Four Pieces for Quartet

A Composition for Violin, Violoncello, Piano, and Percussion

by

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Abstract

“Four Pieces for Quartet” is a 27 minute chamber work for violin, violoncello, piano, and percussion. Influenced by various elements of jazz composition and practice, its four movements draw from various eras of jazz history for source material. The chosen material from ragtime, bebop, modal, and modern jazz sub-genres functions as the impetus for motive and rhythmic development, gesture, compositional structure, instrumentation, orchestration, and instrumental interaction throughout the work. With the appropriation and incorporation of these materials, the composition seeks to subtly merge jazz and classical compositional techniques into a hybrid style.
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1. Introduction

The Doctoral thesis composition sets out to transiently connect two of my many worlds of music: jazz and classical. In the beginning of my formal composition study, I attempted to keep the two genres separate. Now, in retrospect, I believe this partition helped me gain a deeper understanding of both. In the past three years, my desire to bridge these two compositional worlds, paired with encouragement from my professors, has inspired me to draw more openly from my diverse musical background when approaching composition. “Four Pieces for Quartet” is a direct result of this open collaboration of styles. The 27 minute chamber work is divided into four movements and consists of an instrumental quartet constructed from violin, violoncello, piano, and percussion.

1.1 Inspiration

The practice of incorporating outside music, including jazz, into my recent compositions stems from my desire to capitalize on the skills gained through years of music study in both the jazz and classical fields. Since during the first six years of my college and university education I studied mainly jazz music and during the last five years of university I focused mainly on classical music, this atypical background has given me the ability to convincingly compose in several different genres. As my future plans are directed towards, but not limited to, composing jazz inspired music for a small improvising group that I will perform in, I decided to use the thesis composition as an opportunity to experiment with different compositional styles and techniques I could draw from in the future.
1.2 Composition versus Improvisation

Jazz music and improvisation have always been intriguing to me. I see the act of improvising as a way of composing on the spot. Obviously, composing can be well planned and plotted out, but at some point ideas have to be put on paper. Improvisation can also be directed by motives, harmonies, or other criteria and, therefore, planned out to some degree just like a composition. With composing, one might argue, the creator can go back in time and change details, but this is true only for so long. At some point the composer needs to declare the completion of the piece. In contrast, the improviser declares the completion of the work immediately as the notes or rhythms are sounded.

The main difference between the two may exist in the tangibility of their medium, but, when a comparison is done, one finds this argument to be negligible. Although the paper the composer writes on, compared to the open air in which the improviser improvises, may be more tangible, an improvisation can easily be captured through recording. Furthermore, just as the talented composer studies the history and theory of their music to aid and educate their senses, so too does the talented improviser. Truthfully, no matter which way we describe these methods of creation, we will inevitably discover more similarities than differences.

Although “Four Pieces for Quartet” does not require improvisation from the performers, some sections do convey a sense of improvisation through the instruments’ interactions. As such, during the creation of this composition, much of the material was approached improvisatorially just as much as it was compositionally. Intuition and improvisation were essential to the processing of material as I frequently asked myself “what would I like to hear next” or “what would I ‘play’ next.” This process may be
understood as an alternative to being rigidly guided by a pre-planned structure, or by the
standard, methodical development of material. The result was a composition possessing
both free-flowing, improvised qualities and unifying, structural qualities.

1.3 The Search for Precompositional Jazz Source Material

As I have taken over six years of graduate and undergraduate courses on jazz
theory, arranging, history, and style, read a myriad of books covering various aspects of
these topics, transcribed and analyzed over one-hundred improvisations, analyzed
countless jazz compositions and recordings, and currently have well over one-hundred
jazz compositions memorized (including several possible interpretations of each), I felt
confident that my prior experiences with jazz music would guide me through or towards
much of the material I would need to locate for the thesis composition. Despite this
confidence, in my initial search for source material I first considered many of the
numerous, often distinct, sub-genres of jazz music as possible sources. A few key books,
two of which I had studied previously, helped me refresh my history of jazz while
providing inspiring ideas about musical characteristics I could exploit in the composition.
Alyn Shipton’s *A New History of Jazz* provided an insightful and encyclopaedic array of
historical information while Richard Crawford’s *An Introduction to America’s Music* and
Mark Gridley’s *Jazz Styles* provided great point-to-point historical data. At various
stages, other texts were used for momentary reference and inspiration and are therefore
included in the selected bibliography.

Although I was prepared to start each movement and had in mind different
characteristics which could be exploited from each of the sub-genres, in the planning
stages I originally only had one composition in mind for extraction of source material.
This material, derived from “Maple Leaf Rag,” was the eventual source material for the first movement (see Chapter 2.3, p. 15). Consequently, I was free to be influenced by the development, material, and motives of previous movements, and located appropriate source material for each movement thereafter.

1.4 Use of Jazz Source Material

Jazz material is approached differently in each of the four movements, adding greater diversity to the processing of source material and motives. In the first movement, a short two-measure excerpt of source material (see Example 1, mm. 1-2, p. 16) is analyzed, interpreted, and deconstructed creating an opening gesture and essential motive material. For the second movement, harmonic structures and stylistic elements of a specific jazz style are processed as the basis for the material. Instrumental interactions and musical ideologies are extracted from an introduction to a specific composition for the third movement. The final movement’s material, influenced by the previous three, is extracted from an earlier version of itself. Source material is discussed in further detail in Chapter 2, p. 13.

1.5 Jazz and Other Influences in Recent Compositions

“Four Pieces for Quartet” is one of my several recent works that uses jazz as an influence in classical music composition. “Paroxysmal Chains (2007),” for solo piano, makes use of preset harmonic progressions, although non-functional and sometimes avoided, fast pentatonic lines, and syncopated left hand accompaniment. The work is inspired by modern jazz pianists Joey Calderazzo (1965- ) and Kenny Kirkland (1955-98). Other recent works influenced by jazz are “Rosas Rojas (2008),” for six trumpets
and six trombones; “Acte-Automaton (2008),” for symphony orchestra (commissioned by the Vancouver Symphony Orchestra); and “Periferias (2009),” for Violoncello and Piano. Each of these works contains improvisational qualities paired with tonal, sometimes non-functional, harmonic sensibilities, and forward directed rhythms.

Recent compositional influence has also come from Latin American music, particularly Peruvian folk music, which subtly influenced the last three works mentioned in addition to my “Variations for String Trio (2007)” for violin, viola, and violoncello, (premiered by the Land’s End ensemble). Furthermore, musical influences have gone both ways as classical composition techniques are now incorporated into my numerous jazz compositions and arrangements.

1.6 Jazz within the Classical Music Context as an Influence

From the earliest recorded times composers have been influenced by the music of intervening cultures as well as music from different castes of their own culture. These newly discovered world music genres and their corresponding innovative ideas have guided composers of various eras into new and influential experiments with musical sounds. One such influential genre, which gained great popularity at the turn of the twentieth century in the Western hemisphere, was “ragtime” music. This genre eventually evolved into various other related genres, or styles, collectively referred to now as “jazz” music.

During the time of its inception and dissemination, some notable composers incorporated elements of the new style into their compositions yet, for most, these incursions were fleeting. Some commonly cited early examples of composers and compositions include Igor Stravinsky’s (1882-1971) “Ragtime for Eleven Instruments,”
“The Soldier’s Tale,” and “Piano Rag-Music;” Darius Milhaud’s (1892-1974) “La Creation du Monde;” Maurice Ravel’s (1875-1937) “Mother Goose Suite;” Claude Debussy’s (1862-1918) “Golliwogg’s Cakewalk;” Erik Satie’s (1866-1925) “Parade;” Aaron Copland’s (1900-90) “Music for Theatre;” and George Gershwin’s “Rhapsody in Blue.” Although most of these works fall within a ten-year period between 1917-27, there has since remained a fleeting interest in the compositional world regarding the integration of these two genres which can be traced at times through various composers such as Charles Ives (1874-1954), Ernst Krenek (1900-91), Kurt Weill (1900-50), Michael Tippett (1905-98), Gunther Schuller (1925- ), Milton Babbitt (1916- ), Leonard Bernstein (1918-90), William Bolcom (1938- ), Paul Schoenfield (1947- ), Michael Torke (1961- ), and so on. In their treatment of jazz music, the early twentieth-century composers did not attempt to create authentic jazz pieces. The genre was used as an influence, or as a collection of related ideas (commonly rhythmic, melodic, and harmonic) freely manipulated and adapted to suit the chosen, and, in retrospect, often singular or exclusive compositional style of the artist.

The twentieth century, the latter half especially, represents a period of coexistence and intermixing of sometimes divergent musical materials and genres. Because of this, much difficulty has arisen in the attempt to define specific genres or categorize certain works as the idea of “genre” has been consistently challenged through all types of experimentation and amalgamation. Something unique to composers today is the ability to freely include or omit the vast and expansive experimentations and experiences of the composers of the past one hundred to one hundred and fifty years. This hindsight separates the composers of today from those at the beginning of the twentieth century in
at least two ways that directly relate to the thesis. First, jazz music has gone through a process of evolution with key points of categorical development making it possible to be grouped into numerous sub-genres—most early jazz-influenced pieces use only one genre. And secondly, these sub-genres of jazz music are now able to be treated within the multitude of “classical” music genres and techniques common throughout the twentieth century and now available to the contemporary composer.

As mentioned above, composers have been experimenting with jazz music since its gradual rise to popularity and, to some degree, continue to use it as an influence in their works. Since the inclusion of jazz music in classical composition has a century-old history, “Four Pieces for Quartet” offers yet another way to approach the incorporation of jazz and other source material into modern composition.

1.7 Instrumentation and Medium

“Four Pieces for Quartet” consists of an instrumental quartet constructed with violin, violoncello, piano, and mixed percussion (glockenspiel, vibraphone, gong, suspended cymbal, high hat, and snare drum). On the surface, the core of this instrumentation is traced back to the Classical period “piano trio” with the addition of mixed percussion, but its underlying influence is actually derived from the instrumental “jazz quartet.” The jazz quartet typically consists of a melodic instrument, such as trumpet, trombone, or saxophone, accompanied by guitar or piano, contrabass, and drums.
1.7.1 Roles and Substitutions

Substitutions blend the two aforementioned instrumental ensembles. In the composition, the violoncello stands in place of the contrabass, and the violin in place of melodic instruments typically associated with the jazz quartet such as the saxophone or trumpet. The piano is present in both the piano trio and jazz quartet mediums, but percussion appears only in the jazz ensemble. In the composition, percussion instruments are chosen which best represent the sounds experienced in a jazz setting. As one of the main goals of the composition is an almost seamless blending of classical and jazz music through the manipulation of source material with contemporary compositional techniques, the choice and mixture of instruments in the ensemble reflect these objectives.

1.7.2 Aspects of Originality

As I am not aware of any compositions that incorporate this specific instrumentation, nor this instrumentation with the instrumental functions of a jazz ensemble, the work may be considered atypical in this context. The instrumental choice itself is by no means unusual as, at this time, ensembles and compositions containing various mixtures of instruments are increasingly common. Exploring the possibilities for new instrumental functions and roles in a composition is an interesting question this work periodically addresses.

1.7.3 Future Uses

As mentioned previously, this instrumental adaptation of a jazz quartet also relates to one of my future goals of composing for a small, improvising jazz ensemble
which combines various styles of music. Composing for this quartet format has enabled experimentation with different compositional techniques which will be useful to my future compositions.

1.8 Duration

The total duration of “Four Pieces for Quartet” is approximately 27 minutes. As the work is divided into four separate movements, the first two movements last around 6 minutes each and the final two movements last around 7 minutes each.

1.9 Overall Form

“Four Pieces for Quartet” is a four-movement work for four instruments. To achieve greater contrast, the movements are organized in a slow, fast, slow, fast tempo pattern. Although there are points of climax in each of the movements, because of their faster tempi, the second and fourth movements are high points of action in relation to the global form of the work.

1.9.1 Sections and Divisions

Each of the four movements contains inner components defined as A and B “sections.” These sections are sometimes further separated into “divisions” as is seen in later chapters concerning individual movements. The A sections are used to introduce, re-introduce, or develop material present in the movement or, in some cases, the entire work. The B sections, although they too introduce, re-introduce, or develop material, are seen to be somewhat contrasting with the A section although they may at times borrow material from each other.
1.9.2 Structure of Individual Movements

The first movement consists of an ABC form with the final section functioning as a coda (see Table 1, p. 27). Through analysis presented in Chapter 3.2.3, p. 39, the coda section of the first movement is seen to be influenced by the material of the A section creating a suitable argument for ABA form. The second movement is structured in AABA form, which is repeated three times (see Table 3, p. 48), and is best transcribed as AABA-AABA-AABA. The third movement has a global AABA form which is preceded by an introduction (see Table 4, p. 65). The fourth movement has additional development of its primary A section material and is best described as AAABA form (see Table 5, p. 84). In the case of the fourth movement, B section material is somewhat similar to A section material. Although the forms of the four movements, as described above, appear on the surface to be profoundly similar, significant details are revealed in subsequent chapters illustrating the inner processing of each movement’s materials.

1.9.3 Elements of Continuity

Continuity permeates the four distinct movements in various ways. Besides the similarities of formal organization mentioned above, strategic recycling of motive material is consistent throughout the composition. In this case, material established and developed in the first movement—including melodic and harmonic intervals, and pitch class sets—is reprocessed in subsequent movements.

Continuity is also achieved in the composition through the focusing of material around a pitch center or mode. As will be discovered in subsequent chapters, each section throughout the work exists within some modal or pitch center, which provides cohesion for the sections, movements, and the entire work. Instrumental roles borrowed from jazz
practices also appear throughout the composition, especially in the last three movements. Accompanimental rhythmic patterns in the percussion, typically present in the high hat or cymbal, walking bass patterns in the cello, and melodic and harmonic figures in the piano and strings fill the work with subtle jazz nuances unifying style and motive elements. All these elements are extracted, to varying degrees, from the selected source material.

The compositional development of the work is also unified through the processing of source material selected specifically for each of the four movements. Although the source material used for each movement comes from different sources, all material is drawn from the diverse genre of jazz. In the composition, the processing of source material is achieved in a unique way in each movement and, therefore, is also a contrasting element. Specific details regarding the processing and selection of source material is discussed in greater detail in subsequent chapters.

1.10 Originality and Tradition

In “Four Pieces for Quartet,” aspects of originality include the influence of multiple sub-genres of jazz music, diverse interpretations and uses of source material, borrowing of instrumental roles from the jazz genre, and the avoidance of stereotypical aspects of jazz music. As mentioned above in Chapter 1.6, p. 5, singular sub-genres, especially ragtime, were influential to early composers experimenting with jazz—such as Stravinsky and Satie. This fact is elucidated if one considers that, at that time in history, jazz had not yet gone through its many transformations. Despite this observation, since the early twentieth century, many compositions influenced by jazz music have only featured small rhythmic elements or gestures reminiscent of single sub-genres like ragtime or swing. “Four Pieces for Quartet” is unique in its influences as, outside of
“third-stream” music, one would have difficulty finding another multi-movement work influenced by multiple jazz sources and sub-genres.

Source material is used in many unique ways throughout the composition including functioning as a starting point, or impetus, of material developed through each movement; and, as each movement uses different source material, providing a degree of contrast. Although previous composers have experimented with direct quotation of material in their compositions, such as Luciano Berio (1905-2003) in “Sinfonia (1968),” that was never the intention of this work. In fact, a subtle blending of stylistic essence was desired for this composition combined with the choice to draw into, or pull away from, selected material at any time. Therefore, source material is never quoted directly—except for the opening of the third movement (see Example 31, p. 66)—but used influentially in differing ways for each movement.

During the composition process, stereotypical elements of jazz including swung eighth-notes or telltale instrumental gestures and articulations were often avoided. In earlier compositions of the twentieth century, composers all too frequently exploited the musical stereotypes present in jazz and, consequently, neglected some of the most intriguing subtleties in the genre. Subtleties exploited in this composition were varied and, although not strictly unique to the jazz genre, include modality, changing function of repeated form, written improvisation, instrumental roles, and so on. To highlight these finer characteristics, source material was selected with minimal or absent stereotypical gesture.
2. Source Material

For each of the four movements, source material consisting of small musical excerpts, ideas, and/or genre-specific styles are used as an initial creative impetus. However, during the composition process the importance of source material was not audibly or compositionally emphasized as it functioned solely as a point of departure where most distinguishable traits were immediately excised. Although each movement uses a single source for its initiating material, often other outside material is present in the same movement. Material borrowed from previous movements, which provides a foundation for overall compositional cohesion, is also present throughout the work.

The selected source material for “Four Pieces for Quartet” encompasses several sub-genres of the larger classification of jazz music and includes diverse influences ranging from ragtime, big band, bebop, modal, and modern jazz. There are also numerous stylistic influences, not literal source material excerpts, borrowed from the vast spectrum of classical music. Effort is made to blend the various styles and materials which appear throughout the entire thesis composition. Although initial construction of ideas (for instance textural, structural, melodic, harmonic, and so on) often draw influence from pre-established materials, their development and organization is decided by an intuitive sense of temporal, spatial, and relational principles. While establishing the large-scale coherent compositional structure with small-scale motive material, the balancing of the three abovementioned principles is integral.
2.1 Origins of Source Material

In the initial planning stage of the thesis, my main concern was that of locating appropriate source material, whether score, sound recording, or personal experience including past performance or study, which would potentially inspire my creative compositional process. I considered key eras of development and innovation in the history of jazz music and focused on performance styles and practices which I felt would stand up to compositional re-processing and interpretation. From the beginning, I was looking for a selection of sources representative of the modest yet highly creative history of the genre.

A second concern was to find material which would add diversity or contrast to each movement while still allowing for some form of compositional cohesion and expansion. Subsequently, music from four key stylistic eras appeared most appropriate for my initial purposes: ragtime, bebop, modal, and modern. Although from the beginning I had selected stylistic eras to draw material from, the choice of specific compositions representative of these eras typically came when I began writing each individual movement. Drawing from my approximately thirteen years of intimate study and performance of jazz music, I chose some prominent works from its history (“Maple Leaf Rag,” “I Got Rhythm,” and “So What”) from which I could extract compositionally inspiring ideas.

2.2 Use of Source Material

As previously mentioned, source material was used differently in each of the four movements to add diversity to the processing of source material and motives. In the first movement, a short two-measure excerpt from Scott Joplin’s “Maple Leaf Rag” (see
Example 1, mm. 1-2, p. 16) was analyzed, interpreted, and deconstructed creating an opening gesture and integral motive material among other things. For the second movement, the harmonic structure of “rhythm changes” and stylistic elements of bebop were chosen as the basis for the material. Instrumental interactions present in the opening of Miles Davis’s “So What” and musical ideologies from modal jazz were extracted and developed for the third movement. The fourth movement’s motive material, initially influenced by the previous three, was extracted and developed from an earlier version of itself.

2.3 First Movement Source Material

From the ragtime era, selecting an excerpt from Scott Joplin’s repertoire is an easy choice as his style of composition represents some of the finest classic, published ragtime music. Joplin, a pianist and composer, was born along the Texas-Arkansas border and traveled in his early years as a minstrel troupe member. Later, he resided in Chicago, St. Louis, and spent several years in Sedalia, Missouri before settling down in New York City in 1907. Two of his famous ragtime piano works are frequently performed and often lauded as key works of the genre, “The Entertainer” and “Maple Leaf Rag.”

For the first movement, source material is extracted from the beginning of Joplin’s “Maple Leaf Rag,” first published in 1899 (see Example 1).
Example 1 – First Section of Scott Joplin’s “Maple Leaf Rag,” mm. 1-17

Joplin’s composition was originally written for a black social club in Sedalia, Missouri named the Maple Leaf Club around 1897. It is now believed to be the first instrumental work to sell over one-million copies of sheet music.

2.3.1 Relevant Compositional Characteristics in “Maple Leaf Rag”

“Maple Leaf Rag” opens somewhat atypically as it begins directly on the first strain of its AA BB A CC DD form and omits the standard introduction. Crawford points out, in *An Introduction to America’s Music*, “Marches and rags usually ease into the melody through an introduction, but the “Maple Leaf Rag” plunges right into the first strain” (Crawford, 334). Each strain is a symmetrical sixteen measures in length and is
repeated at least one time. Its ragtime march rhythm is supported in 2/4 time with heavy emphasis in the left hand on the first beat of each measure. This emphasis complements the frequently syncopated sixteenth-notes in the right hand and combines to create the forward driving and stereotypical ragtime rhythm. Steady rhythmic pulse; functional, tonal harmony (predominantly A-flat major); and consistent, predictable phrasing are immediately identifiable in Joplin’s “Maple Leaf Rag.”

One final observation about “Maple Leaf Rag” is that it is a fully composed jazz arrangement. That is, performer-based improvisation and interpretation, typical in the jazz genre, is not incorporated into the actual published composition. This is standard practice for published ragtime music of the time. It should be understood though that Joplin, as well as other ragtime pianists and composers, could certainly improvise similar pieces in ragtime style using common or created motives and ideas. It is only the purpose of the original sheet music publication which, in this case, was intended for a reading, non-improvising audience that cancels out the need for improvisation.

2.3.2 Processing of “Maple Leaf Rag” Source Material

Elements of rhythm, pitch, and gesture are extracted from the first few measures of Joplin’s composition and used as malleable entities to construct material present in the first movement. The significance of this is discussed in detail in the subsequent chapter on the first movement.

2.4 Second Movement Source Material

Two renowned artists, typically considered the forefathers of bebop, are jazz trumpeter, composer Dizzy Gillespie and jazz saxophonist, composer Charlie Parker.
Both were very influential artists for improvisers and composers during the development of the bebop movement in the early to mid 1940s, and their innovations continue to influence many jazz artists today. The improvisations and compositions of Parker and Gillespie would have been excellent mediums for the extraction of source material for the second movement. However, to achieve diversity in my method of compositional process, I considered another approach in the extraction of source material: harmonic form.

2.4.1 “Rhythm Changes” as a Harmonic Form

In approaching the acquisition of bebop source material differently from the first movement, I chose not to use melodic or note-orientated ideas, but to extract a harmonic form, or chord progression, commonly used by jazz artists to create their own “contrafacts.” A contrafact is usually defined as a new song or melody written over a previous song’s chord progression. The form I chose is one of the most frequently used contrafacts. The chord progression is so widely used for improvisation, and as a basis for new compositions, it has even acquired its own name referred to by jazz artists simply as “rhythm changes” (see Example 2). The chord progression and name is originally borrowed from the composition “I Got Rhythm,” by the famous composers George and Ira (1896-1983) Gershwin, and was first featured in the Broadway production Treasure Girl (1928).
Example 2 – Common Chord Progressions for “Rhythm Changes”

In Example 2, the top line of chords is the original chord progression from “I Got Rhythm,” and the bottom line is a commonly used variation.

2.4.2 Relevant Compositional Characteristics in “Rhythm Changes”

Although the song was originally written in the key of D-flat major, rhythm changes is most commonly performed in the key of B-flat major. Its form is quickly recognized as rounded binary or AABA, yet there is no real modulation in the B section only tonal instability. The A section of rhythm changes is easily analyzed as I-vi-ii-V, which is repeated in the first four measures, followed by I-V/IV-IV-iv and iii-vi-ii-V. The B section is a string of applied dominant chords which is interpreted as V/VI-VI-V/V-V, or V/V/V-V/V/V/V-V-V.

The rhythm changes chord progression has been a staple of every jazz artist’s repertoire in both improvisation and composition since its first appearance. Its harmonic structure is frequently used for improvisation and regularly inspires countless new
derivative compositions each year. Along with the twelve-bar blues progression, which shares the same purpose as a vehicle for improvisation and composition, rhythm changes have undoubtedly had a profound affect on the history of jazz music.

2.4.3 Processing of “Rhythm Changes” Chord Progression and Bebop Material

Although the main source material for the second movement is derived from a chord progression, other notable elements of bebop style are incorporated into the movement including notated “improvisation” (hinting at chord progressions), a faster tempo (in relation to previous and subsequent movements), intricate and rapid melodic content, and instruments functioning as either “rhythm section” or “soloist.” The second movement also features a section modeled after a “shout chorus” typical of big band era jazz arrangements. A full description of the process is provided in the subsequent chapter on the second movement.

2.5 Third Movement Source Material

Aspects of modality are apparent at various times in “Four Pieces for Quartet” and, although modal composition can be traced back to the origins of music, modal jazz is also considered to be a viable style of composition within its parent genre. While it is difficult to trace which jazz artist or artists first began introducing modal techniques into their improvisations or compositions, there is one key publication by pianist George Russell (1923-2009), *Lydian Chromatic Concept of Tonal Organization* (1953), which provides insight into what artist may have been theorizing at the time.
2.5.1 Key Concepts of Modal Jazz

One of the main theories behind Russell’s publication is that improvisers have more than one way to approach improvisation. The idea is to free improvisers from standard improvisation techniques focused around chords and chord progressions. His suggestion is that improvisers can take a new approach to improvisation using select scales or modes for select durations, instead of focusing on vertical chords, thereby freeing themselves from the constraints of standard harmonic progressions. These ideas were inspirational to many improvisers looking for a change in the late 1950s. Russell appears to have summarized sentiment shared by many artists concerned with the increasing speed and growing harmonic complexity of chord progressions at that time. Through these ideas, and a move by some artists towards change, it is believed the so-called “modal jazz” movement was set in motion.

One of the key artists whose name is present in almost every era of jazz history after the mid 1940s, including modal jazz, is Miles Davis. It is believed that Davis began incorporating elements of modal music into his compositions during his interactions with Gil Evans (1912-88) and George Russell in New York City in the late 1940s. Evidence of his first recorded experiments with modal jazz music can be heard on three successive albums released in 1958: Milestones, 1958 Miles, and Porgy and Bess. Undoubtedly inspired by these first experiences, Davis began working on his next album incorporating modal composition techniques into almost all of the five works. The result was his certified quadruple-platinum selling album Kind of Blue (1959). It is considered to be one of the best-selling jazz albums of all time and represents modal jazz at its best.
2.5.2 Relevant Compositional Characteristics in “So What”

The first composition on Davis’s *Kind of Blue* album, “So What,” is used in small part as source material for the third movement. Its brief introduction, purportedly composed by pianist, composer and arranger Gil Evans; pianist and composer Bill Evans (1929-80); and bassist Paul Chambers (1935-69), is the specific source which inspired the interactions of piano and violoncello in the opening of the third movement (see Example 3).

Example 3 – Introduction to Miles Davis’s “So What,” mm. 1-4

The introduction features a slow, quasi-rubato interaction between the bass and piano. The three-note bass motive always begins with an upward leap of a perfect fifth and is followed by a major third, perfect fourth, or minor third. The piano left hand doubles the last note of the bass an octave above and contains mainly harmonized sixths in the right hand. Although there is a repeated pitch (A) in the bass, there is no real sense of conventional “tonality.” As a side note, this introduction was reportedly appropriated by Gil Evans from the first few measures of Debussy’s solo piano piece “Voiles (1910),” the second prelude from his first collection of preludes.
2.5.3 Processing of “So What” Source Material

Although direct quotation of the bass motive in Example 3, mm. 1, is present with slight modification in the opening of the third movement (see Example 31, p. 66), the motive is virtually abandoned for the remainder of the movement. This fleeting appearance highlights the initiating function of the source material and serves as a reminder as to the material’s main role—impetus for the movements. Another influence drawn from this source material is the interaction between the piano and cello. The semi-“call and response” dialogue present in the bass and piano of Example 3 is extracted for the introductory passage of the third movement, especially in earlier versions (see Example 32, p. 67). Both of these points are discussed in further detail below in the chapter on the third movement.

2.5.4 Processing of the Rachmaninoff “Vocalise” Motive

The Sergei Rachmaninoff (1873-1943) work “Vocalise, Op. 34, No. 14 (1912)” deserves brief mention in conjunction with the third movement as a main rhythm was extracted from the piece. As I was completing an arrangement of Rachmaninoff’s composition at the same time I was reworking material in the third movement, the infecting rhythmic motive (see Example 4), which occurs throughout “Vocalise,” began to develop in the material.

Example 4 – Opening Melodic Line to Sergei Rachmaninoff’s “Vocalise, Op. 34, No. 14,” mm. 1-5

The main rhythmic motive is easily located in Example 4. It appears as two sixteenth-notes moving directly to a longer note, usually an eighth, quartet or half-note or its dotted
variant. The use of this motive is discussed in further detail in the chapter on the third movement.

2.6 Fourth Movement Source Material

The choice to include modern music as a source material “influence” (since no actual excerpt of modern jazz music is used) may, to some, appear as a superfluous statement, and it may be. By default, a piece written today will address modern ideas; this fact is philosophically impossible to avoid. What I am referring to as a modern influence in the fourth movement is perhaps defined best as a diversity of style and method. As such, the modern influence on jazz and on “Four Pieces for Quartet” is sometimes difficult to definitively locate. Modern music at this time in history can be best summarized by its diversity or diversity of influences and, therefore, this appears to be the best way to summarize the modern source material present in the final movement. In fact, one might argue that the entire work is modern in its diverse use and processing of jazz source material spanning over a decade of influence within the jazz genre as well as its amalgamation of modern classical compositional ideas and concepts. By this definition, all of the movements may be seen as modern influenced, but this is an inevitable and irrelevant argument.

2.6.1 Original Premise of the Fourth Movement

Source material for the fourth movement is also slightly harder to locate because the movement was originally planned to be an amalgam of ideas introduced in the three previous movements. This combining of materials was attempted in an earlier version of the fourth movement but was personally found to be lacking unifying characteristics, too
fleeting in gesture and material, and overall too slow in tempo and development. After reviewing an earlier seven and a half minute version of the fourth movement, it was decided to discard everything except the material from its ending section. The remaining two to three minutes of material was then extracted as the source material for the final version of the fourth movement.

2.6.2 Processing of Previous Fourth Movement Material

Several key elements are extracted from the first version of the fourth movement to create virtually all of the material present within its final version. From the original material, the strings’ “six-note motive” (see Example 59, p. 105) and the piano’s “melodic figure” (see Example 58, p. 104) appear extensively throughout the final version of the fourth movement. Strategic repetition, both varied and unvaried, is used frequently in the processing and development of this source material. Consequently, repetition is arguably the most notable compositional technique present in the fourth movement. Like previous movements, the fourth movement uses borrowed instrumental roles, tonality and modality, and previously introduced pitch class sets—among other techniques—in its processing and development of material. A full explanation of the process is presented in the subsequent chapter on the fourth movement.

2.7 Philosophy on the Use of Source Material

In order to reach a true subjective and reflective interpretation of their deeper essence, the truisms of the source material had to be discarded in search of something less obvious. The “essence” uncovered through this processing was further mixed through the use of contemporary compositional techniques. For example, the epitome of ragtime
style, which represents a democratic combination of its most distinctive techniques, is discarded in favour of its psyche; that is, some essence of its hidden, inner drive or impetus.

The processing of the source material present in the thesis composition is best described in three elemental groups: rhythm, pitch/intervallic content, and form. Many composers of the past, interested in fusing classical and jazz styles, focused on the exploitation of these obvious characteristics. To varying degrees of success, these composers often blended their own personal styles of composition with jazz music or borrowed entire statements of characteristic, usually rhythmic or harmonic, material. This deliberate method of quotation used by earlier composers was avoided in “Four Pieces for Quartet” and, in fact, is one of the key reasons why these exterior characteristics were treated as the most dispensable during the creation of the composition.
3. First Movement: Form and Structure

Structurally, the first movement is divided into two main sections, “A” and “B,” which are followed by “C,” a short, coda-like ending section (see Table 1).

<table>
<thead>
<tr>
<th>Section</th>
<th>Measure Numbers</th>
<th>Length in Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1-54</td>
<td>54</td>
</tr>
<tr>
<td>B</td>
<td>55-111</td>
<td>57</td>
</tr>
<tr>
<td>C (Coda)</td>
<td>112-121</td>
<td>10</td>
</tr>
</tbody>
</table>

The opening movement draws initial creative impetus from Joplin’s “Maple Leaf Rag” as previously mentioned. In the early compositional stages, characteristics from the first few measures of the ragtime composition were scanned for melodic and harmonic gestures to extract. These ideas were adapted then gradually and repeatedly expanded over several developing versions of the existent first movement’s A section material. For the B section, a complementary, contrasting motive was used and repeated over similar expanding and developing material. The first movement is concluded with a short, coda-like C section, which incorporates some of the material from the previous two main sections.

3.1 Distinctive Characteristics of Section A Material

In section A one can identify three smaller divisions, fifteen to twenty one-measures each, marked by double barlines in the score (see Table 2). These three divisions are closely related in material and gesture, and are expanded from the opening material present in the movement.
Table 2 – Section “A” Divisions in the First Movement

<table>
<thead>
<tr>
<th>Section “A” Divisions</th>
<th>Measure Numbers</th>
<th>Length in Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>a1</td>
<td>1-18</td>
<td>18</td>
</tr>
<tr>
<td>a2</td>
<td>19-39</td>
<td>21</td>
</tr>
<tr>
<td>a3</td>
<td>40-54</td>
<td>15</td>
</tr>
</tbody>
</table>

3.1.1 Rhythmic Process

To better explain the defining structural elements of the opening material in the first movement, it is necessary to first uncover its origin. In the opening of “Maple Leaf Rag” (see Example 5) the strictness of rhythm, created by the eighth-notes in the left hand and sixteenth-notes in the right hand, is the foundation for its consistent forward motion.

Example 5 – Opening Measures of Scott Joplin’s “Maple Leaf Rag,” mm. 1-4

In ragtime style, the right hand has a tendency to free itself and often presents syncopations against the steady pulse of the left, which may also be momentarily interrupted by other syncopated rhythms. Despite this temporary deviation, these consistent, rhythmic pulses are always implied somewhere in the music.

For the first movement, the strict rhythmic elements present in the source material are extracted and formed into basic malleable entities. Instead of maintaining the sixteenth-note pulsation as seen in Example 5, the rhythms are morphed into more sustained and flexible material substituted, in essence, by something more vague and approximate. This simple act of modifying the underpinning rhythm could virtually eliminate any semblance of the material’s association to ragtime, but other distinctive
elements, discussed below, are kept the same or close. Therefore, some deeper connection remains regardless of how modified the material is from its original context. Although the rhythmic correlation may be argued to be subtle and weak, it is traceable in terms of “relative ratio” as described in further detail below.

3.1.2 Anacrusis and “Relative Ratio”

Rhythmic associations are observed between an earlier version of the first movement and the beginning of “Maple Leaf Rag.” Compare the anacrusis in the opening of Joplin’s piece to mm. 1-3 of Example 6.

Example 6 – Opening of the First Movement, Earlier Version (2009-03-18), mm. 1-7

Although drastically elongated in Example 6, the anacrusis is subtly perceptible. To clarify this comparison, one must refer back to the idea of relative ratios mentioned above. In this example of ratio, one eighth-note from the beginning of “Maple Leaf Rag” is lengthened and realized proportionately as a whole-note in the opening of Example 6. The first eighth-note of Joplin’s opening is represented by the held notes in the piano (mm. 1) and the sustained D of the cello, and the second eighth-note is represented by the apex of the ascending violoncello glissando (mm. 2). This process is developed
throughout the various versions of the opening material where the anacrusis is transformed into a call by the piano chord and response by the cello (see Example 7).

**Example 7 – Opening of the First Movement, Earlier Version (2009-04-06), mm. 1-10**

In this version the initial anacrusis is expanded to three measures with the percussion and violin entering in mm. 4.

The processing of material is completed in the final version (see Example 8) where one observes several changes including the simultaneous elongation and separation of the cello line and piano chords to create more colour and texture.
Example 8 – Opening of the First Movement, Final Version, mm. 1-10

In Example 8, the percussion is removed and the violin entry is held off until mm. 5.

While the above examples of the composition are virtually incomparable to Joplin’s work through rhythmic analysis alone, there are other distinctive elements present which connect the opening to the source material.

3.1.3 Other Early Examples of “Relative Ratio”

Through the examination of rhythmic motives present in Joplin’s rag, one discovers another idea essential to the development of the first movement’s material (see Example 9).
Example 9 – Rhythmic Motive Present in the Opening of Scott Joplin’s “Maple Leaf Rag,” mm. 1-2

The use of this rhythmic motive is observed in its purest state in the earlier drafts of the first movement, specifically in mm. 3-7 of Example 6, p. 29. The sixteenth-eighth-sixteenth note rhythm is augmented in the same manner as the anacrusis material previously described, but now featuring further obscured rhythmic ratios. The first sixteenth-note of the rhythmic motive, as seen in Example 9, is extended and represented by the first eighth-note stated by the violoncello in mm. 5 of Example 6. The pitches E and D-sharp of mm. 5, and their associated rhythms, therefore represent the remainder of the original rhythmic motive with the following gesture in the violin in mm. 6 constituting a varied rhythmic repeat. Also, in mm. 3, the rhythmic antecedent of both previously mentioned gestures is stated by the cello with the notes G-sharp and D-sharp.

3.2 Source Material, Evolution of Creative Process

During the process of composition the source material was not only a point of literal departure, but also a potential goal sometimes requiring careful preparation. This concept is elucidated through a comparison of the different versions of the first movement. In the comparison one discovers material previously contained in the opening section now preceded by almost one minute of distantly related introductory material. For example, the material observed in mm. 3-5 of Example 6, p. 29, is directly related to the material present in mm. 18 in Example 10, a later version.
Note as well that most of the rhythmic material preceding mm. 18 in Example 10 is derived from the previously discussed “relative ratio” rhythmic motive. In the final version of the first movement, the material in the percussion at mm. 18 is introduced later in the composition and used as main motive material for the contrasting B section (see Example 12, p. 36). Now that the processing of source material is better understood, it is possible to see how it combines to form the various sections of the first movement.

### 3.2.1 Section A Material

Each of the three “divisions” (see Table 2, p. 28) of section A use material synthesized from one another and, therefore, share numerous compositional elements. One element significantly tied to structure in the first movement is the presence of similar
and identical chords at the beginning, and sometimes the end, of each division. These chords originate in mm. 1 (see Example 8, p. 31) in the piano part and appear identically in mm. 40, and with variation in mm. 5, 7, 11, 17, 19, 27, and 49. In most cases, the chords occur in the right hand of the piano only, and are built from intervals of a minor second and an augmented fourth/diminished fifth (tritone). Other shared elements of section A material include:

1. the frequent melodic and harmonic use of “prime form” pitch class sets (PCS) <016> and <013>, as well as intervals of a minor second, minor third, perfect fourth or fifth, tritone and the octave (see Example 16, p. 49);
2. a tendency of linear motion in each “division” (see Table 2, p. 28) in an upward direction followed by movement in a downward direction;
3. each division is somewhat structured like a palindrome (often beginning and ending with the same intervallic material and gestures);
4. pitch and “harmony” focused around an E-flat pitch center;
5. descending glissandi and occasional tremolo in the strings and piano;
6. a sparse, fluid polyphonic texture with occasional chord punctuations.

Divisions “a1” and “a3,” of the A section, share the most of these abovementioned characteristics with “a2” slightly deviating. The deviation of a2 is notable as it contains material that foreshadows two future events: the impending “tonality” of the B section and consequent movements, hinted at by the D-minor chord in mm. 38 (see Example 11); and, the dotted-quarter to eighth-note rhythm of the same measure in Example 11, alluding to a rhythmic/melodic figure present in the third movement (see Example 35, mm. 22, p. 71).
3.2.2 Section B Material

In its opening, section B contains several distinctive features: new, contrasting material; sparseness of harmonic density; three-note motive; and, new instrumental textures including the glockenspiel and high piano, and strings bowed behind the bridge (see Example 12).
Section B is elided with the previous A section through the cello’s low, sustained E-flat (mm. 55), and an initial similarity of instrumental texture. The appearance of the distinct, three-note motive, in mm. 61, is significant as it is repeated with variation throughout the section. Although the complete motive appears in mm. 61, a variation of the idea is stated in the piano as early as mm. 56. As previously observed in Example 10, mm. 18, this motive originates from an earlier version of the first movement.

Unlike the A section, the B section does not contain obvious small “divisions.” However, it does feature a few key points of structural importance highlighted by the strategic development of its material. Besides the opening of the B section, which lasts
from mm. 55 until approximately mm. 77, there is a gradual increase in instrumental register and density from mm. 78-99 where octave bass notes are added in the left hand of the piano (see Example 13).

**Example 13 – Middle of the B Section of the First Movement, mm. 91-101**

This increase, with the inclusion of the lower range of the piano and intensifying polyphony in the strings, builds momentum towards the climax of the movement, which is easily identified in mm. 108 (see Example 14).
Other notable characteristics of B section material include:

1. a more linear beginning (using single pitches) and gradual expansion into denser “harmony” (progressing from octaves to two-note harmonies then chords);
2. a focus around the three-note melodic motive, PCS <015>, in the beginning, and later expansion in melodic content appropriating the previous <013> and <016> ideas from the A section;
3. a more homophonic beginning than section A featuring instrumental doublings at various octave levels and occasional harmonies;
4. contains a gradual descent in the register of the melodic line from mm. 55-108 in the piano, which goes against the ascending register of the strings from mm. 68-108;
5. pitches and “harmonies” focus around the E-Ionian (major) or E-Lydian modes, which are more identifiable than those of section A (also note that the pitch center is a minor second away from that of section A);
6. the strings begin to interact more with each other around mm. 79 gradually becoming more polyphonic and imitative (this is relevant as it appears throughout the other movements, which is discussed in later chapters);
Many of these points are simple observations at this time, but grow in significance as the other three movements are examined.

3.2.3 Section C Material

Although sections A and B are similar in length, section C, with its short duration, functions as a coda to the first movement. This last section strategically presents some of the material accumulated throughout the first movement reiterating the disjunctive melodic ideas and low range chords of the A section (see Example 15).

Example 15 – Section C of the First Movement, mm. 112-21

The tonal, C-major chord ending of Example 15 is also reminiscent of the concluding D-minor chord present at the end of division “a2” (see Example 11, p. 35). Section C
simultaneously closes the first movement while preparing for the active and tonally inspired second movement.

### 3.3 Tonal Influences Derived from “Maple Leaf Rag”

In the thesis, pitch organization, in the form of intervallic motives, is essential to the development of material. For the first movement, the organization of pitch is frequently influenced by “Maple Leaf Rag.” Therefore, tonality observed in Joplin’s composition is present in various obscured forms throughout the movement.

Referring back to Example 5, p. 28, one discovers that Joplin’s composition is clearly in the key of A-flat major. In mm. 1 of Joplin’s piece, the scale-degree five anacrusis (E-flat) leaps up a perfect fourth to scale-degree one (A-flat) openly establishing the home key area. Immediately after, the right hand of the piano executes a syncopated and disjointed A-flat major arpeggio in mm. 1 articulated in the left hand with a harmonization of the same chord. In mm. 2, similar material is presented in both hands now using a V7-chord—E-flat major with a minor-seventh. This two-measure long gesture is repeated almost identically in mm. 3-4 further emphasizing the presence of the home key.

In the first movement, the influence of tonality is treated much like the rhythmic elements were—as a malleable entity. Although the E-flat opening of the source material is kept, now pounded out in the piano with added dissonant notes, its role as an anacrusis is left open for debate (see Example 8, p. 31). While pitches derived from A-flat tonality are initially used for impetus, their system of organization is immediately discarded. As described below, in the opening of the first movement, Joplin’s traditional harmonic system is modified to include elements of the pitch class set system.
3.3.1 Pitch Class Set Motives in Section A

The motives of section A are subtly apparent in the frequent appearance of selected melodic and harmonic intervals. The opening piano chord, noted above for its structural significance, uses PCS <016> for its structure (see Example 16).

Example 16 – Identification of Motives Present in the Opening of the First Movement, mm. 1-10

The second piano chord, in mm. 2, uses PCS <013>. These two PCS’s include five main intervals: the minor second, major second, minor third, perfect fourth, and tritone. These intervals—with emphasis on the minor second, perfect fourth, and tritone—make up the material that forms the majority of melodic and harmonic ideas throughout this section.

Measures 1-10 of the first movement are shown in Example 16, with an analysis of the intervallic content provided. These measures offer a clear example of the use of
intervals as motives in the three “divisions” of the A section (see Table 2, p. 28). Note that other material does appear in this section as it was not the intention to construct a section only containing these pitch class sets. It is important to note that the compositional process behind this passage was not guided alone by the systematic use of intervals, and, for most part, there is no explainable logic behind their order of appearance or disappearance. After determining the intervallic motives in this section, as with other movements, a long comparative listening process followed. Consequently, various versions of the same material, with small modifications, were auditioned until the perfect combination of each element was realized.

3.3.2 Pitch Class Set Motives in Sections B and C

Motive material for the second section consists mainly of PCS <015> formed from the descending melodic pitches G-sharp, E, and D-sharp (see Example 12, mm. 61, p. 36). Although presented briefly in section A, this three-note melodic motive has a fundamental role in section B as it is frequently repeated and varied throughout. As the B section develops, two main PCS from section A, <013> and <016>, gradually reappear in the material. This strategic development and reintroduction of material is best observed in the score, in full, from mm. 79-111.

The return of fragments of previously stated motives unifies the material of the A and B sections with the material of section C. This is notable in the frequent occurrence of PCS <05> in the cello (see Example 15, mm. 112, p. 39) as well as in the piano and glockenspiel intervals (mm. 114-21). Other PCS fragments in section C extracted from the previous two sections include <01>, which is present in the piano in mm. 112, and piano and violin in mm. 118-200; and <06>, which is present in the violin in mm. 112-
17. Therefore, as it reuses most of the pitch class sets from the A sections, the third section functions as a coda to the movement.

### 3.3.3 Significance of the Minor Second Interval

As the minor second interval plays an important role in the motive pitch class sets of the three sections (see Chapters 3.3.1, p. 41; and, 3.3.2, p. 42), it is significant to note that the pitch center of the A section is E-flat, and the modal center of the B section is E-Ionian, or E-Lydian. These tonal centers are also related by an important interval: the minor second. As the first movement contains the first of all material composed for “Four Pieces for Quartet,” its compositional process and motives influence the entire work. This fact is discussed in relation to each movement in the following chapters.

### 3.4 Orchestration and Instrumental Roles

#### 3.4.1 Section A

The sparse atmosphere of the first movement is achieved through the use of various techniques. The drone-like function of the cello in the A section is developed through long, sustained notes, present throughout but explicit in division “a3” (see Table 2, p. 28). For the cello, the first two divisions utilize more tremolo, glissandi (see Example 8, mm. 2-5, p. 31), frequent attacks, and brief two-note melodic injections (see Example 17, mm. 22-23 and 30), which lessen the monotony of the drone.
Example 17 – Second Division in Section A of the First Movement, mm. 22-32

In the percussion, the gong complements the drone and chord punctuations at five points in the A section: mm. 21, 40, 49, 52, and 54 (best observed in the score in full context). The increasing frequency of gong attacks was not originally planned but later realized to build momentum toward the end of the A section.

In this section, the piano has a dual role of drone, which is achieved through the placement and sustain of infrequent chords and occasional tremolo, and melodic accenting, which is present mostly in the right hand. This melodic role is shared with the violin throughout as the violin is often more active when the piano is sustaining and vice-versa.
3.4.2 Section B

In section B, both strings begin as droning or sustaining entities. The main difference from the first section is that the drones focus around higher pitches and sounds through the incorporation of the high register of the violin (see Example 12, mm. 55-64, p. 36), and unmeasured tremolo behind the bridge of both the cello (mm. 58-64) and violin (mm. 66-78). From mm. 78 on, the strings begin to interact more frequently with the piano and, more importantly, between themselves. This interaction morphs into periodic imitation in mm. 82-107, which is sometimes evaded with sustained notes and other intervallic material. This long passage, especially mm. 82-107, is best observed in its entirety in the score. Here one traces the long ascent of the strings to their higher register as they build up to the climax in mm. 108 (see Example 14, p. 38).

During this passage, the piano and glockenspiel develop and repeat the initial, descending PCS <015> motive first presented in mm. 61 (see Example 12, p. 36). The register of the piano is moderately high at the beginning of the second section in contrast to the lower register present in the first section. Most of the melodic ideas present in the piano part throughout section B are doubled up one or two octaves, for effect, by the glockenspiel although occasional harmonies are present (usually thirds). The piano begins the section with melodic material (mm. 55-78), but is gradually overtaken in this respect by the strings (mm. 78-108). This is best observed in its entirety in the score. The piano’s main function in the B section is to provide initial melodic motives and, once subordinated by the strings, to provide backing material, which gradually increases in density, building toward the climax.
The glockenspiel is a complementing instrument adding colour and highlights to the changing roles of the piano. It is important to note the gradually descending register of the piano from moderately high in mm. 56 (see Example 12, p. 36) to mid at the climax in mm. 108 (see Example 14, p. 38). This is in opposition to the gradually ascending register of the string instruments at the same point in the movement.

3.4.3 Section C

Like section B, section C also features this register reversal as the strings begin to descend to the mid (violin) and low (cello) registers, and the piano moves from the moderately low (mm. 112-14) to the moderately high register (mm. 118-20) once again (see Example 15, p. 39).
4. Second Movement: Form and Structure

Out of the four movements, the second movement is the closest related to
standard jazz practices. The chord progression, which underlies the entire movement, is
extracted from rhythm changes as mentioned in Chapter 2.4, p. 17. Rhythm changes, like
many standard jazz compositions, has an AABA form with each segment lasting eight
measures. During a performance or recording, the entire thirty two-measure, AABA form
is stated first with the related melody, repeated multiple times for improvisation, and one
final time for the melody concluding the song. In jazz dialect the term for the first
occurrence of the melody is the “head in” and the last occurrence the “head out.” The
song form in jazz is often referred to as a “chorus,” especially in relation to the
instrumental solos. These terminologies are incorporated below for the explanation of the
movement’s form.

The form of the second movement consists of three repetitions, or choruses,
derived from the chord progression of rhythm changes. The entire form may be described
as AABA repeated three times, or it may be defined more specifically by the function of
each repetition. A breakdown of the second movement is provided in Table 3.
Table 3 – Second Movement Structure

<table>
<thead>
<tr>
<th>Choruses</th>
<th>Sections</th>
<th>Measure Numbers</th>
<th>Length in Measures</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chorus 1</td>
<td>A1</td>
<td>1-46</td>
<td>46</td>
<td>“Head in”</td>
</tr>
<tr>
<td></td>
<td>A2</td>
<td>47-59</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>60-83</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A3</td>
<td>84-127</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Chorus 2</td>
<td>A1</td>
<td>128-143</td>
<td>16</td>
<td>Vibraphone solo</td>
</tr>
<tr>
<td></td>
<td>A2</td>
<td>144-151</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>152-170</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A3</td>
<td>171-185</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Chorus 3</td>
<td>A1/A2</td>
<td>186-217</td>
<td>32</td>
<td>Drum solo</td>
</tr>
<tr>
<td></td>
<td>Bridge</td>
<td>218-225</td>
<td>8</td>
<td>Bridge</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>226-248</td>
<td>23</td>
<td>“Head out”</td>
</tr>
<tr>
<td></td>
<td>A3</td>
<td>249-296</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

As observed in standard jazz practices, the first occurrence of AABA in the second movement is best defined as the “head in” where the melody is first introduced. The second AABA repetition is constructed around a vibraphone solo, and the last repetition is divided in two. For the first half, the two A sections of the final chorus, a passage based on a big band “shout chorus” is presented. For the second half, a short bridge section leads into the final B and A sections which act as a truncated “head out.” Though not intended as such, the second movement may be seen as a percussion-featuring movement because of the common occurrence of drum fills, the vibraphone solo, and the percussion-infused shout chorus.

4.1 Processing of Chord Progression Structure

In Table 3, observe the “Length in Measures” column for three important points. For the first point, note the elimination of the typical eight-measure section from rhythm changes (see Example 2, p. 19). Sections in the second movement range in duration from eight to forty-eight measures. For the second point, note the overall length of the A2 sections in relation to the A1 and A3 sections. And, for the third point, note the durational
emphasis on the very first A1 (46 measures) and the very last A3 (48 measures) of the movement.

Regarding the first point, the strict eight-measure chord progression, which is the main source material of the second movement, is treated much like the source material of the first movement—like a malleable entity. Consequently, this harmonic and structural material is equally used as much as it is evaded. In fact, the length of each section in the second movement is influenced by the presentation or development of ideas therein and, therefore, quickly abandons the typical eight-measure structure.

For the second point, the shortening of the A2 sections is logical since the preceding A1 sections contain similar material and gesture, and since this “A” material makes up more than seventy-five percent of the material in the second movement. In reference to the third point, the emphasis on the first A1 and last A3 sections is logical as well since these sections also function, to some degree, as the introduction and coda of the movement. Therefore, these additional functions require additional measures to gradually introduce or conclude the movement’s material.

4.1.1 Harmonic Influences Derived from “Rhythm Changes”

While the chord progressions observed in Example 2, p. 19, are used as source material for the composition process, only remnants of the original harmonic progressions are perceptible. In general, the A sections are characterized by melodic and harmonic content focused around a B-flat tonal center and do not fully represent the rhythm changes chord progression. The B sections are more closely related to their harmonic origin as they are centered around the D7, G7, C7, and F7 chords, which are subtly emphasized for brief durations. Although parts of the original chord progression
are at times apparent, it was decided to avoid literal use and quotation of the progression. Three distinguishable elements of the original source material are ultimately present in the finished movement. The first two are motives, which reflect segments of the original chord progression, used in the A section (see Chapter 4.4, p. 60) and the last one is the somewhat literal harmony of the B section (see Chapter 4.3, p. 55).

4.2 Section A Material and Distinctive Characteristics of each Chorus

Whether featuring an initiating melody or an instrumental solo, the main focus of the A section material is on the “melodic” line (see Example 18).

Example 18 – First Chorus, A Section Material in the Second Movement, mm. 7-15

\[\text{Example 18 – First Chorus, A Section Material in the Second Movement, mm. 7-15}\]
These melodic lines, present in the strings and piano, originated as improvisations in the opening A section during the compositional process, and were initially influenced by the rhythm changes chord progression. Most of the original improvised material present in the initiating A section is adapted or used directly as main motive material for later A sections.

4.2.1 First Chorus

In the first A section, the contained melodic lines, characterized by sixteenth-notes and syncopation, often interact with, or are accompanied by, other instruments. The piano is the key melodic instrument in the first two A sections, and often features single-line melodic phrases in addition to occasional, syncopated chord interjections (see Example 18, mm. 8-9, p. 50). The piano is frequently joined by the violin and cello, which provide occasional melodic highlights and chord punctuations. In this section, the material in the strings and piano is complemented by the use of brushes on the snare drum and high hat by the percussion. These combined sounds and textures are meant to conjure images of typical bebop rhythm section accompaniment and interaction.

4.2.2 Second Chorus

The A sections of the second chorus, which function as part of the vibraphone solo, are drastically reduced in duration in comparison to the opening chorus (see Table 3, p. 48). Note that the first complete chorus has one-hundred twenty-seven measures compared to the second chorus’ fifty-eight. The sparse beginning of the second chorus’ A section is also notable with the exclusion, for the most part, of the violin and piano (see Example 19, mm. 128).
Example 19 – Second Chorus, A Section Material in the Second Movement, mm. 128-32

Here the vibraphone is accompanied by the cello performing a pizzicato, walking bass line, which is present only in the second chorus of the second movement. At mm. 144, the piano and violin begin to interact more frequently with the vibraphone adding, at times, harmonisations or octave doublings of the melody (see Example 20).

Example 20 – Second Chorus, A Section Material in the Second Movement, mm. 144-7
As seen in Example 20, the A3 section also features the violin doubling the vibraphone in harmony, or up an octave, while the cello’s bass line is doubled down an octave by the left hand of the piano.

4.2.3 Third Chorus

The A section material for the third, and last, chorus also contains unique features. Primarily, its first two A sections consist of a mixture of a shout chorus and a percussion or “drum solo.” Since its function as a solo—a section where an instrument takes a lead role—should be immediately obvious in mm. 186-92 (see Example 21), it is best to describe how the same material can also be classified as a big band-influenced shout chorus.

Example 21 – Third Chorus, A Section Material in the Second Movement, mm. 186-92

In this passage, the brief, rhythmic figures executed by the violin, cello, and piano function as “riffs,” or short motive-driven melodies, commonly present in big band jazz music. Although riffs are often repeated identically, they also develop into new related ideas, and can sometimes consist of longer melodic lines which share similar rhythmic characteristics.
As previously mentioned, this section is also influenced by various stylistic elements of the big band shout chorus. Characteristics of typical shout choruses include their frequent appearance close to the end of the piece, their “call and response” dialogue from the brass and woodwinds and the drums, and their climactic placement in the arrangement. The material above can be seen as sharing and developing the dotted eighth-note to sixteenth-note rhythm (see Example 21, mm. 186 and 192, p. 53), which acts as a rhythmic and melodic motive forming the material of the shout chorus. This passage is also another high-energy point of the second movement, perhaps even the climax, or the second climax, if one takes into account the build up at mm. 165 discussed below (see Example 27, p. 60).

The final A section, A3, of the third chorus reiterates previous material. In fact, the A3 section of the last chorus is a recapitulation of the A3 from the first chorus. The material is virtually identical from mm. 249-75 (see score for a full comparison of this passage) except, for the most part, appearing down two octaves from the original. As in all the movements of the thesis, the second movement’s ending section returns to material from its opening. From this point to the close of the movement, the final rhythmic material is varied and repeated culminating in a series of fading piano chords and cymbal attacks. This decrease in rhythmic activity prepares the listener for the subdued opening of the third movement (see Example 22).
4.3 Section B Material and Distinctive Characteristics of each Chorus

Referring back to Table 3, p. 48, B section material makes up almost twenty-five percent of the second movement, and is used to contrast with A section material.

Consequently, B section harmonic material in the second movement is closely related to the B section chord progression of rhythm changes (see Example 2, p. 19). Although dominant-seventh chords D, G, C, and F, with various added ninths, elevenths and other extensions are implied throughout the section, these harmonies are often modified and, therefore, not always audibly apparent. Furthermore, in the first and third choruses, the occurrence of B section harmonic material is slightly modified whereas, in the second
chorus, the original chord progression is arguably not apparent at all. Material of the three distinct B sections is described and compared below.

4.3.1 First Chorus

As previously noted, harmony extracted from the B section of rhythm changes is highly influential in the first B section of the second movement. In the opening of the section, a linear violin line accompanied by chords in the piano is present (see Example 23, mm. 60-2).

Example 23 – First Chorus, B Section Material in the Second Movement, mm. 60-9

Here the violin loosely encircles the implied D9 (#11) harmony executed by the piano before the cello enters briefly in mm. 62-4. The violin presents another brief idea with the piano in mm. 65-67, now the G7 (b9), before the strings’ unaccompanied, four-measure
passage. Although the C7 chord is not as obvious as the other three chords in this section, there are traces of its implied harmony in the violin figure of mm. 66-67 and piano chord in mm. 67. As the strings continue with similar linear material, the piano enters once again with chords, now F7 (b9), at mm. 73 (see Example 24).

Example 24 – First Chorus, B Section Material in the Second Movement, mm. 73-8

As observed in the violin, cello and piano in the above examples, the exploitation of rhythm change’s B section chord progression is present in the material. The processing of this chord progression is also present in the third B section described below.

4.3.2 Third Chorus

In the third chorus, the B section is virtually identical to the first chorus. Some minor changes take place and include: sectional material stated at first only on the piano joined later by the vibraphone (see Example 25, mm. 235), the entrance of material (see Example 25, mm. 226) is rhythmically offset by half a beat in comparison to the original material (see Example 23, mm. 60, p. 56), and the section is shortened by one measure. The last B section is also preceded by a piano solo (see Example 25, mm. 218-25), which functions as a bridge from the shout chorus material to the B section material and explains the piano’s continued predominance in the final B section.
Furthermore, unlike the first B section which omits the percussion entirely, the second and third B sections utilize the vibraphone throughout.

4.3.3 Second Chorus

Discussion of the B section of the second chorus has been left until last since it is the one most distantly related to the original. Although traces of harmonic outlining, apparent in the first and third sections, is observed in the vibraphone and piano parts from mm. 152 on, after mm. 158, the original rhythm changes chord progression is quickly lost in the processing of melodic motives (see Example 26).
The harmony is ambiguous during this section of the movement as the vibraphone and piano execute bebop-influenced lines with improvised qualities. Consequently, the improvised qualities and obscure harmony further the premise that the second chorus is the “solo” section of the movement led, to some degree, by the vibraphone. The strings, with the left hand of the piano, highlight this fact by executing accompanimental “white-key” quarter-notes, which are not directly related to the implied harmony but help build the momentum, dynamic, and density of the music. In mm. 152, the obscuring of
harmonic material intensifies as the drive towards the first high point of the second movement (see Example 27, mm. 165) is set in motion.

Example 27 – Second Chorus, B Section Material in the Second Movement, mm. 163-6

4.4 Rhythmic Motives

As most material in the second movement is the result of improvisation, it is difficult at times to locate definitive motives. However, there are frequently recurring rhythmic motives which make up a majority of the material in the second movement. Besides repeated sixteenth-note lines, which never last more than eight consecutive notes, there are two main rhythmic ideas that are present throughout. The first rhythmic motive, “RM1,” is stated by the piano in mm. 3-4 and features a six sixteenth-note pattern (see Example 28). This pattern is frequently used at the beginning of most A sections including mm. 3-4, 84-5, 249-50 and in variation in mm. 17-8, 69-80, 99-100, 196-97, 218-24, 227-8, 238-47, 263-4. The RM1 motive is most fundamentally associated with the opening of the three choruses, but is also slightly varied and used for other subordinate purposes.
Example 28 – Rhythmic Motives Present in the Second Movement: RM1, RM2, RM2a, RM2b

The second rhythmic motive, “RM2,” is first used in a less prominent spot, in mm. 6 (see Example 28), but is frequently reiterated throughout the movement and morphed into other recurring motive material. Unlike RM1, which has no real origin, the second motive is derived from the sixth measure of rhythm changes (see Example 2, p. 19) where an E-flat chord moves to an E-diminished chord in the same measure. The fifth of each chord is a B-flat, yet their roots move up a semi-tone: E-flat to E-natural. As stated above, the RM2 motive appears frequently throughout the movement and is located in original form and variation in mm. 6, 25, 50, 54, 56, 104, 181, 210, and 267.

Two other rhythmic motives are closely related to the second motive: “RM2a” and “RM2b” (see Example 28). The first, RM2a, usually appears just after an occurrence of RM2 like in mm. 25-9 (see Example 29).
Example 29 – Rhythmic Motives in Context in the Second Movement, mm. 25-36

To some degree, RM2a is the inverse of RM2 as the repeated arpeggio figure of RM2a descends. Most significantly, the two motives are similar in rhythm. The second motive derived from RM2, “RM2b,” uses the rhythm of a dotted eighth-note and sixteenth-note. RM2b is also frequently used after an occurrence of RM2 and RM2a (see Example 29, mm. 29-34). The rhythm from RM2b is also used throughout the movement as an initiator of rhythmic interest through repetition, and as accompaniment for linear ideas.

4.5 Influence of Previous Pitch Class Sets

Although chords in the second movement are influenced by standard tertian harmonies, most harmonies in the piano are clustered together, mm. 23-4; use the third
and seventh of a dominant seventh chord forming a tritone, mm. 8-10; or use a minor or major second plus a larger interval like a major third, or perfect fourth or fifth, mm. 36-9 (see Example 30).

Example 30 – Chords in the Second Movement Influenced by Previous Pitch Class Sets

The intervallic content of these chords is similar to the PCS <013>, <015>, and <016>’s present in the material of the first movement (see Chapter 3.3.1, p. 41; and, 3.3.2, p. 42).

4.6 Orchestration and Instrumental Roles

Instrumental roles in the second movement are closer to actual jazz practices than in any other movement. Even though all instruments have a linear, “melodic” role at some point in the movement, the accompanying figures, especially in the percussion, portray strong jazz influences. From the opening of the movement, percussion uses “brush swishes” on the snare drum, drum “fills,” and the high hat in open and closed position to accompany various bebop influenced lines in the strings and piano (see Example 18, p. 50). The percussion executes drum figures with brushes for most of the first and third choruses, and appears on the vibraphone with solo-like lines for the entire second chorus (see Examples 19, 20, 26 and 27, p. 52, 59-60) and part of the B section of the third chorus (see Example 25, p. 58).
The strings function similarly in the second movement featuring mostly solo lines with the occasional double-stops in the violin and pizzicato bass notes in the cello. Throughout the second chorus, the cello, for most part, performs only pizzicato and arco staccato quarter-notes, which strongly evoke the “walking bass” patterns of jazz music (see Examples 19 and 20, p. 52). Maintaining the character of walking bass, the cello is used in its lower register and is rarely seen above the top of the bass clef unless it is appearing in a melodic role. Although the piano doubles the cello in certain walking bass passages (see Example 26, p. 59), the predominant role of the piano is to execute melodic lines, usually in the right hand, with frequent chord interjections in the left. This role of the piano is typical of jazz piano practices.
5. Third Movement: Form and Structure

Like the first and second movements, the third movement is separated into smaller sections. These sections are divided by two primary elements: the tonality of A section material, and the modality of B section material. Modality is not unique to the third movement as it is also used in the B section of the first movement. Tonality is used briefly in the first movement and functions as an influential element in the second. Unlike the other movements, the main AABA structure of the third movement is first preceded by a distinct section functioning as an introduction. The form of the movement is provided in Table 4.

Table 4 – Third Movement Structure

<table>
<thead>
<tr>
<th>Section</th>
<th>Measure Numbers</th>
<th>Length in Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1-21</td>
<td>21</td>
</tr>
<tr>
<td>B</td>
<td>46-84</td>
<td>39</td>
</tr>
<tr>
<td>A3</td>
<td>85-116</td>
<td>32</td>
</tr>
</tbody>
</table>

Each section is also divided into various smaller “parts,” which will be described in relation to each section below.

5.1 Source Material, Evolution of Creative Process

Source material in the third movement is processed in a slightly different way than in the previous two movements. This is apparent in the brief, direct quotation of the bass line from the opening of Davis’s “So What” (see Example 3, p. 22) and the dovetailing of statements in the cello and piano (see Example 31, mm. 1).
Although these initiating ideas are drawn directly from the source material and clearly presented in the opening of the movement, they are either modified and developed or liquidated in later passages. Interaction between the bass and piano in the introduction of “So What” is also influential as seen in the pairing of the cello and piano in the opening of the third movement. Consequently, many of these initial influences are easier identified in earlier versions of the movement.

5.1.1 Opening Bass Figure

A large quantity of material present in the first version of the third movement is modified or processed in later versions. Example 32 contains the earliest version of material from the opening of the third movement.
When the opening cello and piano material of Example 32 is compared to the opening of Example 31, p. 66, similar gestures are discovered. In Example 32, the cello executes a triplet figure which implies a hemiola or “three over two” rhythm. At the end of the cello’s initiating statement, the piano executes octave G-sharps. In Example 31, the final version of the movement, the opening cello notes have been transformed to eighth-notes and the octaves in the piano separated to create a figure similar to that of the cello. In both of these examples the three-note, ascending figure of the cello is followed by a descending octave leap, which is not present in the introduction to “So What.” Two varied occurrences of this cello figure are also observed in mm. 8-9 of Example 32, which match the repetitions of the bass figure present in the original source material. These monotonous repetitions are omitted from the final version of the movement.

5.1.2 Opening Chords and the Interval of a Fourth

In the beginning of Example 32, the G-sharp octaves in the piano left hand are followed by four block chords in the right hand. These chords are constructed with various types of fourths, in a method similar to the “So What chord” used by pianist Bill Evans in the melody section of “So What” (see Example 33).
Example 33 – Bass Melody and Piano Chords in Miles Davis’s “So What,” mm. 1-4

In this example the bass states the “melody,” which is answered by fourth-chords in the piano. The interval of a fourth relates to the first movement as it was one of the influential intervallic motives used in the material. As the chords of Example 32, mm. 2, contain the interval of a tritone and perfect fourth, their connection to material in the first movement is easily understood (see Chapter 3.2.1, p. 33). In fact, the opening chord of Example 32 is constructed from PCS <016>, emphasizing its connection to material presented earlier in the composition (see Chapter 3.3.1, p. 41). These block chords were later arpeggiated in the final version of the movement (see Example 31, mm. 2, p. 66) infusing the opening section with more forward motion and connecting it conceptually to material presented later in the movement.

5.2 Distinctive Characteristics of Introductory Material

The third movement’s twenty-one measure introduction can be divided into three smaller segments: mm. 1-6, mm. 7-12, and mm. 13-21. To some degree, these segments combine to form a sentence-like phrase structure. The opening section’s first six measures are varied and repeated up the octave by the next six (see Example 31, p. 66) conforming to the initial statement and varied repeat of the traditional sentence structure. The last nine measures of the introduction, mm. 13-21, are more difficult to fit into the definition of a sentence as they actually become less active harmonically and
rhythmically (see Example 34), which is contrary to the typical harmonic acceleration expected in a sentence.

**Example 34 – Ending of the Introduction Section in the Third Movement, mm. 13-21**

Although the last measures of the introduction do not completely adhere to typical sentence structure, they connect the introductory material to the A section with their decrease in density and activity, and implied harmonic function described below.

The mode-influenced C-sharp Dorian/Aeolian introduction contains a significant underlying harmonic progression. After the initial pizzicato bass figure in the cello in mm. 1 (see Example 31, p. 66), the piano executes an arpeggiated v-chord (G-sharp minor), with added notes, in intervals of a sixth and seventh. In mm. 3, the harmonic motion moves towards the vi-chord with A-sharp octaves in the left hand of the piano doubled by the cello. This harmonic motion and gesture is repeated in mm. 7-12 and is described above as a varied repeat. The use of the A-natural bass, in mm. 13-17 (see
Example 34), implies a chromatic flat-VI chord. It is important to note that the A-natural octaves in the left hand of the piano at mm. 13 are harmonically striking. Except for the first note of the movement, A-sharp has been used throughout the introduction. Following this statement, G-natural and G-sharp octaves are presented in the left hand of the piano in mm. 18-19. These octaves can be interpreted as implying a move from vii/v to v, which prepares the entrance of C-sharp minor harmony in the opening of section A (see Example 35, p. 71).

Besides the harmonic implications, the initiation of rhythmic processing is evident in the introductory section as well. Note the development of rhythmic material in the arpeggiated chords of the piano in mm. 2-5 and its varied repeat in mm. 7-10 (see Example 31, p. 66). The eighth-notes in the right hand are transformed into faster, lopsided eighth-note triplets. This rhythmic transformation is used strategically throughout the third movement and will be discussed below in further detail.

5.3 Distinctive Characteristics of Section A1 and A2 Material

The first A section which, because of the repeat, actually forms both the A1 and A2 sections, is divided into two parts: part one, mm. 22-31; and part two, mm. 32-45.

5.3.1 Part One

The texture of part one of section A is created from a sparse, diatonic melodic line in the violin accompanied by block, diatonic chords and octave bass movement in the piano. Rhythmic and harmonic material developed in the preceding introductory section, and first movement, is further exploited in part one of the A section. Foreshadowing of
section B material is also discovered in this short passage. These distinctive elements are described in detail below.

Initiated by the v-chord at the end of the introduction, the A section’s harmony begins with a i-chord (C-sharp minor) in mm. 22-3, progresses to a iv-chord in first inversion in mm. 25-6, and to a v-chord in mm. 28-31 (see Example 35).

Example 35 – Opening of the First A Section in the Third Movement, mm. 22-31

Besides the minor v-chord, this chord progression is one of the most commonly used progressions in all of tonal music. The chord progression, in conjunction with the lyrical melody stated by the violin, is somewhat unusual in the context of the four movements as it resembles music characteristic of the “romantic” period of classical composition. This opening harmonic material is also closely related to harmonic material present in the introduction section.

Elements of the rhythmic material presented in the opening of section A are essential for two reasons. First, it is important to note the early appearance of the “Vocalise” motive (see Example 4, p. 23) in mm. 23 and 28, and how it is expanded from
rhythmic material present in mm. 22 and 25 (see Example 35, p. 71). This motive is significantly featured in the B section of the third movement. The second significant rhythmic material is present in the opening rhythms of the A section, mm. 22-3, which is somewhat foreshadowed by the ending of the A2 section in the first movement (see Example 11, p. 35). Like other foreshadowed material in “Four Pieces for Quartet,” the rhythmic material was inserted into the first movement after its importance was noted in the third movement.

5.3.2 Part Two

The second part of section A is seen as contrasting from the first for several reasons. First, as previously mentioned, all four instruments are featured throughout the second part whereas the first part features only piano and violin (see Example 35, p. 71). Second, although the violin continues to state a somewhat “tonal” melody, the piano and percussion revert back to similar gestures present in the introduction as the cello takes on a more melodic role. Third, the eighth-note to triplet rhythmic processing originally presented in the introduction returns (see Example 31, mm. 2-5 and mm. 7-10). This is apparent in mm. 32-3 (see Example 36, p. 73) where, after one occurrence of the arpeggiated chords in eighth-notes, the material is transformed into its previously seen eighth-note triplet form and repeated three times in the first ending. This is later extended and repeated five times in the second ending. The reappearance of this rhythmic material not only connects the A section to the preceding introduction, but also builds momentum towards either the repeat of the section, for the first ending, or the beginning of the B section, for the second ending.
Part two of section A begins with two unexpected harmonies: IV (mm. 32-3 and 36-7) and flat-IV (mm. 34-5 and 38-9). These harmonies last for approximately two measures each and are repeated with the last flat-IV briefly extended. Although the flat-IV chord is not common to functional harmony, the presence of distinguishable harmony connects part two of the A section with the preceding part one and introduction.

As mentioned above, part two of the A section also includes both the first and second endings. These two endings contain material necessary to return to the sparse beginning of the A section, and to prepare for the modal and polyphonic B section.

Besides the abovementioned repeats of eighth-note to triplet rhythmic material, the main difference of the two endings is their duration. Providing a smooth transition and
preparing for the E-Phrygian modality of the B section, the second ending is four measures longer than the first.

5.4 Distinctive Characteristics of Section B Material

Like the previous sections, the B section is also divided into two smaller parts: part one, mm. 46-64, and part two, mm. 65-84.

5.4.1 Part One

The first part of section B contains three distinctive features which help connect it to, and distinguish it from, preceding sections. The first distinctive feature is the polyphonic dialogue of the strings which relies heavily on the “Vocalise” rhythmic motive as they increase in register (see Example 37).

Example 37 – Rachmaninoff’s “Vocalise” Rhythm in the B Section, Third Movement, mm. 46-59
In this example, three occurrences of the “Vocalise” motive are present in the violin in mm. 47-9 and mm. 51. The prominent rhythmic and melodic motive is eventually stated by the cello in mm. 58 and used significantly throughout the first half of the B section.

The second distinctive feature, easily observed in Example 37, is the E drone in the vibraphone. The drone is prominent throughout the B section as it provides a pitch center for the E-Phrygian modality, and supplies rhythmic stability for the interacting instruments.

The third distinctive feature is the gradual shift in register of the piano chords which start in mm. 46 and descend more than an octave by mm. 53 (see Example 37, p. 74). In the first half of section B, the piano reiterates octaves in the left hand and block chords reminiscent of the first half of the A section (see Example 35, mm. 22-31, p. 71). These chords contain either a minor or major second in the right hand. Like the opposing instrumental registers noted in the section B material of the first movement (see Chapter 3.2.2, point 4, p. 38), these descending chords contrast with the ascending lines of the strings.

5.4.2 Part Two

The second part of section B, mm. 65-84, is reminiscent of the second half of section A in its use of material (see Example 38).
Example 38 – Second Part of the B Section in the Third Movement, mm. 64-74

As the strings sustain and the vibraphone continues its E drone, the piano reverts back to the rhythmic material of the introduction and A sections. This is yet another return of the transforming eighth-note to triplet rhythmic motive described in detail earlier (see Example 31, p. 66). In this return of material there are two subtle differences: the omission of the preceding eighth-note rhythm—eighth-note triplets are introduced immediately; and, the eighth-note to triplet motive is treated less harmonically and more modally. In other words, although there are bass notes present in the left hand of the piano, they function more as the lowest note of a collection of pitches and not like the bass note of an implied chord. The modal treatment of material up to this point in the B section eliminates the potential for these collections to be interpreted as functional harmony.
On a final note, the appearance of B-flat in the piano in mm. 71, the first accidental since mm. 37, begins the modulation to the new key of D minor (see Example 38, p. 76). This modulation is not finalized until the return of material for the last A section.

5.5 Distinctive Characteristics of Section A3 Material

The last A section can be seen as a virtual copy of the previous A sections with a few exceptions: the key of D minor—the original section was in C-sharp minor; the cello presents the melody previously stated by the violin, performing it in a high register; and, the violin accompanies the cello with a complementary line (see Example 39).
Besides the fading out of the vibraphone in mm. 85-90, the percussion is silent until the return of the brushes on the snare drum and suspended cymbal in mm. 105. As in the first A sections, the eighth-note to triplet rhythmic motive appears once again at the end on the movement. In contrast, the harmony remains on the IV-chord (G-major) repeating five times (see Example 39, mm. 105-6 and Example 40, mm. 107-16).
5.6 Points of Climax

Although it is difficult to locate a specific climax point in this movement, two points of interest are apparent: the build up of the B section, which peaks from mm. 59-61 (see Example 41) and then quickly dies down; and, the beginning of the last A section (see Example 39, mm. 85, p. 78) where the cello enters in such a high register that it adds tension to the return of the previous material.
5.7 Rhythmic Motives and Harmony

The two most important motives present in the third movement, which have been previously introduced above, are the “Vocalise” motive and the eighth-note to triplet eighth-note motive. It is interesting to note that neither of these motives is derived from source material used as the impetus for the third movement. In fact, the only material derived from “So What” is an initiating idea in the opening of the movement (see Example 31, mm. 1), which influenced the development of later material.

5.7.1 “Eighth-Note to Eighth-Note Triplet” Motive

The eighth-note to triplet motive (see Example 31, mm. 2-5, p. 66) does not originate from the introduction. This motive is derived from the ending portion of the A section (see Example 36, p. 73) and helps to accelerate the rhythm of what were previously block chords in the piano. After trying regular eighth-notes during the composition process to expand block chords in the piano, the resulting rhythmic figure seemed to be too stagnant and monotonous. Consequently, the lopsided eighth-note triplets were added to bring variety to the rhythm and to build towards the end of the
section. A similar rhythmic process was used for the original block chord introduction (see Example 32, p. 67), for the transition back to the final A section (see Example 38, p. 76), and for the end of the movement (see Example 40, p. 79). This motive, therefore, is extremely prominent in the third movement appearing in every section with some variation.

5.7.2 “Vocalise” Motive

As mentioned previously, the “Vocalise” material appeared one day when I was reworking the B section of the third movement. Around the same time, I was doing an arrangement of the Rachmaninoff piece for a recording. When I first recognized that I was using this motive in the material, I attempted to eliminate it from the movement. After listening to the motive so many times, I was not able to conceptualize the B section material without it, so I decided to use it to my advantage. Since the material was first used in the B section, I wanted to make an earlier compositional connection to the rhythm. Consequently, the violin’s melody in the A section (see Example 35, mm. 22-31, p. 71) was later adapted to include elements of the rhythmic motive.

5.7.3 Relationship of Harmonic Centers

It is important to mention the harmonic centers of each section of the third movement. The introduction and first two A sections are in the key of C-sharp minor, the B section uses the mode of E-Phrygian, and the final A3 section is in the key of D-minor. Not only do these key centers, when combined, create a PCS <013>, but the beginning and ending key centers are also a minor second apart. This is also the case with the pitch centers of the first movement (see Chapter 3.3.3, p. 43).
5.8 Orchestration and Instrumental Roles

The roles of the instruments in the third movement are in many ways similar to the two preceding movements. The cello begins the movement by implying jazz bass characteristics and bass punctuations in the introduction, a layover from the second movement. In contrast, it provides either countermelody or melody, while sometimes sustaining low notes stated by the piano, in the A and B sections. As mentioned above, the cello has the most direct quotation of source material in the movement which is presented as a bass figure (see Example 31, p. 66). Polyphonic melodies are also present in the strings throughout the second half of the A1 and A2 sections and in the first half of the B section. As noted above, the most profound appearance of the cello stating the melody is in the beginning of the A3 section where it is in its upper tessitura (see Example 39, p. 78).

Unlike the cello, the violin is silent in the third movement until the beginning of the first A section (see Example 35, mm. 22, p. 71). At this point, the violin enters with a sustained, mid-register melody paired with the accompanying piano. The violin is often the predominant instrument in the texture after this point, but is sometimes overtaken when sustaining pitches by the piano’s eighth-note or triplet eighth-notes rhythmic motives. This is most notable in the second half of the B section (see Example 38, p. 76). The violin is also periodically subordinated by the cello, like in the beginning of A3, where the violin occasionally presents counter lines (see Example 39, p. 78). In opposition to the frequent sixteenth-notes of the second movement, the strings often provide long sustaining pitches in the third movement.
The A and B sections and introduction feature the piano performing either block chords (see Example 35, p. 71) or arpeggiated chord figures (see Example 36, p. 73). Although the eighth-note to triplet motive adds melodic interest to the arpeggiated chords executed by the piano—except for the introduction—this material can be seen as accompanimental. The block chords of the piano are typically subordinated by a solo melody or polyphonic interaction in the strings and, therefore, are also considered accompanimental in nature. Unlike previous movements, the piano’s role is predominantly accompanimental in the third movement. This is the case as well with the percussion, which provides two contrasting textures throughout.

For the introduction and A sections, a combination of snare drum and suspended cymbal with brushes are used in the percussion (see Example 31, p. 66). This combination exists previously in the rhythm section-infused second movement. The second, contrasting percussion material is present throughout the B section where the monotonous E drone is stated on the vibraphone (see Example 37, p. 74). As previously mentioned in Chapter 5.4.1, p. 74, the drone blatantly emphasizes the pitch center of E-Phrygian modality and also provides rhythmic impetus and stability complementing the polyphony in the strings. This jazz-influenced percussion is not typically combined with strings and piano in classical music, but creates an interesting texture present throughout “Four Pieces for Quartet.”
6. Fourth Movement: Form and Structure

The form of the fourth movement is divided into five sections (see Table 5).

Table 5 – Fourth Movement Structure

<table>
<thead>
<tr>
<th>Section</th>
<th>Measure Numbers</th>
<th>Length in Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>mm. 1-58</td>
<td>58</td>
</tr>
<tr>
<td>A2</td>
<td>mm. 59-113</td>
<td>55</td>
</tr>
<tr>
<td>A3</td>
<td>mm. 114-133</td>
<td>20</td>
</tr>
<tr>
<td>B</td>
<td>mm. 134-276</td>
<td>143</td>
</tr>
<tr>
<td>A4</td>
<td>mm. 277-348</td>
<td>72</td>
</tr>
</tbody>
</table>

As observed in Table 5, section A is repeated three times throughout the movement.

Although the A sections dominate in frequency of appearance, the B section is ten measures longer (143 measures) than the first three A sections combined (133 measures). Unifying the structure and material contained in the movement, motives in the B section—with the exception of the drone—are frequently borrowed and developed from the A section. Excluding the first movement, the B section of the fourth movement has a more prominent role in the development and structure of material in the movement as a whole.

6.1 Source Material, Evolution of Creative Process

The fourth movement has an interesting story behind its final process and creation as it was not directly derived from source material like the other three movements. The original plan for the movement was to collect and combine, compositionally, motive material from the previous three movements. The development of the previous material was to be formed into a conclusive statement of what had come before. After finishing an earlier version of the fourth movement using this premise, the outcome was found to be inconsistent in direction and unsatisfying as a final movement. Main concerns with the
first version were in regards to the inefficient mixing of motive material, which was not unified in the movement, and the fact that the material failed to develop through its first five of seven minutes. After considering other options regarding the reformatting of the original movement, the choice was made to extract the best material and use it to create a more unified version. Consequently, the material chosen for the final fourth movement originated from the final two to three minutes of the first version. Material taken from the ending of the old version was strategically reworked and consequently became the foundation of the final version.

In Example 42, the material for the fourth movement is seen in its original context.

Example 42 – Last Section of the Fourth Movement, Earlier Version (2009-09-30), mm. 119-31
Since the first version of the movement was conceived in 2/4, 3/4, and 4/4 time like the previous three movements, the original violin and cello “six-note” motives, present in mm. 121-2, were notated as eighth-note triplets. Once it was understood that the final movement was to use similar material throughout, the material was transcribed into 6/8 and 9/8 time for ease of performance. Although the material in Example 42 was eventually used to create the final version of the movement, like other source material, it was necessary to develop it in order to introduce and build the motives in a compositionally pleasing way.

6.1.1 Opening Chord Influences and Origins

It is important to note that the material for the original final movement is actually inspired by main motive materials derived from the first movement. In Example 43, the earliest version of the fourth movement, the piano chord in mm. 85 is identical to the opening chord of the first movement (see Example 8, mm. 1, p. 31).

Example 43 – Material Used for the Fourth Movement, Earliest Version (2009-09-14), mm. 85-94

In Example 42, mm. 119-20, p. 85, this opening chord is subsequently modified with an A-flat octave bass, and the tritone, present in the original version of the chord, is omitted. In the processing of this chord, only the characteristic minor second interval remains.
6.1.2 Pitch Class Set Influences and Origins

Other processing choices are uncovered when comparing material in Examples 42 and 43 (p. 85-6). Here the original motive material of the fourth movement, the sixteenth-note figure in mm. 89 of Example 43, is easily compared to the eighth-note triplets in mm. 121 of Example 42. The sixteenth-notes are an earlier version of the important six-note motive exploited throughout the fourth movement (see Chapter 6.5.3, p. 105). This motive uses intervals of the minor second and perfect fifth (PCS <016>), which are important intervals in the first, and later, movements. This pitch class set material also forms the original opening piano chord in mm. 85 of Example 43.

The six-note motive was originally conceived with different instrumentation as it is observed in the piano in Example 43 compared to the strings in Example 42. This instrumentation exchange is also present in the melodic figure of the violin in mm. 90 of Example 43. Here the string melody of Example 43 is transferred to the piano in mm. 127-8 of Example 42. Therefore, it is discovered that the original premise of extracting previous movements’ material as source material is realized to some degree in the fourth movement—only the first movement’s material is extracted. Consequently, although the first movement is inspirational to all subsequent movements, its material is highly influential in the final movement.

6.2 Distinctive Characteristics of Section A1, A2, and A3 Material

Like the previous three movements, it is best to examine each section of the fourth movement individually to realize its relationship and contribution to the overall form.
6.2.1 Section A1

In the first of the four A sections, the introduction of motive material developed throughout the fourth movement is present. Four distinct elements introduced, or reintroduced, in the opening section include the texture of the suspended cymbal, the PCS <01> opening chord, the “six-note” motive, and the melodic piano figure. The relevance of these elements is described in further detail below.

The rhythmic sound of the cymbal appears alone in the opening of the fourth movement until the appearance of the first piano chord in mm. 12 (see Example 44).

Example 44 – Opening of the Fourth Movement, Final Version, mm. 1-14

The significance of opening the movement with the sound of the suspended cymbal is understood when one considers its prominent role in the second and third movements. Not only does the cymbal’s early appearance in the fourth movement help connect it to
previous movements, but it also unifies the overall soundscape of “Four Pieces for Quartet.” Furthermore, the suspended cymbal unifies the texture of the fourth movement as it appears in all of the four A sections and is absent only in the B section.

In the same example, the sustained opening chord in mm. 12 reintroduces the sound of the low piano as well as the prominent PCS <01> interval derived from the first movement. This chord is significant in the fourth movement as it commonly appears at the beginning and ending of each section, and represents PCS material used in previous movements. In the opening section, the chord appears more frequently as it is attached to the occurrence of motive material in the strings. This is observed in mm. 18 where the piano repeats the opening chord (see Example 45). It is then joined by sustained material in the strings which foreshadows the introduction of the “six-note” motive (see Chapter 6.5.3, p. 105).
Example 45 – Section A Material in the Fourth Movement, mm. 18-30

The gradual introduction of the six-note motive is observed in the comparison of the strings’ material in mm. 18-20, mm. 23-6, and mm. 28-30. In these measures, the motive slowly materializes from similar gestures. Like the introduction of most other material in the composition, this gradual introduction of motive material was achieved after the fact. That is, the six-note motive, prominent throughout the later sections, was liquidated and reorganized to suit the introductory function of the first A section.

Another significant element developed through the first A section is also derived from the previous version of the movement (see Example 42, mm. 127-8, p. 85). This melodic figure appears in the piano, in virtual completeness, in mm. 42-3 of Example 46.
Example 46 – Melodic Figure in the A Section of the Fourth Movement, mm. 42-4

Besides the E-flat/B-flat note pair in the right hand of the piano, in mm. 42, and the left hand octaves, this two-measure piano figure is identical to mm. 127-8 of Example 42, p. 85. This prominent figure passed through numerous stages of development as it was originally conceived for the strings (Example 43, mm. 90-3, p. 86), expanded to fit the piano in octaves (Example 42, mm. 127-8), and, as will be seen in subsequent examples, decorated with harmonies. Although only used once in its entirety in the first A section, the motive’s significance is realized in later sections.

Other important points to note about the first A section include its focus on the lower register of the instruments, especially in the piano and violin; its frequently sustained and distantly spaced instrumental statements; and its gradual introduction of motives, which later grow in prominence through the following sections of the final movement.

6.2.2 Section A2

The second A section is similar to the first as it contains the four distinct elements previously introduced in Chapter 6.2.1: the suspended cymbal, the opening chord, the six-
note motive, and the melodic figure. What is distinct about the second section is that it varies and develops these motives thereby introducing new, derivative material. Some examples of this development include the emancipation of the cymbal’s rhythms, the less frequent use of the opening piano chord, the expansion of the six-note motive, and the liquidation of the piano’s melodic figure (see Example 47).

Example 47 – Second A Section Material in the Fourth Movement, mm. 59-69

As the second A section progresses, the motives introduced in the first section are gradually expanded or liquidated. The strings, for the first time in the movement, leave the main six-note motive and briefly state lower bass notes or higher melodic notes (see Example 47, mm. 59-62, 68-9, in the violin; and Example 48, mm. 71-83, in the cello).
In the second A section, motive material is modified as it is reintroduced. This is observed in mm. 74-86 as the piano abandons the prominent melodic figure for other material. In addition, the percussion deviates from its strict rhythm present in the first A section. In the above examples, the cymbal’s rhythms are more randomly chosen to imitate improvisation while still accenting key statements in the other instruments’ parts.
Another distinctive feature established in the second A section is the general upward movement in instrumental register. After the initial piano chord in mm. 59, the piano and violin’s registers begin to ascend gradually abandoning the low notes present in the opening A section (see Example 47, p. 92). This shift in register is held until mm. 97 where the piano slowly descends until mm. 109 signalling the end of the second A section (see Example 49).

Example 49 – Second A Section Material in the Fourth Movement, mm. 97-113
### 6.2.3 Section A3

Two conflicting characteristics within the third A section deserve mention: the increasing expansion and liquidation of motives, and the return of original motives. Each instrument approaches the expansion or liquidation in its own way. For instance, the third A section features prominent eighth-note activity in the violin which leads the section with several adapted and repeated motives expanded from the initial six-note motive (see Example 50).

**Example 50 – Third A Section Material in the Fourth Movement, mm. 114-23**

![Example 50](image)

The cello, which has generally stayed close to the six-note motive up to this point, does the opposite of the violin by liquidating the motive. In fact, the cello begins the third A section by doubling the piano’s lower octaves for the first few measures (mm. 114-7).
It then changes to highlight the piano right hand in mm. 121-31 accenting the prominent A-natural pitch in a high, projecting register (see Example 51).

**Example 51 – Third A Section Material in the Fourth Movement, mm. 124-33**

In the above example, the jarring A-natural appears in the cello and piano in three separate events (mm. 122, 123, and 128) momentarily implying A-flat Phrygian modality.

Like the strings, the piano and percussion develop material in different ways. In this section, the piano states fragmented versions of its original melodic figure up an octave (see Example 50, mm. 115-6, p. 95), while the improvised rhythms of the cymbal morph into a constant string of eighth-notes (see Example 51). This development of motives ceases in the last four measures of A3. Although the percussion retains its stream
of eighth-notes, the strings return to their original six-note motive, and the piano to its opening chords, in the final measures of the third A section.

Consequently, it is important to note that each subsequent A section has seen an increase in the density of instrumental statements. The third A section is similar to the others in this respect, especially concerning the gradual frequency of motives presented in the violin and piano, and the increasing eighth-notes in the percussion. Contrasting with the previous sections, the third A section has diminishing activity near its end (see Example 51, mm. 127-33, p. 96), especially in the cello and piano, as it prepares for the sparse opening of the B section.

6.3 Distinctive Characteristics of Section B Material

The most significant characteristic separating A and B section material is the E-flat drone in the left hand of the piano, which is later joined by the vibraphone an octave above (see Example 52).

Example 52 – Opening of Section B, Fourth Movement, mm. 134-42

The E-flat drone emphasizes the E-flat Phrygian modal center of this section, which subtly contrasts the A-flat tonal center of the A sections. The drone and Phrygian modality are presented, under similar circumstances, in the third movement where they
are both used simultaneously in the “contrasting” B section (see Example 37, p. 74). In the fourth movement, however, B section material is not entirely contrasting as it contains material present in the A section. Also, in the fourth movement, the drone originates in the piano and is later shared by the vibraphone. This is not the case in the third movement, which contains a more contrasting B section and features the drone in the vibraphone only.

In the B section, the percussion’s transition from suspended cymbal to vibraphone creates a shift in texture away from the bright, rhythmic sound of the cymbal present throughout the A sections. This change intentionally decreases the energy and volume for the opening of the B section and highlights the arrival of the conceptual midpoint of the movement.

The material of the B section is developed similarly to the first A section featuring the gradual introduction of motive material, now accompanied by the E-flat drone in the piano. The drone functions as it did in the third movement providing rhythmic stability for the interacting instruments (see Chapter 5.4.1, p. 74). Here the repeated six-note motive, along with its variations, gradually returns paired again with the melodic piano figure of the previous A sections (see Example 53, mm. 148-50).
6.3.1 Section B Divisions

Although the B section has been discussed as a self-contained unit up to this point, the section is separated into five smaller divisions each possessing different functions (see Table 6).

Table 6 – Section “B” Divisions in the Fourth Movement

<table>
<thead>
<tr>
<th>Section “B” Divisions</th>
<th>Measure Numbers</th>
<th>Length in Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>b1</td>
<td>mm. 134-85</td>
<td>51</td>
</tr>
<tr>
<td>b2</td>
<td>mm. 186-202</td>
<td>17</td>
</tr>
<tr>
<td>b3</td>
<td>mm. 203-17</td>
<td>15</td>
</tr>
<tr>
<td>b4</td>
<td>mm. 218-66</td>
<td>49</td>
</tr>
<tr>
<td>b5</td>
<td>mm. 267-76</td>
<td>10</td>
</tr>
</tbody>
</table>
The first division functions similarly to the opening A section providing time to introduce the prominent drone and gradually build up motives essential to the development of the B section (see Example 52, p. 97). The second division contains the first intensification of motive material in the B section, which peaks in mm. 194-97 in the high cello and violin (see Example 54).

Example 54 – Second Division, Section B Material in the Fourth Movement, mm. 194-9

Since the fourth movement does not contain a definitive point of climax, these measures are considered to be the first of two high intensity points. The third division functions as a brief interlude between the first and second high points of the movement. It is constructed through a varied repeat of its first seven measures in the piano and strings. Division four contains the second high point of the movement (see Example 55, mm. 240-50), which is preceded by an increase and intensification of rhythms, motives, and gradually heightened registers of the strings.
Taking into consideration these significant characteristics, it may be interpreted as the most climatic point of the movement. The fifth division’s purpose is to continue the paring down of ideas begun in the end of the fourth division. In doing so, it prepares the listener for the return of the final A section.

6.4 Distinctive Characteristics of Section A4 Material

The last A section is a virtual repeat of the second A section previously discussed (see Chapter 6.2.2, p. 91). The points where the last A deviates from the original are few and serve a functional purpose. The opening, interlude-like piano passage of the final A section is the first departure lasting from mm. 277-289 (see Example 56).
A similar passage is present in the second movement, which functions as a transitioning point from one section to another (see Example 25, p. 58). In the fourth movement this passage serves the same purpose, as a transition from the end of the B section to the beginning of the final A section. The strategic appearance of this solo piano passage is enhanced by the dramatic re-entry of the cymbal and strings in mm. 294. It is relevant to note that the material present in mm. 291-3 is expanded from the second A section’s mm. 62-3 (see Example 47, p. 92).
The material following this point in the fourth movement is recycled without modification until mm. 336 (see Example 57).

Example 57 – Ending of the Fourth Movement, mm. 331-48

Here a varied repetition of seven measures, mm. 331-7, is observed in mm. 338-44. This repetition, not present in the second A section, prepares the ending of the final movement and composition. On a final note, the concluding four measures, mm. 345-8, are an adaptation of mm. 109-12 of the second A section (see Example 49, p. 94) with added sustained notes in the strings and piano, and a decline of rhythm in the cymbal.
6.5 Motives and Harmony

Three related motives are prominent throughout the fourth movement: the opening chord, the melodic piano figure, and the six-note motive.

6.5.1 Opening Chord

The first motive appears in the piano in the form of a chord and was previously shown, in Examples 42 and 43 (p. 85-6), to derive from the opening PCS <016> chord of the first movement. The chord used in the fourth movement is actually a PCS <01> (see Example 44, mm. 12, p. 88), but the appearance of octaves in its voicing, the minor second in the right hand, and its location in the lower register of the piano all associate it closely with the original <016> chord. This chord is not developed or varied through the course of the movement, but does return occasionally at key points such as the openings and endings of the four A sections.

6.5.2 Melodic Piano Figure

The second motive material is also presented by the piano and realized most frequently as a melodic figure in the right hand (see Example 58).

Example 58 – Melodic Figure in the Piano, Fourth Movement, mm. 42-3

In its first appearance in mm. 42-3 the figure is presented mostly in octaves, but in subsequent appearances it is often harmonized. This is most notable in the B section (see Examples 54 and 55, p. 100-1). In the figure the opening, harmonized B-flat is repeated
up an octave, followed by a three-note E-flat minor arpeggio, and later concluded with two occurrences of C-flat octaves, one stated up the octave from the other. Other three-note arpeggio ideas and melodic passages in octaves that occur throughout the movement may be traced back to this initial melodic figure. Later occurrences and variations of this motive are more easily traceable in the four A sections and are located in the score in mm. 74-5, 115-6, and 305-6. This melodic figure is used and varied more frequently in the B section, and is reiterated a surprising eight times in the first division alone (mm. 148-50, 152-4, 158-60, 163-5, 173-5, 179-80, and 192-6 twice).

6.5.3 “Six-Note” Motive

The third motive is present in the strings and was referred to above as the “six-note motive.” It is used in original form as well as with variation throughout each section of the fourth movement. Although it is hinted at in mm. 18-20 and 23-26 of the opening A section (see Example 45, p. 90), the motive is not presented in its entirety until mm. 28-30 (see Example 59). It is constructed from an initial minor second followed by two ascending perfect fifths with the second perfect fifth descending a minor second.

Example 59 – Six-Note String Motive, Fourth Movement, mm. 28-31
The motive’s first three notes form a PCS <015>, which is similar to the prominent melodic motive present in the B section of the first movement (see Chapter 3.3.2, p. 42). This motive often appears in pairs with the first occurrence in the violin followed by a repetition in the cello.

Six-note motive pairs are reiterated frequently throughout the fourth movement and are stated, in original form, six times in the first A section. In the second A section the motive appears in its original form but is quickly fragmented and adapted to fit the developing parameters of the section. One and two octave transpositions of the motive occur frequently in the violin such as in mm. 70-1, 73-6, 86-7, and 97-9 as observed in the score. Fragmentation is present in mm. 81-5 in both the violin and cello, mm. 98-99 in the cello, and mm. 109 in the violin (see Example 49, p. 94). Typically the fragmented motive is divided in half, one or more notes are omitted, or the interval of a descending fifth is extracted.

The active violin line in the third A section was noted earlier (see Chapter 6.2.3, p. 95) for its use of variations of the six-note motive (see Example 60).

**Example 60 – Identification of PCS in the Violin, Fourth Movement, mm. 114-32**
The violin begins the third A section with one of two motive variations which are always followed by a reiteration of the original motive. What is notable about variations 1 and 2 is the appearance of PCS <013> and <016>, both significant PCS’s in the composition. Each variation is paired with the <015> segment of the six-note motive in either its first or second half. The original six-note motive and its two variations are observed throughout Example 60 in different octave transpositions.

The six-note motive is present in the B section as well though it is most prominent in the section’s beginning and ending. In the B section it is seldom fragmented, but sometimes used as an initiating point for sustained material in the strings (see Example 61).

**Example 61 – Section B Material in the Fourth Movement, mm. 169-76**

As previously mentioned, the final A section is a repeat of the second A section and, therefore, contains the same abovementioned material.

**6.5.4 Modality**

The modality of the fourth movement is realized as most of the pitches of the A section are focused around the A-flat Aeolian mode—the only exception being the occasional A, E and G-natural. The E-flat drone centers the same pitches present in the A
section around the E-flat Phrygian mode for the majority of the B section. Although not initially planned for all three movements, the influence of modality in the composition is significant as it is used in sections of the first, third and fourth movements.

6.6 Orchestration and Instrumental Roles

The instrumentation and orchestration of the fourth movement is similar to previous movements in numerous ways. The percussion imitates typical “ride” cymbal patterns, employed by modern jazz drummers, as was previously observed in the second and third movements. The appearance of the vibraphone drone is similar to the third movement although the fourth movement deviates from the constant pedal tone with the insertion of rhythmic and melodic interruptions (see Example 55, p. 101).

After the initial opening chords, the piano frequently executes melodic material with harmonized octaves, thirds, or fifths. It often mixes polyphonically with the strings though there are points where they briefly synchronize (see Example 50, p. 95). Often the six-note string motive echoes around the piano, which sometimes appears to be a solo instrument accompanied by the strings and percussion (see Example 49, p. 94). This illusion changes periodically as the strings become more active and move to the front of the texture causing the piano to occasionally appear accompanimental (see Example 47, p. 92).
7. Conclusion

“Four Pieces for Quartet” is an important work in my compositional development for several reasons. Since it is the longest work I have ever written, it is the first time I have confronted the problems that arise from creatively organizing a large scale, multi-movement work. This is aggravated by the fact that I find it difficult to plan the structure and outcome of my compositions and prefer to approach the process more intuitively. Consequently, there are innumerable versions of ideas and material, sections, and even movements that have been discarded or recycled during the process. For every note and rhythm in the work, countless time was spent listening to and modifying its exact placement in the composition. Combining material with, so called “intuitive ears,” instead relying solely on the analytical brain, opened up the possibilities for new organic motives, instrumental interactions, and structures.

The thesis paper provided an opportunity to look deeper within my personal process of composition. During this reflection, I discovered many things about my creative self including the fact that it is often difficult to differentiate between intuition and experience in the compositional process. I was also able to elucidate my technique of building original motives from source material and blending characteristics of jazz and classical music. Furthermore, I was able to trace the final composition through its various versions describing each stage of creative processing.

Overall, I hope to have provided insight into yet another way of processing source material to create a non-derivative composition. In conclusion, finding new ways to connect jazz and classical genres while working with the source material chosen for the thesis composition has renewed my interest in cross-collateralization for future projects.
8. Musical Score
Four Pieces for Quartet

for Violin, Violoncello, Piano, and Percussion

by

Aaron Young

(2010)
I.

Adagio misterioso e sostenuto (ca. $\frac{\text{d}}{\text{m}} = 66$)

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- I., Young -

Vln.  
Vc.  
Pno.  

Vln.  
Vc.  
Pno.  

Andante (ca. \( \frac{3}{4} = 76 \))  

Perc.  

\( \text{hold ped. until 55} \)
A Tempo
con sord.

hold ped. until 82

Glock. (warm dark tone)
sempre l.v.

Glock. (warm dark tone)
sempre l.v.
Poco agitato

sotto voce

hold ped. until end

pp

ppp

pp

ppp

pp
II. Moderato animato con brio (ca. $\frac{\cdot}{\cdot} = 108$)

Violin

Violoncello

Piano

Percussion

Snare drum w/brushes (snare on) "jazz drum sound"

High hat w/brushes

(Vibraphone)

Vln.

Vc.

Pno.

Perc. (High hat w/brushes)
make sound by depressing high hat pedal with foot
Subito; poco agitato (ca. \( \frac{q}{108} \))

\( \text{mf} \)
Sostenuto; poco rit. non troppo (ca. $q = 88$)

Subito a tempo (ca. $q = 108$)

Vibraphone (motor off) quasi solo
Subito (ca. \( \text{\textdollar} = 108 \))

to Snare drum and High hat w/brushes

Snare drum and High hat quasi solo
217

Ritmico; con moto (ca. $J = 108$)

Pno.

Perc.

to Vibraphone (med. mallets)

senza pedale

222

Pno.

227

Pno.

232

Pno.

235

Pno.

mf

Vibraphone

mf
- II., Young -

Vln. 268

Vc.

Pno.

Perc.

Poco a poco molto loco e agitato (ca. $\mathbf{J} = 108$)

Vln.

Vc.

Pno.

Perc.

278

Vln.

Vc.

Pno.

Perc.
Sostenuto (ca. \( \mathbf{\text{\textit{q}}}=108 \))

\[ \text{hold ped. until end} \]

\[ \text{poco a poco dim. al niente} \]
III.

Poco adagio (ca. $\frac{d}{2} = 66$)

Violin

Violoncello

Piano

Percussion

\text{Violin}

\text{Violoncello}

\text{Piano}

\text{Percussion}

\text{Vibraphone}

\text{Snare drum}

\text{Suspended cymbal (with rivets)}

\text{Vibraphone}

\text{Snare drum (snare on) w/brushes}

\text{Suspended cymbal (with rivets)}

\text{Vibraphone}

\text{Snare drum (snare on) w/brushes}

\text{Suspended cymbal (with rivets)}

\text{Vibraphone}

\text{Snare drum (snare on) w/brushes}

\text{Suspended cymbal (with rivets)}

\text{Vibraphone}

\text{Snare drum (snare on) w/brushes}

\text{Suspended cymbal (with rivets)}
- III., Young -

14

Vc.

Pno.

Perc.

Vc.

Pno.

Perc.

22

Poco agitato (ca. \( \frac{1}{2} = 66 \))

Vln.

Pno.

\( \text{hold ped. until 25} \)

\( \text{hold ped. until 28} \)
- III., Young -

48

Vln.

Vc.

Pno.

Vib.

53

Vln.

Vc.

Pno.

Vib.

58

Vln.

Vc.

Pno.

Vib.

hold ped. until 57

hold ped. until 61

hold ped. until 65
- III., Young -

85

\[ \text{Poco agitato (cresc.} = 66) \]

Vln.

Vc.

Pno.

\( \hat{\text{mf cantabile}} \)

\( \hat{\text{hold ped. until 88}} \)

\( \hat{\text{hold ped. until 92}} \)

Vib.

\( p \)

90

\( \hat{\text{hold ped. until 97}} \)

to Snare drum and Sus. cymbal \( \text{w/brushes} \)

95

\( \hat{\text{hold ped. until 101}} \)
Snare drum and Suspended cymbal with brushes

brush swishes always on snare drum only; cymbal has normal attacks

hold ped. until 105

hold ped. until end

III., Young
Ritmico; con moto (ca. $\frac{4}{4} = 108$)

Sus. cymbal w/wood sticks (dark “jazz” sound)

starting at the bell of the cymbal and gradually moving out to the edge

Sus. cymbal w/wood sticks (dark “jazz” sound)

norm.

8

mf sub.

Pno.

$\text{Perc.}$

14

sempre tenuto

Vln.

Vc.

Pno.

$\text{Perc.}$

sempre tenuto

Pp

sempre tenuto

Pp

mf

$\text{Perc.}$
* strike with the flat edge of the stick for a ‘crash’-like sound
Bibliography


