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ABSTRACT

STRUCTURAL SIGNIFICANCE OF THE MOTIVE IN
THE STRING QUARTETS OF BELA BARTOK

by Leta N. Thomason

Contemporary music is faced with its own problems of unity, just as music of any other period. The forms developed in the eighteenth century whose terminologies still dominate the analytical process were dependent on traditional tonality with its dominant and tonic relationships. While a certain segment of twentieth century music still adheres to these older tonal principles, and while another type finds its unity in a tone row, some music, although not atonal, is expressed in less rigid tonal controls. The six string quartets of Bela Bartok (1881-1945) have been selected as representatives of contemporary--yet tonal--music. They also serve to illustrate the compositional technique of Bartok since they span almost his entire creative career. The problem is to ascertain the unifying factor or factors which have the most significance in these works. The position held is that the content of the melodic motives manifests itself in other elements of the quartets so that it becomes the most

important factor.

In proving this thesis, melodic-rhythmic motives from each movement of the quartets were isolated and traced throughout their respective manifestations. Vertical usages of the intervallic elements of these motives were then traced and compared to the melodic motives. These same intervals were compared to the progress of tonal centers within each movement and between movements of each quartet. Relationships both within the individual movements and between movements were illustrated.

It was found that the melodic-rhythmic motives are economical; often an entire quartet can be shown to be derived from one or two short motives, such as the six-note motive of the Fourth Quartet. This technique was found to be embryonic in the First Quartet and to have reached its fullest conclusion in the cyclic theme of the Sixth. Motivic development is achieved in these works largely through intervallic expansion and compression, augmentation, and imitation, often employing the mirror inversion. The devices of retrograde and retrograde inversion rarely appear, the Fifth Quartet being the only one in which they can be readily perceived.

The harmonic structures correspond almost precisely to the intervals of the melodic motives in all six quartets,

sometimes using the same notes. Thus melodic themes constructed largely in fourths will appear over quartal harmony, melodies in seconds are usually accompanied by clusters, and tertian melodic intervals are set with tertian harmony. In addition the shifts of tonal centers were often found to reflect the same melodic and harmonic intervals, both within a single movement, and between the movements of a single quartet.

Bartók is often said to be a traditionalist in the matter of form, since his music so often resembles the outlines of eighteenth century molds. While this is largely true, these older forms were constructed on the principles of tonic and dominant relationships, a kind of tonality which Bartók seldom employs. In the absence of this traditional unifying factor, the melodic, harmonic, and tonal correspondence provides a subtle but firm coherence. The structural significance of the motivic correspondence was thus found to be of central importance to the unity of the Bartók string quartets.

STRUCTURAL SIGNIFICANCE OF THE MOTIVE IN THE STRING QUARTETS OF BÉLA BARTÓK

By

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CHAPTER I

INTRODUCTION

The Problem

Music as an aural art must make its form apparent to the listener by means of auditory unifying factors. The problem of making music sound unified has occupied composers of all ages. The solution found by the masters of the sixteenth century, however successful, did not apply to the material with which the eighteenth century composers were working. Each age, or rather each style of music, poses a different formal problem and requires a different solution.

Until recent times one of the primary unifying factors in music has been tonality. The major-minor system with its dominant and sub-dominant relationships was a powerful cohesive force, one which was able to pull together seemingly divergent material.

This primary factor of tonality suffered a decline in the nineteenth century by the expansion of chromaticism. Whether this was evolution or revolution, the result was a richer musical texture within the older limitations and a search for new directions in which composers could express

new musical ideas. The single momentous change was that traditional tonality no longer played its dominant role in unifying music.

From the standpoint of tonality, contemporary music divides itself into three categories. At the two extremes are (1) those works which have adhered to the basic principles of traditional tonality, and (2) those which have seemingly discarded those same principles altogether. Between these two extremes is the third category in which certain principles of tonality govern music, but the traditional relationship of tonic to dominant and the singular force of that relationship no longer have the same meaning. The intrinsic factor of motivic structure began to play a larger role.

At the start of this century it would seem that composers were beginning to realize that the rather rigid molds of the eighteenth century had been developed to fit a certain type of content, and that they could not successfully contain any and all styles of music. David Cherniavsky said in an article for the Musical Times in 1952 that one cannot construct a skeleton first and then merely hang flesh of the living organism on the anatomical structure, but that "Skeletons must grow up within the organism to which it belongs."[1] This is

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[1]David Cherniavsky, "The Essence of Form," Musical Times, XCIII (March and April, 1953), 110-12, 160-62.

the problem with which the composer must struggle.

Those twentieth century composers who still adhere to traditional tonality have fewer new problems to solve in the matter of unity. Their concern is primarily for expression of fresh material within older limitations. At the opposite extreme the atonalists have devised entirely new methods of composition, organized on the principles of serialization. The solution becomes less definite in the music of those composers who are working in new directions but are still adhering to certain principles of tonality. These composers do not choose to belong to a specific "school" of composition, but rather prefer to express their musical thoughts in more individualistic manners. The music of these composers deserves close scrutiny.

Béla Bartók (1881-1945) has been chosen as a representative of this group. Since he was almost totally silent about his own compositional techniques, the only clues to his compositional principles are to be found in a study of his music. Even limiting the study to Bartók can result in an unwieldy document for he was a prolific composer. The problem, then, is to select works that are representative of his compositional techniques.

The six String Quartets of Bartók extend over almost all his entire creative career, the first having been written in 1908 and the sixth in 1939. As such they represent a key

to his musical thinking. Through a study of the quartets one can see changes in style, in idiom, and in his approach to the problem of unity.[2] In addition Mátyás Seiber believes that the compactness of the string quartet medium inspired Bartók to put his essential expression into it. "It is in his Chamber music [especially the string quartets] that he works with the greatest concentration, economy and clarity of detail, that he utters his most profound thoughts."[3]

Many who write about Bartók's music, and especially about the string quartets, make a brief point concerning the motivic unity pervading all his work. This unity is especially evident in the Sixth String Quartet in which the same theme introduces each movement except the last, where an expansion of the theme becomes the movement itself. Cursory study reveals only this most obvious usage of thematic unity. More careful investigation, however, discloses tighter and more subtle relationships.

Rudolph Reti, in his book, The Thematic Process in Music, believes that the creative process is centered on the subject of motivic structure, not only in the most recent

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[2]Everett Helm, "The Music of Béla Bartók," European Music in the Twentieth Century, ed. Howard Hartog (New York: Frederick A. Praeger, 1957), p. 15.

[3]Mátyás Seiber, "Béla Bartók's Chamber Music," Béla Bartók, A Memorial Review (New York: Boosey and Hawkes, Inc., 1950), p. 24.

composers, but in music from the late seventeenth century through the current era. Reti states that he does not wish to confirm nor to contradict any prevailing system of analysis, but believes that this is an area that has been too long neglected by the theorist.[4] He builds an impressive case, citing numerous examples from Bach, Haydn, Mozart, Beethoven, Brahms, and other composers from the eighteenth and nineteenth centuries. If motivic unity plays an important role in traditionally tonal music, then it should play an even more important part in music with less rigid tonal controls.

Based on the assumptions that motivic structure must necessarily play a larger unifying role in the music of Bartók, and that the string quartets give an accurate picture of his creative process, this study will investigate the motivic structure as a unifying factor in the string quartets of Bartok.

Biography

In order to understand better the composer Bartók, some of the conditions of his life should be briefly examined, particularly the circumstances surrounding the composition of the string quartets. A complete biography will not be attempted here, for full treatments of his life are readily

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[4]Rudolph Reti, The Thematic Process in Music (New York: Macmillan Co., 1951), pp. 3-4.

available, especially in the biography written by Halsey Stevens.[5]

As a man he was often described as having been quiet and mild of manner, almost shy. Agatha Fassett quoted his second wife, Ditta, as having said that she believed that Bartók's extremely poor health as a child affected him deeply, and especially the several years of struggle with a severe skin eruption. He spent much of his childhood alone or with his mother, because he was either too embarrassed to be seen by other children or too ill to associate with them.[6]

As an adult he lacked the aggressiveness to push his work forward. In March of 1921 the Vienna Musikblätter des Anbruch published a special issue marking the fortieth birthday of Bartók. The Berlin critic, Oscar Bie, participated in this issue by writing an open letter to Bartók, chastising him for not putting his new works forward through associations with people. But it was simply not in his personality to do so.[7]

Since Bartók studied composition with Hans Koessler his early works were heavily influenced by Germanic styles,

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[5]Halsey Stevens, The Life and Music of Béla Bartók (New York: Oxford University Press, 1953).

[6]Agatha Fassett, Béla Bartók's Last Years: The Naked Face of Genius (London: Victor Gallancz, Ltd., 1958), p. 134.

[7]Stevens, pp. 59-60.

especially Brahms. He made an attempt to arrive at a style for himself by studying Liszt and Wagner, and although he admitted to discovering interesting things in these scores, he was not able to find his path in that direction. During his student years at the Academy of Music in Budapest, a force began building, however, that was to have the most profound influence on his music--nationalism. His feelings on the subject which led him to numerous folksong studies were strong as early as 1903 when he wrote in a letter to his mother: "As regards myself my whole life, in every field, always and in every way, is at the service of one supreme purpose, the good of the Hungarian nation and fatherland."[8] He was already anti-German, for in the same letter he severely upbraided his mother and sister for speaking German at home, when they did not have to do so.

The folksong research he began in those years with Zoltán Kodály is well-known. He received world-wide recognition for these efforts long before his own compositions had wide appeal. It is natural that this intensive research should affect his style. In a later article he outlined three ways in which peasant music could influence modern music. First, a peasant melody could be taken over unchanged

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[8]Serge Moreux, Béla Bartók, trans. G. S. Fraser and Erik de Mauny (London: Harvill Press, 1953), pp. 38-41.

or slightly varied and an accompaniment written for it (this, according to Bartók, is similar to Bach's treatment of chorales); second, a composer could invent his own imitation of a peasant melody; third, the idiom of peasant music could be absorbed so thoroughly by a composer that neither peasant melodies nor imitations of peasant melodies could be found in his music, but it is pervaded by the atmosphere of peasant music. "He masters it as completely as a poet masters his mother tongue."[9]

It was also during this time that problems of religion and philosophy were occupying his mind. In 1905 he wrote a letter expressing his observations about the Bible and religion. He declared that God had not created man, but rather that man had created God, that the soul was not immortal but that the body was, and that the priest and actor were alike in that they both preached fables. These feelings were expressed again in 1907 in another letter. At the same time he found himself predestined to a lonely existence. "My mother . . . encouraged me by saying I should have a brilliant future--Yes, but suppose that it comes too late?"[10]

Thus by the time of the writing of the First String

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[9]Béla Bartók, "The Influence of Peasant Music on Modern Music," Béla Bartók, A Memorial Review (New York: Boosey & Hawkes, Inc., 1950), pp. 72-74.

[10]Stevens, p. 32.

Quartet Bartók had assimilated and largely repudiated Germanic musical techniques, had struggled with the idea of God and had begun his folksong study. Hence, musical and personal influences were profound.

Bartók accepted a position on the faculty at the Academy of Music in Budapest in 1907. The next few years were occupied with that position and with new compositions for piano. In addition the folksong research was intensified and Bartók was making a conscious effort to incorporate the things he had learned from it into his own music. According to his autobiographical note, his works were received in Budapest with animosity. He felt that a large contributing factor to this rejection on the part of the public was the lack of understanding and virtuosity of the performers.[11]

In 1911 there were heated controversies in the Budapest Musical world involving Bartók, Kodály, and others. In an effort to further national music they formed the New Hungarian Musical Union, having as its aim the establishment of an orchestra for the purpose of performing both old and new music. The venture died because of lack of support. This was a great personal disappointment for Bartók and he retired from public life and returned to folklore with renewed

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[11] Béla Bartók, "The Life of Béla Bartók," Béla Bartók, A Memorial Review (New York: Boosey & Hawkes, Inc., 1950), p. 9.

enthusiasm. The first world war restricted his travel and put a stop to his research, so he devoted some time to the classification of the material previously gathered. He also had time to continue his own composition. The Second String Quartet was completed in 1917.

There is a stylistic gap between the First and Second Quartet. The folksong influence is stronger in the latter work, for he had scarcely begun the work of research during the writing of the First Quartet. The intervening years also brought a world war, a sobering influence at best. The Second Quartet is less romantic and simultaneously less impressionistic than the First. It is probably the most-performed of all the quartets today. More than its predecessor it contains the seeds for practically all his later practices; it could have been written at any succeeding point in his career.[12]

The year 1917 marked a change in the attitude of the Budapest public to Bartók's music. Two of his stage works, The Wooden Prince and Prince Bluebeard's Castle, received good performances. Then 1918 saw a political and economic breakdown, and the next year and a half were not conducive to serious work by the sensitive Bartok.[13] The non-productive

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[12]Helm, p. 17.

[13]Béla Bartók, "The Life of Béla Bartók," Béla Bartók, A Memorial Review (New York: Boosey & Hawkes, Inc., 1950), p. 9.

interlude was fortunately short, however, and the political climate was gradually improving. He began a series of European concert tours in the 1920's appearing as a pianist and composer. These travels enabled him to see other cultural centers and to meet composers such as Ravel and Stavinsky. Not only were these tours personally broadening, but they were successful. For the first time Bartók found himself generally well-received.

During these years several major compositions appeared. Musically they seemed to be moving toward more complex chords and a contrapuntal texture. Kodály said that Bartók began to emphasize melody again after its long subservience to harmony. The more dissonant trend of this period, according to Kodály, is largely due to the melodic origin of the linear counterpoint of Bartók.[14]

In 1927 Bartók was in the United States on a concert tour and at that time entered his Third String Quartet in a competition sponsored by the Musical Fund Society of Philadelphia. The concert tour was generally a success. He had been heralded before his arrival as a revolutionary and a heretic, and the public seemed surprised to find such a mild-mannered man.[15] A year later the success was reinforced when

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[14]Zoltán Kodály, "Béla Bartók," Bartók, Sa Vie et Son Oeuvre, ed. Bence Szabolsci (Budapest: Corvina Press, 1956), pp. 49-50.

[15]Stevens, p. 71.

he learned that the Third Quartet had won the competition.

In this period two widely divergent influences were playing a strong role in Bartók's development. As a piano teacher he had edited several editions of pre-Bach piano music. In an interview he stated that his close work with this period as well as the influence of peasant music was responsible for freeing him from the techniques of Debussy. These forces, according to Bartók, led him to incorporate more melodic and contrapuntal interest in his music.[16] Although it is true that the Third Quartet is primarily contrapuntal, this probably could not totally explain his increasingly dissonant style. It is more likely that the school of Schönberg had begun to play a part in Bartók's music. In 1928, only one year after the completion of the Third Quartet, he said, "It is true that during a certain time I have approached a certain category of 'dodecaphonic music.'"[17] Because of the dissonance of this period, this statement probably referred to a few works which immediately preceded this statement.

Certainly the Third Quartet contained some harsher sounds than he had used before. In spite of the fact that

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[16] Ibid.

[17] Bence Szabolsci, "La Vie de Béla Bartók," Bartók, Sa Vie et Son Oeuvre, ed. Bence Szabolsci (Budapest: Corvina Press, 1956), p. 29.

many of these dissonances came about as a result of contrapuntal movement between the parts, some critics had trouble accepting the sounds. Ernest Newman wrote that the score looks good, that "particles form themselves into patterns of obedience to vibrational energy, but then when they are removed from the abstract and put into actual sound the ear must pronounce the effects repulsively ugly."[18] This is only one of the many similar criticisms that Bartók received during this period.

Each of the Quartets has its own particular solution to its unity. The inner construction or motivic relationships will be discussed at length later, but it might be appropriate to comment that the outer mold of the Third Quartet departed somewhat from the normal. Instead of being written in separate movements, it is limited to one movement with separate parts, cast in a large A B A Coda form. Bartók was experimenting with the form of this quartet. The Fourth Quartet is part of this same experimentation but in a different direction.

There is only one year between the Third and Fourth Quartets, the Fourth having been written in 1928. In compositional techniques they could almost be considered

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[18]Ernest Newman, More Essays from the World of Music (New York: Coward-McCann, Inc., 1958), pp. 39-40.

extensions of the same musical thought. If there is a difference in harmonic style, the Fourth would probably be considered more dissonant. The greatest difference lies in the area of form. The so-called "arch" form of the Fourth Quartet is well known. It hardly requires comment here except to note that its immediate predecessor was cast into a single movement, and that this one is in five intricately related movements. This is not really so much of a change, for the Fourth Quartet is regarded by some to be a large sonata-allegro form in its entirety.[19]

Allen Forte's article describing the Fourth String Quartet as a "serial" composition often inspires violent denials from Bartók scholars. Considering, however, Bartók's own statement concerning dodecaphonic influences in his music, Forte's article is not an unreasonable thesis. Forte does make the point that his use of the word "serial" does not necessarily imply atonality, nor does he imply that Bartók's technique is imitative of the Schonberg techniques. Bartók's techniques are entirely individual and "the third movement of the Fourth Quartet stands as an extraordinary demonstration of his ability to employ diverse and seemingly contradictory procedures without sacrificing either the

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[19] Moreux, p. 158.

integrity or the unique characteristics of his music."[20]

The years between the Fourth and Fifth Quartets show a gradual increase of tangible signs of acceptance of Bartók's music. He was widely recognized as an ethno-musicologist, and was made a Chevalier of the Legion of Honor in 1930 for his work in this field. Compositions appearing around this period include several folksong settings, Cantata Profana, and the Second Piano Concerto. Bartók's association with the International Society for Contemporary Music proved advantageous, for they were responsible for many of the first performances of his music.

In 1934 the Elizabeth Sprague Coolidge Foundation in Washington commissioned the Fifth String Quartet. It is also cast in the "arch" form like the Fourth, with the difference that the middle movement of the Fourth is a slow movement surrounded by two scherzos while the keystone of the Fifth is a Bulgarian scherzo enclosed by two slow movements. Stylistically it perhaps represents a retreat from the extreme position that he had reached with the Third and Fourth Quartets. The style is still predominantly contrapuntal, if anything even more so than the Fourth, but the resulting sounds are not as harsh as the earlier work. One biographer writes

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[20]Allen Forte, "Bartók's 'Serial' Composition," Problems of Modern Music, ed. Paul Henry Lang, Princeton Seminar in Advanced Musical Studies (New York: W. W. Norton, Inc., 1962), p. 95.

that Bartók's development can be summarized as a fight for tonality.[21] Bartók was never seriously in danger of losing such a battle, but the Fifth Quartet shows him gaining a more secure mastery of it.

From 1934 to 1939 Bartók produced what many believe to be his greatest works. The year 1936 saw the Music for Strings, Percussion and Celesta, and 1937 the Sonatas for Two Pianos and Percussion. In these years the synthesis of his folksong research and his classical training with his pedagogical knowledge in piano resulted in the Mikrokosmos. In 1938 the Concerto for Violin and Orchestra appeared and in 1939 the Divertimento for Strings and Orchestra was written. Also in 1939 Bartók went to the United States for a concert tour with Joseph Szigeti and Benny Goodman, performing the work known as Contrasts.

The rise of Nazi Germany during these years was a source of great disturbance to Bartók. Hungary's regent, Admiral Horthy, was a Nazi sympathizer and Bartók became increasingly disturbed by the state of affairs. Writing in La Review Musicale in tribute to Ravel, Bartók said that Hungary had long suffered from its proximity to Germany. In 1937 and 1938 the Reich Music Chamber investigated his and

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[21] Emil Haraszti, Béla Bartók, His Life and Works, trans. Emil Haraszti and Dorothy Swainson (Paris: The Lyrebird Press, 1938), p. 91.

Kodály's "Aryanism." Although he refused to complete their questionnaires, Bartók wrote his mother in a grimly humorous tone that according to his dictionary he was not actually Aryan, but rather Finno-Ugric, and perhaps racially Northern Turk. The 1938 questionnaire had ended with the question, "When and where were you wounded?" Bartók said to his mother, "March 11, 12, 13, 1938, in Vienna!"[22]

In another article entitled "Racial Purity in Music," Bartók spoke of the concern in those days about racial purity, and proposed to go to the music of the peasants for help in the question. He concluded from his extensive research that racial purity in music led to dullness, and that "racial impurity" was most beneficial.[23] These outspoken attacks on the Germans could not have helped his situation. Bartók finally strictly forbade that his music be played on any radio station that could be heard in Germany or Italy. In 1937 he was ill with bronchitis and would have been helped by Italy's warm climate, but he firmly refused to set foot in the country.

These years were full of illness and frustration, but were, nevertheless, productive ones. The political situation

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[22]Stevens, pp. 81-85. (March 11, 12, and 13 are the dates of the Austrian Anschluss.)

[23]Béla Bartók, "Rassenreinheit in der Musik," Béla Bartók, Eigene Schriften und Errinerungen der Freunden, ed. Willi Reich (Stuttgart: Benno Schawbe und Co. Verlag, 1958), pp. 41-45.

was climaxed by the Anschluss with Austria in March of 1938. Bartók knew that he could not remain in the country much longer, for he realized that he would not be able to work in such circumstances. He considered emigration but was loathe to leave as long as his mother was alive, and also felt that he would be equally unable to work in a foreign country. Only one ray of light was discernible in this crisis: Ralph Hawkes of Boosey and Hawkes in London got in touch with Bartók and Kodály shortly after the Anschluss and a fortunate association was begun.

The Sixth String Quartet seems incongruous against this background of turmoil and illness. One might have expected Bartók's music of this period to be harsh and dissonant. There is a definite air of melancholy and despair about the Sixth String Quartet, but it is couched in a harmonic and formal idiom more easily assimilated than most of the earlier quartets. It carries the concept of cyclical form to a more obvious conclusion than any of the other five. Each movement is introduced with a folk-like rubato melody, the texture thickening with each statement, until finally the melody is expanded and furnishes the material for the entire last movement. The expression is lyrical, as in the First Quartet. The technique is contrapuntal, as in the middle quartets. The Sixth, then, is a logical successor to his early works, rather than a return, as is popular to believe,

to the mode of expression of the First Quartet.

It is tempting to make a case for an arch form for all six of Bartók's String Quartets, but to do so is to ignore the continuous development of his techniques and style. Even if the arch is present in some considerations, it must be quite accidental, for there is no evidence that Bartók intended it to be his last quartet. In fact, Ralph Hawkes says that at his last meeting with Bartók in December of 1944 he commissioned a Seventh String Quartet.[24] It would probably have been written if there had been time.

The story of Bartók's last years is partly legendary now. He came to the United States in 1940 and settled in New York. The years were not happy ones because of homesickness and financial difficulty, and the relentless illness that finally overcame him--leukemia. He was not penniless at his death as is often said, but the war situation made it impossible to get his royalties out of Europe, and his music was still not widely accepted in this country. He did have an income from several sources, although it was not commensurate with his creative and scholastic gifts. He held a research position for some time at Columbia University transcribing the Parry collection of Yugoslavian folk music, and he and

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[24] Ralph Hawkes, "Béla Bartók, A Recollection by His Publisher," Béla Bartók, A Memorial Review (New York: Boosey & Hawkes, Inc., 1950), p. 17.

his wife, Ditta, played several concerts before he became too ill to continue. In addition, although Bartók was never a member, ASCAP took upon itself many of his medical expenses. Some commissions, given him partly from charity, increased both his financial status and the field of music; the Concerto for Orchestra, commissioned by Serge Koussevitzky, is considered by many to be his masterpiece. In 1945 he was frantically trying to finish a Third Piano Concerto and a Viola Concerto when he was taken to the hospital for the last time. He died in the West Side Hospital in New York on September 26, 1945.

The years since Bartók's death have produced many more performances and recordings of his music than he could have imagined possible. This is sadly often true with composers of stature. Assessing the reason would involve conjecture and would certainly not change the fact. In any case, the volume of Bartók's music now being performed is significant.

Bartók's music is a body of literature which should be investigated in light of its importance. His solution to the problem of contemporary form is at least significant enough to have influenced many who came after him. The six String Quartets, as the representative of Bartók's entire output, hold importance to the twentieth century musician. Just what is it that holds these works together? This study will propose that the motive is the most important structural factor.

Method of Analysis

For the purpose of this study, a motive will be considered to contain one musical idea. Each motive may, however, contain several separate intervals or rhythmic patterns. A theme may contain more than one motive, although occasionally the several motives within a theme may be derived from a common source. The plan of the analysis will be to isolate rhythmic and melodic motives from each movement and then discuss their growth and combinations.

Vertical structures are found to be made of the same intervals as the horizontal line too frequently to be ignored. Harmonic analysis is often complicated by the predominance of linear counterpoint, but significant analyses can be made at important accentual points and in primarily homophonic passages. These sonorities will then be correlated to the horizontal structure.

The movements of tonal centers represent a more subtle manifestation of motivic unity, but can be found to be almost entirely consistent with melodic and harmonic intervals. These relationships will be outlined. It is a central point to this study that the traditional forms can no longer be literally applied to much contemporary music. There are, however, no satisfactory new terms. Therefore, for the purpose of coherent discussions, the over-all form of each movement will be compared to forms for which there is an existing terminology.

CHAPTER II

STRING QUARTET NUMBER 1, OPUS 7

General Traits

The First Quartet is often said to be a logical successor to the late quartets of Beethoven. This is apparently accurate, at least in the matter of form and development of material. Everett Helm compares its opening fugato section to the Beethoven quartet, opus 131.[1] The comparison ends, however, with the harmonic style. Although most of the quartet is firmly rooted in tonality and most of the harmonies are based on the tertian principle, the use of harmony and tonality varies greatly with the traditional usages. The opening fugal theme is not quite atonal, but the writing is so chromatic and the tonality fluctuates so rapidly that there is little sense of key.

This quartet is in three movements which are interrelated by the use of the same or related thematic material in each movement. According to Mátyás Seiber, here is the first appearance of a typically Bartókian trait.[2] Stevens compares this technique to Franck's method of cyclical

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[1] Helm, p. 15.

[2] Seiber, p. 25.

construction, saying that Bartók's result is a dynamic one rather than the static effect of Franck. Bartók's themes are allowed to grow throughout his composition rather than being simply stated as a fait accompli.

> His motives, frequently of two or three notes only, are in a continuous state of regeneration. They grow organically; they proliferate; the evolutionary process is kinetic. No doubt many motivic manipulations which seem carefully calculated were brought about intuitively; the line between reason and intuition is never sharply defined, but the compact thematic logic cannot be denied.[3]

Helm agrees with Stevens that the line between reason and intuition cannot be determined, but he goes further to say that it is not important.[4] It is, however, important to recognize that a guiding principle to Bartók's form is the constant development and variation of motivic material to produce new material.

First Movement

The over-all form of the first movement is ternary and the texture primarily contrapuntal. The tempo is Lento. Figure 1 shows the source motives for the first movement, the outline of the form, and the tonal shifts. The two source motives, both extracted from the first theme, serve as the basis for the movement. The main tonal shifts are within the realm of traditional tonality although the rapid fluctuations within each section indicate contemporary techniques.

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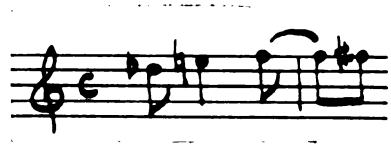
[3]Stevens, p. 173.

[4]Helm, p. 16.

Source Motives

Motive "a"

Motive "b"



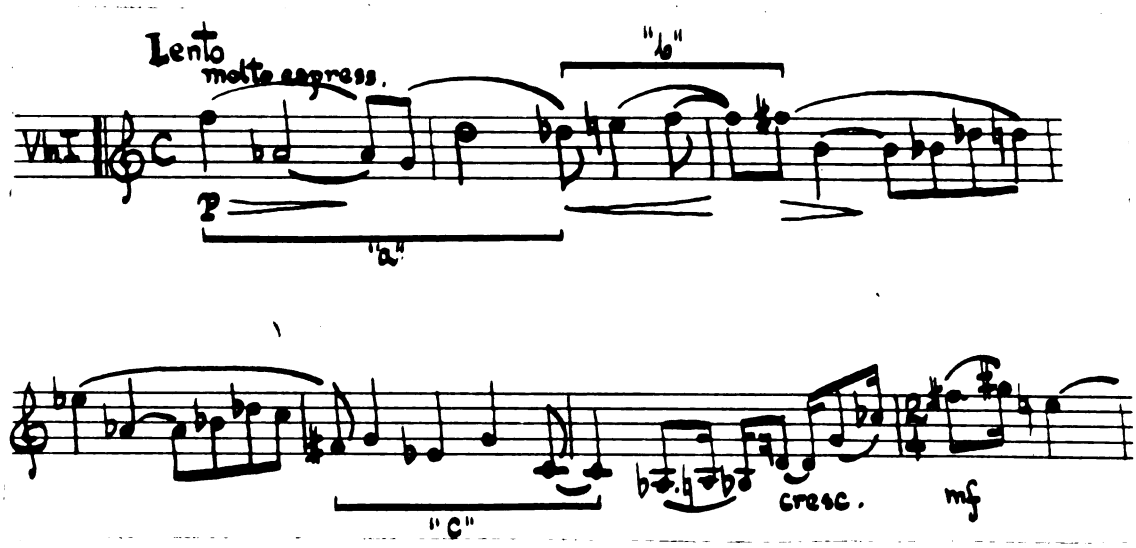
A B A Form

Section	Motives Used	Measures	Main tonalities
A	"a"	1 - 10	F (minor)
	"b"	11 - 24	Indeterminate
	"a" (and "b")	25 - 35	E^b
B	"a" and "b" variants	36 - 52	Begins on C
A	largely "a"	53 - 71	F

Fig. 1.--String Quartet No. 1, op. 7, I Movement

The opening theme is presented in a fugato treatment. It is quoted here in full; basic motives for the entire quartet may be traced to it. (Motive "c," labeled in the fifth measure of the example below will become important in the second movement.)

Example 1,[5] mm. 1-7



Melodic and Rhythmic Motives

This main theme or fugato subject, quoted above, contains the prominent intervals of the descending major sixth, the descending semitone, and the descending and ascending perfect fifth. Motive "a" contains the fifth, semitone

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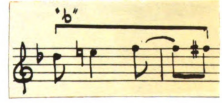
[5]Reprinted by permission of Boosey & Hawkes, Inc., Sole Agents for "Kultura" (Hungarian Trading Company in the U. S. A.).

and the sixth. The over-all contour is a leisurely descent with a more rapid ascent in the last measure of the subject. The entire compass of the subject as quoted is an octave plus a sixth. The fugal entries outline the traditional fifth relationship, F, C, C, and F.

The most striking rhythm of this theme is the syncopation, taking the forms of , and . The ties across the bar-lines should also be noted, for they tend to destroy the accentual value of the bar-line, giving freer rein to a type of agogic accent of pitch and duration.

The first motive to be developed is the conjunct motion expressed in the rhythm of the sixteenth-note syncopation. This motive is labeled "b," and can be found in the second measure of the fugato subject. It is immediately mirrored in the 'cello and second violin.

Example 2, m. 11



This syncopated motive first undergoes intervallic expansion until it encompasses ninths and seventhes.

Example 3, mm. 13-16

The rhythmic growth continues until it becomes sixteenth notes with ties across the beats and half-beats.

Example 4, mm. 21-22

The syncopation leads into the falling sixth, the beginning of motive "a." From there to the end of the section (measure 32) there are no significant motivic variations. A pedal C and G in the 'cello leads into the second section of the movement. The contrasting theme appears above the double pedal. The beginning of this theme is derived from motive "a" without the first note. The motive is

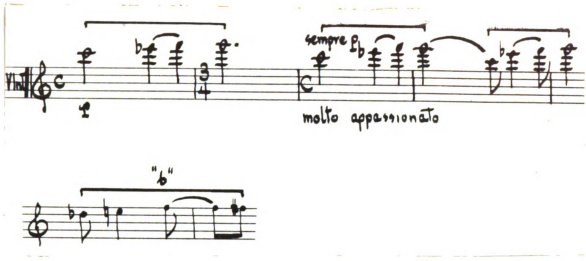
expanded into a theme by means of a sequential treatment of the descending semitone, three times expanded to a tone.

Example 5, mm. 33-35

The falling semitone and the rising perfect fifth of the first and second measures of motive "a" have become here a falling semitone and a rising diminished fifth. Its rhythmic properties are the syncopation of both motives "a" and "b" and its subsequent development into sixteenth notes.

The countermelody in the first violin at measure 36 also has its roots in motive "b." The relationship of this countermelody to motive "b" becomes more apparent with the introduction of the rhythmic syncopation in the fourth measure of Example 6.

Example 6, mm. 36-41



This motivic variation is itself developed by being placed in a modified inversion, which furnishes a slow-moving countermelody to the three upper parts.

Example 7, mm. 45-48

This section comes to an abrupt halt at a fermata over a bar-line. A two-measure transition leads to a return of the first fugal section, beginning in the first violin an octave higher than before. This time the pattern of the fugal entries is F, C, F, and C. From here to the close of the movement there is a total of nineteen measures, as compared with thirty-two measures which were allotted to the development of the same material in its first appearance. This reveals a typical twentieth-century formal device, the abbreviation of repetitive materials.

Harmonic Materials

The harmony of this movement is primarily tertian. It is possible to find dissonances of major and minor seconds but they are transient and come about as a result of moving melodic lines. Furthermore such dissonances rarely appear in this movement without traditional preparations and resolutions. It is apparent that Bartók was not regarding the second as an important factor in this quartet.

Parallel movement in thirds can be found in numerous places in this movement. For example, motive "b" in its sixteenth note expanded form is duplicated a major third below by the second violin, although it is occasionally notated as a diminished fourth. The main melodic interval at this point is the third (cf. Ex. 4).

Example 8, mm. 21-22

The contrasting theme constructed from an inversion of "a" appears in parallel sixths at measure 38.

Example 9, m. 38

These are only two examples of numerous occurrences of movement in parallel thirds and sixths.

There are two passages in which complete triads and seventh chords are present in an obvious manner. The first appears in the three upper parts above the 'cello's modified inversion of the countermelody material of the middle section. These measures reveal similar motion in the first and

second violin and viola, forming a succession of triads in the root position, first and second inversion. The device begins in measure 44, but only measure 45 will be quoted here for the purpose of demonstration.

Example 10, m. 45

There is one passage of two measures which occurs in the last section of the movement that is almost entirely chordal in origin. Its function seems to be the achievement of a climax by reducing the rhythmic and contrapuntal activity. These chords may be analyzed mainly as major seventh chords. There are two augmented chords and one diminished-minor seventh chord.

Example 11, mm. 65-66

This passage is striking because it is the only one of this character. It is successful in reducing the motion, and the movement comes to a close within the next five measures, reducing the texture until the last sonority is A flat and C flat in the second and first violins, respectively. It confirms the tertian harmonic structure, reflecting the melodic sixth of motive "a."

Tonal Structure

This entire quartet is said to be in the key of A minor, and the first movement is often analyzed as having a

center of A. Mark Walker, in his analysis of the quartets, concurs with this, saying that even though the tonality fluctuates, it centers around A.[6] Halsey Stevens says that the opening is indeterminate because of the chromatic character of the fugal section, but that the close on A flat and C flat might be interpreted as an enharmonic spelling of G sharp and B, or the upper third of the E major triad, the dominant of A.[7] The material does not justify this analysis. The opening interval of F to A flat, the fugal entries on F and C, and the seemingly dominant pedal on C all contribute to a prevailing F minor tonality for the first section. The main shifts for the remainder of the movement were outlined in Figure 1. The first indication of an A tonality comes with the second movement. A third relationship is then created between the first movement and the other two movements. This is a plan often followed by Bartók, and one which is especially appropriate to this quartet because of the motivic emphasis on the third.

Second Movement

Certain elements of sonata-allegro form may be found

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[6]Mark Fesler Walker, "Thematic, Formal, and Tonal Structure of the Bartók String Quartets" (unpublished Ph.D. dissertation, Dept. of Music, University of Indiana, 1955), p. 73.

[7]Stevens, p. 172.

in the structure of the second movement. There are presentations of themes and developments of those themes, but whether or not there is a recapitulation and, if so, where it begins, are disputed points. The process of development is continuous throughout the movement, and it is difficult to isolate one part or another to affix the traditional labels of exposition, development, and recapitulation. Certainly the assistance of tonality is no longer available to determine the sections. The important unifying feature becomes the interrelationship of the motive structure, and it seems incongruous to call the movement by a name that has its basic principles in dominant to tonic relationships. In the absence of new terms, however, and in the interest of more direct communication, this movement has been compared to a sonata-allegro form with a reversed recapitulation.[8]

Figure 2 shows the source motives for this movement in the order in which they are utilized, the outline of the form and the principal tonal shifts. Most of the tonal shifts are in thirds, with the movement ending a step higher than it began. The procedure of reversing the order of themes as well as their proportions will be seen again in later quartets.

Melodic and Rhythmic Motives

An introductory theme is stated in parallel thirds in

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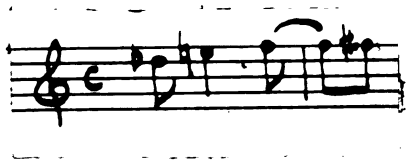
[8]Walker, p. 81.

Source Motives

Motive "b"



Motive "a'"

Motive "c"

Sonata-Allegro Form

Section	Motives Used	Measures	Main Tonalities
Introductory	"b" variant	1-17	A
1st theme	"a'" and "a" variant	18-72	A (18-53) F# (54-69) Eb (70-72)
2d theme	"c" variant	73-102	Eb
Closing section	Elements of "a," "a'," "b," "c"	103-139	D# (103-110) C (111-139)
Development	Largely "a"	140-212	Rapidly shifting, mostly C
2d theme	"c" variant	213-275	Predominantly C
Transition	"b" variant	276-304	Indeterminate
1st theme	"a" and "a" variant	305-315	G
Closing section	(as above)	316-346	F# (316-325) D# (326-339) G (340-346)
Coda	Elements of "b" and "a"	347-367	Ends on B

Fig. 2.--First Quartet, II Movement

the 'cello and viola. The relationships to the chromatics of motive "b" can be seen in the introductory measures of the following example.

Example 12, mm. 1-5

This theme is then taken up by the first and second violins, also in parallel thirds. After a brief dialogue with the other pair of instruments, the first violin states a motive encompassing a minor seventh. This motive is to become important in this and the last movement. It can be seen that it is from motive "a" with auxiliary notes. It is labeled "a'" in the example below.

This motive is immediately converted to eighth notes and serves as an ostinato accompaniment for the principal theme of the sonata-like structure. The new theme employs

Example 13, mm. 18-19

the fall of a half step and a perfect fourth. Both its intervals and its rhythm can be easily found in the introductory theme of this movement, but the relationship to motive "a" is more direct. These two motives occupy the remainder of this

Example 14, mm. 22-23

section. An apparent punctuation is achieved when the activity halts on two chords of F major. The next section begins on an arpeggiated A major triad in first inversion played in unison by the three lower voices. It is derived from a motive in the first theme of the first movement of the quartet, labeled "c."

Example 15, mm. 43-44

The introductory theme appears in a transition between the two themes, beginning in thirds between the viola and second violin, with a new ostinato below it in the 'cello and a new sustained countermelody above it derived from semitones of motives "a" and "a'."

Example 16, mm. 45-48

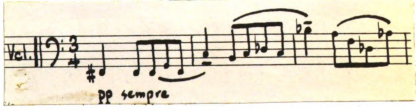
The pattern of repeated notes and minor seconds in the 'cello later becomes an ostinato. This pitch pattern can be found in the second and third notes of motive "a," and in the first and second notes of motive "a'."

Example 17

The introductory theme here serves to introduce the second theme of the exposition just as it had for the first theme. It can also be found just before the development section, in the reversed recapitulation and in the coda. It would seem that a theme of this much structural importance and frequency might have a more impressive-sounding label than "introductory." It is apt, however, because its function remains that of an introduction.

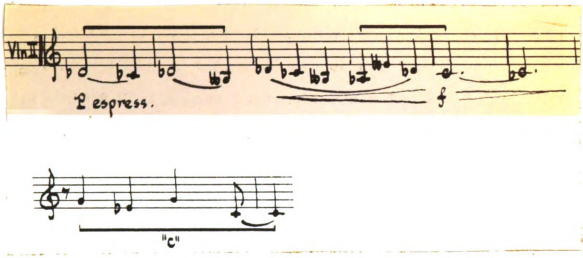
The 'cello ostinato mentioned above is passed to other parts and developed by melodic expansion.

Example 18, mm. 62-64



The ostinato then returns to its original form and accompaniment function with the appearance of the subordinate theme. The movement in semitones which had been prevalent in the other motives is again affirmed in its importance. This theme bears a significant relationship to part of the beginning motives of Movement I, especially to motive "c." The first two measures of the example below pivot from the same note as does "c" while the latter part of the example outlines a triad, as does "c."

Example 19, mm. 73-78

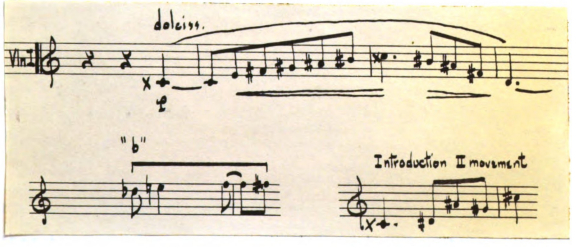


This section, marked Molto quieto, gradually accelerates to a transition-like passage with octave leaps and a falling sixth in the first violin. The following is a comparison between this and motive "a."

Example 20, mm. 94-95

The transition passage leads into a sustained A and C sharp in the viola and second violin, respectively, with a repeated note ostinato in the 'cello. The rhythm of the ostinato is not a recurring pattern, using quarter notes and pairs of eighths in various combinations. Above this a closing theme on the whole tone scale appears in the first violin. This is the first occurrence of successions of whole-tones. It is not derivative of previous material except by interval expansion from motive "b." The rhythm is more closely related to the introductory theme of this movement, itself derived from "b" (cf. Ex. 12).

Example 21, mm. 105-109



The whole-tone passage leads back to the semitone ostinato pattern and thence to the introductory theme, this

time used to set off a developmental section. This section begins in measure 140 with the falling-fourth motive of Example 14, but has now become a diminished fourth, accompanied with the ostinato of the falling sixth. Motives used in this section include the first theme, a derivative of "a" (cf. Ex. 14), and both ostinatos. There are no new significant motivic variations or points of interest until the second theme appears in measure 213.

It is at this point that another formal dilemma arises. Walker calls this the beginning of the reversed recapitulation,[9] but the passage is developmental in character. If, however, this is considered a part of the development, then there is no real recapitulation until measure 305, and then it is the first theme only. If we assume that the return of the second theme constitutes the start of the recapitulation, then mention must be made that the first theme is almost neglected in comparison. In the recapitulation, then, the order of themes and their respective proportions is reversed.

The whole-tone scale returns and serves as a transition to the coda, which begins at measure 347. The coda utilizes the introductory theme in thirds in the first and second violins in an augmented form. The movement ends with the same material with which it began.

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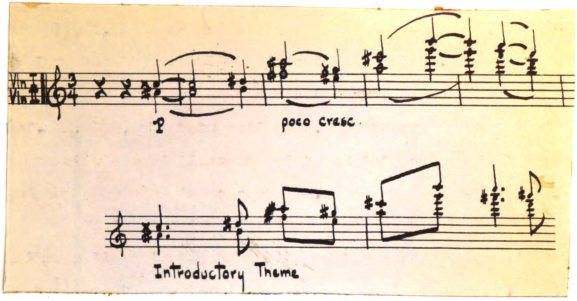
[9]Walker, p. 81.

Example 22, mm. 358-363



Harmonic Materials

As in the first movement, the harmony is primarily tertian. Unity is further demonstrated by pointing out the relationship between the triadic harmony and the arpeggiated melodies referred to above. Paired voices in thirds have been pointed out several times, and aside from that, there seem to be few examples in which the interest is harmonic rather than melodic.

There is one chordal passage of five measures just before the coda begins. The individual parts are based on elements of the second theme from the standpoints of both pitch and rhythm. The resultant harmony alternates between G minor, with an added C, and B major.

Example 23, mm. 342-343

This passage again illustrates Bartók's principle of third relationship.

Tonal Structure

The tonal shifts of this movement were outlined in Figure 2 as moving primarily in thirds. The interval of the third and its inversion are of central importance to this quartet both vertically and horizontally. The tonal shifts reinforce this importance.

Introduzione

Melodic and Rhythmic Motives

This short section begins with thematic material which is almost entirely new to this quartet. The falling sixth of motive "a" can be found in three places and the first measure outlines a B minor triad, showing a relationship to motive "c," but the new rhythmic nature gives it an independent character.

Example 24, mm. 1-4

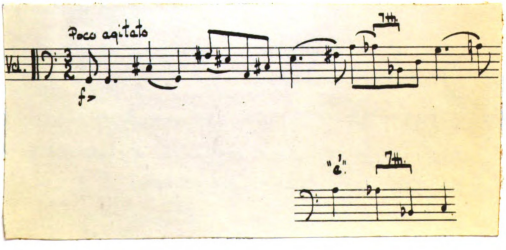
The second idea, which is stated in the 'cello, has its sources in motive "a'" and in the introductory theme to Movement II, which is derived from motive "b" (cf. Ex. 12).

Example 25, mm. 7-8

This contains many of the same intervals as the first idea of the Introduzione.

The second half of the theme is later expanded melodically until it becomes motive "a'."

Example 26, mm. 14-15



The Introduzione moves into the last movement without pause. The tempo marking is Allegro-Vivace, the final tempo which has been gradually accelerated since the first movement.

Third Movement

If this movement is to be designated sonata-allegro form, several liberties must again be taken, for the subordinate theme is contained in the first theme. The movement is basically monothematic as will be demonstrated, but certain elements of exposition, development, and recapitulation can be found, so it will again be assumed to be a derivative of sonata form.

Figure 3 shows the source motives, the outline of the form, and the principal tonalities of this movement. The tonality stays firmly on A with temporary changes to centers a third on either side of it.

Melodic and Rhythmic Motives

The first motive appearing against repeated notes is only a slight variation in pitch patterns from the first important motive of the second movement. The latter measures form a motive to become important as the subordinate theme. It is labeled "d" in the example below.

In addition to this motive there is a secondary motive in semitones, which then drops a third to a sustained note.

Source Motives

Motive "a'"

Motive "d"

Sonata-Allegro Form

Section	Motives Used	Measures	Main Tonalities
1st theme	"a'" (also "d")	1-65	Begins on A
2d theme	"d"	66-80	A
Transition	"a'" elements	81-93	Indeterminate
Closing theme	"d" variants	94-105	Closes on C
Transition	"d"	106-120	A
Development	"d" and "a'"	121-235	Begins on A, rapidly shifting
Transition	"d"	236-249	A
1st theme	"a'"	250-286	A
2d theme	"d"	287-301	Indeterminate
Transition	"a'" elements	302-318	Indeterminate
Closing theme	"d" variant	319-327	Indeterminate
Transition	"d"	328-341	F#
Coda	"a'" & "d"	342-378	Largely A

Fig. 3.--First Quartet, III Movement

Example 27, mm. 5-9

The derivation, demonstrated below, is from the first two notes of "a'."

Example 28, mm. 20-21

This motive is inverted, the final interval melodically expanded, and the main interval expanded until it is largely recognizable by its characteristic rhythm.

Example 29, mm. 46-47

The next theme, only used once here and once in the recapitulation, has structural importance as a forecast of the subordinate theme. The following example demonstrates the relationship to motive "d."

Example 30, mm. 37-39

In the ensuing passages the motives already quoted are developed and treated imitatively. The section is climaxed by a long C sharp minor scale up to the statement of the subordinate theme. Motive "d" is the generating force for this theme.

Example 31, mm. 66-70

At measure 81 there is a closing section, playing on the materials from motive "a'" and its truncated semitone version. This leads to a closing theme of the exposition, also not entirely new. It is reminiscent of several motives, particularly the fourth measure of Movement I, but not directly derived from any of the previous motives.

Example 32, mm. 94-96

This passage is brief, and ends on a C major chord as a cadence.

The next section returns to the original tempo and is delineated by the sudden relaxation of tempo, beginning in A major and treating the second theme first. The syncopation pattern undergoes intervallic expansion until it is entirely fourths before the repeated notes of the opening of the movement announce themselves.

After a fermata the first theme is taken up again, Meno Vivo. Bartók plays with this theme for a while longer in conjunction with the repeated notes before launching into a fugue, subject based on motive "a'." The subject as used in the fugue has a different ending, however, adding triplets that are probably inspired by folk music.[10]

Example 33, mm. 162-164

[10]Colin Mason, "Bartók Through His Quartets," The Monthly Musical Record, LXXX, No. 913 (January, 1950), 4.

Toward the end of this fugal section at measure 189 the four parts become two by the device of pairing the upper parts against the lower ones. This serves to set off the stretto-like section based on motive "a'" which follows and closes the fugal section.

The next clearly discernible section of the development begins in measure 209 and plays on the triplet pattern and the semitone. Then the texture abruptly thins to one instrument on the repeated notes, which introduces an important passage, a link or transition into the recapitulation. The thematic material contains, in addition to the repeated note, the dotted rhythm of the last part of Example 30, plus the triplet pattern material.

When the recapitulation does arrive in measure 250, it is in free form and seems developmental in itself. It is, however, complete with second theme and closing section.

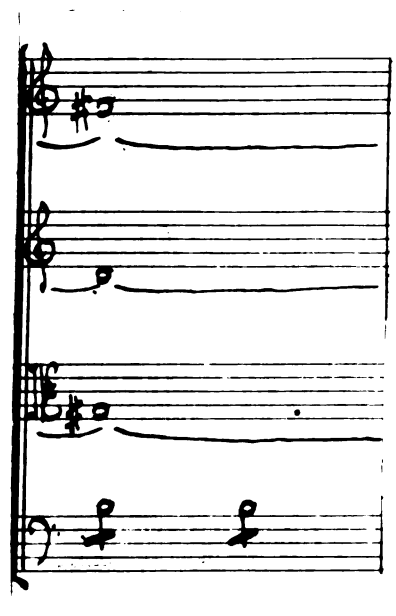
The coda is based on imitative passages on motive "a'" in both eighth notes and quarter notes. They give way immediately to the syncopated motive "d" with widened intervals. The movement ends with a quick succession of repeated notes, semitone from motive "a'," syncopated motive "d" and an upward sweep in fourths to a chord built on A, E, and B.

Harmonic Materials

Although the largest body of harmonic materials in

this movement is still tertian, there can be found an increasing number of sonorities in seconds and fourths. This is reflected in the thematic material of the melodic motives. The opening repeated notes in the first and second violins pile up E, D, and F, before the first theme enters. The first point of harmonic repose reveals a G sharp diminished-minor seventh chord in root position.

Example 34, m. 21



The first obvious example of harmonic use of the semitone comes at a point of repose after the semitone melodic motive of Example 28 has had considerable play. On the fourth beat of the example below the melodic semitone finds its way into the vertical sonority in the simultaneous use of F natural

and F flat.

Example 35, mm. 32-33

In this movement, as in the preceding movements, there are few purely harmonic moments, and nothing more of note, except the final chord, mentioned above, which is built on two perfect fifths, A, E, and B. The final chord could as well be analyzed as A minor with a B replacing C or simply as an open fifth, A - E with an added note.

Tonal Structure

As outlined in Figure 3, the tonality of this movement, firmly rooted on A, offers less variety than the previous movements. The tonal shifts are again in thirds and the ending reaffirms the predominant tonality of A.

Correlation of Motives of All Three Movements

Figure 4 shows a comparison of the main motives for this quartet and some of their variants. Unquestionably the most important source motive is "a," especially the interval of the falling sixth. Motive "b" is important because of its movement in successive semitones and its rhythmic syncopation. Motive "c" is also syncopated and outlines a triad; it generates material in the second movement and in the Introduzione. In the third movement an extension of motive "a'" becomes important as the source for the subordinate theme and is labeled "d." The most important unifying factor, both horizontally and vertically, is the content of motive "a."

Summary

The intervals of the sixth and minor second and the triad are of central importance in this quartet. All three are well established in the opening theme of the first movement, from which all the material of the entire quartet may be derived, with two exceptions--the whole-tone scale of the first movement and the folk-like triplet pattern of the third movement, which is primarily ornamental. The derivation can be forced even in those two instances, but it is less direct.

The relationship of the second and third movements

Fig. 4.--String Quartet Number 1, Op. 7.

with regard to melodic and rhythmic motives is quite close. Careful examination has shown that the opening of the first movement contains the source material for the introductory theme of the second movement, from which the main motive for the second and third movements is extracted.

The harmonic materials of this quartet are mainly tertian, with a few exceptions in the last movement already noted. This is closely interrelated with the melodic motives, which are based on the fifth and triadic materials themselves. An exception was pointed out in the last movement wherein a semitone horizontal movement gave rise to a semitone vertical combination.

The tonal organization of the First Quartet centers around the third relationships, with an occasional traditional dominant appearing. The predominant tonality of the first movement is F, the second movement begins on A, finishes on B, the Introduzione begins in B and the last movement is on A. The relationship of the first to the last movements closely resembles the opening interval, an inverted third.

These interrelations of thematic, harmonic, and tonal materials are an important unifying factor. They may have been constructed consciously or may simply have come from a remarkable musical intuition--but that is unimportant.

CHAPTER III

STRING QUARTET NUMBER 2, OPUS 17

General Traits

Bartók's Second String Quartet is described by Gerald Abraham as "thoroughly characteristic" of Bartók's mature works.[1] Everett Helm concurs, saying that although some later works are more radical, the Second Quartet could have been written at any point in his career. According to Helm, "In idiom and formal construction it contains the germs for practically all his later practices."[2] According to Mátyás Seiber, the First Quartet was the work of a young genius, the Second, one of full maturity.[3]

At the time of the writing of the Second Quartet (1915-1917) Bartók had done more extensive research in the realm of folk music than had been completed at the writing of the First Quartet. Moreux states that this work represents a synthesis

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[1]Gerald Abraham, "The Bartók of the Quartets," Music and Letters, XXVI, No. 4 (Oct., 1945), 185-94.

[2]Helm, p. 17.

[3]Mátyás Seiber, "Béla Bartók's Chamber Music," Béla Bartók, A Memorial Review (New York: Boosey & Hawkes, Inc., 1950), p. 26.

of folk music carried to pure music.[1] This is especially true of the second movement, a scherzo pervaded by the vigor of peasantry.

A contrast is often made between the First and Second Quartet regarding their respective moods: the First is said to be romantic in nature, while the Second leaves romanticism behind. Colin Mason, in an article for The Monthly Musical Record, takes issue with this standpoint, stating that the Second Quartet is also romantic, but that it is expressed in an idiom of twentieth century romanticism rather than that of the nineteenth century.[2]

From the standpoint of harmonic practice the Second Quartet represents an advance over the earlier work. Instead of consisting of tertian harmonies almost exclusively, it also contains chords built in fourths, a procedure to which Bartók was led both by the character of the peasant music and by new trends in contemporary music of his time. This causes the Second Quartet to be, according to Stevens, more "rarefied" than the first, but nevertheless traditionally the one heard most frequently in concert.[3]

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[1]Moreux, p. 120.

[2]Mason, The Monthly Musical Record, LXXX, No. 913, 3-9.

[3]Stevens, p. 176.

Quartal harmony is not the only advance over the earlier quartet. The Second Quartet also contains simultaneous major and minor elements, dissonant parallelisms, bitonality, and polytonality. These are, no doubt, some of the elements to which Helm and Abraham were referring as being characteristic of all of Bartók's works.

First Movement

The first movement again presents the problem of affixing a traditional label on a form that has largely moved away from tradition. Helm says that the movement is in sonata-allegro form, even though the second and closing themes are derived from the first theme.[1] Stevens says that the movement should not be forced into a sonata-allegro form, for there are really no themes, only motives, and the development is continuous from the beginning to the end.[2] There are elements of both ternary and sonata forms in this movement, therefore it will be studied in three sections and a coda, as Walker has done.[3]

Figure 5 shows the source motives for the first movement, the outline of the form, and the tonal shifts. The melodic and harmonic materials of this movement are dependent on these source motives for their derivations. The tonal structure pivots from the center of A to F♯, C♯, and F, thirds on both sides of the principal tonality.

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[1] Helm, p. 17. [2] Stevens, p. 176. [3] Walker, p. 108.

Source Motives

Motive "a"

Motive "b"

A B A Coda Form

Section	Motives Used	Measures	Main Tonalities
A	"a"	1-31	A
	"b"	32-62	
	Transition "a" variants	63-69	F#
B	"a" variant	70-116	F# (70-89) C# (90-108) F# (109-116)
A	"a"	117-140	A and F
	"b"	141-143	Indeterminate
	"a"	144-148	
Coda	Largely "a" variants	149-180	A

Fig. 5.--Second Quartet, I Movement

Melodic and Rhythmic Motives

The first section opens with a repeated eighth-note accompaniment pattern in the second violin and viola over sustained notes in the 'cello. This figure serves as an important generator for rhythmic syncopation to be found later (cf. Ex. 43).

Example 36,[10] mm. 1-3

The figure begins on a semitone interval, expanding to a whole tone, finally becoming a series of parallel major thirds in measure 4.

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[10]Copyright 1920 by Universal Edition; renewed 1948. Copyright and renewal assigned to Boosey & Hawkes Inc. for the U.S.A.

The first violin announces the main motive, labeled "a" in the following example. The most prominent of this theme is the perfect fourth, but there are also major and minor thirds and seconds.

Example 37, mm. 2-7

The series of two rising fourths is soon expanded as the passage builds quickly to a high point. The fourths become sixths and then octaves. The octave structure would be unrecognizable as a derivation of motive "a" without having seen the intervening steps.

Example 38, mm. 8-14

The next motivic development of importance occurs when the rising fourths become a fifth plus a fourth, and the descending fourth following the rise is filled in with a triplet pattern. The triplet pattern has its origin in the last part of the theme containing motive "a" as stated in Example 37.

Example 39, m. 21

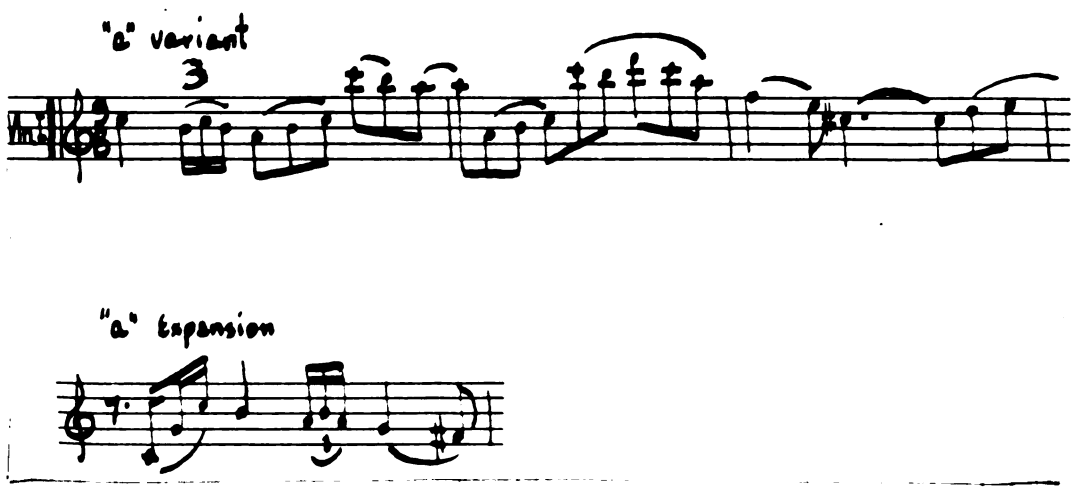
The second theme is based on a rising third. The general contour closely resembles motive "a," and the syncopated

rhythm had been forecast in the first measure (Ex. 36). Since the third becomes important later, this motive will be labeled "b." In the measures immediately following "b," the motive is expanded melodically to form the second theme.

Example 40, mm. 32-34

This theme mutates quickly to a variation of motive "a," and then to an eighth-note conjunct motion figure.

Example 41, mm. 38-40

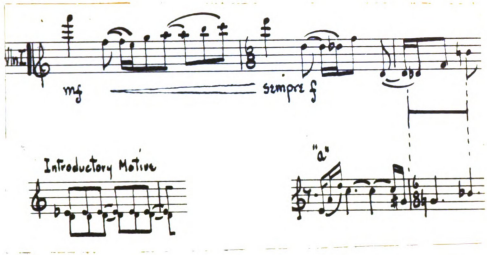


The variant just quoted is continued for approximately twelve measures in the upper parts, the rhythm remaining constant, the intervals expanding, especially to the perfect fourth. The two lower parts furnish the syncopated rhythm of motive "b," expressed in octaves. These developmental techniques come to a conclusion in the closing theme for this section. This theme is constructed from the last extension of "a" and the thirds of motive "b."

Example 42, mm. 63-66

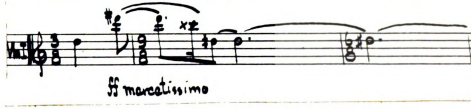
The second large section begins with a thinned texture, based on motive "a" treated imitatively. The first new rhythmic motive appears in measure 81 and is developed by sequential treatment and then augmented. The following example demonstrates that this rhythmic pattern is simply an ornamentation of the opening eighth notes in their syncopated version.

Example 43, mm. 81-84



The augmentation contains expanded and inverted intervals from motive "a."

Example 44, mm. 93-95

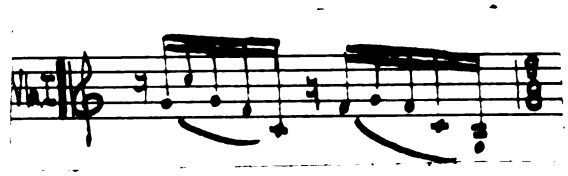


The syncopated rhythmic motive, first encountered in the introductory measures, is developed and introduces a link into the final section.

Example 45, mm. 103-104

This linking passage utilizes many of the thematic variations already encountered, but no new ones. The final measure of the first violin contains fourths, preparing for the return of the first theme.

Example 46, m. 116



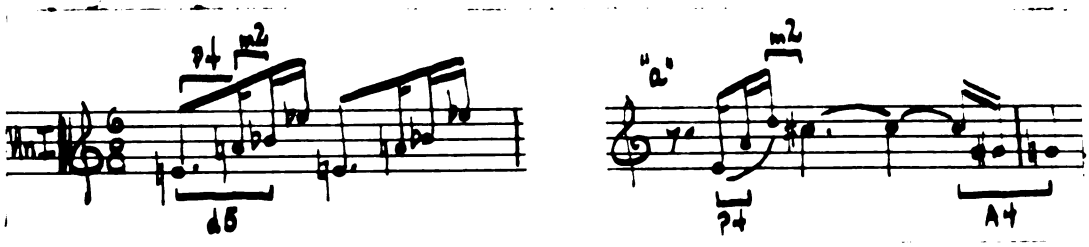
The third section begins with an almost literal reproduction of the first measures of the movement. The most significant change in the material lies in the new emphasis on the interval of the tritone. The 'cello now leaps an augmented fourth instead of an octave as before, and the parallel syncopated intervals in the two inner parts are now augmented fourths, instead of the seconds and thirds of the first

statement. The following example shows that the augmented fourth is present in motive "a." This is, however, the first significant vertical utilization of the interval.

Example 47, mm. 117-119

The rising fourth of motive "a" is again the primary interval to be developed. In this section, however, Bartók combines the elements of the perfect fourth, the minor second, and the tritone by placing ascending perfect fourths a semitone apart. In the example below a prominent tritone appears between E and B flat and a less noticeable one, because of the rhythm, between A and E flat.

Example 48, m. 132



The remaining measures of the third section and the coda develop no new motivic variations. Motives "a" and "b" in their many forms are used to bring the movement to a close.

The principal method employed in the motivic development of this movement was that of intervallic expansion (cf. Ex. 38). The opening measures presented semitones, which gradually expanded to the main motive of the movement, motive "a." The contour of "a" served to generate "b" a motive which was constructed primarily of thirds. Additional techniques were sequence (Ex. 43), extension (Ex. 41), and augmentation (Exs. 43 and 44).

The material of this movement is all derived from one theme, but varied extensively. The developmental process is continuous from the first measure to the last, both in intervals and rhythms.

Harmonic Materials

The harmonic basis for the movement is established

almost completely in the first three measures with the intervals of the second, third, and fourth all present (cf. Ex. 36). The resulting structure reflects the intervals of the melodic motive, for it concentrates on the same intervals. The inner parts move at first in parallel thirds, but it is a contemporary use of this device as they are all major thirds, and the outer parts are not necessarily consonant with them. The harmonic pattern is too varied in the first few measures to establish a trend.

The first example of chordal writing comes in measure 14, when the emphases on the perfect fourth and the tritone is again affirmed by a succession of second inversion chords.

Example 49, mm. 14-18

An example of the duplication of the horizontal and vertical intervals may be found in the chord at the end of measure 49. The primary melodic interval is the semitone and the final chord is built entirely of semitones. The first chord of the next measure is bi-tonal, A and C against A sharp and C sharp--still another way to utilize the minor second vertically.

Example 50, mm. 49-50

This bi-tonality continues for several measures until both centers resolve to F sharp.

The declamatory chords toward the end of section two are quoted again below. These chords reveal two possible

constructions: (1) the chords are built on two tritones which interlock by a semitone, or (2) they are built on two perfect fourths a semitone apart. This vertical structure is composed of precisely the same interval as the melodic motivic variation quoted in Example 48. Again the emphasis is on the perfect fourth, the tritone, and the minor second. The opening melodic motive contains all of these intervals as important horizontal elements.

Example 51, mm. 103-104

More use of the tritone and the semitone can be found in the third section in the agitated part of the perfect fourth of the development of motive "a."

Example 52, m. 133

An example of bi-modality may be found in the third section with the return of the closing theme. The first and second violins are in A minor, while the multiple stops in the 'cello insist on A major.

Example 53, mm. 156-159

This movement, then, contains tertian harmony, chords built in seconds, fourths, tritones, bi-tonality, and bi-modality.

The last vertical structure summarizes the melodic-harmonic intervals of the movement. On the first beat of the following example it is an F chord with both C and C sharp, thus incorporating the perfect fourth, third, and the semi-tone.

Example 54, m. 180

The existence of these intervals in the melody would have little significance save for the fact that the melodic and harmonic elements precisely correspond so consistently.

Tonal Structure

The tonal shifts, as outlined in Figure 5, are largely in thirds, the primary interval of motive "b." Motive "a" is represented by its semitone in the bi-tonal and bi-modal passages. There is one tonal shift from F sharp down to C sharp, the perfect fourth of motive "a." The only melodic-harmonic interval not used in the tonal scheme is the tritone.

Second Movement

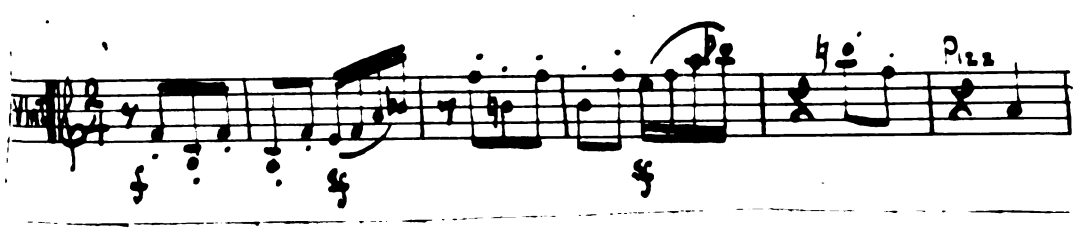
The over-all form of this movement is problematical. The speed of the tempo and the recurrence of the themes imply a rondo form, although it does not follow any of the classical types of rondos in thematic scheme, or in proportion of parts. The movement will be compared to a rondo, and the derivation of motives will be pointed out between sections.

Figure 6 quotes the main motives for the second movement and outlines the form and tonal shifts. The imbalance of the sections of the rondo-like structure can be seen. The tonal shifts outline largely tritones and thirds; both intervals are prominent in the melodic and harmonic structures. Those sections marked "indeterminate" are tonally vague because of chromaticism or because of pronounced emphasis on the unstable tritone.

Rhythmic and Melodic Motives

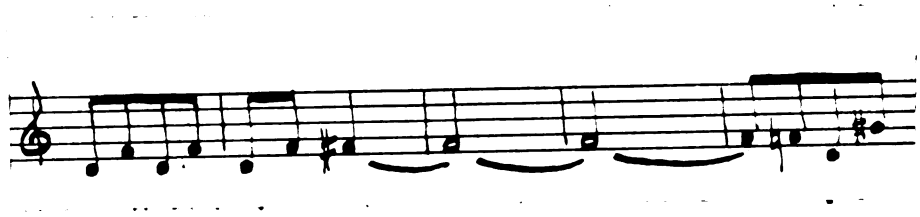
The movement opens with an introductory theme, which, although recurrent, remains only "introductory" in spite of its frequent appearances.

Example 55, mm. 1-6



Main Motives

Motive "c"



Motive "d"

Rondo-like Form

Section	Motives Used	Measures	Main Tonalities
Introduction	"c" variant	1-11	Indeterminate
A	"c" and variants	12-68	D
Introductory material developed		69-116	D
B	"d"	117-152	$G^{\#}$
A	"c" and variants	153-215	D - B^{b} - D
Link based on Intro.	"c" variants	216-232	Indeterminate
C	"d" variants	234-285	E - D
A	"c"	286-305	Indeterminate
D	"c" variants	306-391	Indeterminate
A	"c" in new meter	392-483	G - F - $C^{\#}$
Coda	"c" and variants	484-580	D

Fig. 6.--Second Quartet, II Movement

The first theme based on major and minor thirds, and the tritone, begins over a series of repeated D's in the second violin. The major third enters after four measures of the minor third. (Only a portion of the theme is quoted here.) The interval of the third is prominent in motives "a" and "b" of the first movement, but the rhythmic pattern which is presented in the introduction is used to create a new theme, labeled motive "c."

Example 56, mm. 15-24

Later versions of this theme may alter the number of repeated measures of the length of the sustained note, but that is not considered a variation for the purpose of analysis.

After some play on the repeated notes and the

semitone slide of motive "c" the 'cello and viola take up a slight variation and extension of the theme.

Example 57, mm. 52-57

At measure 69 an inverted version of the introductory theme appears.

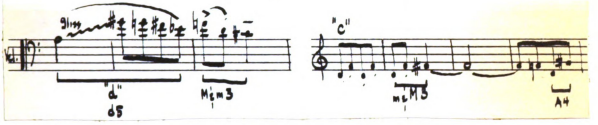
Example 58, m. 69

The next thematic development of significance is a brief play given to part of the introductory theme before it leads into the second part of the rondo.

Example 59, mm. 109-112

The next important motive, "d," can be shown to be derived from "c." The first two measures shown in the example below derive pitches from the latter part, and the third measure utilizes the same major and minor third of "c."

Example 60, mm. 117-119



The leap of the seventh should be considered as an octave transposition of the semitone motive, derived from "c," the first motive of this movement. Regarding it as such makes the tritone emphasis clearer.

After about twenty measures of development of this motive by fragmentations and repetitions, a new version of it appears, cast in a less active mold.

Example 61, mm. 139-145

In measure 153 the repeated note figure and motive "c" return. The appoggiatura figure is now ornamented with sixteenth notes and semitones on either side of the main note of D. Once again the intervals are expanded and the momentum grows until the sixteenth notes appear in patterns of four as in the chromatics of the "d" motive.

Example 62, mm. 203-206

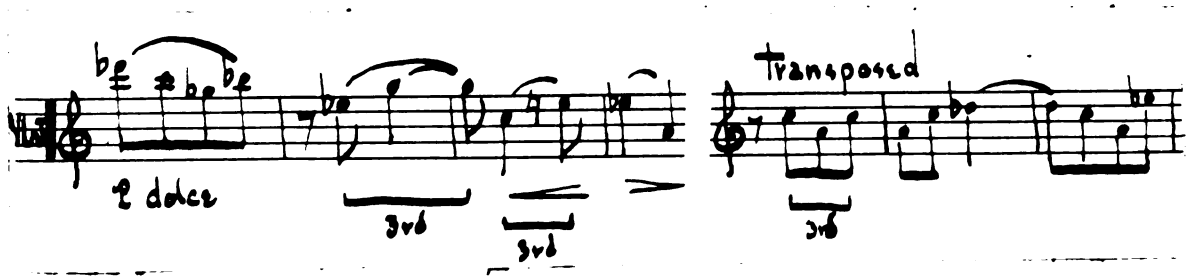
This motive is quickly imitated in the lower parts in inversion, and this dialogue is carried on for seven measures.

The next passage is accelerated, interrupted by pauses at bar lines, and plays on the tritone of the introductory theme in the same rhythm. The pauses and the tritone give the entire passage the unstable characteristics of a transition or link, leading into an imitative treatment of motive "d," also

interspersed with pauses and presented in a thin texture.

The return of "c" emerges from a brief syncopated passage. It leads into another section in which the motivic material is taken from still another part of motive "c."

Example 63, mm. 306-309



This material is passed around from part to part, accompanied by pizzicato chords, treated imitatively, and finally leads back into the introductory material by means of emphasizing its tritone.

This introductory material now exploits simultaneous use of the original descending interval, the tritone, with its mirror inversion, opposing each other at the minor second. The inner parts reflect the semitone by a sixteenth-note pattern.

Example 64, mm. 336-337

The next section, beginning at measure 36, returns to motive "d." It is striking because of the abrupt halt of the frantic rhythmic activity. At the close of this section the final pattern of the "d" motive (the eighth followed by two sixteenths) is developed and becomes a triplet. This prepares the ground for the following section, which is in a one-beat three-four meter.

This entire section is based on motive "c," the first motive of this movement, and is especially centered on its thirds and minor seconds. Again the technique of pauses is used to signify the end of a section and the beginning of another.

The coda is in six-four time, and requires only four measures to reach a prestissimo tempo. The melodic material is that of the first motive, beginning with semitones and thirds and soon expanded to fourths and fifths. The tension is increased by means of this expansion and by the upward motion of all the parts. The final surge is achieved by suddenly dropping back to one part, then adding each part singly in quick succession. The final measure reaffirms the motive of the third in a conclusive manner, all four parts in unison and octaves.

There is scarcely a measure of this movement which is free from the motivic interrelationships demonstrated above. The consistency of the motivic structure is striking throughout the rapid movement.

Harmonic Materials

The harmonic materials of this movement are varied and reflect several elements of motive "c." Chordal structures consist largely of fifths and octaves. Early in the first section, the bi-modality is established in the first motive's moving from F to F sharp over the insistent D's. Preceding that motive, a chord with no third punctuates the end of the introductory theme.

Example 65, m. 7

In motive "d," in which chromatic motion is employed, the accompanying harmony also utilizes minor seconds.

Example 66, m. 118

In the next section the accompanying harmony is built on the third of motive "c," while the melodic part at that point clashes by a semitone at the first of the measure. The simultaneous use of B^{b} and B natural below D constitutes the vertical utilization of the major and minor third structure.

Example 67, mm. 184-185

As discussed above, this section consists of imitative development, and is separated from the next section by the introductory material.

The semitone motive "d" has already been illustrated, but this statement leads into the syncopated pattern which originally accompanies it, this time expressed in thicker chords.

Example 68, mm. 278-279

These chords admit to several analyses. It can be seen that while the first violin plays thirds, both the second violin and 'cello move in double stops in parallel sixths and the viola appears a sixth above the top note of the 'cello. The entire structure, excluding the melodic line, is built upwards in major and minor sixths (inverted thirds) from the bottom note, thus utilizing the inverted melodic third. The spacing, however, emphasizes another important melodic interval of this quartet, the tritone.

Chords built on perfect fourths can be found just before the final statement of A, and more chords built on

tritones may be found in abundance in the Coda. As if to reaffirm the original simple harmonic basis of the movement, the last sonority is simply a D in all parts.

Tonal Structure

Figure 6 showed that the tonal shifts were in thirds and tritones, prominent motivic intervals. The tonality of D (major and minor) is firmly established in the twelfth measure and gives stability to the entire movement with its frequent return.

Third Movement

The over-all form of the third movement is ternary, the middle section being considerably longer than the outer ones. Figure 7 outlines the proportions of parts and the principal tonal shifts. The source motive for the movement is only a slight variation of motive "a" from the first movement.

Melodic and Rhythmic Motives

The first few measures are introductory in nature with more emphasis on sonorities than on melodic motivic material. However, it should be noted that the first two notes in the first violin outline the tritone, moving in whole notes from A to D sharp. The double stops in the 'cello in the third measure emphasize the augmented fifth or minor sixth

Main Motive

Motive "a," Slightly Varied

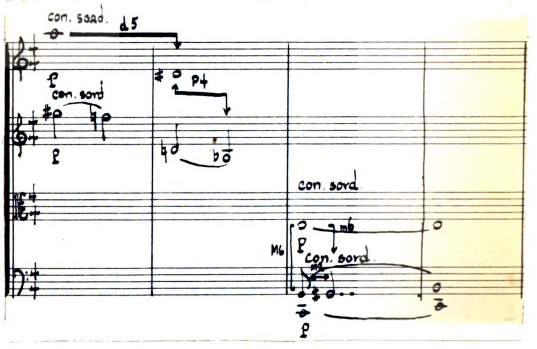
Ternary Form

Section	Motives Used	Measures	Main Tonalities
Introduction	Elements of "c" (mut. 2)	1-10	C
A	"a" and variants	11-46	A, $C^{\#}$, A
B	"a" variants	47-111	$C^{\#}$
A	"a" and variants	112-141	A - E - A

Fig. 7.--Second Quartet, III Movement

harmonically. The ascending semitone, used in the second movement, appears again. The major and minor third, already seen in both first and second movements, appears in the first and second violins.

Example 69, mm. 1-4



The first melodic motive of real significance occurs in the first violin in measure 11. The motive is strongly reminiscent of motive "a" of the first movement, but modified with elements of the major-minor third and the tritone from the second movement.

Example 70, mm. 11-12

Within the next few measures, the rhythm remains intact, but the intervals become compressed to thirds.

The second part of the first section employs the tritone again, cast in a more active rhythm.

Example 71, mm. 23-24

As was the case with the previously quoted motive, the intervals do not remain constant with succeeding statements of this motive, but it is recognizable by its rhythm and its contour. Just before the end of this section, the 'cello takes up the motive just quoted and develops it into wider intervals and shortened sustained notes. The tension

is heightened greatly by the combination of the quickening of the pace in the rhythmic pattern and a rallentando tempo marking. The passage culminates in a sustained chord, followed by a pause at the bar-line, marking the beginning of the next section.

The middle section begins with a theme not really new in intervallic relationships, but the texture and mood of the piece change enough to justify calling it a new section. For several measures the texture is almost entirely homophonic, a procedure not often followed by Bartók. The theme is made up largely of fourths and thirds. It can be seen to be a derivative of "a," so will be labeled as an "a" variant.

Example 72, mm. 47-50

The texture is strictly chordal, the two upper and two lower parts moving in parallel fourths. The two pairs mirror in each other in horizontal movement as well.

The second part of the middle section presents an imitative passage, one beat apart, on a theme derived from the first motive of the section, the "a" variant. The first violin and viola are in octaves, as are the second violin and 'cello, so only the two upper parts will be quoted.

Example 73, mm. 88-92

This type of movement continues for about twenty measures, gathering momentum by an accelerando passage and by shortening note values to quarter notes. The effect is heightened by a spread in the pitch range encompassed by the whole texture. The section comes to a close with a pause at a bar-line.

The return of the first section begins with the first of the two melodic motives of the section, this time outlining a diminished triad.

Example 74, mm. 112-113

The texture is only slightly imitative, and conveys a predominantly homophonic impression. The section is even shorter at this statement than it was originally, this time spanning only about fifteen measures.

At this point a four-measure passage appears that is difficult to reconcile with the remainder of the movement. It is a sudden burst of rhythmic activity, mainly in eighth notes, utilizing syncopation. It is startling in its sudden intensity, and ends almost as abruptly as it began. The motivic materials, however, do have precedent in the fourths and thirds of the variant of motive "a."

Example 75, mm. 127-130

After the initial serenity returns, the movement comes quickly to a close. A portion of the second part of the first section is stated in the first violin and the movement ends on unison A's in the 'cello and viola, pizzicato.

The interval of the fourth, both perfect and augmented, plays the main part in this movement. Thirds and major and minor seconds are used, but they are contained almost consistently within the outline of a fourth. This causes a tight unity within this piece, in spite of the pronounced changes of texture and mood. The formal problem of unity has been solved by Bartók by common motivic structure, while the problem of variety is dealt with by change of texture, intervallic and rhythmic variation and tempo changes.

Harmonic Material

Because of the predominantly homophonic texture of the third movement, harmonic analysis finds fertile ground. The vertical structures are varied, and a few examples of some different types will be quoted.

The first important vertical elements, as quoted in Example 69, are the semitone, the major third, the semitone again, then the augmented fifth or the minor sixth. The semitone motion in the 'cello forms an augmented fifth with the sustained C. This, combined with the E in the viola, forms an augmented triad. The sonority lasts only one

measure, however, and is relatively rare in the rest of the movement.

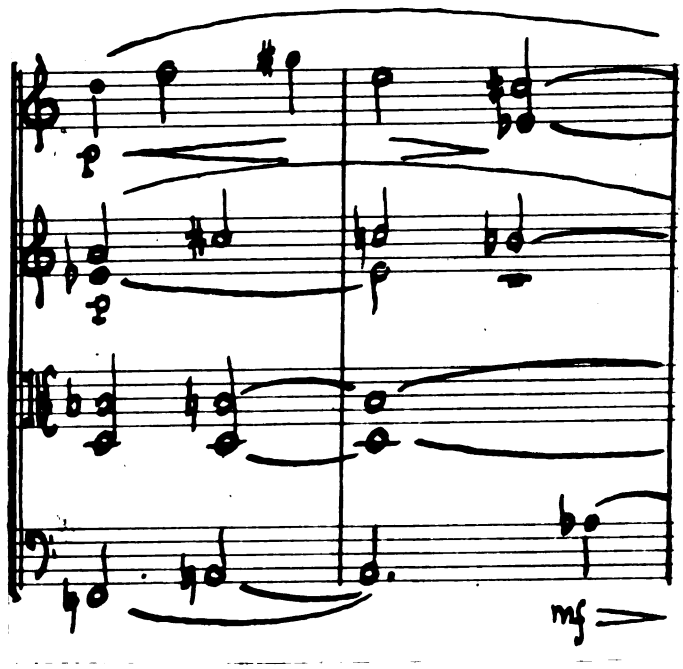
The statement of the main motive of the movement marks the first instance in which all four parts are sounding simultaneously. The harmony at this point is complex and admits of more than one analysis.

Example 76, mm. 11-12

In the first beat of the above example the major and minor third from D (both F natural and F sharp) are present. It has been seen that the altered motive "a" contains the same major-minor third element above C sharp. In the same measure (m. 11), G sharp and G natural also alternate above a B. The moving 'cello line creates first a prominent tritone

vertical sonority with the upper note of the viola, then a perfect fourth sonority with the lower. Almost every interval of the melodic motive is present in the vertical structure in measure 11. The one exception is the minor second, and that occurs on the third beat of measure 12 in the simultaneous sounding of B and B flat. A few measures later, Example 77, at the point that the intervals of the theme are condensed, the situation is similar.

Example 77, mm. 15-16



The harmonic basis of the perfect fourth is a little more dominant in the second of these two examples.

An interesting reflection of the melodic element may

be seen in the chord that ends the first section of this movement. The 'cello as the melodic instrument jumps a major seventh and the accompanying sonority in the three upper parts is a major seventh chord. The resulting combination on the last half of the measure is an augmented-major seventh chord.

Example 78, mm. 45-46

The middle section of the form begins with homophonic texture. Examination of Example 72 will show chords built on perfect fourths. The melodic motivic material is also built on the perfect fourths at this point.

Chords built on perfect fourths occur throughout the entire movement. The two measures leading up to the sudden

agitation near the end of the movement and the syncopated chords themselves are built entirely on perfect fourths.

Example 79, mm. 125-128

The relationship of the horizontal intervallic structure to that of the vertical constructions is easily seen in these examples. As stated above, the primary organizing interval is the perfect and augmented fourth in the melodic elements, the other intervals being contained within the span of the fourth and the main harmonic interval is also the fourth. Some writers call this a type of "serialization" of materials. Because of the connotations which the term "serialization" has acquired, it might be better simply to call it a consistency.

Tonal Structure

Although the third movement began on a C tonality (cf. Figure 7), the central tonality for the movement is A major-minor. In the last section, A shares almost equal importance with E, but the movement ends firmly on unison A's.

Summary

The main motives and some variants of each movement have been quoted again in Figure 8 for the purpose of comparison. The conclusion is inescapable that this quartet is built on fourths, both perfect and augmented. The only real exception to this statement is the motive from the second and third movements which spans sevenths, derived from the rising conjunct fourths, which outline a total distance of a seventh.

The harmonic materials reflect the melodic intervals and represent an advance in techniques over the First Quartet. Chords built in fourths and seconds, as well as some tertian chords, may be found in this quartet. Other harmonic techniques include the added-note type of chord, and bi-tonality.

The tonal structure of this quartet is easily determined for the most part. The first movement begins in A and moves in thirds from this center, going through C sharp, A,

Fig. 8.--Second String Quartet

F, and ends on A. The second movement's main tonality is D, a perfect fourth away, and moves through G sharp at one point. This tritone interval is prominent in the melodic and harmonic structure as well as the tonal relationships. The main body of the second movement is firmly in D. The last movement returns to the first tonality of A, moves briefly to a C sharp center, and ends on unison A's.

In the opening of the discussion about the Second Quartet, Everett Helm was quoted as saying that this quartet contained the germs for practically all of Bartók's later practices. Even though Bartók was only thirty-six years old at the completion of this work, it could indeed have been written at almost any point in his career.

CHAPTER IV

STRING QUARTET NUMBER 3

General Traits

The Third String Quartet is in one large movement, separated into Prima Parte, Seconda parte, Recapitulazione della prima parte, and Coda. Helm indicates that the material for the entire quartet may be found in a small number of source-motives which are expanded and developed. In addition these motives share several common characteristics in contour and intervals. This technique is found in many other works, but it is so consistent in this work that Helm feels it to be more than coincidence.[1] From Helm's own earlier statement, it is probably not important whether or not the technique is a conscious one.

This quartet is one of the least easily assimilated and one of the most difficult to perform of the entire set, therefore it is probably the least played. It shows Bartók in a move towards more intense contrapuntal textures and a more objective style. This stage of Bartók's development, therefore, shows a parallel with the "neo-classical" trend

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[1] Helm, p. 18.

of the 1920's but Seiber cautions against thinking that it is a mere imitation with Bartók. Seiber says that the imitators of Hindemith and Stravinsky had no influence on Bartók, but that the path which he followed was taken because of an inner necessity.[2]

Emil Haraszti finds the Third Quartet the "most mature and most distilled manifestation of Bartók's structural artistry."[3] The interlocking of parts is important as a pattern for works that follow and as a logical successor to the techniques of the earlier works. This quartet carries the over-all unity one step further. Now instead of having related motives in different movements, Bartók is using the same material with different treatment in different sections of the quartet.

With this quartet, Bartók is approaching the "apogee of . . . the orbit" in his move away from traditional tonality.[4] The ten years between the Second and Third Quartet saw the exploration begin--now this work and its successor, the Fourth Quartet, represent the furthest extreme to which Bartók would carry his dissonant trend. The works after these two quartets show a retreat from the extreme position.

The innovations of this quartet include advances in

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[2]Seiber, pp. 29-30. [3]Haraszti, p. 48.

[4]Stevens, p. 183.

techniques of string writing as well as advances in harmony and form. In an apparent attempt at instrumental color within a purposely limited medium, there is an abundance of harmonics, sul ponticello, glissando, and martellato markings. This aspect of the Bartók quartets, even more pronounced in the next work to be discussed, has captured the imagination of many students of Bartók and has been exaggerated. Its importance is one of instrumental color and has little to do with the over-all value of the music.

Colin Mason says that works of "uncompromising aggressiveness" characterize this period, and that it shows Bartók searching for logic at the expense of euphony. He says that Bartók had lost faith in romanticism and this work is a tortured experimental work.[5] It is interesting to note that this was one of the more successful periods of Bartók's life, and although he was not enjoying unanimous praise from critics, there is little evidence to indicate that he was in any sort of torture, musically or personally.

Prima Parte

Figure 9 outlines the source motive, form and tonal shifts of the Prima Parte. Bitonality is important in this Parte, especially in the third section. Even the main tonality of the first and last sections, D, is often embellished with C sharp.

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[5]Mason, pp. 5-6.

Source Motive

Motive "a"

Sectional Form

Section	Motive Used	Measures	Main Tonalities
Section 1	"a"	1-34	D
Section 2	"a" (especially syncopation)	35-46	C and $F^{\#}$ (35-39) $C^{\#}$ and G (39-46)
Section 3	"a" variant	47-64	Rapidly shifting dual tonalities
Section 4	"a" variant (contrapuntal treatment)	65-87	Indeterminate
Section 5	"a"	88-112	D

Fig. 9.--Third Quartet, Prima Parte

Melodic and Rhythmic Motives

The first motive, announced by the first violin over sustained notes in the two lower parts, is of an introductory nature, but contains the elements of later more important motives. It begins with motion primarily in seconds and expands to fourths and fifths. It also sets the pattern for the general contour of later themes, a gentle rise and fall within a fairly narrow compass.

Example 80,[6] mm. 2-6

The next motive, labeled "a," begins immediately after this introductory material. It is the source material for the bulk of the Prima Parte. The main points of interest are the rising perfect fourth, the falling third, and the tritone. The D sharp can be regarded as an ornamentation of the basic motive, but the rhythm between the D sharp and the A is an important rhythmic motive for the generation of succeeding material.

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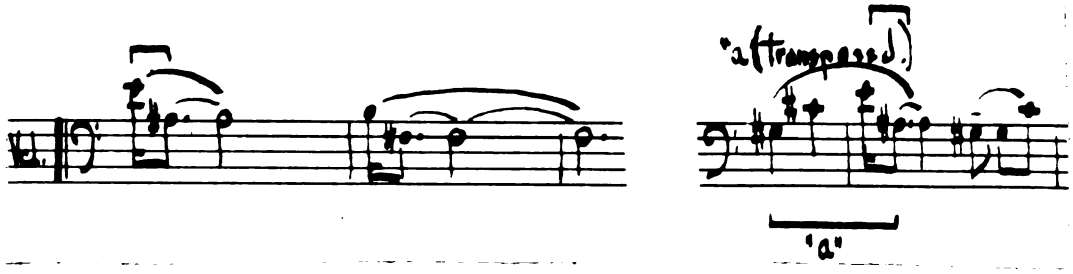
[6]Copyright 1939 by Universal Edition; renewed 1956. Copyright and renewal assigned to Boosey & Hawkes, Inc., for the U.S.A.

Example 81, mm. 6-9

The three eighth-notes at the end of the second measure of the example, although not as striking as the figure mentioned above, also constitute an important rhythmic pattern. This rhythm had also been found in the introductory material.

The distinctive sixteenth-note followed by a dotted eighth is the first to receive treatment in the 'cello, first with the interval of a diminished fifth, then with a perfect fourth.

Example 82, mm. 8-10



Motive "a" in its entirety is presented in a modified two-part canon above the snap of the 'cello part. At

measure 13 the 'cello and viola take up the theme in imitation, with ever expanding intervals. The 'cello line is quoted as an example.

Example 83, mm. 14-19

Following this material there is a passage in the first violin that is definitely reminiscent of the introduction. The opening material is suggested both by the characteristic rhythm and the general contour.

Example 84, mm. 20-23

The section closes on an imitation of the main theme, with expanded intervals, between the first violin and viola. The second violin is playing sixteenth notes on alternating semitones while the 'cello quarter notes exploit instrumental effects by simultaneous use of unison stopped notes and harmonics. The effect created is one of vagueness, somewhat like an impressionistic sound.

The last three chords of the section outline the main motive of the theme, but passing the notes between the first and second violins. Following the highest note of each chord outlines motive "a," G, C, and A, as shown in the dotted lines in the example below.

Example 85, m. 33

The second section begins over ostinatos in the 'cello and viola which follow the same intervallic pattern but a half-beat apart and at different tonal levels. The viola, which

begins first, will be quoted.

Example 86, m. 35

These ostinatos are constructed of the three notes of the source motive.

The first and second violin also oppose each other in tonal level and are inverted rhythmically and tonally one from the other. The motivic material is the repeated note and the conjunct motion, while the rhythmic material exploits the quick syncopation of motive "a," second measure (cf. Ex. 81).

Example 87, mm. 36-38

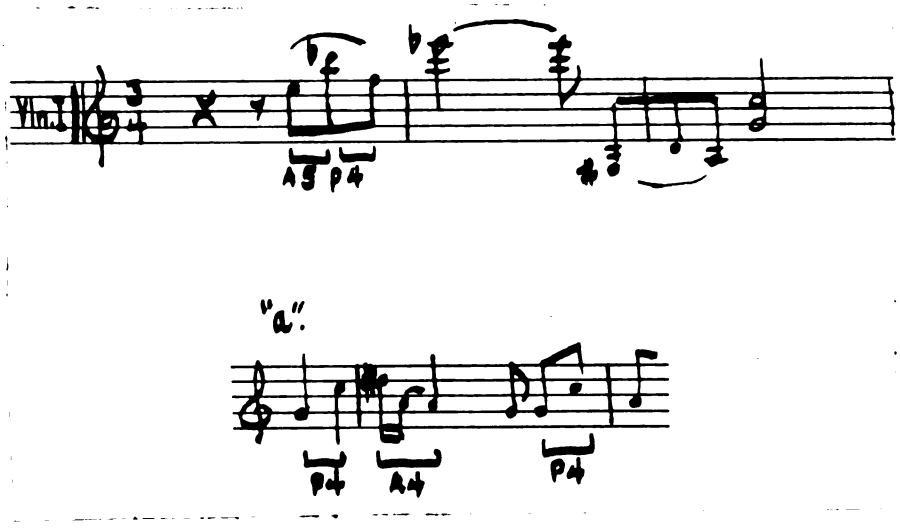
This section is brief and serves as a transition to the third section, which uses material based on motive "a," but with generally inverted contour.

Example 88, mm. 47-51

Instead of an ascending fourth, the first interval is a descending fifth, and the interval of the third becomes a descending sixth. The remainder of the section develops this motive variation and the syncopated rhythm.

The fourth section demonstrates still another version of the source motive, this time an ascending diminished fifth and a descending perfect fourth. It is treated imitatively at the interval of the fourth, an example of the contrapuntal utilization of the melodic motive.

Example 89, mm. 65-67



Again the imitative texture gives way to repeated chords, this time rapid iterations separated by brief rests. A Lento passage of four measures leads into the first theme, played in octaves in the second violin and viola, while the outer parts furnish pedal tones and accompanying chords. The chords in the 'cello are on the beat, while the first violin's chords are syncopated. This constitutes a combination of the melodic and rhythmic characteristics of motive "a."

Example 90, mm. 87-89

Throughout this section the outer parts maintain their accompanying function, while the inner parts furnish the melodic material. The impressionistic mood of the latter part of the first section is recapitulated in the latter part of this section with half-beat alternations of harmonics and stopped notes.

Harmonic Materials

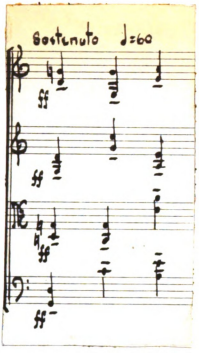
An indication of the degree of dissonance which can be found in this quartet is present in the first sonority, which builds up from a C sharp and D in the 'cello, and E in

the viola, and a D sharp in the second violin. Above this sustained sound the first violin enters with the introductory theme, which is concentrated at the outset on seconds.

Example 91, mm. 1-2

As the melodic material expands into wider intervals, the vertical sonorities reflect the expansion. Although most of the first section is contrapuntal, the section ends with three chords built in fifths, with successive roots on G, C, and A. The highest notes outline motive "a" as discussed above (cf. Ex. 85); the 'cello notes and the lowest notes also outline this motive. The final consistency lies in the fact that the roots of each fifth, G, C, and A, follow the outline.

Example 92, m. 33

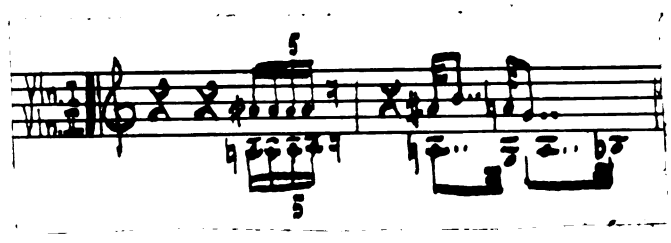


Bi-tonality is frequent in this movement. The second section begins with a delineation of the two tonal centers of C and F sharp in the ostinato patterns in the 'cello and viola.

Example 93, m. 35

The melodic material above these ostinatos is cast in a dual tonality, although the designation of each key center is indeterminate. The frequent semitone opposition of the two parts comes about in this instance because of contrapuntal considerations, and is often the result of the mirror inversion. The beginnings of the two parts correspond tonally with the lower parts in that the second violin begins on A natural and the first begins on A sharp.

Example 94, mm. 36-37



Another clear-cut example of bi-tonality comes in the third section of this movement, this time in opposing triads. The two sonorities of E flat minor and F major are set against each other, the lower parts paired against the upper.

Example 95, m. 53

The syncopated punctuation chords of this section remain bi-tonal, sometimes opposing two triads, sometimes opposing a triad against a chord built upward in fifths.

Example 96, mm. 54-55

Analysis of the chords in succession would be G flat fifths against G major triad, E flat minor against F major, F-C fifth (over the pedal G flat) against A flat fifths, E flat minor against F major.

The final section of the Parte also emphasizes a bi-tonal framework, but only in setting the pedal in the 'cello against the other three parts. It is possible that C sharp and G sharp are only substitutes for D and A, the real root of the tonality here and in the opening measures, thus adding color to the chord by means of "wrong" notes.

Example 97, mm. 88-89

In the final measure, the persistent double pedal in the 'cello moves from C sharp and G sharp to D and A.

The harmony of this movement is varied, containing several different types of vertical sonorities. The most striking element of the movement is bi-tonality, opposing traditional triads at times. There are chords built on perfect fifths and chords built on seconds. These two latter types are not as different as they seem at first glance, for piling up fifths creates seconds, or rather ninths. It is, then, a matter of spacing which distinguishes the chords built in fifths from those built in seconds.

It has already been demonstrated in Examples 80 and 81

that the intervallic structure of the horizontal material centers around fourths, thirds, and seconds. The use of triads, chords built in seconds and fifths (inverted fourths) clearly is consistent with the melodic material. The texture is further complicated by bi-tonality.

Tonal Structure

The Prima Parte of the Third Quartet is centered around the tonality of D. Knowing this, one is able to discern a D center from the opening, but it is unlikely that the opening page of the quartet would be interpreted as D without the material which follows it. The note D is present, but so are C sharp, D sharp, and E. Viewed in the context of the entire movement, the notes above and below D can be seen as ornamental, thus reinforcing the D. The succeeding tonal centers were outlined in Figure 9, showing the emphasis on bi-tonality.

Seconda Parte

The over-all form of the Seconda Parte can be compared to a sonata-allegro form. There is an introductory theme, a principal theme, which is based on the same scalar structure as the introductory theme, and a second subject, new only in its characteristic rhythm. Even though the motives are greatly developed long before the beginning of the development section, there is a middle section of developmental nature, a fugal

treatment being one of the devices used. The recapitulation begins with the introductory theme, omits the first theme and moves directly to the second theme of the exposition. Figure 10 outlines this form and the principal tonal shifts.

Melodic and Rhythmic Materials

The introductory motive, which is labeled "b" and is the source material for the Seconda Parte, is based on conjunct motion, largely diatonic. The rhythm is three eighth notes after an eighth rest, which can be compared to the introductory motive of the Prima Parte. The fourths in the last part of the theme echo motive "a."

Example 98, mm. 5-11

The conjunct motion had been forecast by a semitone series of four notes just before the theme had begun, marked

Source Motive

Motive "b"

Sonata-Allegro Form

Section	Motives Used	Measures	Main Tonalities
Introduction	"b"	1-25	D
1st Theme	"b" in rhythmic variant	26-79	E^b
2nd Theme	"b" variant	80-181	Shifting A^b, C, E, A, D, etc.
Development	"b" variants	182-284	Rapidly shifting
Introduction	"b"	285-301	$C^\#$
2nd Theme	"b" variant	302-418	Largely D

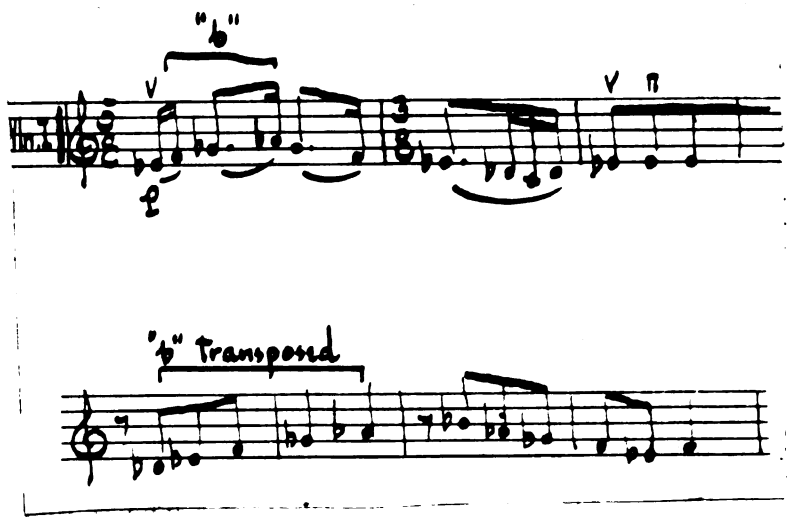
Fig. 10.--Third Quartet, Seconda Parte

quasi glissando. This motive is now extended to sixteenth notes in diatonic motion, and used as an answer in the first violin.

Example 99, mm. 11-13

The main theme of the sonato-allegro form appears at measure 26. Like most of the material in the movement, it is new only in its rhythm: dotted notes and changing meters. It can be seen that this is a slight variant of motive "b" cast in a new rhythm.

Example 100, mm. 26-28



The introductory theme, placed into longer notes and interspersed with brief rests, accompanies this theme at its original tonal level.

The repeated notes of the last part of the main theme serve as the precedent for later materials of the exposition section as well as the other parts of the form.

Generally speaking, the contrapuntal texture of the statement of this theme is not complex. It is expanded and developed tonally, but there is not a great deal of imitation. One contrapuntal device is used: that of combining the original form simultaneously with its inversion.

Example 101, mm. 58-59

The second theme is derived directly from the introductory theme and the first theme of the Parte, motive "b." As was the case with the main theme, it differs only in its rhythm, this time using syncopation across the bar-line.

Example 102, mm. 80-88

After a brief interlude containing measured tremolos and semitone trills, this theme is treated canonically between the first and second violins, first on C, then on E. The canon is then transferred to the 'cello and viola, this time on A. The return of the theme to the two upper parts is on D, and the next two entries are on G and C. Culminating the canonic section is a passage in which the two upper parts are in canon on C, while the two lower parts are in canon on F sharp, with the inversion of the theme. It develops into a passage in which the voices are paired in thirds, opposing in direction and tonality.

Example 103, mm. 134-138

This treatment continues, and the lower parts move up in pitch at each new entry. After one final statement in which the top parts are up a fifth from the original statement quoted above, and the lower parts have moved down a ninth, the violins move into a sixteenth note pattern which prepares for the closing part of the exposition. The motive is a variant of the sixteenth note pattern from the first page of the Parte (cf. Ex. 99). This material is inverted and imitated in the viola and 'cello on D natural and F, and continues in this vein until an emphasis on the repeated-note pattern leads into the development.

Example 104, mm. 152-154

The development begins at measure 182, and plays on the sixteenth-note pattern from the first page, the material which accompanies the introductory theme. It is accompanied by repeated notes, E flats, until measure 211. At that point fragments of the sixteenth-note motive and the principal theme are treated imitatively, accompanied with sforzando chords intermittently in the other parts. Finally a series of fortissimo chords, all marked with a down-bow, and a short passage on the rapidly reiterated notes lead into a fugal treatment.

Robin Hawthorne, in writing about Bartók's fugal technique, points to this fugue as an excellent example. Hawthorne contends that Bartók does not write in double

counterpoint because his counter-subjects are not independent enough to assume their own function. Although the counter-subject of this fugue has some independence, it still clings to the subject and is derived from it. Bartók's use of double counterpoint is also limited by the fact that the fugal sections are used as sections of larger movements, not as independent pieces.[7]

The subject of the fugue is the conjunct motion which pervades the movement, but it also utilizes the repeated notes of the main theme.

Example 105, mm. 242-245

[7]Robin Hawthorne, "The Fugal Technique of Béla Bartók," Music Review, X, No. 4 (November, 1949), 281-82.

The successive entries of the fugal section are on A, E, A, and E. Very shortly after the subject is presented, there is a stretto section, the material entering a beat apart, then a stretto of the inversion of the theme, also a beat apart. Finishing the fugal section is a stretto in which the entries are only a half-beat apart, falling on F sharp, A, D, and D sharp, emphasizing the tritone outline of the fugue subject and counter-subject.

The fugal treatment gives way to the repeated notes, which serve as a transition to the recapitulation. Motive "b," the introductory theme, appears a minor second lower than originally and is treated in a stretto imitation itself. At this point the texture becomes rhythmically complicated. While the 'cello is engaged in motive "b" and the violins are concerned mainly with the repeated-note motive, the viola is in a different meter with a variation of "b," embellishing the descending part with thirds. The dual meter had appeared at the beginning, but in less complex surroundings.

The second subject of the exposition appears, again in a canonic treatment. The successive entries are on B flat, F, C, and D. This gives way to sustained chords in the two upper parts against short glissandos in the lower parts. Finally all parts engage in the glissandos and the intervals are widened to octaves and ninths. The sliding movement is interspersed with staccato dissonant chords.

Example 106, mm. 291-294

At measure 377 a short coda begins, based on sustained notes and repeated chords. Just before the piu mosso which ends the movement, the trill of the opening measure returns, marked fortissimo in all parts. From that point until the end the texture thins, but the parts are still marked fortissimo, finally ending the movement on unison F's in the 'cello and viola.

The entire material for the Seconda Parte is taken from a scale line stated in the introductory theme. The only factor that differentiates one theme from another is the different rhythms into which they are cast. Although it is not possible to call this a variation form, variation is used as

a technique, with the result that a scale line, a theme which covered only one octave, was used as the material for an extended movement.

Harmonic Materials

The harmonic materials, like the melodic elements, are almost traditional. The melodic material is made up of indeterminate and bi-tonal scales, whereas the harmonic material employs triads, sometimes in a usage quite close to traditional, sometimes in a bi-tonal context, sometimes with "wrong" notes, comparable to some of the chords from the Prima Parte. Examples of various types will be chosen.

The opening of the Seconda Parte sets the pattern for the harmony, just as the opening had done on the Prima Parte. The 'cello and viola have unison E flat, the first violin has a D and the second violin is trilling from D to E flat.

The multiple stops of the 'cello in the introductory theme, motive "b," form simple triads. This was quoted in Example 98.

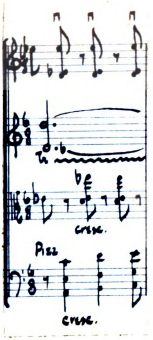
Example 107, m. 1

The statement of the principal theme, a variant of "b," affords an example of clear-cut bi-tonality, D and E flat being prominent.

Example 108, mm. 26-28

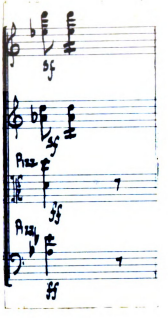
Most of the harmony of this part can be classified under "embellished" harmony, that is, traditional triads with "wrong" notes present. The next example demonstrates that it is occasionally a result of pedals or inverted pedals. The D and E flat from the first measure continue stubbornly and embellish the fifth of A minor, the tonality of the melodic line. Since E flat is the only foreign note in this passage the harmonic structure becomes an embellished A rather than the bi-tonality of Example 108.

Example 109, m. 38



Just before the entrance of the subordinate theme in the exposition the D and E flat appear above an A flat sonority. This continues when the second theme enters on A flat. The excerpt quoted is taken from four measures before the entrance of the subordinate theme.

Example 110, m. 76



Examples of this technique are numerous throughout the entire Seconda Parte.

A use of bi-tonality in a contrapuntal framework was quoted in Example 103. The upper parts are, for the most part, in a C Lydian mode, while the lower parts are in a mixed mode on D sharp. Since the parts are paired against each other, are moving in opposite directions, and are separated by a larger interval than a third, the delineation of the two tonalities is unusually clear.

An example of bi-modality can be found in the transitional passage leading from the exposition to the development. The chord is C with both a major and a minor third. The

sonority is further embellished by a D at the start of measure 176.

Example 111, mm. 175-176

Almost traditional harmony can be found at the beginning of the development section. For several measures this section falls into E-flat, with added A naturals in the 'cello.

Example 112, mm. 182-183

The harmonic materials in the Seconda Parte do not reflect the melodic material as obviously as they do in other movements of Bartók. With a melodic motive constructed in seconds, Bartók often sets the harmony in clusters. This will be seen extensively in the Fourth Quartet. However, there is a definite correlation between the vertical and horizontal elements as pointed out earlier. These techniques represent a contemporary usage of harmonies that are really not far removed from traditional practices.

Tonal Structure

The main tonality of the Seconda Parte is centered on

D, quite often embellished with E flat. The introductory theme is firmly rooted in D, and the principal theme is in E flat, stated over the opening theme augmented and still in D. Ignoring the minor shifts, the next important center, still in the principal theme, is F. Before modulating into A flat for the second theme, D and its accompanying E flat again govern the tonality.

Figure 10 showed the primary tonal shifts for the remainder of the Parte. The largest body of the Parte can be found to be not far from D, sometimes replaced with C sharp. This is consistent with the "wrong-note" style of much of the harmony.

Ricapitulazione della prima parte

This section is quite short and constitutes a suggestion of the first section rather than a literal repeat. The material is derived from that of the Prima Parte but not taken from it note for note. Figure 11 shows that this Parte is also in five sections, but greatly abbreviated. Most of the Parte is tonally vague, with a slight emphasis on D sharp.

Melodic and Rhythmic Motives

The main motive of the Prima Parte, motive "a," is a rising perfect fourth and a falling third. In this movement the sequence of notes within the same motive is rearranged.

Source Motive

Motive "a"

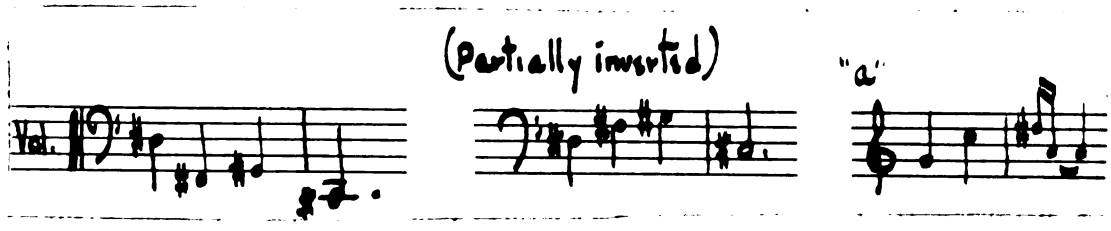
Sectional Form

Section	Motives Used	Measures	Main Tonalities
Section 1	"a" variant	1-16	$D^{\#}$
Section 2	"a" variant (especially syncopation)	17-29	Indeterminant
Section 3	"a" variant	30-48	Indeterminant
Section 4	Theme derived from "a" variant	49-64	Indeterminant
Section 5	"a" variant	65-70	$D^{\#}$

Fig. 11.--Third Quartet, Ricapitulazione della Prima Parte

The first statement of the motive is a falling sixth (inverted rising third) and a rising step, thus outlining the fourth, or fifth as it is here in inversion.

Example 113, mm. 5-6



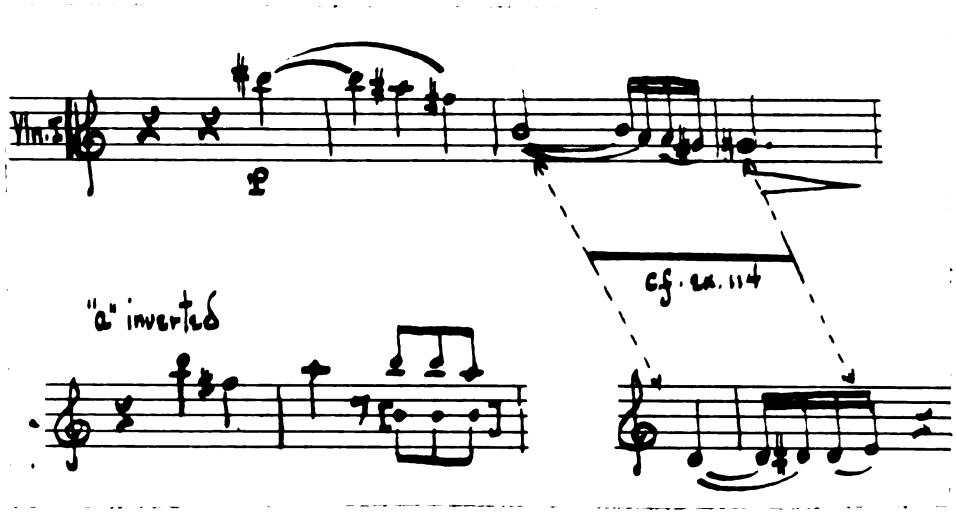
This motive undergoes intervallic expansion and is treated imitatively before the brief section gives way to the material of the second section.

The second motive of the Prima Parte is represented by a brief play on the repeated note figure, the semitone upward progression and the snap rhythm. The entire reference is only four measures long before the reorganized material of the first part is combined with it.

Example 114, mm. 17-19

Following this reference the material of the first and second sections are combined, the material of the first section now inverted.

Example 115, mm. 23-26



After this combination there are no new motivic variations, only contrapuntal treatments of motives already heard. The part ends with a last reference to motive "a."

Harmonic Materials

The harmony is generally in closer structure than the first part; there are a few examples of clusters and chords based on tritones instead of perfect fourths. Bi-modal harmonies can be found, but only a few examples of bi-tonality as there were in the first section.

The first statement of the repeated notes (from the

second section of the Prima Parte) is cast in a vertical sonority which contains minor seconds.

Example 116, m. 17

Another example of the tightening of the harmonic materials can be found in the passage beginning in measure 34. The sonorities are comprised of semitones and tritones, the intervals prophesied by the opening of the Parte.

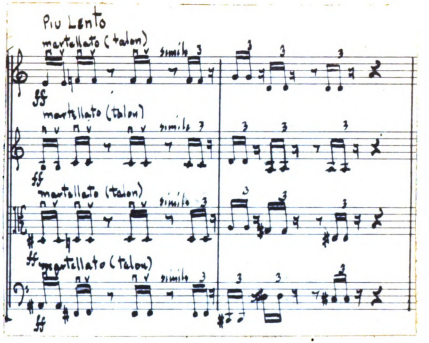
Example 117, mm. 34-36

At measure 49, where the inversion of the sixteenth-note figure is developed, there is an example of bi-modality. The lower parts have an F minor third while the upper parts have A-natural and C. The passage closes on D major and minor triad.

Example 118, mm. 49-52

It remains only to illustrate the use of quartal harmony in order to show the harmonic correspondence between this Parte and the Prima Parte. At the section in which the repeated notes are used, almost at the end of the Ricapitulazione, there is a striking example of chords built on fourths, as well as other intervals.

Example 119, mm. 61-62



To summarize, the harmony of the Ricapitulazione is made of smaller intervals than that of the Prima Parte. There is an emphasis on the tritone and on clusters that was absent in the Prima Parte. Examples of bi-modality and bi-tonality may be found in both places, as well as chords built on fourths. In harmony as in the melodic elements, the repeat of the Prima Parte suggested rather than literal.

Tonal Structure

The tonal structure of the Ricapitulazione is less definite than its previous counterpart. Since the section

begins on D sharp, the note D sharp is prominent through the Parte, and the last measure emphasizes D and D sharp, the tonal organization around D sharp would seem to be conclusive. It can be recalled that the Prima Parte was centered on D with an auxiliary note C sharp. The return of the Prima Parte finds an emphasis on D sharp, a further ornamentation of the note D.

Coda

The Coda, like the Seconda Parte, is comparable to sonata-allegro form, but with smaller sections. The largest difference between the two forms is that the Coda's recapitulation includes both themes.

Melodic and Rhythmic Motives

The coda is based on material from the Seconda Parte. It begins on the repeated E flats from the Seconda Parte, this time over a C instead of the D.

There are no new motives in the Coda nor are there any significantly new motivic variations. Contrapuntal devices, such as fugato, inversion, and fragmentation, are applied to motives already clearly seen in the Seconda Parte. The quartet comes to a close on a succession of repeated notes, measured trills and tremolandos, and a fortissimo chord.

Source Motive

Motive "b"

Sonata-Allegro Form

Section	Motives Used	Measures	Main Tonalities
1st Theme	"b"	1-23	C
2nd Theme	"b" in rhythmic variant	24-57	C and $C^{\#}$
Development	"b" and variants	58-76	Indeterminant
1st Theme	"b" variant (contrapuntal)	77-83	Indeterminant
2nd Theme	"b"	84-106	$C^{\#}$
Coda	Syncopation	107-121	$C^{\#}$

Fig. 12.--Third Quartet, Coda

Harmonic Materials

The Coda begins with a new kind of harmony for this section, in that it begins in C, with no immediate added notes that characterized the Seconda Parte.

Example 120, mm. 1-3

The first measure was not prophetic in this case, however, for bi-tonality is soon in evidence in the contrapuntal treatment of the sixteenth-note theme. When the inversion of the dotted-note theme begins its section, an added-note chord is used for punctuation.

Example 121, m. 25

The chord on the second eighth note is a C sharp minor triad with an added A. It could be analyzed as an A major seventh chord, but the spacing indicates the added-note analysis.

A reminiscence of the harmonic technique of the first part is found in the final chord of the Coda, a chord built upward in fifths from the bass note of C sharp. The chord includes C sharp, G sharp, D sharp, and A sharp.

Example 122, m. 121

The harmonic materials of the Coda include traditional triads, chords of added notes and chords built in fifths. Harmonically the Coda partially summarizes the entire quartet.

Tonal Structure

Surprisingly the Coda begins on a firm C and ends on a firm C sharp. Those two centers and G sharp are the only tonal centers of any appreciable duration in the Coda. The first and second movements having been centered on D with added notes on either side of the principal note, the third and fourth parts then adopted the ornamentation notes as

their tonal centers D sharp and C sharp, respectively. It results in an unusual tonal organization but a very logical one.

Summary

The melodic and rhythmic motives center around two source motives for this quartet, the first containing the intervals of the perfect fourth, tritone and a third, syncopation. The second motive is basically a scale pattern appearing in several rhythmic guises. Figure 13 summarizes these motives.

The introductory motive of the Prima Parte is not only important in its own right, but also serves as the generator for the source motive of the Parte. The rhythm of the sixteenth-note on the beat is taken up in the second theme and turned into another theme. All the material of the Prima Parte can be traced back to the source motive, "a."

The Seconda Parte is based on a scale pattern. The entire movement is based on the conjunct motion, creating variety through use of different rhythms. The material is treated imitatively, inverted, canonically, and fugally. The movement's contrapuntal texture is generally complex.

The Ricapitulazione della prima parte is quite brief and is more of a suggestion of the Prima Parte than a literal repetition. The source motive has been modified, but the other motive remains basically the same.

Fig. 13.--Third String Quartet

The Coda uses material from the Seconda Parte and treats it in much the same way. There are no new motives or any significant modifications of melodic and rhythmic materials in the Coda.

Harmonically, the quartet reflects the quartal horizontal movement by using chords built in fourths. Bi-modality and bi-tonality are used as well as added note chords and chords built on the interval of the fifth. Often the harmonic usage is almost traditional, especially in the Seconda Parte in which the melodic material is also traditional with a few deviations.

The tonal structure is perhaps the most interesting point of the quartet. The first part is centered on D, but with accessory notes of C sharp and D sharp often in evidence. The second part is also centered on D, but it is seldom without an accompanying E flat sounding simultaneously. The recapitulation of the first part is rather indeterminate in tonality, but is largely centered on D sharp, the auxiliary note of the second part. Finally the Coda finishes on a strong C sharp, the accompanying note of the first section. If a key must be assigned to the quartet, it would be D, for the C sharp and D sharp may be considered to be variations of the note D in the over-all picture, just as added and "wrong" notes appear in the harmony.

The Third Quartet finds Bartók totally committed to

polyphonic principles and experimenting with dissonant harmonies. Liberties must occasionally be taken to classify the forms under traditional labels, but unity is achieved by motivic structure.

CHAPTER V

STRING QUARTET NUMBER 4

General Traits

The Fourth Quartet has fascinated more writers on music than any of its companions. It offers a fertile ground for analysis of contemporary compositional techniques, particularly in the subject under discussion. Nowhere else in the Bartók quartets is the motivic unity so evident as in this work.

The Fourth falls at the apex of Bartók's middle period, the period of the strongest dissonance. The tendencies of the Third Quartet are fully developed in this work--the harmonic idiom is harsher still and the texture is uncompromisingly linear.[1] Helm says that the Fourth Quartet revels in dissonance. It is the closest that Bartók ever comes to atonality, yet even this work is far from it.[2] Although harmonic analysis in the traditional functional sense is not possible, tonality is imparted by an emphasis on line. The work is quite contrapuntal, but the parts are not perceived as being equal in importance.

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[1]Seiber, p. 30. [2]Helm, p. 19.

The idea of formal coherence by means of interlocking material of movements is developed to an even more symmetrical conclusion than in the other quartets. Stevens says that it is the summit of Bartók's constructive genius.[3] The five movements of its arch form are intricately related in thematic material as well as tonal organization. Movements one and five share material and the key center C; movements two and four, both fast movements, are related not only by common motives but by a pivotal key relationship to the main key, two being centered on E, a third above C, and four on A flat, a third below C. The third movement, or "keystone" of the arch, is a slow movement, and is often called the source movement of the quartet.

Milton Babbitt points to the "serialization" in the opening of the Fourth Quartet, suggesting that horizontal elements are utilized in the vertical structure as well. But serialization, even in its broadest sense, is only one of the many integrative methods in Bartók. Babbitt says, "Never does it create the context."[4] In this same vein Allen Forte wrote concerning the "serial" techniques of the third movement of the Fourth Quartet, but in his article admits that it is not the serial technique of the Viennese atonalists,

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[3]Stevens, p. 186.

[4]Milton Babbitt, "The String Quartets of Bartók," Musical Quarterly, XXXV, No. 3 (July, 1949), 382-83.

but rather an "elaborate expression of a relational system that closely resembles a serial schema."[5] Emil Haraszti speaks of the influence of Schönberg which is evident in this work, but Bartók admitted this himself. According to Haraszti the influence is evident in the structural devices, but they are only a means to an end, not the end itself. Whereas Schönberg's music is "cerebral," Bartók's is sensual; while Schönberg and Hindemith are lost in intellectualism, Bartók is individual.[6]

Peter Hansen summarizes the importance of the Fourth Quartet: "Bartók's Fourth String Quartet embodies many of his outstanding style characteristics. The boldness and audacity of the dissonances, the unusual devices, the narrow compass of the modal melodies--these are some of the elements of this important composition."[7]

First Movement

In the delineation of materials this movement can be compared with a conventional sonata-allegro form with a double statement of the principal theme in the exposition. As before, the two separate themes are not entirely separable, but a difference in treatment gives each theme distinct

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[5]Forte, p. 95. [6]Haraszti, p. 49.

[7]Peter S. Hansen, An Introduction to Twentieth Century Music (Boston: Allyn and Bacon, Inc., 1961), p. 231.

characteristics of its own (cf. Exs. 125 and 127).

Figure 14 shows the source motives, the outline of the sonata-allegro structure, and the main tonalities.

Melodic and Rhythmic Motives

The introductory measures of the first movement set the pattern for the minor second texture which pervades the work. Since it is not Bartók's practice to leave a motive unmodified for long, the third and fourth measures expand most of the ascending intervals to major seconds. The wider intervals in the 'cello predict the second subject.

Example 123,[8] mm. 1-4

[8]Copyright 1929 by Universal Edition, renewed 1956. Copyright and renewal assigned to Boosey & Hawkes Inc., for the U.S.A.

Source Motives

Motive "a"

Motive "b"

Sonata-Allegro Form

Section	Motives Used	Measures	Main Tonalities
Introduction	"a" (fragments)	1-10	C
A	"a"	11-13	C
B	"b"	14-24	C#
A	"a"	25-49	C
Development	"a"	50-59	Begins on C, rapidly shifting
	"b" (and "a")	60-82	
	"a"	83-92	
A	"a"	93-104	C
B	"b"	105-115	G#
A	"a"	116-126	C
Coda	"a"	127-161	C

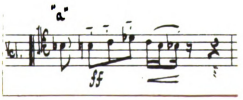
Fig. 14.--Fourth Quartet, I Movement

The descending part of the theme is immediately treated to imitation at the minor second interval, with the third and fourth entries in rhythmic diminution. The main motive for the movement is gradually taking shape.

Example 124, mm. 4-5

The main motive, designated "a," is announced in its final form in measure 7 in the 'cello, but it is not yet developed, so this statement can be considered as a forecast of the exposition.

Example 125, m. 7



After three more measures of sustained dissonances, similar to the opening measure, the principal motive is stated and imitated with its own mirror inversion. The first violin and viola are doubled in octaves as are the second violin and 'cello. Only the two upper parts will be quoted.

Example 126, mm. 11-12

The second theme is derived from the first, but with expanded intervals and less active rhythm. The treatment is highly contrapuntal, three voices taking part in a canonic passage, while the fourth, the viola, furnishes a whole step ostinato. The length of the motive and the length of the measures do not correspond, creating a displaced accent.

Example 127, mm. 17-18

This second motive, designated "b," contains thirds in addition to the semitones and whole tones of motive "a," and outlines the entire compass of a tritone. It can be observed that it is a six-note motive as the first one was, three notes ascending and three descending.

At the end of this brief statement of the second theme, there is a transitional motive which utilizes the first half of motive "a."

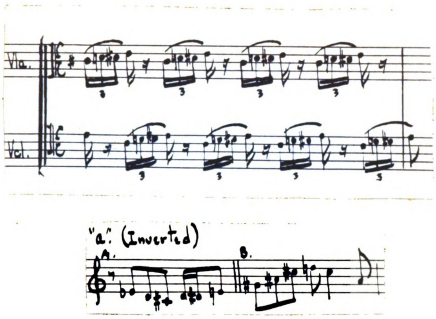
Example 128, m. 25

The counter-theme is reminiscent of motive "b" in its intervallic structure, but it is only a brief suggestion. Motive "b" outlines augmented fourths in both halves; this counter-theme begins with an augmented fourth, then compresses the interval to thirds and seconds.

Example 129, mm. 40-43

The end of the exposition comes in sixteenth-note triplets in semitones, covering the span of the minor third which the principal motive had occupied.

Example 130, m. 48



The development begins with a build-up of minor seconds like the introductory measures, which also expand into major seconds as they did earlier, this time with glissandos. A part of motive "a," with one note omitted, is the first treated, handled first in the context of the sixteenth-note rhythm.

Example 131, m. 54

Before the second subject, motive "b," is treated, a background of measured trills in minor seconds is established. The second subject, originally appearing in a canonic fashion, is now treated in inverse imitation. This texture prevails for some time before the main motive returns.

Example 132, mm. 60-61

The trill passages are interspersed with glissandos, then with fragments of the principal motive, and finally with the principal motive in its entirety. This texture leads to the recapitulation.

Recapitulations are seldom literal repetitions in the music of Bartók, and this one is no exception. The chief innovation of the statement of the main theme is that it is

combined with the upward sliding semitones of the introductory measures on its first statement. The two materials are then separated and the introductory material leads into the second subject, as it did in the exposition.

The second theme's treatment is almost identical with its first statement in material and in length. The return of the first theme develops the motive through extension of the line.

Example 133, mm. 117-119

The coda is based on variants of the main theme. The first version consists of sequential extension of the inversion of the theme and rhythmic embellishment with extra sixteenth notes.

Example 134, mm. 126-127

This statement, the original and its inversion are later interspersed with motion ascending in major and minor thirds, first in quarter notes, then in eighth notes.

Example 135, mm. 140-142

The thirds represent a wide intervallic expansion of the ascending part of motive "a," but also can be found to have a precedent in the intervals of the 'cello in the first measure.

Example 136, m. 1

From this point on until the end of the movement there are no significant changes in the main motive, but an interesting contrapuntal device occurs five measures before the end. Here the instruments are paired in octaves instead of the minor seconds which have pervaded the movement, indicating the same sort of "wrong" note treatment encountered in the Third Quartet. The minor seconds, major sevenths, and minor ninths can be regarded, then, as slightly misplaced octaves and unisons. The movement ends on strong unison and octave C's.

The motivic unity of this movement, as in the other movements of this quartet, is striking. There is scarcely a measure which is free from motive "a" or one of its derivatives. The technique of molding a tight unity by this method, only embryonic in the earlier works, can be seen now to have

reached full maturity.

Harmonic Materials

The vertical use of the horizontal motivic elements is consistent in this movement. The first measure introduced melodic minor seconds, in the upper parts, with sixths in the lower part. The intervals in the upper parts were soon expanded to major seconds melodically. Almost all of the vertical sonorities are constructed in minor and major seconds, with a few striking examples of exact serialization of the two elements. Representative examples of these techniques are quoted below.

Example 123 quoted all the parts with their minor second melodic movements, leading to the first subject. Examination shows that the vertical combinations also contain minor seconds.

Example 137

The same technique is demonstrated in Example 124, wherein the imitative entries are semitones apart, and the resulting sonority, which is sustained long enough for the definite chordal effect to be heard, consists entirely of minor seconds piled up from the bass note. The thematic material is developed for several measures, with the same vertical sonorities accompanying it.

Example 138, m. 5

The second theme, Example 127, contains wider intervals. Although the texture of this passage is contrapuntal rather than harmonic, it should be noted that the imitative entries begin on G sharp, C sharp, and G sharp, in that order, reflecting the wider intervals of its melodic motive.

Examples of triads and seventh chords may be found shortly before the end of the exposition section. The example quoted leads into a multiple-stop treatment of the principal motive. The use of triads is traditional except for the overlapping of the two sets in the paired parts by a major second.

Example 139, mm. 37-38

An example of the use of not only the same intervals but the same notes both vertically and horizontally can be found just before the beginning of the development section. The lower parts imitate each other with the triplet motive, using the notes C sharp, D, D sharp, and E melodically. The sustained sonority in the violins is constructed of the same notes.

Example 140, m. 47

Passages in which the vertical sonority is emphasized to the exclusion of horizontal interest are relatively rare in this movement, but occasionally the contrapuntal texture becomes thin enough that the interest is diverted from the movement of the individual lines to the composite sound. Such a passage was quoted in Example 132, occurring within the development section of the sonata form. The violins play trills in minor seconds, set a minor second apart, recalling motive "a" while the 'cello has the wider intervals of the second subject.

Example 141, m. 61

In the recapitulation section, the melodic sixths of the 'cello in the introductory measures take on vertical significance when they move up this time in parallel sixths.

Example 142, mm. 140-141

The widening of the intervals and the extension of the main theme in the coda was pointed out. The harmonic intervals are also expanded at the same time, and chords built in major seconds instead of the original minor seconds may be found.

Example 143, mm. 140-141

The simplification of the minor second to the unison and octave in the last of this movement was discussed above. The final two measures contain the principal subject punctuated with complex sonorities of the types already quoted, but the final sonority is built of unisons and octaves.

It can be seen, then, that not only is the motivic structure unified in its horizontal treatment, but that the unity is reinforced by the use of the same motivic intervals in the vertical structures, occasionally even the same notes.

Tonal Structure

The dissonant nature of this movement precludes

measure-by-measure tonal analysis, but certain generalizations can be drawn. Figure 14 showed the following relationships. The opening measure establishes C as the center, and while the passages immediately following this confuse the issue with the minor second sonorities, the entrance of the main theme in measure 11 re-establishes C as a center, by means of emphasis on the note C as the last note of the principal subject.

The entrance of the second theme in measure 14 introduces a bi-tonality, or perhaps a poly-tonality. The viola carries an ostinato of the notes C, D, and E, while the other parts emphasize C sharp, with a secondary emphasis on G sharp. As if to make sure that the tonal center of C is not obscured completely, Bartók moves the C, D, E, ostinato to the 'cello in measure 19, where it remains until the return of the first subject, measure 26. From that point until the beginning of the development, measure 49, there is a tendency to emphasize C sharp, but the beginning of the development returns to C as a point of departure with its rapidly fluctuating key centers.

The recapitulation, beginning in measure 92, although not a literal repeat in a thematic sense, follows a tonal pattern similar to the exposition. The simplification of the vertical sonorities at the end of the movement serves to establish the center of C quite firmly.

The tonal emphasis on C and C sharp is still another instance of the consistency of the materials in this movement.

The principal melodic and harmonic elements were semitones, and so are the movements of the tonal centers.

Second Movement

The second movement, marked prestissimo, con sordino is in over-all three-part form. The middle material is contrasting only in rhythm and general mood, but the difference is marked enough to justify calling it a separate section. The return of the first section is not literal, but it is the same material as the first, modified and extended. Figure 15 outlines this movement.

Melodic and Rhythmic Motives

The main rhythmic impression of the entire movement is one of sweeping motion. The melodic feature encountered almost throughout the movement is again the semitone. The example quoted shows that the semitone predominates in the theme, with a diminished third toward the end, the entire theme covering the span of a perfect fifth. The relationship to motive "a" of the first movement is demonstrated below.

Source Motive

Motive "a"

II Movement "a" variant (1)

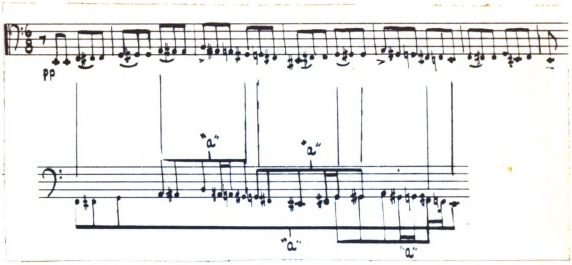
Variant (2)

A B A Form

Section	Motives Used	Measures	Main Tonalities
A	"a" variant (1)	1-72	E
B	"a" variant (2)	73-169	B^b
A	"a" variant (1)	170-250	E

Fig. 15.--Fourth Quartet, II Movement

Example 144, mm. 1-7



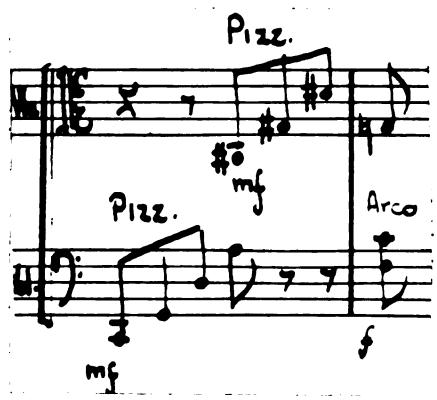
This motive and intermittent repeated notes constitute most of the material of the first section.

The first important variant of the minor second motion appears in a descending scale line, this time in a diatonic Phrygian scale.

Example 145, mm. 30-31

Immediately following this statement the 'cello and viola state imitatively a motive of fifths moving upward. This motive has precedent in the span of the main theme, which covered a fifth in its entirety. The statements of the motive do not ignore the semitone, for they appear on successive semitones.

Example 146, m. 32



The next time the arpeggiated motive appears the intervals are altered to fourths, sevenths, and sixths, and accompanied with trill figures which are to become important in a later passage. The minor second trills have a basis in the minor second motion of the main motive.

Example 147, mm. 51-52

Following this, the main motive is treated canonically at the interval of the octave until the entire theme has been stated in each voice. After some play with fragments of the motive and repeated notes, the second section begins.

The texture is changed in the middle section by a change of meter in the 'cello from 6/8 to 2/4, setting up a two-against-three rhythm in the accompaniment. The violins treat the melodic material imitatively, while changing to the simple meter. The motive is comprised of sixteenth-notes and the diminished third of the end of the first motive, surrounding the note F by minor seconds on both sides. This motive is derived from motive "a" of the first movement, and from the end of the first theme of the present movement.

Example 148, mm. 79-80

The imitation reinforces the melodic motive by occurring now at the interval of the major second, reflecting the span of the diminished third as it is notated in the melodic material.

A remarkable developmental skill is demonstrated in the succeeding passage. The motive just quoted is imitated and inverted, becoming an ostinato and the sole source of melodic material for a long passage. Finally the ostinato, which is made of seconds and thirds intervallically as well as rhythmically takes over the entire texture and a theme is derived from it.

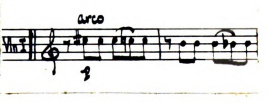
Example 149, mm. 114-115

The transition back to the first section begins with a stretto passage based on an expanded version of the ostinato. The entire theme covers a diminished octave, as it is notated, and the recurring statements begin at different parts of the measure. At the prestissimo tempo, however, the aural effect is almost that of a glissando.

Example 150, mm. 162-163

Following this rapid activity, the pace slackens by means of interspersing rests. The repeated notes of the first section reappear and accompany an imitative treatment of an inversion of a fragment of the original theme.

Example 151, mm. 175-176



The return of the first section shows no significant motivic changes. The motives already stated are given extensive contrapuntal development, and the movement ends in prestissimo activity, as it had begun.

All the motives for this movement have their source in the first theme (quoted in Example 144) which is derived from extensions of motive "a." The minor second is the important interval and the fact that it is often expanded simply demonstrates a Bartókian developmental technique. It is a remarkable movement, achieving an amazing amount of variety with extremely limited material.

Harmonic Materials

The vertical sonorities for this movement consist mainly of chords constructed of major and minor seconds. The predominant sound is heard in the first measure, over the semitone motion of the melodic theme.

Example 152, m. 1

Minor seconds dominate the texture for twenty-six measures until the interval of the diminished third, found in the closing measures of the main theme, receives some development. At this point the intervals of imitation are a major second apart. The brief passage culminates in the downward diatonic scale passage. The following example shows a chord built of whole steps from F to B at the first of the scale, culminating in a chord constructed of all the notes of a Phrygian scale.

Example 153, mm. 30-31

The ensuing passage shows more development of the fragment of the theme which contains the diminished third,

and again features harmonies built in seconds. The melodic material subsequently undergoes some intervallic expansion, but the sonorities remain basically in seconds.

The middle section of the form begins with a two-against-three ostinato in the lower two instruments. The melodic intervals of these ostinato patterns are also seconds and thirds. The resulting texture is a sonority which covers a minor third in its entirety, as did motive "a," with all the semitones present in the measure.

Example 154, m. 76

The melodic material of this section, as quoted in Example 148, was the new theme built on the diminished third. The entire section maintains its close construction both vertically and horizontally until a few measures which contain glissandos spanning ninths. It can be seen that it is still basically concerned with seconds, and, in addition, each succeeding glissando begins on a higher note in stepwise

succession. This progress can be followed from instrument to instrument and also following within the line of any single instrument.

Example 155, mm. 136-138

The closing measures of this movement show an example of a technique in which Bartók was apparently letting his pyramidic melody serve a harmonic function. The 'cello line contains chords built upward in perfect fifths, while the line of sound created by the glissandos emphasizes in turn F, G, A, B, and finishing with a jump to E. The result is an almost traditional sounding dominant to tonic cadence on E.

Example 156, mm. 248-250

The basic harmonic concept of this movement, then, is one of seconds. While there are a few examples of chords built in fifths, such as those seen in the last measures, they are in the minority, just as their corresponding melodic fifths were. The melodic and harmonic materials remain consistent.

Tonal Structure

As shown by Figure 15, the central tonality is E. While there are, of course, momentary changes to other tonal centers within the first section, they are of a fleeting

nature. The feeling of E is re-established from time to time within the section, and the canon closing the section, starting in measure 54, is one in which each voice begins on the note E. The passage following the canon and leading into the middle section moves away, passing through several centers, and finally arriving at the tonality of the middle section.

The middle section of the second movement, beginning at measure 76, is centered, by means of the ostinato pattern in the lowest part, on B flat. Even when the B flat ostinato moves to the top voice the tonal center remains unchanged. The tonality of the contrapuntal passage closing this section is indeterminate because of its rapid movement from one pitch to another. Just before the return of the first section, there is a movement up through C, C sharp D and E flat. The center remains on E flat for several measures, until the return of the first material on its original center, E. The firm close in E was demonstrated in Example 156. The tonal compass of the tritone, and tonal movements by steps correlates with the melodic and harmonic material.

Third Movement

The rhapsodic middle movement of the Fourth Quartet can be regarded as either a source movement for material for the other movements, or perhaps just as logically as the culminating movement, in which all the preceding material is

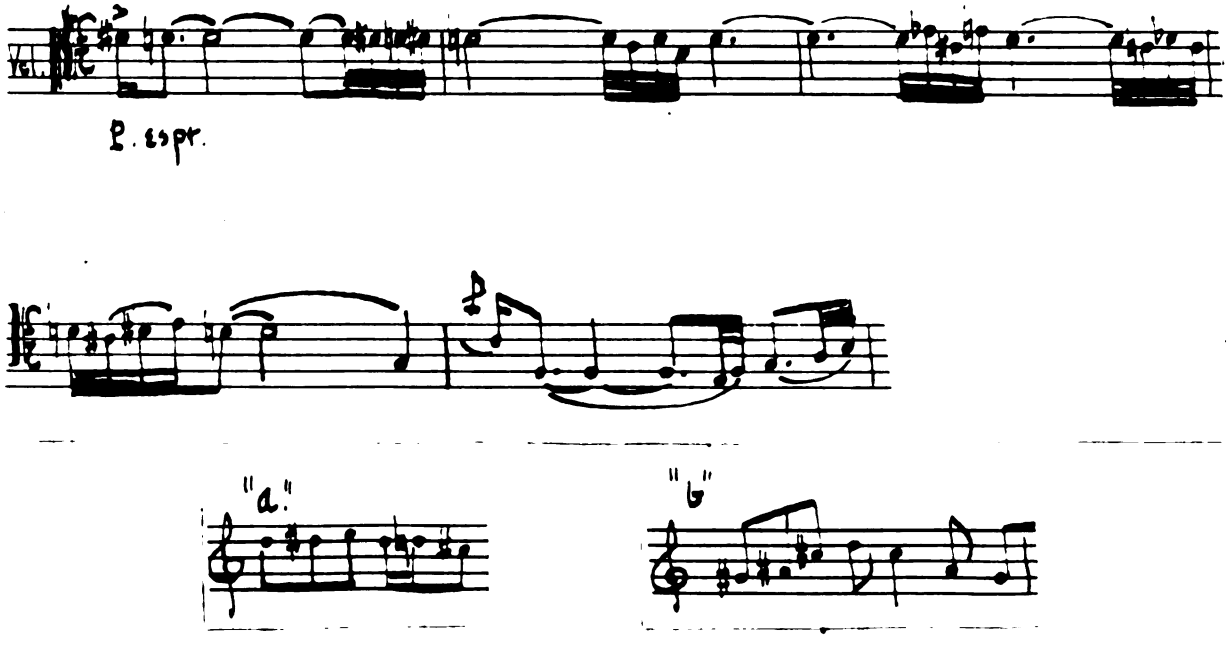
gathered into one place, to be disseminated again in the two which follow it. It contains the material from which the entire quartet is constructed.

The over-all form of this movement, outlined in Figure 16, is sectional: A, B, C, A, and Coda. It is in a rhapsodic style, using each instrument as a solo instrument at various points in the form.

Melodic and Rhythmic Motives

The first melodic material is heard in the 'cello. It plays strongly on the interval of the minor second and the diminished third. The rhythm is free, laying the groundwork for the rest of the movement. The second part of the theme expands into the interval of the fifth, as noted in the first and second movements.

Example 157, mm. 6-10



Source Motives

(Rhapsodic developments of Motives "a" and "b" [cf. Figure 14])

Sectional Form

Sections	Motives Used	Measures	Main Tonalities
Introduction	(Harmonic)	1-5	Indeterminate
A	Elements of "a" and "b"	6-34	Indeterminate
B	Major Second	35-41	C
C	Elements of "a" and "b"	42-55	G^b
A	Elements of "b"	56-63	Indeterminate
Coda	Elements of "a" and Major Second	64-71	Indeterminate (feeling of A)

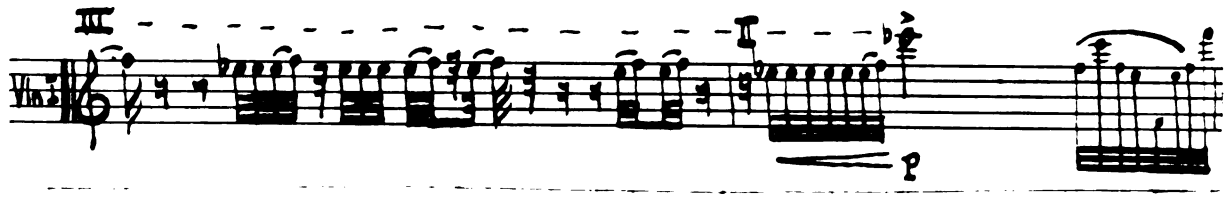
Fig. 16.--Fourth Quartet, III Movement

The 'cello continues throughout the first section, developing this material soloistically. One more notable feature of its line should be noted, however, occurring in measure 29. The contour of this triplet pattern is reminiscent of the main motives of both the first and second movements of this quartet.

Example 158, mm. 29-30

The second section, measure 35, begins with the first violin, first with repeated notes, then with thematic material built on the second and its inversion, the seventh.

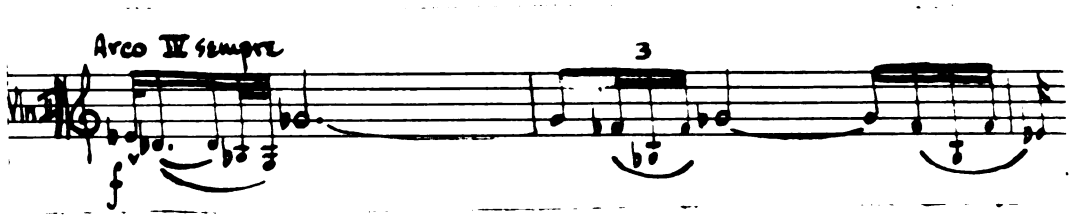
Example 159, mm. 36-38



This section is brief and offers no further significant development.

The third section, measure 42, uses both the second violin and viola as solo instruments. Intervals in the theme include seconds, thirds, and sevenths, with an additional emphasis on the tritone. The tritone stands as an echo of the first movement, while the other intervals might have come from either the first or second movement. The quick syncopation at the beginning of the motive is like the rhythm of the opening theme of this movement.

Example 160, mm. 42-44

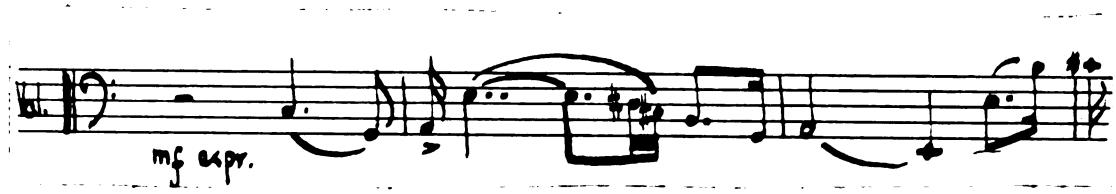


A few measures later, in the second violin line, another echo of the contour of the short-range theme of the first and second movements can be found.

Example 161, mm. 47-48

The return of the first section at measure 56 utilizes the interval of the fifth from the opening theme and the steps which followed it, treating it imitatively between the two outer voices. The first imitation of the 'cello theme is inverted in the first violin; later both are inverted.

Example 162, mm. 55-57



After this treatment is completed, the Coda begins in measure 64, using material (intervals of the second and seventh) from the second section of the movement. The movement's ending, like its beginning, is given to a solo instrument.

Viewed from a larger perspective (that is, grouping the second and third sections together), this movement, like its predecessors, is based on a ternary concept. As discussed above, the entire quartet falls into a large three-part design as well. With this in mind, it is possible to regard this movement as the turning point of the quartet rather than its source movement--developmental rather than

expositional.

Harmonic Materials

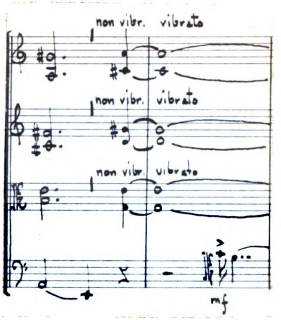
The harmonic materials of this movement, as in the other movements, are based on the interval of the second. Because of the slower tempo, vertical sonorities are perceived more easily than in previous movements. If further proof is needed of Bartók's concentration on consistency of idiom, the third movement of the Fourth Quartet will furnish it. If anything the harmonic structure is more rigidly controlled than it had been earlier.

The opening measures build the sonority by adding one instrument at a time, beginning with the second violin. The resultant sonority is constructed of two groups of three major seconds each, E, F sharp and G sharp, and A, B, and C sharp. While it is possible that the similarity between this pattern and the six notes of motive "a" is accidental, the similarity is striking. The use of this harmony and transpositions of it within this third movement is so consistent that it must be concluded that a degree of ordering of materials has been consciously devised.

Example 163, mm. 1-4

This sonority is sustained until the end of the thirteenth measure, where it changes one note and injects the element of the minor second into the texture. Now one of the groups of three notes is entirely constructed of minor seconds and the other group has one minor second in its sound. There are other possible analyses, such as fifths with misplaced notes, but the spacing and arrangement of notes indicate a minor second construction.

Example 164, mm. 13-14



The next significant changes in harmony occur in measures 32 and 33. First there is a chord built upwards in fifths from E, until C sharp is reached, then it is built downwards in fourths, indicated by the spacing of the chord, or otherwise can be thought of as being built upwards in fifths entirely. The resulting sound is the same combination which opened the movement, the two sets of whole steps; but the spacing is different, causing it to be heard from a different criterion. The harmonic change in measure 33 is again to one containing minor seconds.

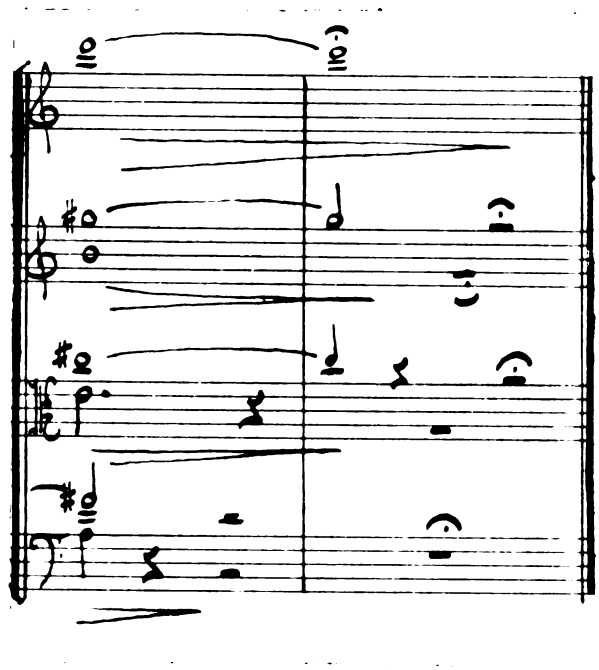
Example 165, mm. 32-33

For some time following the example just quoted, the texture is primarily imitative, placing the emphasis on the linear aspect for the third section of the movement. The return of the material of the first section is also treated polyphonically, so that the next primarily chordal section is in the coda. The chord at that point contains the same notes as the opening chord, but the spacing now demonstrates even more strongly its origin in perfect fifths.

Example 166, m. 64

The final chord of the movement is the same as the first except for the additional note in the first violin, which simply adds one more fifth below the original sonority.

Example 167, mm. 70-71



It is also interesting to note that whereas the beginning had added one instrument at a time, the final measures dropped each part singly. The movement is not a cancrizan, but the symmetry is hardly less perfect.

The harmony of the third movement is based largely, then, on chords built in major seconds, perhaps derived from perfect fifths, instead of the prevailing minor seconds of the earlier movements. The melodic interval of the fifth and the major second are found in sufficient quantity in this movement in the first and second sections; therefore, the harmony could be considered as a reflection of the melodic intervals as it had been in the earlier movements. It is

also a strong Bartokian technique to expand intervals in the development of a theme, and in view of the developmental nature of the third movement, the major second harmony could simply be considered as an expansion of the minor second construction of the first two movements.

Tonal Structure

This movement is constructed on the principle of avoiding a solid implication of tonality as seen in Figure 16. The first sound of the movement is G sharp, and the lowest note of the first harmony is a B, but neither of these furnishes a stability to the material. If the harmony is interpreted as being constructed on intervals of fifths, the lowest note of much of the harmonies is A, but it also fails to serve as a tonal center. In the second section a pedal establishes C as the center, and G flat fills the same role in the third section. The return of the first section is as indefinite as its original statement. The final chord, built of the same notes as the first chord, could be said to have a root of A, but the last note, sustained alone, is a D instead of the first G sharp. This solo note in the first violin does give an indication as to where the key center had been, for it has a sub-dominant feeling. The aural effect, then, centers on A, but it is certainly not a well-established tonality.

Fourth Movement

Figure 17 outlines the form of the fourth movement. It corresponds to the second in many ways: in thematic material; in its three part form; in its tonal structure as related to the primary key of the quartet; its fast tempo; and in the consistent use of a special string effect. The second movement had been marked *con sordino* while this one is *pizzicato* throughout. The movements are far from identical, however, and if the analogy of the arch may be used, the two movements may be said to occupy corresponding positions in the construction, and to be of the same size, but they are different "colors."

Melodic and Rhythmic Materials

Whereas most of the second movement had been in compound time, the fourth movement is in simple time, imparting a different character to its main theme. In addition, the present theme is a scale line built in larger intervals than had been found in the second movement. It employs a mixed mode, rather than chromatics.

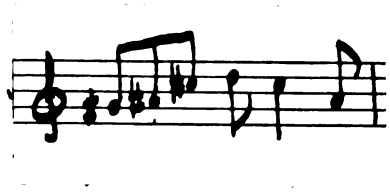
Example 168, mm. 6-9

Source Motives

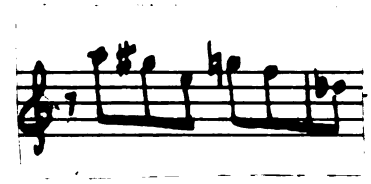
Motive "a"

IV Movement "a" variant

Motive "b"



IV Movement "b" variant



A B A Form

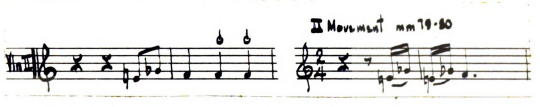
Section	Motives Used	Measures	Main Tonalities
A	"a" variant	1-45	A^b
B	Elements of "a"	46-87	A and D
A	"a" and "b" variants	88-124	A^b

Fig. 17.--Fourth Quartet, IV Movement

This theme, treated imitatively, constitutes the material for the entire first section. The tonal organization will be treated in more detail later, but it is interesting to note that the imitative entries in this first section scarcely deviate from a traditional A flat to E flat relationship.

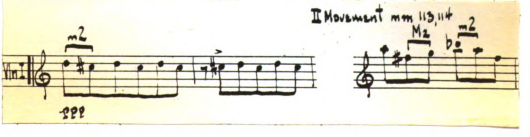
The second section's melodic material begins with the diminished third, as had the second section of the second movement. The accompaniment is changed here, as it was in the earlier counterpart. The same notes are employed here as were found in the second movement.

Example 169, mm. 47-48



A second thematic idea can be found in the middle section--a minor second alternation idea. This compares to the ostinato of the middle section of the second movement which was eventually moved up to the upper parts.

Example 170, mm. 65-66

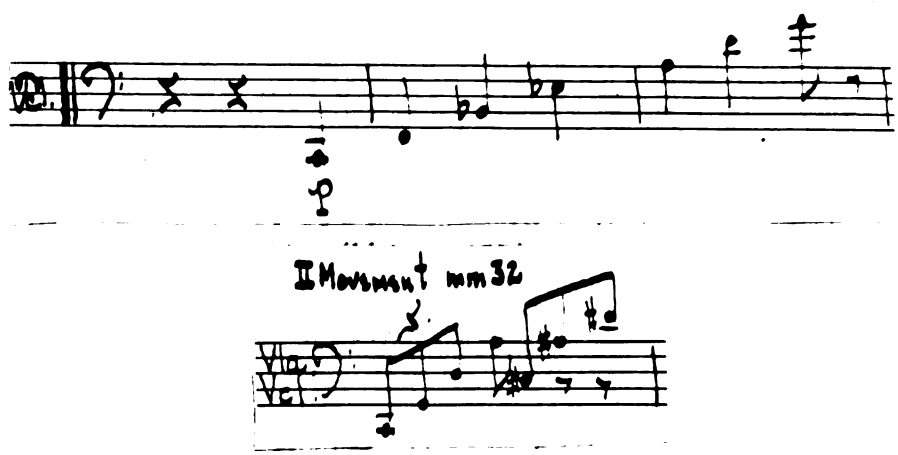


The first material returns on the original level, A flat, and is imitated at one-beat intervals by the 'cello. This section is shorter than the first, soon giving way to a coda based on fragments of the main theme. The closing measures contain a motive based on the principal theme of the movement, but containing a third. The augmented fourths can be compared to motive "b."

Example 171, mm. 120-122

The 'cello line leading up to the final cadence further expands the melodic material with a series of fourths. This corresponds to the second movement with its rising fifths quoted in Example 146.

Example 172, mm. 120-122



Although the melodic material has much in common with that of the second movement, it has its own distinguishing features. The differences in meter and rhythm serve greatly to differentiate the materials.

Harmonic Materials

Most of the harmony of the fourth movement returns to the minor second motive that had occupied the first two movements of the quartet. In several instances other organizing factors may be discerned, but the spacing indicates a primary emphasis on the minor second.

The opening measure sets the pattern, as it has done in most of the Bartók movements. The sonority contains G, A flat, D, and E flat.

Example 173, m. 1

Examination of this sonority will show it to be constructed of fifths juxtaposed at the minor second. This type of organization is more nearly like the third movement than the second. It predominates the first section.

The second section brings a change of harmonic organization. Now the minor second basis is clear as a cluster of six notes is arpeggiated in the 'cello and viola. A relationship to the organized harmonies of the third movement can be seen in the two groups of three minor seconds each, but this relationship is obscured by the spacing in the same register.

Example 174, mm. 47-48

Another use of the cluster technique in combination with a major third occurs a little later in the middle section.

The semitones from D to A flat appear in combination with a C on top of the sonority.

Example 175, m. 64

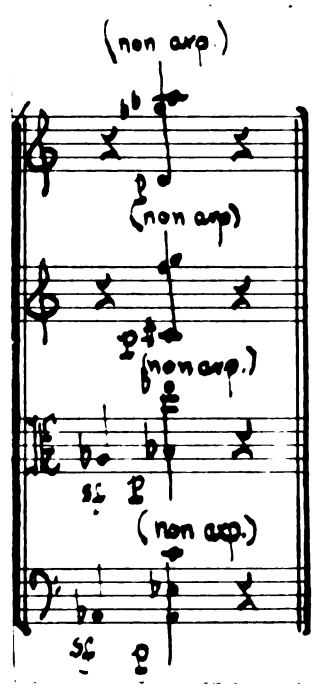
The minor second alternation appearing in the latter part of the middle section is punctuated with chords made up of a three-note cluster. This cluster is useful to demonstrate Bartók's constructional skill. The notes E, F, and F sharp, constitute a transposition of motive "a" of the first movement, but are also consistent with the semitone emphasis of this movement. Thus the same sonority unifies the inner texture of the movement as well as linking it to the first movement.

Example 176, m. 68

This sonority and transpositions of it predominate throughout the end of the middle section and the bulk of the return of the first section.

The final sonority seems especially complex at first glance, for it contains nine of the twelve chromatic tones. However, it is basically a chord built upwards in fifths from A flat to D. The remaining notes, G flat and C sharp, can be regarded as ornamental added notes, or as a continuation of the fifths with three notes missing, A, E, and B.

Example 177, m. 124



In the fourth movement the harmonic emphasis returns to the minor seconds that had prevailed in the first two movements. There is a link with the third movement in that the organizing factor is sometimes the perfect fifth, affirmed by the final chord.

Tonal Structure

Although the opening measures emphasize G and A flat, the entrance of the main theme established the tonality of A flat firmly. The succeeding entries, mostly on A flat and E flat, reaffirm the A flat. The entire first section remains in this tonality, as shown in Figure 17.

The clusters of the second section, beginning in measure 45, tend to confuse the tonality, but the ear's natural predilection for the lowest note tends to isolate A as the tonality. The tonality soon changes to D and remains there for the most part until a false entry of the first theme occurs at measure 78, at which point the main tonality of the quartet, C, is briefly emphasized.

The return of the first section in measure 88 re-establishes A flat, and there are no appreciable departures from this tonality from there on to the end.

Since the shift from A flat to A in tonal centers is so brief, it is probably stretching the motivic analogy to suggest that this was intended to be a reflection of the melodic and harmonic motives of the movement. The main point of the tonal relationships lies in the fact that the tonal center of A flat of the fourth movement lies a third below the main tonality of C, whereas the second movement was on E, a third above.

Fifth Movement

Like all the other movements of this quartet, the fifth movement is in three-part form, outlined in Figure 18. It shares melodic material and a tonal center with the first movement, but, as in the case of the second and fourth movements, the treatment is different in the fifth movement.

Source Motives

Motive "b"

V Movement "b"

Motive "a"

A B A Form

Section	Motives Used	Measures	Main Tonalities
Introduction	(Harmonic)	1-15	C
A	"b"	16-148	$C^{\#}$
Transition	Element of "a"	149-182	Indeterminate
B	"a"	183-241	Rapidly shifting
Transition	(Like Introduction)	242-249	F & G^{b}
A	"b"	250-374	$C^{\#}$, C
Coda	"a"	375-392	$C^{\#}$, C

Fig. 18.--Fourth Quartet, V Movement

The contrapuntal texture is not so heavy as it had been in the first, having its main accompaniment in thick vertical sonorities.

Melodic and Rhythmic Motives

The first melodic motive of this movement is heard in the first violin and covers a span of a diminished fifth. The intervallic construction corresponds exactly with the second subject of the first movement, the last part of which is now placed in smaller note values.

Example 178, mm. 15-18

Unlike the treatment in the first movement, this theme is not immediately treated contrapuntally but is heard in unison in the first and second violins over an accompaniment of chords based on the C to G fifth.

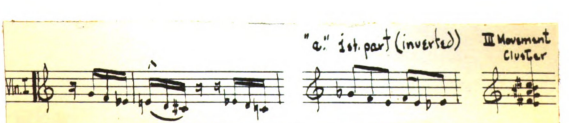
This theme is next inverted, then expanded intervallically. Although the final version retains few exact

indications of the original theme, it is still easily recognizable.

Example 179, mm. 31-34

This single motive furnishes the material for the entire first section of one hundred and forty-eight measures. In the latter part of the first section it is treated imitatively, and fragmented for imitative textures. As the section comes to a close the sixteenth-note rhythm is given some development in groups of three notes. The span of each three-note motive covers a minor third and the motives overlap by a minor second. The motive reminds the ear of motive "a." It can also be observed that the sum of all six notes is like the chord clusters of earlier movements of this quartet.

Example 180, mm. 141-142



The second section of the movement slows the activity and introduces a new theme. Although its character and intervals are greatly changed from the first theme of the movement, there is still present a sense of identification between the two themes.

Example 181, mm. 156-162

The section contains many statements of the slightly extended version of motive "a," the main theme of the quartet. It is first stated in a more precise form in the 'cello, as it had been in the first movement.

Example 182, mm. 162-164

The return of the first section is somewhat free, but the motive "a" variant still dominates the texture. It is treated more polyphonically than in its first appearance and is punctuated intermittently with chords. One of the developmental techniques employed is a two-part canon on an expanded and extended version of the first theme of the movement.

After a four-part stretto-like treatment the music picks up momentum and comes to a close on a series of col legno chords followed by a sustained note in the 'cello.

The coda is based mainly on motives from the first theme of the movement, especially the first three notes, which are treated in quick imitation. Finally in the latter part of the coda, the first theme of the first movement (motive "a") again takes over the texture and brings the movement to a close in a manner almost identical with the first movement. The extended range of the instruments in the last of the fifth movement gives the over-all effect a more intense feeling than had prevailed in the first movement; but the motives and their treatment remain the same. The last two measures of each movement are identical.

Harmonic Materials

The harmonic techniques of this movement correspond more precisely to those of the third movement than the first.

Whereas the first movement had harmonies constructed purely in semitones, this movement and the third movement have harmonies which utilize semitone dissonance but are basically organized on the perfect fifth. At the first entry of all four parts, the chord is one built in fifths with added notes. The main note is C, with an F below it, G above it with added F sharp and D flat for color. The semitone dissonance is striking to the ear, but it is not the main organizing feature of the sonority. This will be seen throughout this movement.

Example 183, m. 4

Examples of bi-tonality may also be found in this movement. One such harmony consists of a combination of chords built on A and C, respectively, with added notes. It is possible to call the chord an A seventh chord with added notes, but the separation of the two chordal elements between instruments suggests the double analysis.

Example 184, m. 44

The semitone is present with the added notes B flat and D sharp.

The bi-tonal analysis becomes quite clear later in the first section when chords built on A flat and D are contrasted. The resultant sonority groups the semitone

dissonances around D, E flat, and A.

Example 185, m. 124

The middle section is primarily contrapuntal. The vertical intervals remain consistent with the predominant texture, however, with emphasis on the minor and major second.

The return of the first section is punctuated with the same bi-tonal chords just quoted, transposed a third higher. This time the contrasting sonorities are chords built upwards in fifths from G flat and those built upwards in fourths from C.

At the end of the section the col legno chords

referred to earlier are built in diatonic fifths from a bass note of F. The spacing of the chord places major seconds in juxtaposition, but the origin in fifths is clear.

Example 186, mm. 336-337

The concluding chord is the same as that of the first movement, a bi-modal C major and C minor chord.

Tonal Structure

The tonal center of C is well established from the beginning of the movement. The entrance of the first theme is on C sharp, harking to the "wrong note" treatment of earlier quartets. As shown in Figure 18, it remains the principal tonality of the section.

It has become by this time a Bartókian trait for the middle section of a movement to be less firmly rooted in a tonal center than the outer parts. This technique was even extended to the entire middle movement of this quartet. The middle section of this movement, beginning in measure 183, follows this pattern. It is not atonal in nature, but the tonality fluctuates so rapidly that a predominant tonality is difficult to place. From time to time in the section--at the first statement of the first movement's principal theme, at the development of that theme and again at the combination of the two motives of the middle section--the tonality is centered on E.

The return of the first section at measure 238 begins on a tonal center of C sharp. In the ensuing thirty measures the center shifts to G flat, F, E flat, and finally to C. The alternation of C and C sharp which is predominant in this movement suggests that Bartók considered the two centers synonymous. The canonic treatment of the first theme of the movement follows the re-establishment of C as a center and is itself centered on C sharp.

The coda begins on a C sharp center with the first theme of the movement (motive "a" again), and the solid C is not established firmly until the last measures.

Summary

Figure 19 recapitulates the main motives from each movement of the Fourth Quartet for the purpose of further comparison. The relationships between the motives of the first and fifth movements and between the second and fourth has been discussed, as well as the culmination of the development as seen in the third movement. It remains to summarize the over-all similarity of all the motives.

There are two distinct ideas in the Fourth Quartet--one based on conjunct motion, both minor and major second, and the other based on fifths, both perfect and diminished. The first motive is the more compact, covering only a minor third. The second expands into a diminished fifth, but bears similarity in contour to the first motive. They can be considered as having a common basis.

The second movement's first theme is based on the semitones of the first theme, but combines the properties of both themes of the first movement by spanning a fifth. The fifth appears later in a 'cello motive.

The third movement, as discussed above, develops all the material of the quartet in a rhapsodic vein. It is ternary in design, ending as it had begun on a solo note.

The material of the fourth and fifth movements is based on the earlier motives and bears the same relationship

Fig. 19.--Fourth String Quartet

to each other as the material of the first and second movements. The symmetry is completed when the quartet ends with the identical two measures that ended the first movement.

The harmony is largely constructed on minor seconds. From the third movement on, however, it can be seen that the organizing factor is the perfect fifth. Both of these intervals have precedent in the melodic material. The construction in fifths in the later movements tends to stabilize the material so that the tonal centers are clearer as the quartet comes to a close.

The tonal structure of the quartet and its symmetry has already been discussed. The first movement is on C, the second on E (a third above), the middle movement is largely indeterminate, the fourth is on A flat (a third below the main tonality), and the final movement returns to the main tonality of C, sometimes combined with C sharp.

As stated in the introduction to this chapter, many regard the Fourth Quartet as being in a large sonata-allegro form in its entirety. Considering the similarity of material throughout the quartet this is again a case of applying traditional labels to material which is largely outside the realm of traditional tonality. However if the analogy may be pursued, then it would be more accurate to compare the quartet with a modified sonata-rondo form, since each of the sections

is in a three-part form. The three-part design is especially affirmed in the middle movement in the cancrizan-like pattern of the opening and closing measures.

CHAPTER VI

STRING QUARTET NUMBER 5

General Traits

Bartók wrote his Fifth Quartet in one month in 1934 after it had been commissioned by the Elizabeth Sprague Coolidge Foundation. In structure it closely resembles the Fourth Quartet, cast also in the arch form of five movements, but with the pace of the inner movements reversed. In the matter of the construction of the separate movements Stevens says that it has no loose ends, that it is as economical as the Fourth.[1] Helm says that the Fifth shows little that is new after the Fourth except for the interruption of the vigorous, dissonant finale with a tonic-dominant "barrel organ" episode and the Bulgarian rhythms in the scherzo.[2]

In an article on the Fifth Quartet Roger Chapman places this quartet in a period of "synthesis." In it Bartók is concerned with rigorous linear writing and structural considerations.[3] In the matter of harmonies, however, the Fifth

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[1]Stevens, p. 191. [2]Helm, p. 21.

[3]Roger Chapman, "The Fifth Quartet of Béla Bartók," Music Review, XII (November, 1951), 296.

represents a relaxation of the harshness of the earlier works.[4] As such it is a combination of the techniques used in all the earlier quartets. It is a work of full maturity with little or no evidence of experimentation, combining the melodic, harmonic, and structural techniques which were refined in the earlier works.

The pairing of the movements of the arch form is not as literal in this work as it had been in the Fourth Quartet. Thematic material is shared in the first and fifth movements and in the second and fourth movements, but it is a more subtle technique in the Fifth. The tonal centers have the same pivotal relationship to the main tonal center of the quartet, the order being B flat, D, C sharp, G, and B flat. The idea of the arch is carried further in the individual movements in this work, for the first and last movements are cast in sonata-like structures with the order of the themes reversed in the recapitulations. The symmetry of construction is carried as far in this quartet as Bartók was ever to take it.

First Movement

The thematic material of this quartet, although interrelated, shows more variety than it had in its immediate

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[4]Mason, p. 7.

predecessor. The over-all form, outlined in Figure 20, is a sonata-like structure with a reversed and inverted recapitulation. The order of themes in the exposition is Introduction, Ia, Ib, Introductory material repeated, II. In the recapitulation this order becomes Introduction, II, Ib, Introduction, Ia, which leads into a Coda.

Melodic and Rhythmic Motives

The introductory theme is based on a motive of repeated notes and a major second.

Example 187,[5] mm. 1-2

This major second is expanded into a third and leads into the first theme of the movement, designated "a."

Example 188, mm. 4-6

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[5]Copyright 1936 by Universal Edition; renewed 1963. Copyright and renewal assigned to Boosey & Hawkes, Inc. for the U.S.A.

Source Motive

Motive "a"

Sonata-Allegro Form

Section	Motives Used	Measures	Main Tonalities
Introduction	Elements of "a"	1-4	B^b
A	"a" and variants	5-44	B^b to C
B	"a" variants	45-58	A
Development	"a"	59-85	Begins on E, rapidly shifting
	Variants	86-126	
Introductory	Material	127-132	F
B	"a" variants	133-146	$F^{\#}$
A	"a" variants and "a"	147-209	C^b to B^b
Coda	Introductory Material	210-218	B^b

Fig. 20.--Fifth Quartet, I Movement

The intervallic elements of this compact theme consist of minor seconds, perfect fourths and fifths, and minor thirds.

A five-note pattern leads into an extension of the same theme, with reorganized material in the latter part, but using the same intervals.

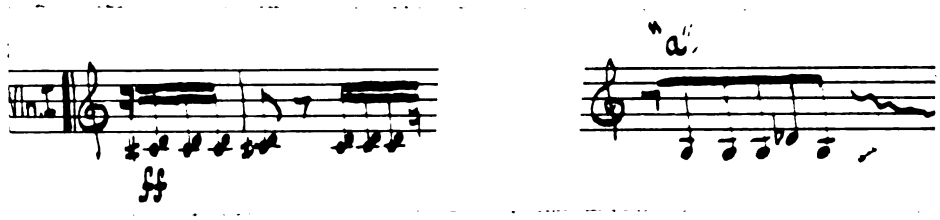
Example 189, mm. 8-9

The statement of the first theme is followed by a brief passage utilizing the fourth and ornamented with trills. It is also accompanied with suggestions of the first theme.

Example 190, m. 15

This transitional passage culminates in the repeated notes of motive "a," this time in sixteenth notes.

Example 191, mm. 23-24



The second part of the main theme emphasizes the minor third, but it is now a tenth by octave transposition. The rhythm is syncopated and dotted lines indicate the subdivision of the measures of the theme.

Example 192, mm. 24-27

The first theme, composed as it is of motive "a" and its variants, is presented in a ternary design by means of a return to the first rhythmic version. The repeated notes and conjunct motion of motive "a" serve as a transition to the second subject.

The second theme is quite closely related to motive "a" but is made individual by a change in meter and character and a thinning of the texture. It is taken by the instruments in turn. Sustained notes make up the rest of the texture, creating a strong contrast between this passage and the vigorous percussive blows of the first subject.

Example 193, mm. 44-46

The development section begins with the introductory repeated chords and leads into development of fragments of the first subject. Through an integration of materials the first and second themes begin to resemble each other ever more closely until they are indistinguishable.

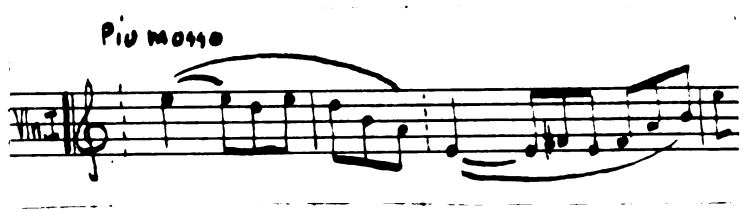
The melodic motives already quoted otherwise retain

their basic shape and rhythm for the bulk of the development section. An important exception can be found in a rhythmic variant of an inversion of a motive "a" variant, Example 189. The inserted triplet rhythm forecasts the Bulgarian rhythms of the Scherzo movement.

Example 194, mm. 108-111

The motive thus created occupies the texture for nine measures. A rhythmic variant of the derived motive then appears and serves as the link between the end of the development and the recapitulation.

Example 195, mm. 119-121



The recapitulation is announced by the introductory repeated notes, thickened by the addition of a vertical semitone, and inverted.

Example 196, mm. 126-127

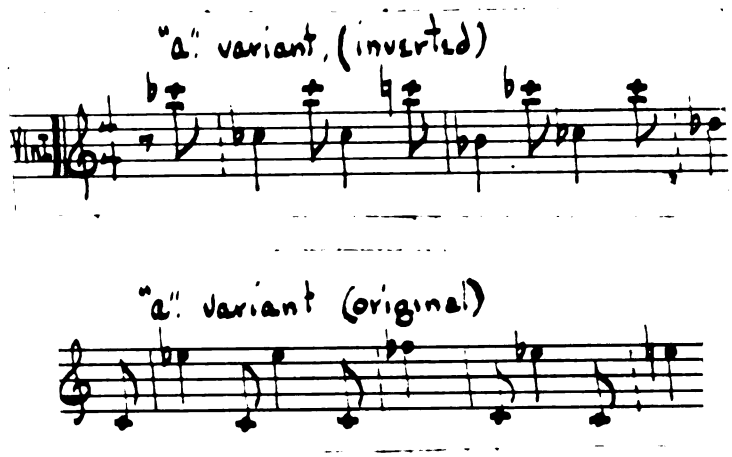
It leads directly into an inversion of the second theme, treated in the same manner as in the exposition.

Example 197, mm. 132-133

An inversion of the second part of the main theme follows the second theme. It occupies about the same amount of time as it had in the exposition and is followed by the

introductory theme, again inverted.

Example 198, mm. 147-148



The first section returns then and is handled in such a way as to create almost a second development section. The original form of the theme, inverted, and the triplet derivation first encountered in the development are treated imitatively for twenty-six measures. This part of the first theme had occupied only nine measures in the exposition.

The end of the recapitulation and the beginning of the coda is marked by a brief play on the introductory theme, still inverted. The tempo is increased and the contrapuntal texture thickens. The thematic material consists of ascending and descending scale lines which had been found in almost all parts of the movement. The movement comes to a close with a final statement of the introductory theme, this time in its original form, and with imitation of fragments of the

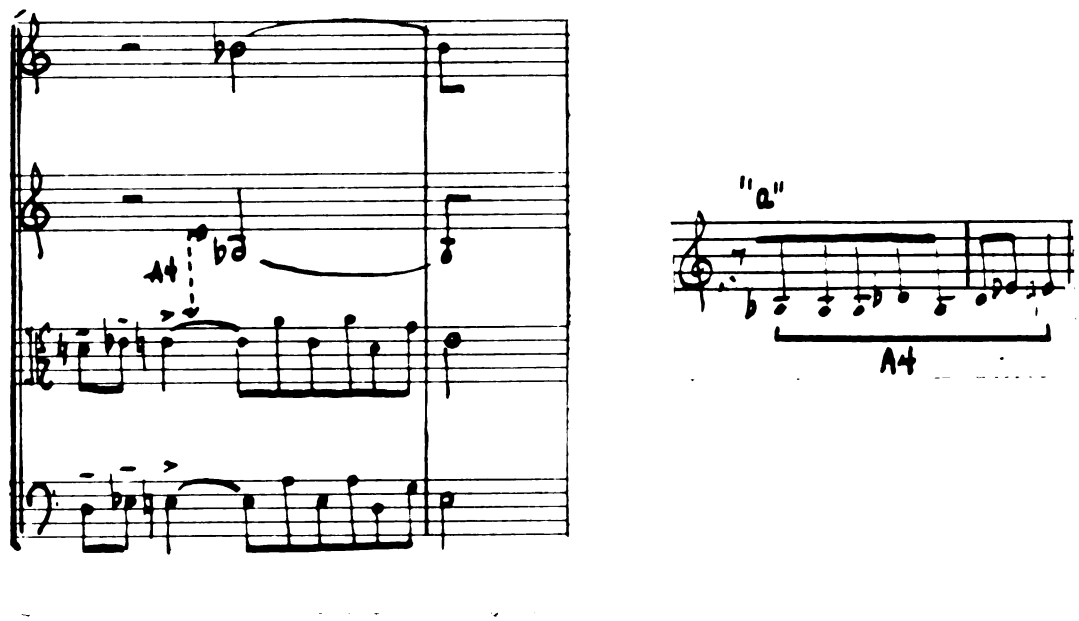
first theme. By simultaneous use of the fragment and its mirror inversion the parts seem to converge on the final cadence.

The thematic material of this movement has much in common with the first movement of the Fourth Quartet in its primarily conjunct motion. However, the intervals of the third and the fourth are also given some play, and the span of the material is slightly enlarged. It is no less economical than it had been in the previous work, being based on one motive, but more open in design, allowing for less harsh sonorities and creating a more accessible work.

Harmonic Materials

The vertical sonorities of much of the beginning of the first movement consist largely of unisons and octaves. The first interval differing from this trend is a tritone, an interval that can be found in several places in this movement. It can be observed that motive "a" spans an augmented fourth in its first half.

Example 199, m. 5



Until the second part of the first theme appears, the nature of the texture is contrapuntal. The first clearly harmonic point reveals harmonies constructed both in thirds and in seconds, being consistent with the nature of the melodic thematic material.

Example 200, mm. 24-25

These sonorities can be analyzed as primarily tertian chords, triads, and sevenths with added notes.

The second theme appears in conjunction with sustained notes. An A drones throughout its first appearance, but is often accompanied with a B flat, thus giving the first important emphasis on the interval of the major seventh. The fact that the vertical major seventh appears so late reinforces the earlier statement that the harmonic materials of this quartet are less harsh than those of the Fourth Quartet, in which the emphasis was primarily on the minor second from the first measure.

Example 201, m. 45

Within the second theme the emphasis is soon shifted to the minor seventh. More consonant intervals also are important in the same theme, moving still further away from the minor second concept.

Example 202, m. 51

In the development section the syncopation of the second half of the principal theme is combined with the five-note expansion of the first part. The vertical sonorities of the syncopated chords re-emphasize the tritone, the first harmonic interval of the movement.

Example 203, m. 86

The tritone interval dominates the texture almost entirely throughout the remainder of the development section.

At the beginning of the recapitulation the minor second sonority makes an appearance in the thickening of the introductory repeated notes; the effect is mainly percussive.

Example 204, m. 126

The harmonic materials of the remainder of the recapitulation correspond quite closely to those of the exposition. The semitone sonority of the second theme, this time E sharp and F sharp, soon gives way to more consonant intervals as it had done before. The second part of the second theme is harmonized with chords basically tertian with added notes. The first subject is treated imitatively, culminating in statements in unisons and octaves. The movement ends on B flat in all parts, as it had begun.

A comparison of the vertical and horizontal elements in this movement clearly shows that the harmonies are not dictated by the melodic material as they had been in the

Fourth Quartet; that is, a melodic line made up of minor seconds is not necessarily harmonized with the same intervals (cf. Example 202). A similarity does exist, however, between the two elements. The conjunct motion of this movement is predominately major second or diatonic movement, and those few clusters which are found are also predominately major second constructions. Some return to tertian harmonies is made in this movement. The main character of the movement is linear and detailed harmonic analysis is extraneous, but those vertical sonorities which are emphasized may be said to be less close than they had been in the Fourth Quartet.

Tonal Structure

The introductory repeated notes establish the tonal center of B flat which is retained in the first part of the main theme, motive "a." The tonalities were outlined in Figure 20, revealing primarily shifts in seconds, with the largest shift coming in the recapitulation, F sharp down to C flat. This places the tonal center in a position from which it can move by a second to the main tonality of B flat. The successive movements of tonal centers thus utilize the conjunct intervals of the melodic material. This can be considered as a reflection of the character of the motivic structure as it has been in harmonic considerations.

Second Movement

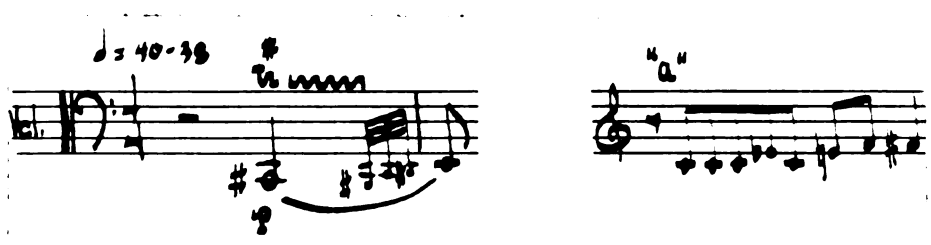
The second movement, which consists of a development of the material of the introductory section, is in a sectional form, A, B, C, and Coda, the Coda ending the movement as it had begun. This over-all ternary pattern reflects the arch of the quartet in its entirety. Figure 21 outlines this movement.

Melodic and Rhythmic Motives

The first section of this movement contains brief flickerings of motives which furnish the germinal motives for all the succeeding sections.

The first two measures contain trills in minor and major seconds, resolutions in steps and thirds. The interval of the third is the culmination of this expansion and is derived from motive "a."

Example 205, m. 1



Source Motives

Motive "a" (portion)

Motive "a" variant (from I Movement)

Sectional Form

Section	Motives Used	Measures	Main Tonalities
Introduction	"a"	1-10	Indefinite
A	"a"	11-25	C
B	"a" variants from Introduction	26-35	G
C	Combinations of earlier variants	36-46	$G^{\#}$ to D
Coda	Like Introduction	47-56	$C^{\#}$ and D

Fig. 21.--Fifth Quartet, II Movement

The first violin states a motive in the third measure that is important intervallically and rhythmically. Semitones and minor sevenths characterize this motive.

Example 206, m. 3

A 'cello motive follows and emphasizes both the perfect fourth and the tritone, both intervals to reappear in the second section:

Example 207, mm. 4-5

The next four measures are occupied with short motives in all parts, emphasizing first the major second, then the tritone. This material leads into the first section wherein a motive of major seconds, minor seconds, and a tritone appears over sustained sonorities. It is closely related to motive "a."

Example 208, mm. 11-12

Each succeeding statement of this motive moves up. The last statement, which is inverted, prepares for a descending motive. This motive can be seen to be derived from the second theme of the first movement, inverted form, which is derived from motive "a."

Example 209, mm. 20-21

The melodic material of the second section is a quick succession of notes spanning a perfect fourth. It can be found to have precedent in the first measure in the 'cello, Example 205, although encompassing a wider interval.

Example 210, m. 26

This motive also appears in its inverted form and also is expanded to cover a tritone of Example 207 in the course of the section.

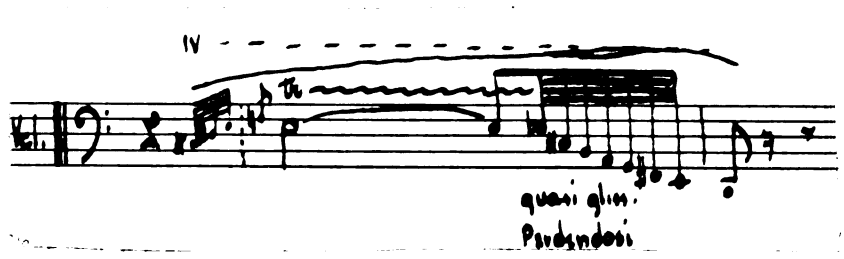
A new melodic motive appears over the motive of the example just quoted, and leads into a section based on both themes in imitation. Examination of the contour shows it to be related to the first violin motive, with intervals from the 'cello motive of Example 207.

Example 211, mm. 31-32

The third section, more contrapuntal than the first two, combines the themes already stated. The activity subsides on descending scale lines passed from the top part to the next lower and so on until the 'cello leads to a cadence.

The Coda begins on a chordal texture such as had accompanied the first section, but retains that texture for only five measures. The material from there to the end of the movement consists of the same trills and flickerings of the introduction. The 'cello ends the movement with a quasi glissando covering a ninth.

Example 212, mm. 55-56



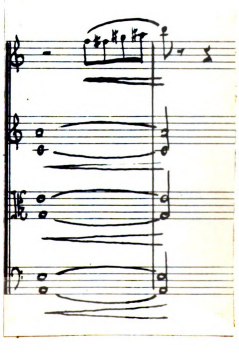
Harmonic Materials

This movement offers more fertile ground for harmonic analysis than the first. The sustained harmonies are mostly organized in triads and seventh chords. There is a sense of bi-tonality between the accompaniment and the melodic material, often clashing at the minor second. The first example of this opposes a C major triad against a motive beginning on D flat.

Example 213, mm. 11-12

Later in the same section an A minor seventh chord is contrasted with a motive spanning the tritone F to B.

Example 214, mm. 15-16



This type of texture dominates the first section.

The second section with its fourth-spanning conjunct motion is not primarily harmonic in nature. An insistent tremolo on G is maintained throughout in the second violin, while the melodic material begins on A flat, G flat, C, and other notes. The third section offers no points of real sustained harmony, but the semitone dissonance in vertical sonorities has been largely abandoned. The imitations are at the octave and unison and the vertical sonorities are based largely on thirds.

The Coda returns to the sustained sonorities, but not the same tertian harmonies as before. The end of the harmonic section shows a polychord: a C sharp major and minor triad and a C minor seventh chord moving to a sustained harmony built on C sharp. The C sharp sonority is a seventh chord with a choice between E and F (E sharp) for the third and G and G sharp for the fifth. Instead of resolving the harmony, Bartók drops one note at a time from the sonority until the bass C sharp is left alone.

Example 215, m. 49

The remainder of the movement is composed of the solo motives previously seen in the introduction.

The same vertical materials are utilized in this movement that have been found in the first movement, but they are organized in a different manner. While in the first movement there are chords built both on thirds and seconds, here the sonorities are almost exclusively tertian, but adorned with bi-tonal and bi-modal implications, thus inserting the element of the second. Both melodic intervals, the second and third, were found in the first measures. The lack of quartal harmonies is the only surprising factor, for

the fourth is important melodically. The only compensation for this lack can be found in the triads, which contain fourths within the construction.

Tonal Structure

The tonality of the introduction (cf. Figure 21) is indeterminate but seems to move toward the center of C, which is the tonality of the beginning of the first section. The first section changes to a center of D at its end, the primary tonality of the movement.

The second section has implications of both G and A flat, but the G attracts the ear by virtue of its persistence. G is never absent throughout the section.

The third section emphasizes G sharp firmly by entering each imitation on that tone, returning to D before the beginning of the Coda. The Coda itself centers both on C sharp and D, the final tonality being D, a third above that of the first movement.

The first and last sections of this movement are centered on notes not more than a step away from D, while the middle two sections hover around G and G sharp. Thus, the tonal shifts within this movement emphasize the step and the fourth rather than the favorite third-relationship of Bartók.

Third Movement

The third movement of the Fifth Quartet, outlined in Figure 22, is in a Scherzo and Trio form. The Scherzo portions are cast in three-part forms, with a Coda substituting for the return of A in the Scherzo da capo; the Trio is in a one-section form with continuous development. All the themes of the Scherzo and Trio are closely related, emphasizing the interval of a third of motive "a."

Melodic and Rhythmic Motives

The meter of the Scherzo consists of nine eighth-notes in each measure, divided in an assymetrical division of four plus two plus three. The resultant rhythm is of Bulgarian extraction, indicated by the tempo marking, Alla bulgarese. The main motive utilizes the meter in a graceful rising and falling figure, which outlines an extended tertian structure. It represents an extension of the interval of the third of motive "a," as well as the rhythm of that motive. It is designated "b" for use in later comparisons.

Source Motives

Motive "b"

Scherzo and Trio Form

Sections	Motives Used	Measures	Main Tonalities
Scherzo			
A	"b"	1-23	$D^{\#}$ (+ $C^{\#}$)
B	"b" variant	24-49	$C^{\#}$
A	"b"	50-66	$C^{\#}$
Trio	"b" and variants	1-65	F and A
Scherzo			
A	"b"	1-29	$C^{\#}$
B	"b" variant	30-57	$C^{\#}$
Coda	"b" and variants	58-92	$C^{\#}$

Fig. 22.--Fifth Quartet, III Movement

Example 216, mm. 3-4

This easily-recognizable motive is passed from one instrument to another, appearing in its original and inverted forms.

The middle section of the Scherzo varies the characteristic rhythm of motive "b" and changes the contour by beginning with a falling interval instead of a rising one. The metric division remains unchanged.

Example 217, m. 24

Within the middle section a rhythmic variant of the new theme appears, utilizing a triplet motive which recalls

a first movement rhythmic figure (Ex. 194). The contour of this variant even more closely resembles motive "b," the main theme of this movement, in effect, pointing up the similarities of the material used.

Example 218, m. 30

This leads quite smoothly into a stretto imitative treatment of the main theme within the middle section.

Before the first section returns in its entirety a transitional passage occurs, using repeated notes against a play on a three-note descending pattern of conjunct motion. This pattern, which is introduced by the 'cello, is reminiscent of the last three notes of motive "b."

Example 219, mm. 26-27

It undergoes transformation in the form of intervallic compression, becoming finally only a semitone.

The first section returns with no significant modifications in the motivic material.

The meter of the Trio changes to a measure containing ten eighth-notes, arranged in a 3 + 2 + 2 + 3 division. An ostinato which suggests a portion of motive "b" is established in the first violin.

Example 220, m. 1

This ostinato and only slightly varied forms of it are heard almost continuously throughout the Trio, interrupted by one-measure rests in three places, at cadential points of the melody. Directly related to motive "b," with its characteristic thirds, the melody stands out against the activity of the ostinato pattern by being in longer note values. This relationship can be seen if the first two notes of the example quoted below are removed and the remainder of the melody set in eighth notes. The contour is identical with that of the descending portion of motive "b." This relationship is maintained throughout the Trio with extensions, intervallic expansions and inversions of the melody.

Example 221, mm. 14-16

Toward the end of the Trio the texture thickens with three instruments taking part in the ostinato and its inversion. The transition back to the Scherzo is accomplished by a gradual lessening of the activity and thinning of the texture.

While the original motive "b" is not changed greatly in the Scherzo da capo, the compressed version (cf. Ex. 218) is cast in a slight rhythmic variant.

Example 222, m. 3

Imitative treatment of motive "b," which was not employed in its original statement, now enhances its return in the Scherzo da capo. Appearing in its original form and its inversions along with stretto imitations and canonic treatment, it leads to the Coda. The Coda once more recalls motive "b" and its inversion, bringing the movement to a close on a C sharp minor triad.

Harmonic Materials

The interval of the third which predominates the melodic material is reflected in the harmony of this movement. Vertical sonorities constructed on a tertian basis are clearly established in the first measure in the 'cello which outlines triads.

Example 223, m. 1

Almost all of the vertical sonorities of the first section are triads. Note the following example in which a full G major triad provides the accompaniment for a descending motive extracted from the main theme.

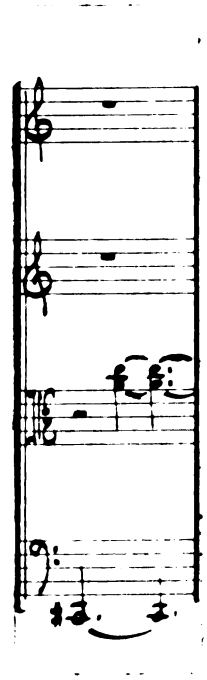
Example 224, m. 15

Melodic conjunct motion is employed in the middle section of the Scherzo and the character of the harmony changes accordingly. Clusters as well as triads appear, providing the harmonic interest here and at the return of the first section.

Example 225, m. 54

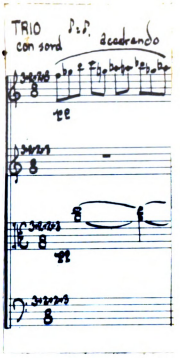
The last sonority of the Scherzo exposes one of Bartók's favorite devices, the simultaneous use of a note and its chromatic inflection, creating a bi-modality.

Example 226, m. 64



The Trio begins with the ostinato over a sustained third; the sonority, which at the beginning of each measure is a triad, is maintained throughout much of the Trio.

Example 227, m. 1



The notes of the triad are redistributed when the slower melodic theme comes in, but the triad is still basic to the sonority.

Example 228, m. 9

Simultaneous use of a note and its chromatic inflection appears in the Trio as well as the Scherzo. In the following example the first three accented notes in the first violin outline a G sharp diminished triad, while the second violin sustains a double stop of G sharp and D. The 'cello furnishes the seventh of this G sharp diminished minor seventh chord while the melody in the viola insists on a G natural.

Example 229, m. 28

Chords built both in thirds and seconds provide the vertical interest in the Scherzo da capo. The final cadence furnishes an example of a clear-cut G sharp dominant ninth chord with an added E moving to tonic, C sharp.

Example 230, mm. 91-92

The melodic materials of the third movement are based largely on thirds, with some expansion and compression of intervals. The harmony is also largely tertian, with a few examples of simultaneous cross-relations and of clusters. The consistency of materials is no less clear in this movement than it had been in the Fourth Quartet.

Tonal Structure

The opening of the Scherzo is slightly ambiguous as to its tonal basis. The 'cello sets up a D sharp tonality while the melody centers on C sharp. Because of the strength of the lowest line, D sharp predominates. The tonal shifts in thirds were outlined in Figure 22.

Third-relationship of tonalities within a single movement has been noticeably absent in this quartet until the Scherzo, in which the melodic and harmonic structure is based on thirds. The shift in the Scherzo from C sharp to A, back to C sharp, the movement to F and A, then back to F, in the Trio, and finally a return to C sharp all reinforce the thirds of the melodic and harmonic material. This relationship is perhaps too subtle to be grasped without careful study of the quartet, but once knowing it, the listener perceives more unity in the use of the material.

Fourth Movement

The over-all form of the fourth movement, outlined in Figure 23, is sectional, as is the second. Like the second it is somewhat problematical as to how many of the sections contain the same material. Basically, the themes are constructed of seconds, thirds, and fourths and cover a limited range. The similarities between the motives of this movement and the second, and the similarity of the themes within the movement, lie in the matter of scope and intervals as well as general contour. The differences in the thematic material are expressed in rhythmic variants.

Melodic and Rhythmic Motives

Whereas the second movement had begun on a half-note trill which resolved down a minor second, the fourth movement

Source Motives

Motive "a"

(Inversions of II Movement Material)

Sectional Material

Sections	Motives Used	Measures	Main Tonalities
Introduction	Elements of "a"	1-6	Indefinite
A	"a" variants	7-22	G
Transition	"a" variants	23-41	F
B	"a" variants	42-63	C and $C^{\#}$
C	"a" variants	62-81	G
Coda	"a" variants	82-101	G

Fig. 23.--Fifth Quartet, IV Movement

begins on repeated notes, also resolving down a minor second with one note above added as an ornamentation.

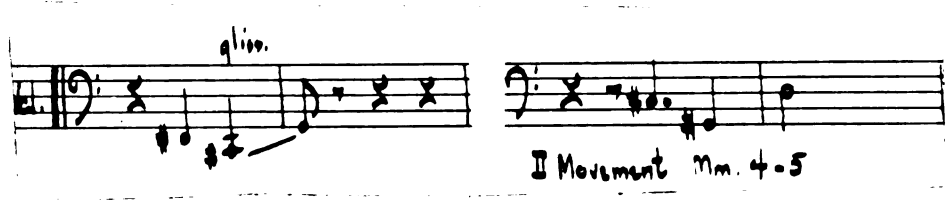
Example 231, mm. 1-2

In the second movement the 'cello expanded the resolution to cover a third, and inverted the direction of resolution. A similar process is followed here.

Example 232, mm. 2-3

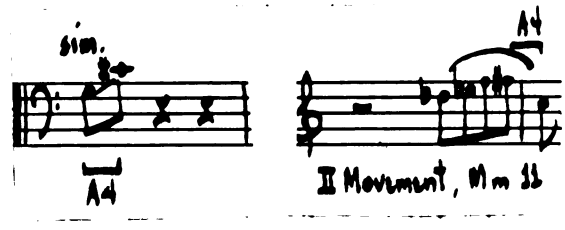
The same fourth and diminished fifth intervals in the 'cello lead into the first important section of the movement.

Example 233, mm. 6-7



Repeated notes alternating between stopped notes and open strings furnish the background for the first motive of this section, an augmented fourth glissando. The step motive of the second movement covered the same span as this motive and occurred over sustained chords.

Example 234, m. 9

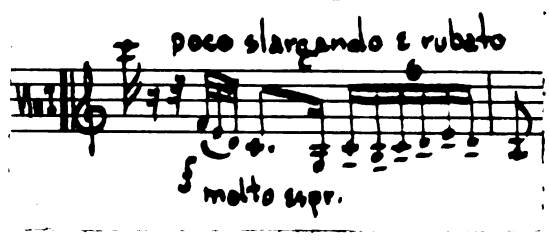


An interruption of this material occurs when the first violin, imitated by the viola, slides up in a four-note motive reminiscent of the second movement. In the following measure the motive is extended and effects a transition back to the previous motive just quoted.

Example 235, m. 14

This motive appears again, inverted and further extended, at the end of the section.

Example 236, mm. 20-21



The transition consists entirely of chords played in six-note tremolandos, interrupted every three measures with a three-note motive. It has little thematic significance, serving more as a transition between the sections on either side of it.

Example 237, mm. 25-26

Major second measured trills of the first section appear briefly and lead to the second segment of the movement.

The second section of the movement is based on fourths and corresponds to the motive of the second section of the second movement. It appears over a minor second ostinato and seven-note patterns which cover a diminished fourth.

Example 238, mm. 43-44

Gathering intensity by virtue of rhythmic growth and by imitative treatment of the theme in the other parts, this section is brought to a close with a renewed emphasis on the interval of the third. A six-note arpeggio moving down in thirds leads into the third main section of the movement.

The third main section offers no new melodic motives, but rather is based on melodic expansions and rhythmic augmentations of earlier motives.

The Coda is made up of a chordal passage similar to the one in the first section of movement two. Tremolandos return in the closing measures, and the movement closes on multiple-stops, sliding upward in thirds in the 'cello.

The two unifying factors of this movement are the thirty-second note patterns (cf. Ex. 232) covering span from a third to a tritone and the thematic material based on fourths. Otherwise the mood of the movement undergoes a process of constant growth from the first thin measures to the thick third section. The unity is not one of mood and texture in this movement, but rather in thematic material. Its relationship to its companion in the arch, the second movement, is not so easily seen as in the Fourth Quartet, but is no less real.

Harmonic Materials

The vertical sonorities of this movement have much in common with the second movement in that a variety of chord constructions have been used. The fourth movement contains triads and seventh chords, sometimes with added notes, sometimes with bi-tonal implications, chords built on fifths and seconds.

The first significant harmonic incidence occurs within the first section at the point which introduces the fourth-based theme. The chord may be analyzed as a C minor triad plus C sharp, or as a type of cluster.

Example 239, m. 14

The transitional phrase between the first and second sections is entirely chordal, sonorities being based on fifths and triads.

Example 240, m. 23

Example 241, m. 27

An example of bi-tonal implications, or the simultaneous use of a note and its chromatic inflection may be found between the ostinato and the thematic material of the second section.

Example 242, m. 43

Finally, the chords of the coda demonstrate the use of triads. These triads are slightly cluttered, however, by the ostinato pattern, which serves as complex harmonic pedal throughout the section.

Example 243, mm. 82-84

The final chord of the movement is bi-modal, G major and minor.

Example 244, mm. 98-101

The harmony of this movement makes more use of the third than any other single interval, but the tertian harmony is not traditional because of the bi-tonal implications and added notes. As in the second movement, chords in fourths are again absent.

Tonal Structure

The tonal structure, outlined in Figure 23, corresponds to the harmonic and melodic motives by emphasizing the third-relationship. An exception can be noted, however, with reference to the fourth relationship of the transitional passage to the sections on either side of it. This tonal scheme is quite similar to that of the second movement.

Fifth Movement

The fifth movement, like the first, is cast in a sonata-allegro form with a reversed recapitulation (cf. Fig. 24). The motives of the recapitulation of the first movement, however, are inverted, whereas they remain in their original shape in the fifth movement. The order of thematic material is Introduction, I, I inverted, Introduction, II (based on much of material of I) Development (using the first theme of the first movement), Introduction, II, Introduction, and I. The coda begins with the "barrel organ" passage, marked *con indifferenza*, to which Helm had referred.

Source Motives

Motive "a" variant (inverted retrograde)

Sonata-Allegro Form

Sections	Motives Used	Measures	Main Tonalities
Introduction	"a"	1-14	Indefinite
A	"a" variant	15-149	G
Introductory Material		150-156	Indefinite
Transition	"a" variant	157-201	Indefinite
B	"a" variant	202-359	$F^{\#}$
Introductory Material		360-368	Indefinite
Development	"a" variants	369-479	Rapidly Shifting
B	"a" variant	480-527	A to G
Introductory Material		528-546	Indefinite
A	"a" variant	547-698	B^{b}
Coda	Elements of "a"	699-828	A to B^{b}

Fig. 24.--Fifth Quartet, V Movement

Melodic and Rhythmic Motives

The introductory motives are scale fragments.

Example 245, mm. 1-4

The first theme begins with repeated notes, reminding one of the first movement. The theme itself emphasizes scale patterns covering thirds and tritones, much like motive "a." The following example shows this theme to be a modified retrograde of motive "a."

Example 246, mm. 16-19

The four-note scale part of the theme is development immediately, canonic treatment being one of the devices used, occupying the next one hundred measures. The accompaniment,

originally below the theme, is put on top and inverted. The thematic material itself is inverted and there is a second exposition-development of the principal subject, the "a" variant, covering forty-one measures.

The introductory material precedes the second theme, now incorporating fragments of the principal theme and emphasizing its similarity to it. The second theme contains minor seconds and sevenths, and gives some play to the scale pattern derived from the first theme. It is also similar to the scale patterns of the second theme of the first movement. Like the first theme, it is a modified retrograde of its companion of the first movement.

Example 247, mm. 202-203

Both aspects of this derived second theme are developed immediately by means of intense contrapuntal treatment. A

brief play on a theme derived from the rhythm of the second theme concludes the exposition.

Example 248, mm. 351-353

The development section, preceded by the introduction, treats principally motive "a" of the first movement. This adds an interesting dimension to Bartók's sonata form in that material new to the movement is developed rather than its own material. The fact that the themes of the first and fifth movements are so closely related keeps the movement within the very loose bounds of the sonata-allegro form. The development section is short, no longer than the entire statement of the first theme was in its entirety.

The return of the introductory theme announces the beginning of the recapitulation, and the second theme follows immediately (cf. Ex. 246). The introductory theme appears again after which the first theme is restated and developed much as it had been handled in its first appearance. After a transition consisting of arpeggios, scale patterns, and repeated notes, the coda begins.

The coda begins with a parody on a folk-song style in a dominant-tonic context, marked con indifferenza. A humorous note is inserted in the second statement when the theme is moved up a minor second while the accompaniment remains at its original level. The entire passage is only twenty-two measures in length. The folk-song parody is incongruous in character with the rest of the movement, indeed the rest of the quartet, but not in thematic material, for it uses the scale pattern found in both principal themes of the movement.

Example 249, mm. 699-706

After this material is concluded the coda moves into a development of the scale pattern of the themes. It is impossible to say which theme furnishes the material, for the characteristic rhythms of both themes are employed. The movement ends with a relaxing of tempo and a final statement of the scale-pattern, all parts ending on B flat.

The thematic material of this movement is more closely interrelated than it was in the previous movements of this

quartet. Its close relationship to the motives of the first movement is made apparent when the development section uses only material from the principal theme of the first movement, and does so without causing a change in the flow of the movement. The arch of the entire quartet is reflected in this movement and in the first by their reversed recapitulations. The use of introductory material before each element of the form is important in both movements. It will become a primary technique in the next quartet.

Harmonic Materials

The first sonorities of this movement are unisons and octaves as they are in the first movement. The statement of the first theme offers the first harmonic interest, and it is a G minor triad with non-harmonic tones of the first beat.

Example 250, m. 18

The tritone had been an important interval in the first movement. It is emphasized here throughout the first theme when the descending version of the thematic fragment begins an augmented fourth above the point at which the ascending version had ended.

Example 251, m. 27

This treatment continues until a canon begins in measure 43.

The transition into the second theme contains mainly triads in the chordal parts, clashing in semitone dissonances with the melodic thematic material.

Example 252, m. 165

The minor second melodic material of the second theme is immediately preceded by tone-clusters in the harmonic texture, the first introduction of clusters in the movement.

Example 253, m. 186

The development section uses not only melodic material from the first movement, but harmonic material as well. The entire section emphasizes the same tritone which was quoted in Example 199, E and B flat.

Example 254, m. 369

Vertical sonorities in thirds are also found in this movement. In the recapitulation of the first theme, the thematic material is treated imitatively, and the vertical sonorities at the first of the measures are usually thirds, moving to more dissonant intervals in the latter part of the measure.

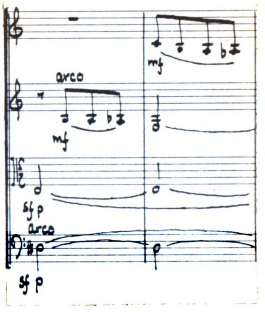
Example 255, m. 571

The tremolando chords in the transition from the recapitulation to the coda are exclusively triads. The chord quoted below is F sharp major and minor, re-emphasizing the bi-tonal materials.

Example 256, mm. 810-811

The dominant and tonic accompaniment of the beginning of the coda and its shift to a bi-tonal texture have already been discussed. Then the body of the coda following the con indifferenza theme is primarily contrapuntal. The vertical sonorities are, however, often semitones on the accented beats, leading to the following sonority, found late in the coda.

Example 257, mm. 810-811



The tension level brought about by the minor second dissonances placed so close to the end of the movement contrasts greatly with the final sonorities of unisons and octaves.

Example 258, mm. 827-828

To summarize, the fifth movement shares harmonic as well as melodic material with the first movement. Both movements have chords built on seconds, thirds, and tritones, as well as unisonal writing. Both have passages of bi-tonal and bi-modal writing. The correspondence with the melodic materials is striking in each movement.

Tonal Structure

According to the plan of the arch form, the fifth movement should be in B flat. Figure 24 showed that although it ends on that tonality, it begins with more emphasis on G minor. The succeeding tonalities can be followed on that

figure.

The pattern in the tonal shifts of this movement is primarily on the basis of thirds, whereas the first movement pattern was primarily seconds. The quickly shifting centers do, however, resemble the pattern of the first movement.

Summary

A summary of the main motives of each movement of the Fifth Quartet is included here (Fig. 25). It can be seen that conjunct motion and thirds are most prominent in the entire quartet. The perfect fourth and the tritone, especially the latter, are also important. The tritone is rarely outlined in a leap, but several of the motives emphasize the interval by spans of a tritone.

Besides the relationships already pointed out within movements and between the pairs of movements of the arch form, other examples may be found. The most striking of these is the motive from the second movement (Ex. 206), utilizing the interval of the seventh and the same type of motive in the fifth movement (Ex. 247).

The relationships between motives is not as tightly drawn as it had been in the Fourth Quartet, but the harmonic structure is fully as consistent as it had been in the earlier work. The melodic material expands to wider intervals in the Fifth Quartet, and the harmonic material reflects this less

Fig. 25.--Fifth String Quartet

compact structure. The result is a lesser degree of dissonance than was present in the Fourth Quartet. The seconds and thirds of the melodic material find themselves aligned vertically to form harmonies consistent with the thematic material. The triads are rarely free of additions, however, for they are often bi-modal. There are a few isolated examples of chords constructed in fifths, but they are not in significant numbers.

The relationship of the tonal centers between movements follows the same plan as in the Fourth Quartet. The first and fifth movements are centered on B flat (the fifth a little belatedly), the second is on D, a third above B flat, the fourth on G, a third below B flat. The third movement, more definite than the middle movement of the Fourth Quartet, is on C sharp. The tonal relationship between the third and fourth movement thus becomes a tritone, an important melodic and harmonic element in the quartet.

In conclusion the retrograde relationship between the themes of the first and fifth movements of this work should be noted. It is effective in this case because of the distinctive interval of the tritone. It is a constructional device that Bartók does not use often, but is useful in rounding off the arch form.

CHAPTER VII

STRING QUARTET NUMBER 6

General Traits

Bartók's last String Quartet was completed in November of 1939, after having been commissioned by Zoltán Szekely in August of the same year. By the time of its first performance, New York, January, 1941, Bartók had lost touch with the Hungarian Quartet for which it had been conceived, so he dedicated it to the Kolisch Quartet in gratitude for their performing the premiere of the work.

The predominant mood of the Sixth Quartet is one of sadness, especially in the recurrent theme which precedes the first three movements and furnishes all the material for the fourth movement. Halsey Stevens says that the quartet is introspective and melancholy, almost as though Bartók were bidding farewell to Hungary.[1]

A comparison is often made between the late Bartók and the late Beethoven. Jacques deMenasce believes that this comparison is most valid with the last quartet. Bartók, like Beethoven, was straining against the limitations of the

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[1]Stevens, p. 197

traditional forms. It was not a protest, however, as Wagner's late works were protests against harmonic limitations, but rather a "message . . . that a greater wisdom lies in the philosophical acknowledgment of judicious and essential limitations."[2]

Helm says that the temptation to glorify the last works of a great composer should be avoided in the case of Bartók, for there is no evidence that Bartók intended the Sixth Quartet to be the last. It does, however, in a sense represent his crowning glory. Instead of indicating a return to the techniques of the earlier works, this work is a synthesis of the first five quartets. In this work, according to Helm, the technique is less important than the expression.[3]

Harmonically, the Sixth Quartet continues the trend toward simplicity which was established in the Fifth Quartet. The harsh dissonances found in abundance in the middle quartets are held to a minimum here, and in their place tertian harmonies dominate the texture. The result is a more accessible work than the middle quartets.

Melodically the Sixth Quartet incorporates trends from all the earlier periods of composition. Closely woven

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[2]Jacques deMenasce, "The Classicism of Béla Bartók," Modern Music, XXIII, No. 2 (Spring, 1946), 88.

[3]Helm, pp. 21-22.

chromatic melodies exist in this work side by side with more expansive folk-like melodies which contain wider intervals. Generally speaking, cadences are better defined in this work than in earlier ones, giving more frequent punctuation to the musical lines.

The Sixth Quartet is largely unified by the use of the recurrent Mesto theme. However, this is an external unifying technique, and not the only one which Bartók employed. Elements of the recurrent theme appear within the main sections of each movement, unifying the entire work to a greater degree than the simple use of a cyclic theme could accomplish. In addition, in the last movement the two main themes from the first movement reappear in an echo of the arch form of the Fourth and Fifth Quartet.

First Movement

The form of the first movement, outlined in Figure 26, is comparable to a traditional sonata-allegro form, with only the first theme developed in the middle section. The use of this form is within a more classical tradition in this work than in the earlier sonata-like movements--the delineation of materials and sections is much clearer in the present work.

Melodic and Rhythmic Motives

The first movement is introduced with the Mesto theme in the solo viola, beginning on G sharp. The motion of the

Source Motives

Motive "a"

Motive "b"

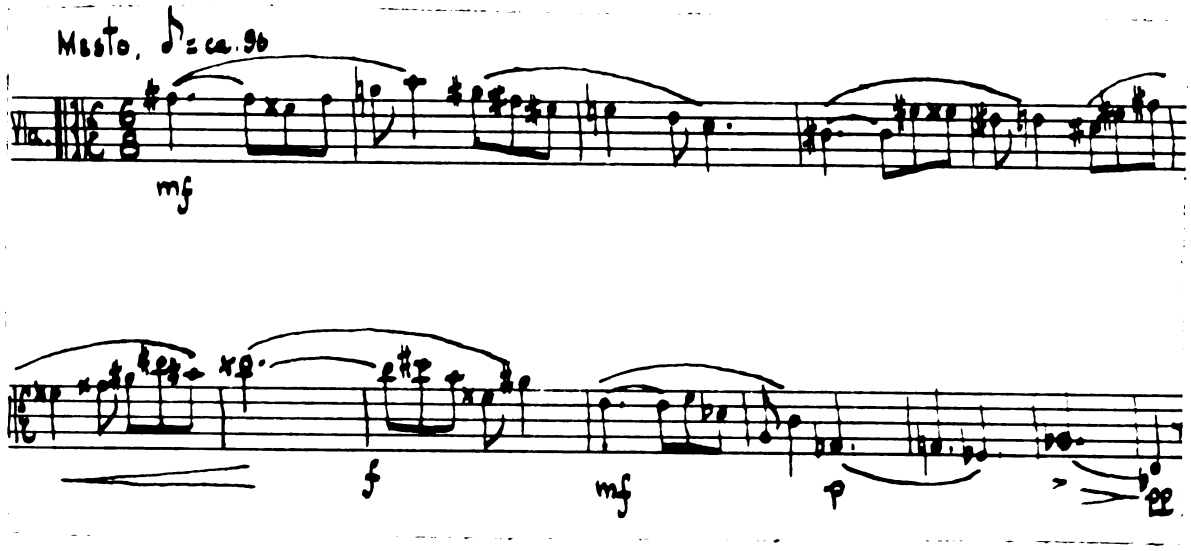
Sonata-Allegro Form

Section	Motives Used	Measures	Main Tonalities
(Cyclic Theme, cf. Ex. 259)		1-13	A^{b}
Introduction	"a"	14-23	Indefinite
A	"a"	24-80	D
B	"b"	81-157	C to F
Introduction	"a"	158-165	Indefinite
Development	"a"	166-267	Begins on D, shifts rapidly
Transition	"a"	268-286	Indefinite
A	"a"	287-311	D
B	"b"	312-370	$C^{\#}$, G
Coda	"a"	371-390	G to D

Fig. 26.--Sixth Quartet, I Movement

theme is mainly conjunct, often by chromatics. The final interval of the drop of a fourth anticipates the introduction to the body of the movement. This technique will be seen in each succeeding movement as well.

Example 259,[4] mm. 1-3



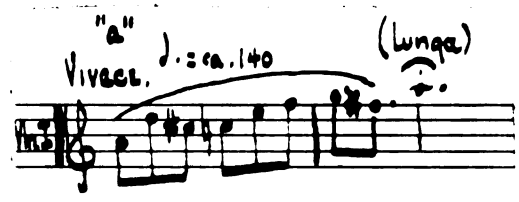
The falling fourth gives rise to the slow introduction, which builds the main theme of the movement gradually. This introduction is recurrent in this movement (cf. mm. 158-165).

Example 260, mm. 13-23

[4]Copyright 1941 by Hawkes & Son (London) Ltd.

The principal subject of the movement, labeled motive "a," begins with a rising fourth and features thirds as well as conjunct motion. The duplet which ends the motive is important later as an identifying factor of expansions of this motive.

Example 261, mm. 24-25



The portion of the exposition reserved for the principal subject is occupied with imitations of this motive, inversions of it, and various intervallic and directional variations of the theme. The motivic growth is constant and direct.

Before the more intensive contrapuntal treatment of the first subject gets underway, there is a cadence followed by a glissando in all voices. The interval of the first violin is a diminished fifth, an interval which will become important later in the movement and in other movements of the quartet.

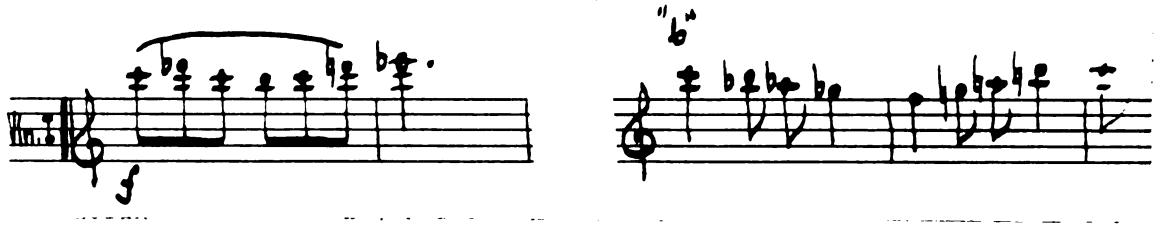
Example 262, mm. 29-30

The second theme, the first part of which is labeled "b," is a theme featuring conjunct motion. Each half of the motive outlines a tritone, the interval forecast in the first theme. The latter part of the theme plays on thirds and fourths as the first theme had done. Whereas motive "a" had grown from an appendage to the Mesto theme, this theme, or "b," can be traced more directly to the Introduction.

Example 263, mm. 81-85

The last measure of Example 263 shows the second theme moving into conjunct motion in a rhythm reminiscent of the first measure of the cyclic theme. The passages following this are occupied with a development of this motive, culminating in a motive constructed entirely of eighth notes. It is not a new theme, for it is much like the contour of "b." In its development it is combined with the thirds of the second part of the second subject.

Example 264, mm. 109-110



The exposition ends with references to the rhythm of motive "b," the duplets of "a," and imitation of the eighth-note motive of Example 264. The section ends on an F major cadence.

The development section begins with the slow introduction of fourths and fifths which began the body of the movement. It is treated in a stretto imitation and leads into a development of the principal subject which is derived from it.

The only significant variation or development of

motive "a" is an expansion of the intervals into a pattern using sevenths. This later gives rise to an ostinato pattern utilizing the interval of the seventh.

Example 265, mm. 180-181

The recapitulation of the themes shows the original material in a compressed and rewritten form, the most significant change being a new emphasis on the interval of the third. All the thematic material quoted earlier is present in the recapitulation, and the Coda begins on an inversion of the principal subject. With a thinning of the contrapuntal texture and a play on the duplets of the first subject the movement ends.

All the themes of this movement may be found to have precedent in the cyclic theme. The first subject has a distinctive contour which may be found almost exactly in the third and fourth measures of Example 259. The syncopation and conjunct motion of the second subject, as well as its thirds may be found in several places in the theme. The other motives are derived from these principal themes.

Harmonic Materials

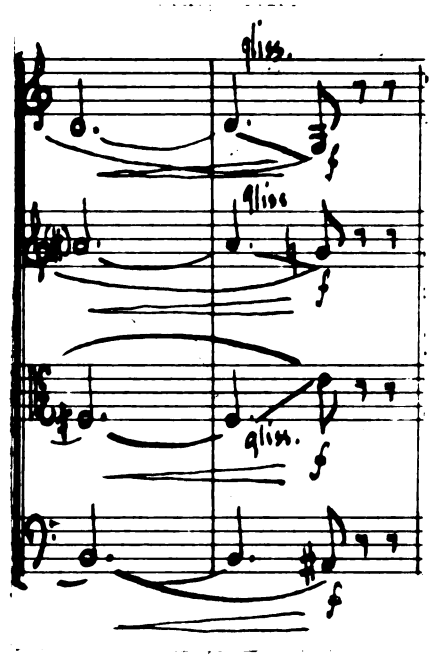
In a striking number of instances the harmonies utilize the same intervals as the melodic motives in this movement. The first example of primarily harmonic writing comes at the end of the slow introductory theme which had moved in fourths, and which led into the principal theme utilizing a leap of the same interval. The harmony at this point is constructed upward in fourths from the lowest note, F sharp.

Example 266, m. 23

The principal theme had ended with a third, so it is not surprising to find that the cadence which follows the

first few statements of motive "a" is constructed mainly on tertian principles. The sustained chord is a B minor-major seventh chord, resolving to an ambiguous harmony with tritone implications.

Example 267, mm. 29-30



Quartal harmony appears again as the thematic exposition continues with an inversion of motive "a." The fourths and fifths of motive "a" have been preserved in this variant.

Example 268, m. 32

Most of the exposition of the main theme is contrapuntal in nature, but both tertian and quartal harmonies may be found. A reflection of the minor second of motive "a" may be found in a bi-modal harmony in a passage involving three sustained notes. The first note in the viola may be regarded as an appoggiatura to the main harmony of B major and minor.

Example 269, m. 53

The harmony at the first and third measures of the second theme is constructed on a tritone basis. This fits precisely with the melodic motive which strongly outlines tritones.

Example 270, m. 81

Elements of the third and second are incorporated into the seventh chord, a sonority which is used fairly often throughout this movement. One example of it may be found within the exposition of motive "b." This particular seventh is the major-minor type, thus giving another emphasis to the tritone.

Example 271, m. 99

The predominant harmonic impression of the movement is tertian. This is due largely to the triads placed at important structural points. One such point is the cadence which closes the exposition, an uncluttered F major triad.

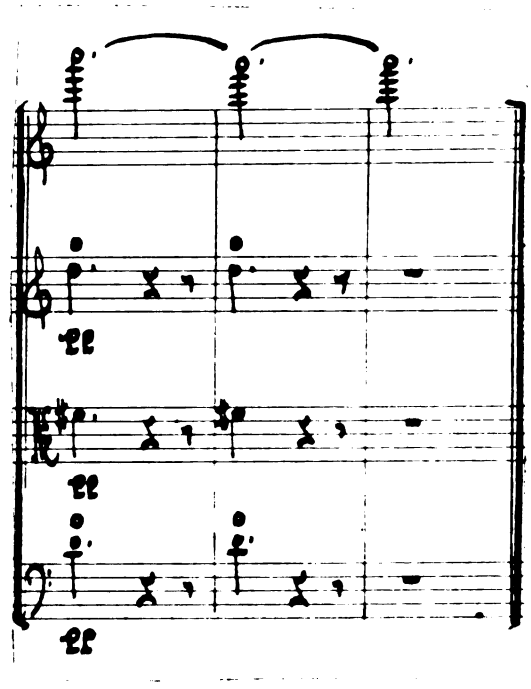
Example 272, mm. 155-156

An interesting variational technique is found in the chord which closes the slow introductory theme, now placed before the development section. The chord had been constructed in fourths at its first appearance. This chord is also constructed in fourths, but with one change--the C sharp in the viola--which injects the element of the tritone and the third simultaneously.

Example 273, m. 165

The harmonies accompanying the themes already stated do not change greatly in the development and recapitulation sections. The technique of emphasizing tertian harmony is repeated by the final chord of the movement, a D major triad.

Example 274, mm. 389-391



Tonal Structure

The Mesto cyclic theme and the slow introduction are both indefinite as to tonal centers because of the highly chromatic natures of both themes. The ending of the cyclic theme and the beginning of the slow introduction give a tentative emphasis on A flat, but it is only momentary. The first definite tonality is heard in the principal subject, which is basically in D major. The following tonal shifts were outlined in Figure 26.

The second subject, beginning in measure 81, is based

on C. The modality is largely minor, but not in any strict sense. This subject is also treated with rapid imitations, and the final tonality of F, which appears in measure 165 immediately before the development section, is unconvincing.

The introductory theme again precedes the development section, ending on a chord built upward in fourths from D. The development section begins on D from which it shifts rapidly. Other stable centers within the development section include B flat, F sharp, and G sharp.

The recapitulation, measure 287, begins with the melodic line on D as before, but harmonized differently. The second subject follows, a minor second higher than before, this time on C sharp. Later in the imitative treatment of the second subject the tonality becomes D major, then G major. G is maintained until measure 375 where the dominant of D, A, becomes important. The pedal is shifted back to G nine measures before the end of the movement. The final cadence is on D, and is convincing because of the melodic lines and sub-dominant and dominant feelings of the pedals. This movement shows a strong return to more traditional principles of tonality.

Throughout most of the movement the third-relationship of tonalities is predominant, two exceptions being the step relationships between first and second subject, and the fourth and fifth relationships of the coda. The relationship to the thematic material is direct but perhaps less important than

the exact duplication of intervals in the melodic and harmonic elements.

Second Movement

The second movement, outlined in Figure 27, is introduced by the Mesto cyclic theme, this time in the 'cello and accompanied by a chromatic counterpoint in three octaves in the three upper parts.

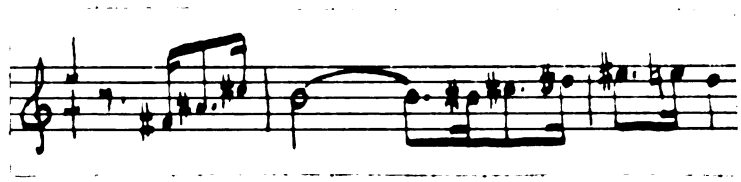
Example 275, mm. 1-4

The closing intervals of the theme forecast the thematic material of the body of the movement, this time emphasizing thirds.

Example 276, mm. 16-17

Source Motives

Motive "a'"



Motive "b'"

Marcia and Trio Form

Section	Motives Used	Measures	Main Tonalities
(Cyclic Theme)		1-17	Indefinite
Marcia (A-B-A)			
A	"a'"	18-42	B($G^{\#}$)
B	"b'"	43-49	$C^{\#}$
A	"a'"	50-79	A^{b} to B
Trio (3 segments)			
A	"a'"	80-93	$G^{\#}$
B	"a'"	94-98	
C	"a'"	99-119	
Marcia			
A	"a'"	120-152	B(+$G^{\#}$)
B	"b'"	153-158	$C^{\#}$
A	"a'"	159-184	B(+$G^{\#}$)
Coda	"a'"	185-191	B

Fig. 27.--Sixth Quartet, II Movement

This leads into the Marcia and Trio. The Marcia is cast in a three-part form, although the middle section is not very different from the parts that surround it. The Trio is brief, based on three short segments. The return of the first section is again in a three-part form, but rewritten.

Melodic and Rhythmic Motives

The theme opens with the thirds promised in the last measure of the cyclic theme, and continues with conjunct motion. The rhythm is a vigorous dotted note pattern. This motive is closely related to "a" of the first movement; it will be labeled "a'."

Example 277, mm. 17-19

This theme is treated imitatively for several measures, and a contrasting passage within the first section appears on a fragment of the first theme, utilizing thirds.

Example 278, mm. 25-26

This fragmented treatment lasts until measure 33, at which point the entire theme reappears inverted. The first section comes to a close with an emphasis on the scale lines.

The second section is new only in its rhythm, for the scale line had been present in the first theme and in "b" of the first movement. It is slowed to quarter notes in this passage and later combined with the dotted note version. It is labeled "b'" in the example below.

Example 279, mm. 42-43

The return of the first section is rewritten to the extent of juggling the direction in which the leaps of the theme go, and is accompanied by a new counterpoint. This

counterpoint is distinguished by glissandos in fourths and fifths, and semitone trills. These intervals are derived from motive "a" or "a'."

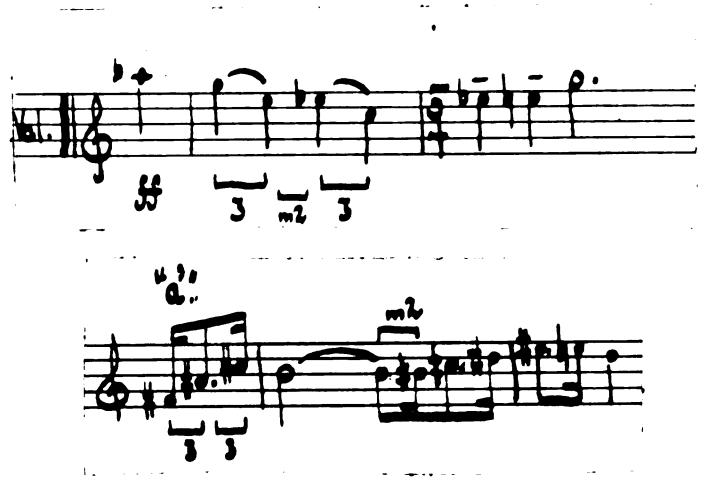
Example 280, m. 67

The Marcia section closes after a series of expansions of the intervals from thirds until they become octaves. The final statement of the main theme returns it to its original shape and dimensions.

The Trio, like the Marcia, is basically mono-thematic, with slight variations. In addition, the themes show great affinity with those of the Marcia.

The first theme is accompanied with tremolos in the violins spanning thirds, and the theme itself is constructed mainly of thirds. It is comparable to "a'" of the Marcia.

Example 281, mm. 82-84



The theme is also accompanied periodically by pizzicato chords in the viola, indicated with arrows to be strummed up and down, reminding one of a peasant stringed instrument. The entire passage is short--only about ten measures.

The second segment begins with three parts participating in the tremolo. The 'cello now has a theme whose main notes are seconds apart, but with curious accessory notes notated with glissandos. The main notes constitute a modified inversion of "b" or "b'."

Example 282, mm. 94-95

This segment is only five measures long, and comes to an end with a return to the thirds of the first theme, accompanied by major second trills in two parts.

Example 283, mm. 99-101

A link is constructed of a sixteenth-note motive based on the thirds of the main theme; it leads into a return of the Marcia.

The statement of "a" is now thickened into triads instead of single lines. Other than this thickening the treatment is much the same as in the first statement until the

fragmented section. The minute fragments of thirds are inverted in the second statement, leading back into a statement of the main theme with rearranged contour.

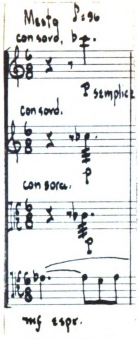
The quarter-note scale lines of the middle section are also inverted. Toward the end of the section they are again turned upward, leading into the return of the first section.

The first theme of the movement contains the germinal motives for all the themes of the Marcia and Trio. The only difference in the treatments of the thirds and scale lines lies in the rhythmic changes and the change from contrapuntal to homophonic textures. Thus the entire movement is in reality monothematic.

Harmonic Materials

The opening harmonic interval in the cyclic theme--a third--forecasts melodic motive "a."

Example 284, m. 1



The other important vertical sonority created by the movement of the two lines is the tritone, as shown in the last chord of the cyclic theme.

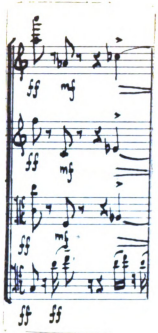
Example 285, m. 15

Because of the imitative nature of the first part of the Marcia, there are few recognizable harmonies until the fragmented theme begins. At this point the sonorities on the second and fourth beats are basically tertian, reflecting the interval of motive "a'."

Example 286, mm. 25-26

The technique of simultaneous cross-relations can be found within the second section of the Marcia in the simultaneous uses of A flat and C flat with A and C. The chromaticism in motive "a'" is thus reflected vertically.

Example 287, m. 49



The return of the first section restores the harmony to chords built mainly on a tertian basis. The sonority at measure 59 is basically a G sharp minor triad, embellished by the theme in imitative entries.

Example 288, m. 59

The Marcia ends on a chord which is also tertian, a B major chord with an added note G sharp. It is sustained into the first measures of the Trio section. The harmony of the Trio section is largely tertian and does not require further examples.

As discussed above, the return of the Marcia theme is stated with full triads instead of single lines as it had been in its first statement. This treatment continues until the fragmented thirds segment, at which time the texture thins to four parts again.

The harmonies of the Marcia are not greatly changed on its return. The main point of interest is the final

chord, which is tertian; but it is a more complicated chord than had been encountered earlier. The chord could be analyzed as a G sharp eleventh chord, but the more likely analysis seems to be that of a B ninth chord with an added G sharp, due to the spacing. The final chord of the Marcia in its first appearance was a B triad with an added G sharp, but with a less complicated superstructure of thirds.

Example 289, mm. 189-191

Tonal Structure

The tonality of the cyclic theme is indefinite, as it had been in its first appearance. The final sonority of

the tritone quoted in Example 285 indicates this instability. The motive of the thirds preceding the body of the movement seem to promise a G sharp tonality, but the opening tonality of the Marcia is B instead. Throughout the second movement at points which are in the B tonality, the G sharp often accompanies the tonic chord, indicating that it has a dominant function in this movement. The following tonalities were outlined in Figure 27.

The second section of the Marcia begins in C sharp, and the link back to the first section is on the A flat and a dual tonality mentioned in Example 287. The B tonality returns with the first section, again accompanied by its companion G sharp. At the final cadence the B triad dies out, and the G sharp holds over and becomes the tonic of the Trio section.

B and the secondary tonality of G sharp return with the Marcia, and the second section again appears on C sharp. B returns with the first section and the movement ends on the B tonality, plus G sharp.

In this movement the third relationship substitutes for the dominant, as pointed up by the almost constant association of B and G sharp. The thirds of motive "a'" are thus utilized in the tonal structure. There is also a secondary emphasis on C sharp, a step above the main tonality. Were it not for the spacing of the B chords at important structural

points there would be a temptation to analyze those chords as being G sharp chords with B always occupying the lowest position. The fifth between B and F sharp, however, lend a stability to the B. The G sharp thus assumes an added note function, later acting as a dominant.

Third Movement

The Mesto cyclic theme, now with two-part accompaniment introduces the third movement, a Burletta, or joke. The body of the movement is in a three-part form with thematic references to earlier movements and to the cyclic theme. Figure 28 shows the motives, form, and tonalities.

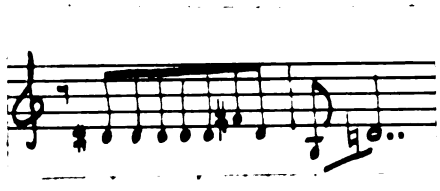
Melodic and Rhythmic Motives

The counterpoints to the cyclic theme begin in parallel thirds, diverging into different rhythmic patterns after three measures. They remain basically in thirds, however, and move in chromatic movement downward; for all practical purposes they are elaborations of the same part. It should also be noted that the cyclic theme has adopted the duplets of "a" in its third measure.

Source Motives

Motive "c"

Motive "a^2"



Motive "b"

A B A Form

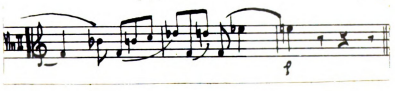
Section	Motives Used	Measures	Main Tonalities
(Cyclic Theme)		1-20	Indefinite
A	"c" and "a^2"	21-69	F(and E)
B	"b" variant	70-96	D
A	"c" and "a^2"	97-134	F(and E)
Coda	"b"	135-153	F

Fig. 28.--Sixth Quartet, III Movement

Example 290, mm. 1-5

The procedure of anticipating the theme of the body of the movement is followed here as in earlier movements. The second violin outlines the contour of the Burletta theme.

Example 291, mm. 18-20



The first theme of the Burletta emphasizes the last intervals of the second violin's part, major and minor

sevenths. The comic atmosphere is enhanced by the grace notes preceding each two-note pattern. The sevenths could be considered as inversions of the steps of b and "b'." This motive is labeled "c" in the example below.

Example 292, mm. 21-22

A secondary part of the theme of the first section emphasizes thirds and a glissando, harking back to earlier movements, especially "a'" of the second movement. It is labeled "a^2."

Example 293, mm. 27-28

The intervals are further compressed at measure 37 by a theme largely in chromatics. It is directly derived

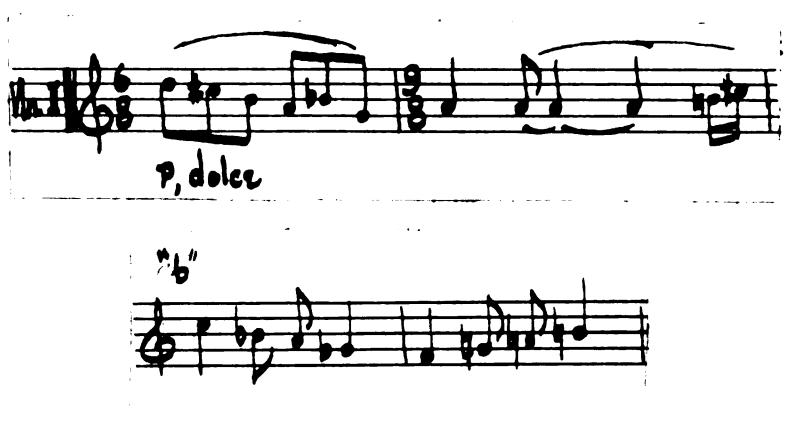
from the chromatics of the cyclic theme.

Example 294, mm. 26-27

The chromatic theme is given extensive development, creating a contrasting segment within the first section. With a hammering return to the repeated notes the first theme appears, compressed greatly, and ends the first section.

The second section, episodic in character, opens with a theme which is reminiscent of motive "b" of the first movement, itself derived from the second and third measures of the cyclic theme. The mood is now lyrical, creating an effective contrast to the accented first theme.

Example 295, mm. 70-71



The rhythm of motive "b" as it appeared in the first movement appears in a contrasting theme within this middle section. The intervals are mainly thirds instead of the conjunct motion of the first appearance of "b" in the earlier movement.

Example 296, m. 78

These two versions of the motive dominate the texture throughout the middle section of the movement, treated imitatively. An interesting technique can be observed in the rhythmic growth of the second of these two versions to eighth-notes, then the compression of the intervals until the second motive becomes the first. Thus the motivic materials of the middle section are revealed to be different versions of one motive.

The return of the first section of the movement is announced by the hammered repeated chords. There are no new significant motivic variations; basically the same pattern seen earlier is followed. A coda is added to the material,

beginning on the second motive of the middle section, seen in Example 296. The staccato material of the first motive leads into the repeated notes and ends the movement.

The contrast between the outer and middle sections' motivic materials is greater than had been seen earlier in the quartet. Both have origins in earlier material, thus unifying this movement with the rest of the quartet, especially the references in the middle section to the second motive of the first movement. The arch form of the Fourth and Fifth Quartet has not been totally abandoned in this work.

Harmonic Materials

The diversity of the melodic materials is reflected in the harmonic structures--tertian chords, clusters, and chords based on the tritone may be found. There is, however, one sonority, the diminished-minor seventh, that may be found often in the movement. The handling of this chord practically makes a study in itself, for although the intervals comprising it remain the same, different effects are created through different spacings of the chord.

The tertian chords and tritone interval are found quite early in the movement in the first few measures of the cyclic theme.

Example 297, mm. 1-2

The last sonority of the cyclic theme contains the tritone and the seventh of the melodic motives, foreshadowing the diminished-minor seventh found so often throughout the movement.

Example 298, m. 20

The first measure of the Burletta theme alternates between the diminished-minor seventh sonority and a major triad. The first chord of the following example may be spelled from B flat, considering the E as an enharmonic F flat. The spacing of the chord at this point places emphasis on the diminished seventh between the lowest note and its nearest neighbor, E to D flat, the D flat being doubled in the highest part. The melodic motive on the first beat is also a diminished seventh, D flat to B natural.

Example 299, m. 21

The next important vertical sonority is found under the brief play on the melodic thirds, motive "a^2." The harmony is tertian as is the melodic motive, but with bi-modal implications. There is a choice between G natural and G sharp, B natural and B flat.

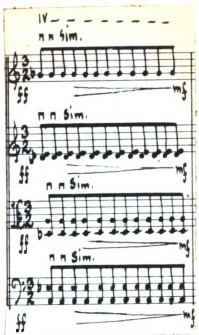
Example 300, m. 25

The contrasting segment of the first section utilized melodic chromatics. It is preceded by chords in clusters, the first true clusters found in this quartet.

Example 301, m. 33

The return of the first material is heralded by the repeated notes harmonized with the same sonority as the first measure of the Burletta. This chord can be spelled from E flat, spelling the A as B double flat, creating the diminished-minor seventh. The intervallic emphasis in this statement is the diminished seventh.

Example 302, m. 60



The vertical sonorities within the lyrical middle section are largely tertian; hence, they are less complicated than the harmonies of the first section. An example of a momentarily uncluttered triad may be found beneath the first motive of the section.

Example 303, m. 82

The repeated chords which announce the return of the first section are constructed in the same sonority as before, but this time spaced to emphasize the tritone and the minor third. The harmonies of the repeat of the first section do not vary significantly from their first statement.

The final chord of the movement is constructed in the same intervals of the diminished-minor seventh chord. However, the construction, spacing and doubling of this chord indicate an F major triad with an added note of B natural.

Example 304, m. 153

When analyzed by traditional methods of tertian construction, these sonorities reveal themselves as having a common basis, but different effects are created by Bartók in his use of spacing, distribution, and doubling of the chord elements.

Tonal Structure

The instability of the chromatic cyclic theme is emphasized on the final sonority which was composed of a tritone and a seventh. The remaining tonal relationships are outlined in Figure 28.

The patterns created by the shifts of tonal centers

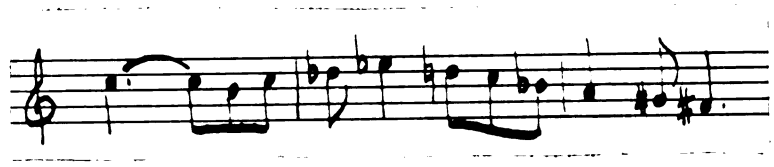
emphasize steps and thirds, the same melodic and harmonic intervals emphasized in much of the movement. The only wider intervals emphasized are sevenths, which can be analyzed as inverted seconds in tonal structures. As before, the consistency is maintained in the tonal organization, but is probably less significant to the ear than the melodic and harmonic unities.

Fourth Movement

Few melodic examples will be quoted from the fourth movement, since the cyclic theme, quoted earlier, is expanded to furnish the material for most of the movement. There is another element, however, within the movement, consisting of references to earlier movements of the quartet. The vague hint at the thematic interrelations found earlier becomes a definite reference in this movement. The Fourth and Fifth Quartet are consistently recognized to be in arch form. From the analyses given earlier it can be seen that elements of the same type of unity existed in the first three quartets. Even if there were no more thematic interrelations within the quartet than in this final movement, the Sixth Quartet would have to be placed in the same category. Figure 29 outlines the main segments of this movement.

Source Motives

Cyclic Theme (Beginning)



Motive "a"

Motive "b"

Sectional Form

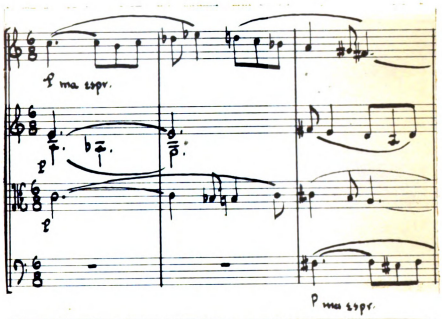
Section	Motives Used	Measures	Main Tonalities
1	Cyclic Theme	1-45	Begins on A
2	"a"	46-54	D
3	"b"	54-63	C
4	Cyclic Theme	64-86	D

Fig. 29.--Sixth Quartet, IV Movement

Melodic and Rhythmic Motives

The cyclic theme, now beginning on C, begins in a four-part context.

Example 305, mm. 1-3



The opening phrase quoted above is extended to furnish the material for the first thirteen measures. At that point a chromatic theme enters which is quite similar to the chromatic theme of the third movement in intervals if not in rhythm. Both themes have a common origin in the first measures of the cyclic theme.

Example 306, mm. 13-16

The only significant variation of the material already quoted occurs at measure 40, where the first theme is augmented and changed in rhythmic proportions.

Example 307, mm. 40-45

At measure 46 there is a literal repetition of the first subject of the first movement, followed in measure 55 by a repetition of the second subject.

Example 308, mm. 46 and 55

The transitional material from the first movement leads into a chromatic motive which is reminiscent of the counterpoints to the cyclic theme in both movements two and three. The direction is inverted, now ascending.

Example 309, mm. 72-73

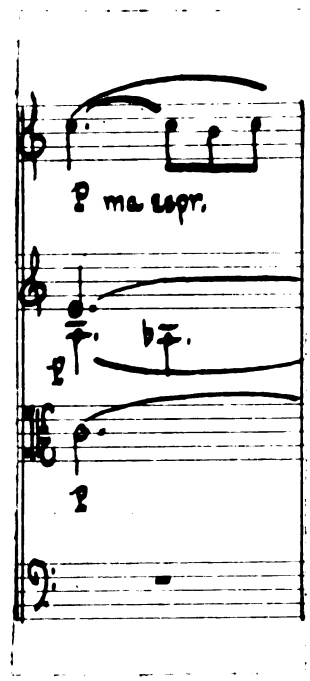
This chromatic material is extended for six measures, at which point block chords occupy the next three measures. The viola then states the first two measures of the cyclic theme at its original level of G sharp, and the movement comes to a close on sustained harmonies.

It is unusual to find a slow movement as the final movement of a large musical work. The only other time that Bartók followed this procedure in the quartets was in the Second Quartet. In the Second Quartet the final movement was an epilogue to the preceding material which referred to motives from earlier in the work. This technique is greatly refined in the Sixth Quartet in which the final movement functions as a summary of the entire work.

Harmonic Materials

The fourth movement offers no new sonorities; most of the harmonies found earlier can be found again in this movement. The opening sonority is a triad.

Example 310, m. 1



The diminished-minor sonority of the third movement can be found in measure 10. This time the chord seems to have no other implications beyond the traditional analysis.

Example 311, m. 10

The augmentation of the first measures of the motive quoted in Example 307 is harmonized with triads, creating a chorale-like section.

Example 312, mm. 40-42

The reference to the first theme of the first movement is harmonized in a context of minor second dissonances, reminiscent of the clusters of the third movement.

Example 313, mm. 47-48

The second motive from the first movement, originally harmonized with tritones, now appears in a context of a seventh chord. The tritone is still present between the E and B flat, but obscured by the addition of the seventh sonority.

Example 314, m. 55

The chromatic subject quoted in Example 309 hints at the semitone dissonance of the clusters found in the third movement. The first and second beats have simultaneous soundings of A flat (G sharp) and G, while the third beat adds F sharp to the sonority. The technique is similar throughout the accompaniment of this theme.

Example 315, m. 72

The last chord of the quartet is one which can be analyzed either as a triad with an added sixth, such as that found in the second movement, or as an inversion of a minor seventh chord. In this instance the D at the first of the measure and the doubling of the D and A in the upper parts indicate the analysis of the inverted D chord.

Example 316, m. 86

In harmonies as well as in melodic material the fourth movement of the Sixth Quartet summarizes the entire quartet.

Tonal Structure

The chromatic nature of the cyclic theme precludes the strong feeling of a tonal center. The movement begins on an A minor triad, but all parts move so consistently chromatically that subsequent tonal centers are quite indefinite. Figure 29 outlines those which can be placed.

The reference to the first movement offers some stability. The first motive is on D, as it had been in the

first movement, but it is harmonized differently. However, the ear is attracted so strongly to the melodic line that the tonality of D is easily accepted. The second motive is rooted on C as it had been in the first movement.

The chromatic motive again obscures tonal sense. Just before the end of the quartet, the 'cello plays the D to A fifth twice, and the final chord on D is acceptable as a tonal center.

The arch of the quartet is confirmed in the tonal centers, just as it had been in the more definite arches of the Fourth and Fifth Quartet.

Summary

Figure 6 repeats the main melodic motives from the Sixth Quartet. Examination shows that almost all the motives are strikingly similar in contour and intervals, all having a common origin in the Mesto cyclic theme which is common to all the movements. The only exception to this statement lies in the first theme of the Burletta of the third movement, which could resemble the other motives only if the octaves were changed. Some conjunct motion is found, especially chromatics, but the most prevalent interval found in each movement is the third. This is not to say that the third is the most frequent interval numerically, but is the most striking common element of all the themes by virtue of its positions within the motives.

Fig. 30.--Sixth String Quartet

The harmonies of the Sixth Quartet are entirely consistent with the melodic materials. The greatest majority of the vertical sonorities are constructed on the basis of the third. The only place in the quartet in which chords built on fourths are important is the first movement which had a fourth as the initial leap of the first motive. Clusters can be found in only one prominent place--in the third movement, introducing a theme utilizing minor seconds. Not every chromatic theme is accompanied with clusters, but the unusual and striking use of the technique in this instance shows a melodic motivation for the harmony.

The main tonalities of the Sixth Quartet correspond to the pivotal relationship of the earlier arch forms of the Fourth and Fifth Quartet. The main tonal center of the first movement is D; the second is a third below on B; the third movement is a third above on F; and the final movement returns to the main tonality of D. This reinforces the motivic relationships between the first and last movements and shows that Bartók was not completely finished with certain aspects of the arch form.

The Sixth Quartet is, as Helm said, a "crowning glory" of Bartók's accomplishments in the string quartet medium. It combines the structural techniques of earlier works with regard to melodic and rhythmic motives, harmonies, contrapuntal techniques, and formal construction. In addition, and most

important, it is an expressive work. Ernest Newman's observations concerning the middle quartets with their logical appearance to the eye, but aural unpleasantness, do not pertain to this work. It is a modern work in the best senses of the word.

CHAPTER VIII

CONCLUSION

This study has shown the harmonic and thematic interrelationships in the string quartets of Béla Bartók. The development of the technique from its embryonic forms in the First Quartet to its fullest conclusion in the Fourth Quartet, and a maturing of the techniques in the Fifth and Sixth Quartet have been traced in detail. Several aspects of the unity have been considered from the over-all construction of each quartet to parts of a single movement.

Considering first the interrelationships of the movements, it was found that the technique of thematic interpenetration was present in each quartet to a greater or lesser degree. Nicolas Slonimsky said in an article for the Saturday Review that from Bartók's First Quartet to his Sixth, the composer was progressing toward monothematicism.[1] Such a straight progression is not quite accurate, for although elements of monothematic technique are present in all the quartets, its strictest application can be found in the Third and Fourth

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[1]Nicolas Slonimsky, "Modern Immortals," Saturday Review of Literature, XXXIII (Sept. 30, 1950), 55.

Quartet. The Fifth and Sixth Quartet were no less unified than the preceding works, but the technique was adapted to the composer's needs in the later works instead of serving as the basis for the compositions as it had seemed to do in the Third and Fourth Quartet.

In the First Quartet the first theme of the first movement contained the source for the themes for all the movements of the quartet, but the relationships were general rather than specific, suggested rather than confirmed. The Second Quartet expanded this method to the point that the first and third movements were closely interrelated by thematic material and the second movement furnished a contrast of texture and mood rather than of actual material. In the Third and Fourth Quartet the interlocking of the thematic materials of movements became explicit and was made obvious by the composer by designations, as in the Third Quartet, or by literal repetitions of the thematic material, as in the Fourth Quartet. This was the greatest extent to which Bartók used the literal thematic references in the quartets. The Fifth Quartet is in an arch form as the Fourth had been, but the thematic references are modified. The thematic material undergoes growth from one appearance to another. In the Sixth Quartet the cyclic theme appears before each movement and generates the material for the body of each movement, but the relationships are even more subtle within the main parts

of the movement, with the exception of the literal reference to the first movement which is found in the last movement.

Each quartet is unified in vertical sonorities as well as melodic material. The harmonies were shown to be dependent on the horizontal material in each case, thus furnishing another unity. Not only are the quartets unified from movement to movement, but each work is found to be consistent with itself in its melodic and harmonic constructions.

The tonal structure of the movements of the quartets is probably less important than the other relationships, for it takes an extraordinary ear to perceive relationships so subtle. Adhering to the classical idea of tonality, each quartet ends in the same key in which it began, with the exception of the First Quartet, which opens a third lower than the main key of the work. Third relationships are important, and step relationships occupy a secondary place. The more intricate tonal relationships of the quartets from Fourth through Sixth was discussed, showing the inner movements to have a pivotal relationship to the main tonality. The melodic and harmonic correspondence is thus reinforced, adding another dimension to the unity.

The thematic material within each movement shows a remarkable amount of unity as do the interrelationships of movements. First and second themes of sonata-like structures differ only in characteristic rhythms or in texture, sharing

intervallic materials more often than not. The middle sections of three-part forms can be seen to be basically variations of the first and last sections, contrasting mainly in mood. The slow movements, often cast in a through-composed sectional form, were revealed to be made up of metamorphoses of a theme. The melodic and harmonic materials were found in an even tighter relationship within movements than between movements. Thus Bartók was able to obtain a great deal of variety of mood and texture with a minimum amount of material.

These thematic unities, both melodic and harmonic, become elements of supreme importance in a medium in which the traditional tonality no longer plays its unifying role. Tonal relationships are still important to Bartók but their constructional aspects are considerably changed by their freer uses. When the tonal relationships of a sonata form are greatly changed, when the thematic material no longer fits into the standard categories of separate and contrasting themes, and when the developmental process is constant, the sonata form and its classical counterparts cannot fulfill the same function as in the eighteenth century. The unifying factor is now the thematic material.

This study has dealt with only the constructional aspects of Bartók's technique. It has not attempted an evaluation of the string quartets. With any amount of constructional skill, the composer must still have an emotional force. In

the words of W. H. Hadow, in his study of sonata form,

> If a man have 'nothing to say' he will gain but little advantage from learning to 'say it like a gentleman'; and the study of existing laws will no more make one a musician than it will make another a painter or a poet. But at the same time the emotional force is not by itself sufficient. . . . The great artist . . . has always been glad to profit by the inheritance of his race, and has left the denunciation of traditional rules to the amateur critic who has learned them.[2]

The theorist must always be aware that the composer was not necessarily thinking of analysis when he composed. The theorist must try to strengthen intuitive sense of form by his analysis. Karl Eschman said in the preface to his Changing Forms in Modern Music, "At best, theory and appreciative analysis must follow creation at a respectful distance, but it must follow--for the sake of the art itself as well as for our own sakes; and it should be the endeavor of theorists and public alike to reduce the distance which separates the two processes to a minimum."[3]

The theorist, then, stands with a study of this sort between the composer and listener. It remains only to examine what value such a study may have for a listener. The problems of the listener in perceiving form in a musical composition are those of relating the present sounds to those which have been

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[2]W. H. Hadow, Sonata Form (London: Novello & Co., Ltd., 1923), p. 181.

[3]Karl Eschman, Changing Forms in Modern Music (Boston: E. C. Schirmer Music Co., 1945), p. vii.

heard and to those which are to follow. The elements of unity and variety are made apparent by an act of will. Understanding is necessary to appreciation.

Each Bartók quartet increases in stature when understood from the standpoint of the single movement and from the wider view of the whole work. Halsey Stevens says:

> Thus it is necessary, for a valid appreciation of a musical work, to become aware of what is happening in it at every moment. Fortunately, most compositions are not so complex that their basic structure is excessively difficult to perceive. From movement to movement the Bartók Quartets offer no really serious listening problem, but the interrelationships of the movements, so vital to the conception, is likely to be overlooked because of their temporal separation. Yet, once perceived, these relationships make the structure meaningful as a whole, which is infinitely greater than the sum of its individual parts.[4]

The techniques of musical form are in as constant a state of evolution as the material which they present. To try to understand contemporary musical ideas from an eighteenth century reference point is logical only when the material justifies it. In the case of Bartók there has been a building on the past, but the older forms are so greatly modified in order to encompass new musical thoughts that new standards must be applied in the attempt at understanding. The structural significance of the motive was found to be of central importance in the Bartók string quartets.

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[4]Stevens, p. 192.

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