0 (X) and

P_0 (Y). Through contrast in dynamics (*f. marcato* in P_0 (X) while P_0 (Y) in *p. semlice*), progression (chromatic *vs.* diatonic), and motif (question *vs.* answer), Smit creates a non-modulatory version of the tonal structural device of the expositional primary and secondary theme in a sonata-allegro movement.

Contrasting musical ideas create a question-and-answer dialogue that characterizes the piece. A fanfare-like texture, dark and tense with mystery, suspense, and hesitation, is continually juxtaposed with a soft, transcendent theme. This brief, transparent theme is presented by the solo piano; the musical gesture intermingles diatonic and chromatic progressions. The piano theme is polyphonic in answer to the chordal homophony offered by the orchestral question. This contrast in mood--between the ambiguous and the lucid one--runs throughout the piece (example 3.23a).

Example 3.23a: The first movement, mm.1-12, 30-35, and 37-41: Smit: *Concerto* for Piano and Orchestra



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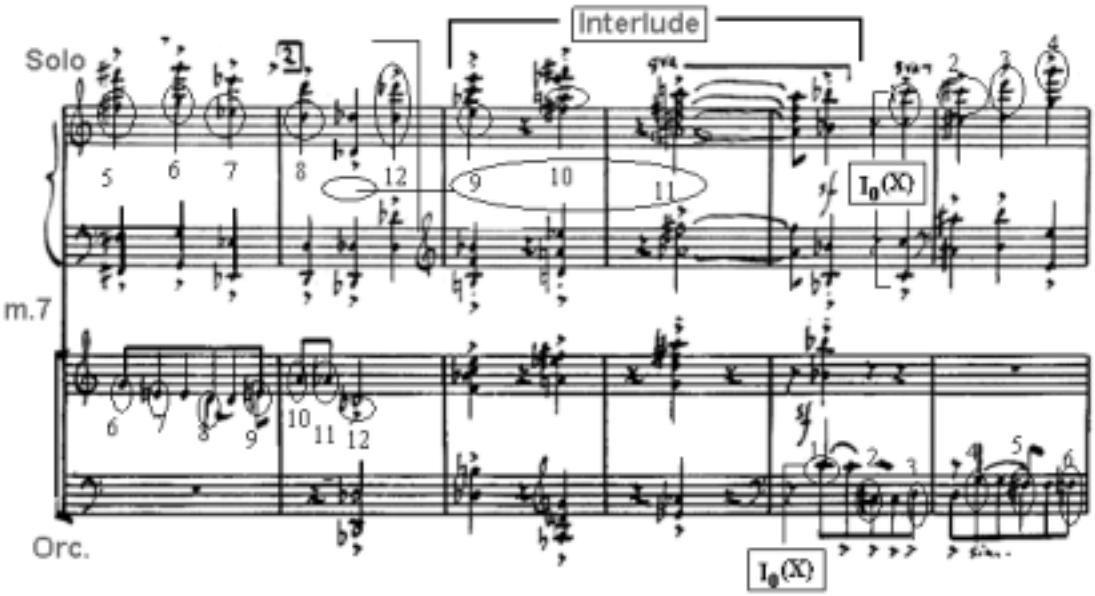
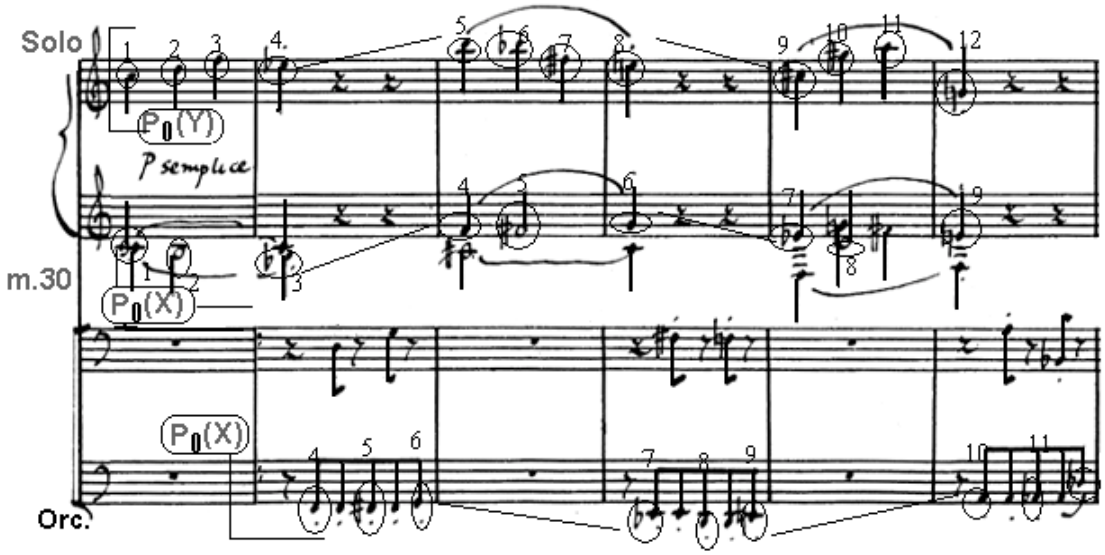
Example 3.23a: continued

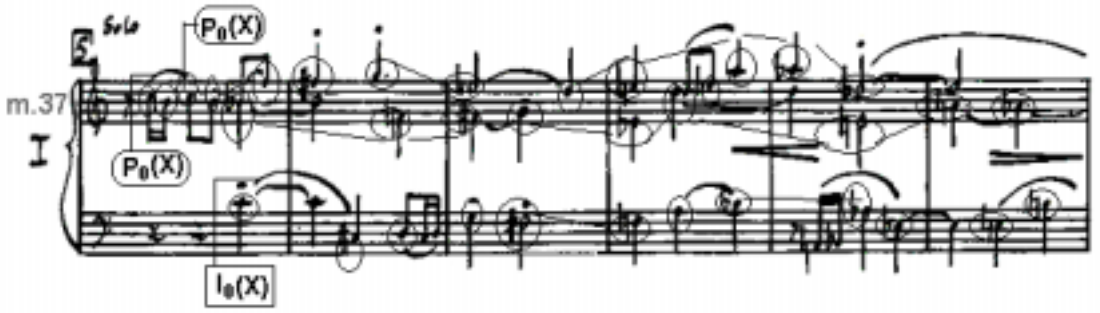


In the first movement, the orchestra plays out its "question", through chromatic suspension and dissonance, while the piano solo "answers" through diatonic tetrachords; although the specific technique varies for each voice, both are based on the tone row presented at bar 30 by the piano solo (example 3.23b).

Example 3.23b: The first movement, mm. 30-35: Smit: *Concerto* for Piano and Orchestra

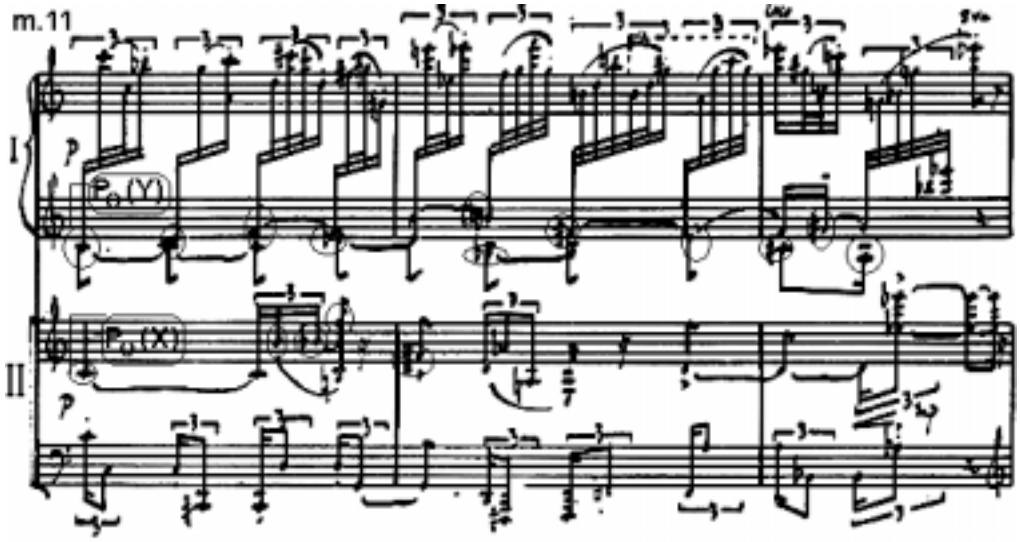


Example 3.23b: continued, mm. 37-41: Smit: *Concerto* for Piano and Orchestra

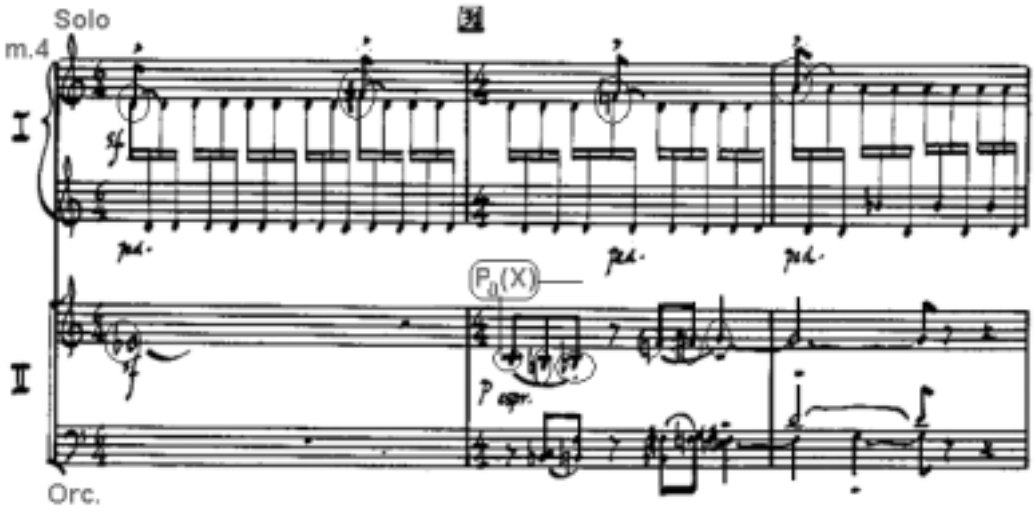


Juxtaposition of two independent tone-rows characterizes the second movement (example 3.24): a rhythmically ambiguous row belongs to the orchestra, while a metrically constant row is given to the solo (at bar 11). Both the solo and the orchestra seem disjointed in the third movement (example 3.25). While the piano is rhythmically static, its melody is chopped up into fragments hidden within larger runs of notes. Similarly, the orchestra moves with many interruptions; its pointillistic groups are separated from one another by large pauses (example 3.26). The overall effect is of voices disconnected from a certainty of purpose and goal.

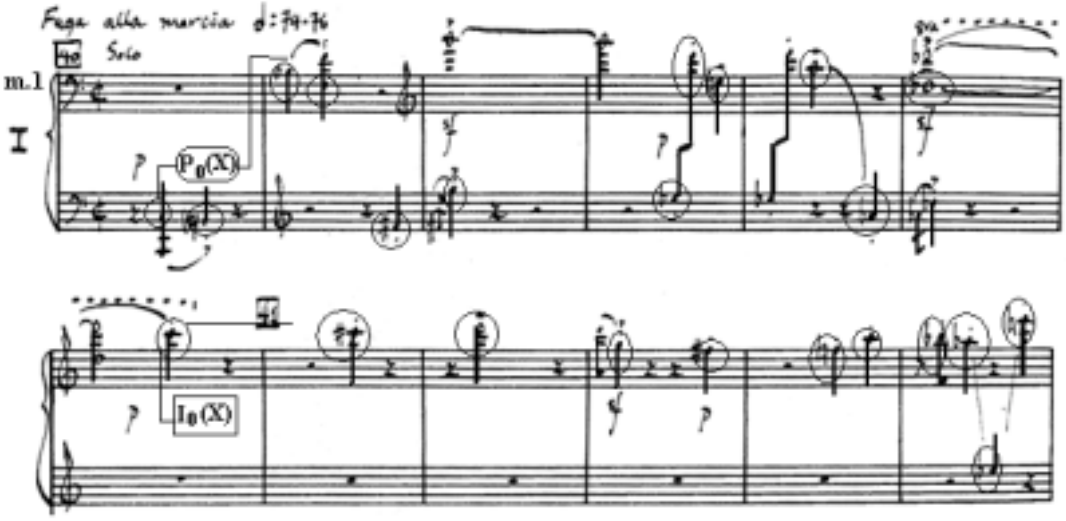
Example 3.24: The second movement, mm.11-13: Smit: *Concerto* for Piano and Orchestra



Example 3.25: The third movement, mm. 4-6: Smit: *Concerto* for Piano and Orchestra



Example 3.26: The fourth movement, mm. 1-12: Smit: *Concerto* for Piano and Orchestra



The contrasts in the first three movements are vertically combative, but the combative contrasts eventually meet with a solution in the process of their development; Smit reconciles this disjunction in the final movement by using a fugal form to weave the

contrasting elements into a complementary sonic landscape. The orchestra and the piano solo share dynamics and serial row-material in the finale; the unified mood and character drive the movement to a grand fugal climax. The *Fuga* performs the same duty for the entire concerto, melting the lucid and the ambiguous elements into a unity characterized by the concluding *marcato pesante* octave.

Rhythm and Meter

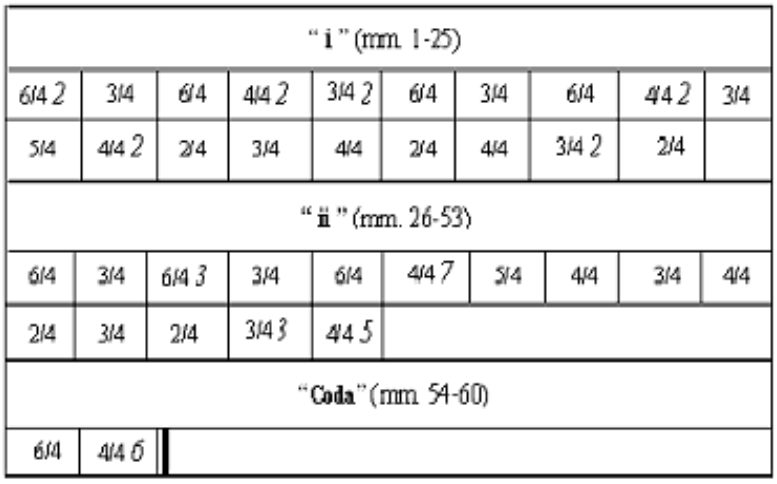
Three rhythmic gestures dominate the first movement. They steadily progress towards smaller value divisions: quarter-note progressions in keyboard-spanning octave unisons; three tetrachord groupings at bar 30, each made of four quarter-notes, clearly delineating the serial foundation; and a faster, more intricate gesture at bar 37, which emphasizes polyphony in its fugue-like presentation (See example 3.23).

The rhythmic relations are more elaborate in the second movement; for example, in the piano, while the left hand has regular and standard rhythmic division at m. 11 (See example 3.24), the right hand continually subdivides in note values both irregular and compound. The third movement returns to regular rhythmic divisions, but continues to shrink note-values and complicate the rhythmic interplay between each hand. Repetitive sixteenth-notes create a toccata-like percussiveness (See example 3.25). Meanwhile, the orchestra plays with larger groups of numbers. Hexachords coalesce in two groups of three; these row fragments are highly pointillistic, with each group varying widely in dynamic and keyboard range. These pointillistic row fragments transfer from the third movement orchestral part to the last movement piano solo (See example 3.26). The solo

groups hexachords in pairs of two and three.

Finally, while movements I, II, and IV are dominated by the regular strong and weak beats of simple meters (i.e.: 3/4, 4/8 and 2/2), the third movement shifts meter every measure, creating an intense irregularity of strong and weak beats. Therefore, the actual metrical shift is not clearly felt in this movement until the cadenza, which reverts to a regular 4/4 (figure 3.7).

Figure 3.7: Meter-Fluctuation in the third movement: Smit's *Concerto* for Piano and Orchestra



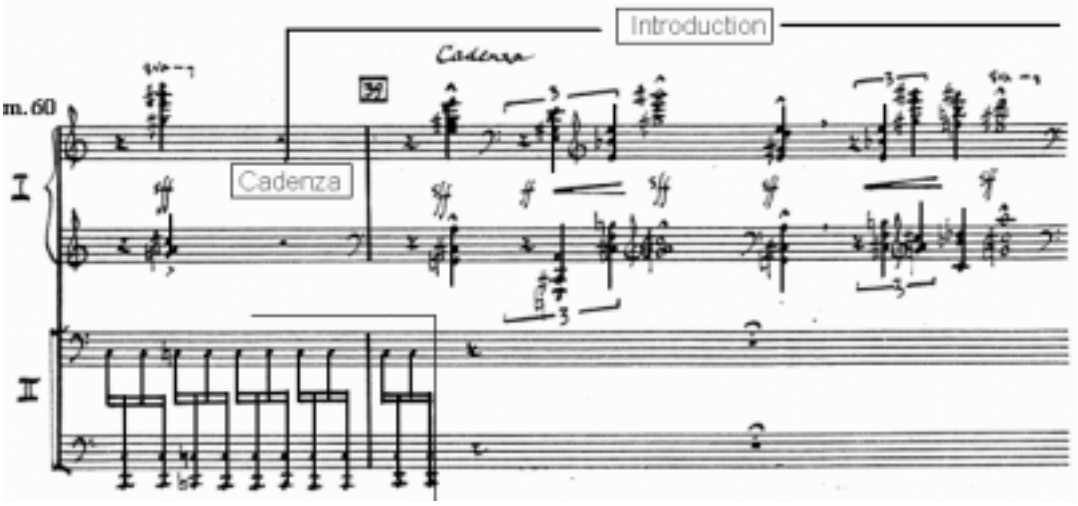
Smit selects his use of meter-fluctuation. The fluctuating meter is only seen in the third movement. Like Fine, Berger, and Foss, Smit's metric fluctuation represented by similar roots on quarter-time (i.e., 6/4, 5/4, 4/4/, 3/4, and 2/4) while finalizing with different meter 4/4 from the initializing meter 6/4. Smit's use of meter-fluctuation seems close to Stravinsky's method of metric fluctuation. In the *Three movements* from *Petrouchka* (arranged for two pianos in 1922), metric fluctuations are seen in the second and third movements while eschewing a fluctuating meter in the first movement. In the second movement of the *Three movements* from *Petrouchka,* all sections begin with the

initial meter 2/4, but which suddenly is replaced by a different meter 4/4 through one-measure final bar at 121 (Refer to figure 3.1b). Stravinsky's selective use of metric fluctuation resembles Smit's narrow use of it through only one movement.

Measure proportions consistently refer to the larger structural forms. The 173 measures of the first movement are divided into three sections corresponding to Sonata-allegro form: a 50-bar exposition, 91-measure development subdivided into chunks of 43 and 48 measures each, and 32-bar recapitulation. The two-part song-form second movement, 55 measures in length, is divided more or less equally into two sections, each of which is also split into smaller groups. The 29-measure A contains two roughly equal groups with minor phrase subdivisions: 10+3 and 9+7. A′ is less stable, spreading 25 measures over these subdivisions: 7+14+4. The third movement, 61 measures long, is also divided into two almost symmetrical sectional parts, plus a closing section; part i is 25 measures, part ii is 29, and the conclusion has 7 measures. Significantly, part i and ii in this movement have exactly the same measure lengths as the A and A′ of the second movement, albeit in reverse. The two-part fugue in the final movement is 105 measures: part i has 48 measures, part ii 34, and a coda 22 (See table 3.5).

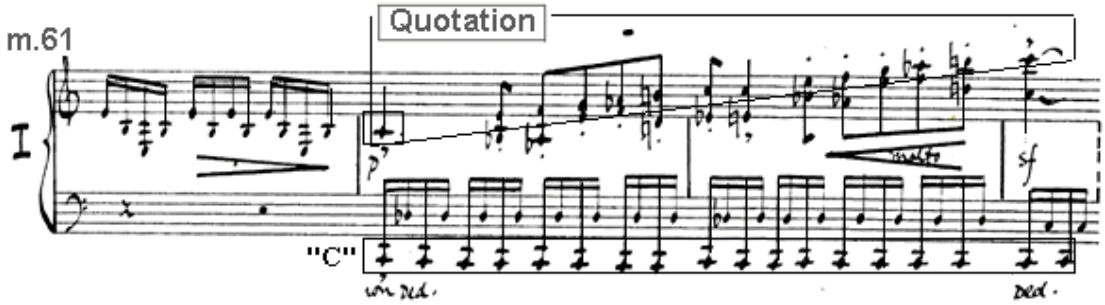
The orchestra consistently supports the piano in developing and reinforcing musical ideas. As seen in table 3.5, the entries and exits alternate between leading and simultaneity; this cooperative relationship emphasizes the question–answer dynamic, with the continuous movement format providing an ideal vehicle. The first and second movements proceed without pause through the third movement, where a cadenza (example 3.27) and a highly dramatic pause prepare the *Fuga* in the last movement.

Example 3.27: *Cadenza* in the third movement: Smit: *Concerto* for Piano and Orchestra



As shown in example 3.27, the solo chordal grouping-movement at the beginning of the cadenza recalls the beginning of the first movement--starting with a heroic introduction consisted of chordal groupings. Through preliminary broken chord passage, a thematic quotation suddenly appears: it is from Beethoven's piano sonata, op. 13 in C minor, the "Pathétique" (example 3.28).

Example 3.28: Thematic quotation on *Cadenza* (from Beethoven)



With the bass on "C" functioning as a pedal point, a general tonal feeling on "C" meets

with the atmosphere of key in C minor from Beethoven's piano sonata.[69] After the thematic quotation, the progress of the cadenza does not contain a further surprising or "pathetic" quotation-statement. Rather, the broken chord passage fades with a triple-pianissimo at the end. As a highly dramatic pause prepare, a highly dramatic long pause, *Lunga*, completes the cadenza.

To create this continuity, the alternating relationships between the piano and orchestra as leader or cooperator overlap, blurring the structural boundaries of each movement. The first movement begins with both orchestra and piano. The *Attaca* in the piano that ends this movement is mirrored by the orchestral lead at the start of the second movement. This structural motive literally overlaps at the halfway point, as the orchestra stops and the piano enters simultaneously to close the second movement and open the third. The third movement thus begins with a toccata-like solo in the piano, but when the orchestra reenters they exchange functions: the piano plays repetitive *ostinato*-like notes while the orchestra presents the tone-row. This movement is also abruptly delineated by a piano cadenza with *Lunga*; the piano then initiates the finale by leading the orchestra in presenting the tone-row. Thus, although the concerto is a multi-movement composition, it is more clearly seen as a single and unified structure.

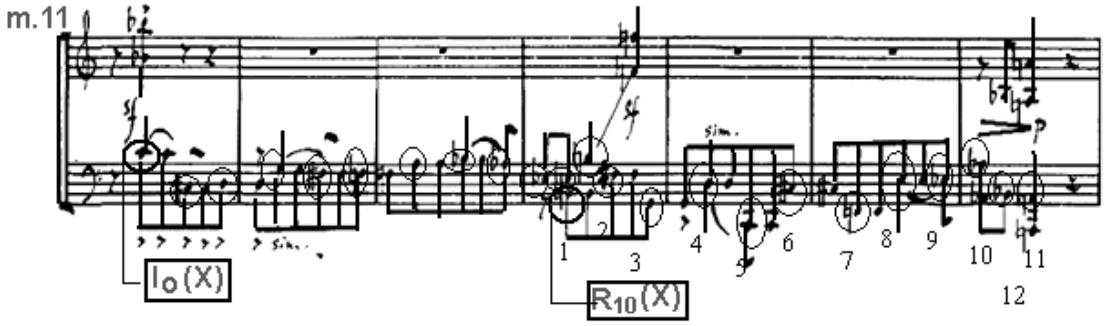
Relevant Rows--I_0 (X) and R_{10} (X)

A more significant relationship regarding properties of the series is that it is balanced to a large extent at I_2, that is, segments of the series map onto each other at T_2I.

[69] As Smit was deeply pre-occupied with the meaning of classical music, his thematic quotation from Beethoven's sonata followed his ethos of dramatic cadenza into new twelve-tone composition.

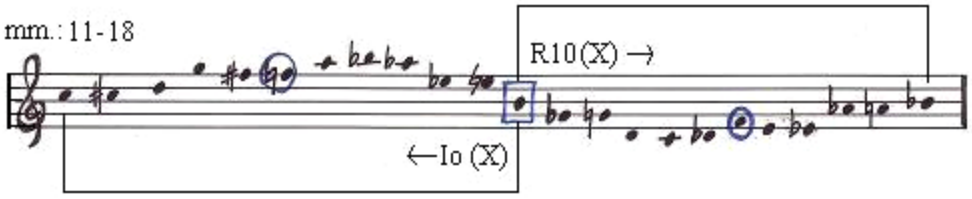
As a result, any P-form (or R-form) combined with an I-form (or RI-form) that starts two semitones higher will produce many invariant segments. R_{10} and I_0 share many segments; two series forms share interesting segments of pitch-class. As seen in example 3.29, they share the note 'B' as the last note of I_0 (X) and first note of R_{10} (X).

Example 3.29: Series I_0 (X) and R_{10} (X) on the music excerpt



Through having the tone "B" as an axis, these two series are rotated--two rows are overlapped on "B", its pitch-class "11" as the first tone of rows while having "F", its pitch-class "5" as the sixth tone of rows (diagram 3.6). When I_0 (X) ends on "B", simultaneously R_{10} (X) starts on it. Thus, these two rows make an inversional symmetry which is in a mirrored shape.

Diagram 3.6: Transposed Inversional Symmetry between I_0 (X) and R_{10} (X)



While the relationship between P_0 (X) and I_0 (X) is seen at T_{12}, the more interesting

relationship at T_{10} and mod 12 (figures 3.8 and 3.9) are created by both pitch-class integers and ordered pitch-class integers of I_0 (X) and R_{10} (X) below.

Each pitch-class in I_0 (X) is related by T_{10} to the corresponding pitch-class in R_{10} (X). Each ordered pitch-class integers in I_0 (X) is related by *mod* 12 to the corresponding ordered pitch-class in R_{10} (X). In the meanwhile these two series have two semi-tone difference, they show a very similar shape in a transposed version at T_{10}.

Figure 3.8: T_{10} created by PCI of I_0 (X) and R_{10} (X)

I0 (X)	0	1	2	7	6	**5**	9	10	8	3	4	**11**
R10 (X)	10	9	8	3	4	**5**	1	0	2	7	6	**11**
=T 10	10	10	10	10	10	10	10	10	10	10	10	10

Figure 3.9: *Mod* 12 created by OPCI of I_0 (X) and R_{10} (X)

OPCI: *I0 (X)*	1	1	5	11	11	4	1	10	7	1	7
OPCI: *R10 (X)*	11	11	7	1	1	8	11	2	5	11	5
= mod 12	12	12	12	12	12	12	12	12	12	12	12

In addition, T_2 I is also seen between R_{10} (X) and P_0 (X). By adding 2, which is two semitones higher, to each integer of R_{10} (X), its pitch-class set: 10, 9, 8, 3, 4, 5, 1, 0, 2, 7, 6, and 11, produces the transposed version, T_2 (figure 3.10). Invariant segments possibility, transposed inversion shared in prime form, or combined inversion from, and retrograde form (P_0, I_0, and R_{10}) is produced by adding two higher semitones. Three rows, P_0 (X), I_0 (X), and R_{10} (X) in the opening are balanced to a large extent at I_2 and interrelated by T_2 I.

Figure 3.10: T_2 between R_{10} (X) and P_0 (X)

R10(X)	10	9	8	3	4	5	1	0	2	7	6	11
+	2	2	2	2	2	2	2	2	2	2	2	2
=P0(X)	0	11	10	5	6	7	3	2	4	9	8	1

The considerable intervallic symmetry within each tone-row, as evidenced by the cross-relationships between hexa-, tetra-, tri-, and dyads, corresponds to the homogeneity inherent in using only variants of pitch-class 0 (See addendums 3.1 and 3.2). This intervallic and pitch-class homogeneity further contributes to the overall sense of tonal stasis in the piece; despite the post-tonal methodology, Smit's music remains resolutely in C. The tremendous reliance on C as a pitch-center signals Smit's consideration of the role of tonality in post-tonal composition.[70] Smit's integration of traditional tonal structures and pitch relations with serial methodology synthesizes the two schools, fusing tonality and serialism into the dualist approach.

[70] A well-known example of this phenomenon occurs in the second act of Berg's opera *Lulu;*at the midpoint, the score reaches an orchestral unison on C.

Addendum 3.1: Matrix of P_0 (X): Smit: *Concerto* for piano and orchestra (1968)

P.= Prime (Original row)

I.= Inversion

R.= Retrograde

RI.= Retrograde Inversion

Po (X) - Letter names & Pitch-class integers

P. →

L ↓											
C	B	Bb	F	F#	G	Eb	D	E	A	Ab	Db
0	11	10	5	6	7	3	2	4	9	8	1
C#	**C**	B	F#	G	Ab	E	Eb	F	Bb	A	D
1	**0**	11	6	7	8	4	3	5	10	9	2
D	Db	**C**	G	Ab	A	F	E	Gb	B	Bb	Eb
2	1	**0**	7	8	9	5	4	6	11	10	3
G	Gb	F	**C**	Db	D	Bb	A	B	E	Eb	Ab
7	6	5	**0**	1	2	10	9	11	4	3	8
Gb	F	E	B	**C**	Db	A	Ab	Bb	Eb	D	G
6	5	4	11	**0**	1	9	8	10	3	2	7
F	E	Eb	Bb	B	**C**	Ab	G	A	D	Db	Gb
5	4	3	10	11	**0**	8	7	9	2	1	6
A	Ab	G	D	Eb	E	**C**	B	Db	Gb	F	Bb
9	8	7	2	3	4	**0**	11	1	6	5	10
Bb	A	Ab	Eb	E	F	Db	**C**	D	G	Gb	B
10	9	8	3	4	5	1	**0**	2	7	6	11
Ab	G	Gb	Db	D	Eb	B	Bb	**C**	F	E	A
8	7	6	1	2	3	11	10	**0**	5	4	9
Eb	D	Db	Ab	A	Bb	Gb	F	G	**C**	B	E
3	2	1	8	9	10	6	5	7	**0**	11	4
E	Eb	D	A	Bb	B	G	Gb	Ab	Db	**C**	F
4	3	2	9	10	11	7	6	8	1	**0**	5
B	Bb	A	E	F	Gb	D	Db	Eb	Ab	G	**C**
11	10	9	4	5	6	2	1	3	8	7	**0**

↑ **RI**

← **R.**

* (PCI) Pitch-Class Integers (C=0, $C^{\#}$=1, D=2, $D^{\#}$=3, E=4, F=5, $F^{\#}$=6, G=7, $G^{\#}$=8, A=9, $A^{\#}$=10, B=11), "C" is the starting note in the prime row (as the melody) with its pitch-class 0, while used as the tonal center throughout this composition.

Addendum 3.2: Matrix of P_0 (Y): Smit: *Concerto* for piano and orchestra (1968)

Po (Y) - Letter names & Pitch-class integers

P. →

L. ↓											
C	D	F	Eb	B	Bb	F#	E	C#	G#	A	G
0	2	5	3	11	10	6	4	1	8	9	7
Bb	**C**	Eb	C#	A	Ab	E	D	B	Gb	G	F
10	**0**	3	1	9	8	4	2	11	6	7	5
G	A	**C**	Bb	Gb	F	C#	B	G#	Eb	E	D
7	9	**0**	10	6	5	1	11	8	3	4	2
A	B	D	**C**	Ab	G	Eb	Db	Bb	F	Gb	E
9	11	2	**0**	8	7	3	1	10	5	6	4
Db	Eb	Gb	E	**C**	B	G	F	D	A	Bb	Ab
1	3	6	4	**0**	11	7	5	2	9	10	8
D	E	G	F	Db	**C**	Ab	Gb	Eb	Bb	B	A
2	4	7	5	1	**0**	8	6	3	10	11	9
Gb	Ab	B	A	F	E	**C**	Bb	G	D	Eb	Db
6	8	11	9	5	4	**0**	10	7	2	3	1
Ab	Bb	Db	B	G	F#	D	**C**	A	E	F	Eb
8	10	1	11	7	6	2	**0**	9	4	5	3
B	Db	E	D	Bb	A	F	Eb	**C**	G	Ab	Gb
11	1	4	2	10	9	5	3	**0**	7	8	6
E	Gb	A	G	Eb	D	Bb	Ab	F	**C**	Db	B
4	6	9	7	3	2	10	8	5	**0**	1	11
Eb	F	Ab	Gb	D	Db	A	G	E	B	**C**	Bb
3	5	8	6	2	1	9	7	4	11	**0**	10
F	G	Bb	Ab	E	Eb	B	A	F#	Db	D	**C**
5	7	10	8	4	3	11	9	6	1	2	**0**

↑ RI

← R.

CHAPTER 4: CONCLUSION

This research has assessed the impact of Stravinsky's serial conversion on composers of the American Stravinsky School by evaluating and investigating the period and representative works of these composers. Discussions of post-1952 piano compositions by the American Neo-Classicists reflect the impact of Stravinsky's serial conversion. Arthur Berger's *Three One-part Inventions* for piano (1954,) Irving Fine's *Little Toccata* (1958) from *Diversions* for piano, Lukas Foss's *Scherzo ricercato* for piano (1953), and Leo Smit's *Concerto* for Piano and Orchestra (1968) demonstrate a range of compositional responses, while the post-1952 musical silence of Harold Shapero is the most extreme response to Stravinsky's serial conversion.

In 1952, when Stravinsky was seventy years old, he ended his thirty-year exploration of Neo-Classicism in music and turned to twelve-tone methodology.

The younger generation of American Neo-Classicists admired and followed Stravinsky's Neo-Classicism as the "Tonal" alternative to Schoenberg's post-tonal theories. However, diverse responses resulted from Stravinsky's turning to serialism; most members of the group followed Stravinsky's serial conversion, but those who turned to twelve tone methodology did so independently rather than out of idolization of that great composer. Their explorations of the twelve-tone methodologies were different, but were grounded from their previous Stravinskian Neo-Classicism; indeed, some ignored what Stravinsky was doing in the 1950s; some explored the avant-garde, and some revisited Neo-Classicism later. The impact of Stravinsky's serial conversion in 1952 on the individual composers of the American Stravinsky School was completely disparate.

My research reveals several interesting factors between the various responses to Stravinsky. Ultimately, the analysis of the post-1952 works suggests that the diverse application of twelve-tone methodologies by the American Stravinsky School grew out of a reassessment of Stravinskian Neo-Classicism. On the one hand, Fine and Foss eschewed twelve-tone piano compositions yet composed serial pieces for small ensemble. Berger and Smit eagerly exploited the possibilities of twelve-tone music, integrating Neo-classic features with serial methodology. Smit's dualist approach marries traditional tonal structures and pitch relations with serial methodology, synthesizing tonality and serialism in the *Concerto* for Piano and Orchestra (1968). Berger's ability to blend diverse techniques--tonality, atonality, serialism, and other compositional formats rooted in Neo-Classicism--characterizes his *Three One-part Inventions* for piano (1954).

Although these musical developments stem from the general application of Stravinsky's compositional fashion, the post-1952 works from the American Stravinsky School all exhibit vibrant contemporary compositional practice, pointing towards other contemporary compositional techniques such as atonality, bitonality, and polytonality, and modality; fluctuating multi-meters; and pointillistic textures created by fragmented rhythmic lines. Compositional innovations characterized these artists' approach to their musical problem, resulting most notably in the fusion and blending of techniques. Indeed, Berger's embrace of the avant-garde in the 1960s indicates the uniqueness of the musical voices that were developing in the group. His juxtaposition of a twelve-tone piece with other compositional formats signals his consideration of serialism as one available compositional method, applicable as both a local technique and an independent (or large-scale) compositional style. Smit devised a non-modulatory version of the tonal

structure device, in which the expositional primary and secondary theme was replaced by rows-- designated as P_0 (X) and (Y)--in a sonata-allegro movement. By maintaining a distinct sense of C major or minor and maintaining a tremendous reliance on C as a pitch-center, the new role of tonality in post-tonal composition through is suggested Smit's dualist approach.

Stravinsky was enormously lucky to have virtually all of his music recorded during his lifetime, most of it shortly after it was written. Similarly, the American Neo-Classicists initially took part in a flourishing music scene in which their music was premiered, recorded, and published. But their music has been largely neglected since then. The repertoire discussed is rarely performed nowadays, and few even know of its existence. Most post-1952 piano music by composers of the school is ignored in the academic literature of the twentieth-century. Perhaps these works were not successful in communicating with professional or amateur musicians.

Yet musical criticism also played a major role in the neglect of this music. Berger addressed the critic's responsibility in an article from 1955, complaining that a critic's evaluation often depended on his categorization of the compositional method. Therefore, critics all too often failed to grasp the unique qualities of the composers. Berger noted this tendency in a review of a premiere of his work:

> 'if the composer's name were not attached one might easily guess it to be one of [Stravinsky's] smaller ballet score'. [71]

Because the young American Stravinsky School relied heavily on Stravinsky's Neo-classic contributions, all their own efforts, values, and qualities might be considered mere

[71] Berger (1955), 38.

imitation of Stravinsky by critics obsessed with only radical musical idioms. Even Copland was once described as the 'Brooklyn Stravinsky.' It is difficult to recognize what is new in works that are not radical in idiom; however, uniqueness is not a matter of comparison.[72]

Most members of the American Stravinsky School found that their music was viewed as unfashionable, and were never very successful as composers like their master Stravinsky. By the 1950s and 60s, when the musics of chance, minimalism, and electronic media were already gaining popularity, interest in turning to serialism *versus* remaining Neo-classical was limited. Many other major composers' serial works of the time suffered neglect despite their innovations and skillfulness.[73]

Composers of the school faced unfortunate barriers to their musical continuation and productivity. Shapero gave up composing just a few years after Stravinsky turned to serialism. Fine died young; he might have been stylistically more creative and individuated from his contemporaries if lived longer. During the 1950s Smit seemed constrained by a situation similar to Shapero's "hero-worship complex", but his 1968 composition *Concerto* for Piano and Orchestra ultimately proved that Smit's music was not merely an adaptation of Stravinsky's new style, but an independent demonstration of serialism. Foss first established his successful career as a pianist, then was active as a conductor and composer. After consistent stylistic changes, Foss returned to a more American and Neo-classical style in the 1980s and 90s. However, his re-visitation of Neo-Classicism didn't replace his explorations from the 1960s and 1970s. Berger successfully grew as an independent composer past his role in the Stravinsky school. His exploration of serialism

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[72] Berger (1955), 39.

[73] Stravinsky's late works and the position of serialism in American musical life in 1950s and 1960s are discussed in the article, "Stravinsky and the Serialists (2001)," 4-5. Joseph Straus, *Stravinsky's Late Music.*

was a process of creative adoption which ultimately led to his compositional maturity in the avant-garde.

Fundamentally, Stravinsky's stylistic shift in 1952 was an effective provocation for these composers to re-orient themselves as artists. In the book *The American Composer Speaks: a Historical Anthology* from 1966, Gilbert Chase asked most of these composers to reassess their "Stravinsky period," with the result that certain ones considered it a passing phase.[74] However, although the individual pieces to come from this group never gained wide importance, and despite the 'failure' of the School to create a lasting musical idiom, the process Berger, Fine, Foss, Smit, and Shapero went through after 1952 was crucial to the development of each as a composer. Just as Stravinsky's dramatic change was prompted by his self-conscious artistic crisis following *The Rake's Progress,* the younger composers of the school were pushed to reassess their years of Stravinskian Neo-Classicism and their musical paths for the future. The disparate responses--whether strict serialism, fusion with tonality, blending technique within a traditional framework, exploration of different schools, or artistic silence--all attest to the enormity and diversity of Stravinsky's influence on the younger generation of musicians from the American Stravinsky School. Ultimately, Stravinsky's serial conversion stimulated these composers' self-evaluations, leading them to stylistic independence and the creation of unique compositional voices grounded in their Stravinskian Neo-classic period.

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[74] Gilbert Chase, *The American Composer Speaks: a Historical Anthology, 1770-1965*. (Baton Rouge: Louisiana State University Press, 1966), 23.

BIBLIOGRAPHY

Articles and Books

Berger, Arthur. *Aaron Copland*. New York: Oxford University Press, 1953.

_____ . "Stravinsky and the Younger American Composers," *The Score and I.M.A. Magazine* 12 (June 1955), 38-46.

Carter, Elliott. "Forecast and Review: The Changing Scene, New York 1940," *Modern Music* 17, no. 4 (June 1940), 237-41.

Chase, Gilbert (ed.). *The American Composer Speaks: a Historical Anthology*, 1770-1965. Baton Rouge: Louisiana State University Press, 1966.

Chase, Gilbert and David Wright. "Lukas Foss," in *The New Grove Dictionary of Music and Musicians,* edited by Stanley Sadie and John Tyrrell. London: Macmillan, 2001, vol. 9, 116-7.

Copland, Aaron. "The New 'School' of American Composers, 1949," *Copland on Music.* New York: Da Capo Press, 1976.

_____ . *Stravinsky in Modern Music.* New York: Da Capo Press, 1982.

_____ . "From the '20s to the '40s and Beyond," *Modern Music* 20, no.2 (Jan-Feb 1943), 78-82.

_____ . "The Composer and His Critic," *Modern Music* 9, no.4 (May-June 1932), 143-7.

_____ . *The New Music, 1900-1960.* Revised and Enlarged edition. New York: W.W.Norton, 1968.

Craft, Robert. *An Improbable Life: Memoirs by Robert Craft.* Nashville: Vanderbilt University Press, 2002.

Daniel, O. and P. Glanville-Hicks. "Alexei Haieff," in *The New Grove Dictionary of Music and Musicians,* edited by S. Sadie and J. Tyrrell. London: Macmillan, 2001, vol. 10, 667-68.

Flanagan, William. "The Younger Generation," *The American Composer Speaks: a Historical Anthology, 1770-1965,* edited by Gilbert Chase. Baton Rouge: Louisiana State University Press, 1966.

Follingstad, Karen Joy. "*The Three Sonatas of Harold Shapero: Historical, Stylistic, and*

Performance Analysis." D.M.A.diss., Austin: University of Texas, 1989.

Goss, Madeleine. *Modern Music-Makers: Contemporary American Composers*. New York: E. P. Dutton & Company, 1952.

Kaufman, Charles H. "Irving Fine," in *The New Grove Dictionary of Music and Musicians,* edited by S. Sadie and J. Tyrrell. London: Macmillan, 2001, vol. 8, 827.

_____ . "Arthur Berger," in *The New Grove Dictionary of Music and Musicians,* edited by S. Sadie and J. Tyrrell. London: Macmillan, 2001, vol. 3, 333-35.

Kirby, F. E. *Music for Piano: A Short History.* Portland, Oregon: Amadeus Press, 1995.

Mackey, Steven. "John (Ayres) Lessard," in *The New Grove Dictionary of Music and Musicians,* edited by S. Sadie and J. Tyrrell. London: Macmillan, 2001, vol. 14, 590.

Peles, Stephen. "Serialism and complexity," *The Cambridge History of American Music.* Edited by David Nicholls. New York: Cambridge University Press, 1998.

Perkins, John Mac Ivor. "Arthur Berger: The Composer as Mannerist," *Perspectives of New Music* (Fall-Winter 1966), 75-92.

Pollack, Howard. *Harvard Composers: Walter Piston and His Students--from Carter to Rzewski*. New Jersey: The Scarecrow Press, 1992.

_____ . *Aaron Copland: The Life and Work of an Uncommon Man*. New York: Henry Holt and Company, 1999.

_____ . "Harold Shapero, " in *The New Grove Dictionary of Music and Musicians,* edited by S. Sadie and J. Tyrrell. London: Macmillan, 2001, vol. 23, 212-13.

Rosen, Charles. "Serialism and Neo-Classicism," *Arnold Schoenberg*. Chicago: The University of Chicago Press, 1996.

Shapero, Harold. "The Musical Mind," *Modern Music* 23, no.1 (Winter-Fall 1946), 31-5.

_____ . "Neglected Works: A Symposium," *Modern Music* 23 (1946), 8-9.

_____ . "Notes for A.B.65," *Perspectives of New Music* 17 (Fall-Winter 1978), 78-82.

Simms, Bryan R. *Composers on Modern Musical Culture: An Anthology of Readings on Twentieth-century Music*. New York: Schirmer Books, 1999.

_____ . *Music of the Twentieth century: Style and Structure*. New York: Schirmer Books, 1986.

Stolba, Marie K. *The Development of Western Music: A History.* Second ed. Brown & Benchmark, 1994.

Straus, Joseph N. *Introduction to Post-tonal Theory*. Second ed. New Jersey: Prentice Hall, 2000.

_____ . *Stravinsky's Late Music.* New York: Cambridge University Press, 2001.

Van den Toorn, Pieter C. "Stravinsky Re-barred," *Stravinsky and The Rite of Spring*. Berkeley: University of California Press, 1987.

Vigeland, Nils. "Leo Smit, " in *The New Dictionary of Music and Musicians,* edited by S. Sadie and J. Tyrrell. London: Macmillan, 2001, vol. 23, 564-65.

Walsh, Stephen. "Igor Stravinsky," in *The New Grove Dictionary of Music and Musicians*, edited by S. Sadie and J. Tyrrell. London: Macmillan, 2001, vol. 24, 528-67.

Watkins, Glenn. *Soundings: Music in the Twentieth Century*. New York: Schirmer Books, 1988.

White, Eric W. *Stravinsky: The Composer and His Works*. Second ed. Berkely and Los Angeles: University of California Press, 1979.

Youngren, William H. "Classicism without Irony: Harold Shapero set his musical gifts free by sincerely imitating the masters," *The Atlantic* 269, no.6 (June 1992), 116-8.

Scores

Berger, Arthur. *Duo* for Violincello and Piano. New York: King's Crown Music Press, 1988.

_____ . *Five Pieces* for Piano. New York: C.F. Peters, 1975.

_____ . *Rondo.* New York: Merrymount Music Press, 1949.

_____ . *Three one*-part inventions for piano (1954). Association for the Promotion of New Music, 1954.

Fine, Irving. *Music* for Piano. New York: MCA Music, 1949.

_____ . *Little Toccata* (1958) from *Diversions for piano.* New York: Boosey & Hawkes, 1963.

Foss, Lukas. *Concerto* No. 2 for Piano and Orchestra. New York: G. Schirmer, 1938.

_____ . *Scherzo ricercato.* New York: Carl Fischer, 1953.

Shapero, Harold. *Three Sonatas* for Piano. New York: G. Schirmer, 1949.

_____ . *Variations* in C minor, 1947. New York: Southern Music Publishing Co. Inc., 1962.

_____ . *Sonata* in F minor, 1948. New York: Southern Music Publishing Co. Inc., 1964.

Smit, Leo. *Concerto* for Piano and Orchestra. New York: C Fischer, 1968.

_____ . *Variations* in G, 1949. New York: Boosey & Hawkes, 1954.

_____ . *Sonata* in one movement, 1955. New York: Mills Music, 1967.

Stavinsky, Igor. *Three Movements* from *Petrouchka,* 1922. Arranged for Two Pianos by Victor Babin. New York: Boosey & Hawkes, 1953.

_____ . *Concerto* for Piano and Winds, 1924. Revised in 1950. New York: Boosey & Hawkes, 1948.

Discography

Berger, Arthur. *Instrumental music,* Selections. New York: CRI 622 (1992).

_____ . *Three One-Part Inventions* for Piano. New York: CRI 2593 (2002).

Fine, Irving. *Music of Irving Fine,* Selections. New York: CRI (1992).

Smit, Leo. *Concerto* for Piano and Orchestra. Buffalo, NY: Composers Recordings (1968).