

BEETHOVEN'S STRING QUARTET OP. 18, NO. 1,
THE FIRST MOVEMENT: AN ANALYSIS

by

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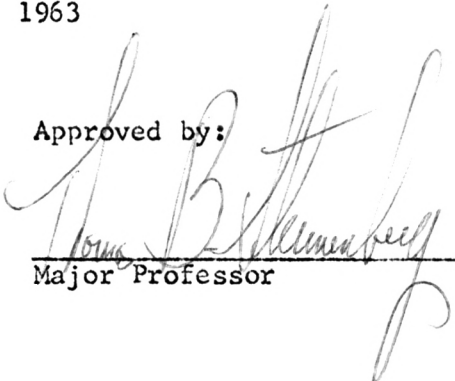

Major Professor

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INTRODUCTION

The Opus 18 String Quartets

The six quartets which comprise Opus 18 were the first of sixteen quartets and the Grand Fugue composed by Beethoven for the instrumental combination of two violins, viola, and cello. The Opus 18 quartets were first published by the firm of T. Mollo of Vienna in two volumes. The first set of three--F, G, and D--were issued in June of 1801, and the second set--C minor, A, and B Flat--the following October.¹ These quartets were composed during the years of 1798-9, and 1800.² They were not composed in the order of publication. The F Major Quartet was the second in order of composition.³ The D Major Quartet was composed first, and the G Major Quartet was the third. They seem to have been renumbered by editorial preference at the time of their first publication. Of the three remaining quartets, less definite information is available. Hadow has the order of composition of the six quartets as follows:⁴

1. F Major - composed second
2. G Major - composed third
3. D Major - composed first
4. C Minor - probably composed last
5. A Major - probably composed fourth
6. B^b Major - probably composed fifth

There is little additional historical information in regard to the F Major Quartet. It appears to have been revised before it was published. The original version was completed by June 25, 1799, and bore the title "Quar-

¹Joseph de Marliave, Beethoven's Quartets, p. 4.

²*ibid.*, p. 3.

³*loc. cit.*

⁴W. H. Hadow, Beethoven's Op. 18 Quartets, p. 16.

tetto II". A copy of the quartet was sent to Beethoven's friend, Karl Ferdinand Amenda, a clergyman in Courland, and included this note. "Dear Amenda, Accept this quartet, as a little remembrance of our friendship. Every time you play it, recall the old days and remember how good to you and always will be was your true and faithful friend Ludwig van Beethoven." Again, about the First of June 1801, just before the publication of the Quartets, Beethoven wrote to Amenda as follows: "Do not part with your quartet, as I have altered it completely, having just mastered the art of quartet writing, as you will see when you receive them."¹ Beethoven's original copy of the F Major Quartet has not been found and is presumed to have been lost. The six quartets of Opus 18 were dedicated to Prince Lobkowitz, one of Beethoven's patrons.

Purpose of the Report

The author chose to analyze this quartet movement because of a personal interest in and acquaintance with it for several years, and because he wanted to make a detailed study of the various elements of this composition--rhythmic, thematic, and harmonic--in order to better understand the construction of this work of art.

Definitions of Terms

1. Phrase. Any reasonably short segment of thematic and/or harmonic treatment of the musical material that is convenient to set apart as a unit in the music.
2. Kinds of phrases.

(1) Intransitive phrases are those which end in authentic cadences

¹Score: Beethoven String Quartet, Op. 18, No. 1. The Introduction, p. 1.

which terminate the harmonic progressions upon which they are built.

- (2) Transitive phrases are those which end in other than authentic cadences, or in no cadences at all, and, in all cases, because of their harmonic drift, transfer harmonic activity into the following phrases.
- (3) Unified phrases exist when the duration of the harmonic progression is such that three or more uninterrupted transitive phrases may be constructed over them. Since the harmonic progression is continuous only the last member of the series will have a cadence impression.¹

3. Theme. The term theme is used to refer to a melody which, by its characteristic design, becomes a basic factor in the composition. It is marked by prominence of position, or special developmental treatment. As a formal unit, it is more or less complete within itself; hence such designations as first theme, second theme, etc.

4. Motive and Turn-Motive. A motive is the briefest fragment of a theme. Because of the unique character of the first motive of the first theme, it and its mutations are referred to as the turn-motive.

5. Phase. It may contain one or more phrases and serve a special function in the music, as for example, the first phase of the transition. It is characterized by exhibiting a unity of the musical material.

6. Member. Any section of the music convenient to be set apart in a composition and related to other members of the group by its thematic and/or harmonic material

7. Elision. This occurs when the final note of a phrase becomes the first note of the succeeding phrase.

8. Extension. Any repetition of musical material in modification extended for one or more measures is an extension of the original form.

9. Anchor. Repetitious material usually of dominant-tonic character to establish a sense of key center. A stable area in the music.

¹Such a series occurs in mm. 72 - 84 in the exposition.

10. Transition. A passage in the music used as a bridge from one major section to another major section. Transitions are often built in three parts or phases:

- (1) Preparing phase
- (2) Modulating phase
- (3) Confirming phase.

11. Switch. A place in the Recapitulation where the harmony is redirected in such a way as to allow the second theme group to be restated in the tonic key of the movement.

12. Abbreviations used in this analysis.

- | | | |
|-----|------|--|
| (1) | ↓ | denotes a perfect authentic cadence or authentic cadence in the tonic key. |
| (2) | → | denotes a half cadence. |
| (3) | ↗ | authentic cadence, but in a key other than the tonic. |
| (4) | ⤿ | elision cadence. |
| (5) | u.p. | unified phrase. |
| (6) | ↗ | anacrusis. |
| (7) | tr. | trill in the music. |
| (8) | > | accent in the music. |

Approach in This Analysis

There are few books on the analysis of Beethoven's techniques of composition that treat the subject in the manner that this report approached it. Only one book was found that discussed Beethoven's compositional characteristics in any detail; Tovey's Beethoven. While there were three books available to the writer concerning this quartet, the authors tended to generalize their discussion of the movement.

The paper approached the analysis of this quartet from the thematic, rhythmic, and harmonic points of view. Care was taken to study and explain every detail of each of these three facets of the movement. These were then studied together and in conjunction with the accompanying levels of intensity as expressed by Beethoven in dynamic and accent markings. The results of

these finding were presented in the conclusion.

The Chart

The chart that accompanies this analysis was prepared to show the character of the cumulative patterns of rhythm as they progress from phrase to phrase. Also shown are the dynamic levels of intensity as indicated by Beethoven in the score. This chart, therefore, helps define the places of climax as well as the places of repose that occur throughout the movement in association with the cumulative rhythmic action.

It is suggested that a copy of the printed score be used when reading this report.

EXPOSITION (mm. 1 - 114)

First Theme Group

The first theme is divided into three sections; the first, mm. 1 - 8, reaching a half cadence, the second, mm. 9 - 20, ending in a perfect authentic cadence, and the third, mm. 21 - 29, a reflection of the second section, ending again in a perfect authentic cadence. There is no modulation in its course.

The material is built on this motive; which shall be called the turn-motive.

Ex. 1



The continuity underlying the motive development, however, is maintained by long ascending melodic lines from cadence to cadence, whose general outlines are as follows:

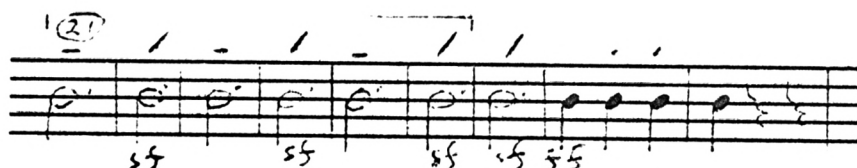
Ex. 2

There are no areas of high rhythmic intensity in the first theme, but there is a sense of increasing rhythmic activity from section to section. The Cumulative Rhythm Chart shows that none are developed in the first section, mm. 1 - 8;¹ in the second section, mm. 9 - 20, a peak develops in the penultimate cadence (m. 19) which seems to grow out of the foregoing rhythmic action; in the third section, mm. 21 - 29, while no peaks are developed, the amount of rhythmic activity is significantly increased by a ceiling of five rhythmic impulses per measure for seven measures, heading to a ceiling of six rhythmic impulses per measure for two measures, mm. 28 - 29, embracing both the penultimate and the cadence measures, which are mildly climactic

¹See Appendix.

rhythmically to the entire first theme. Through the use of accents in the thematic extension, or third section, there is an underlying rhythm under the ceiling that briefly suggests Iambic metre so far as the relationship of one bar to another is concerned.

Ex. 3



This added metric emphasis late in the theme is typical of Beethoven's rhythmic technique. More intensity is created than is shown in the rhythmic outline on the chart.

Transition

The transition falls into three phases. The first, mm. 30 - 36, the preparatory phase, prepares for the coming modulation by stressing the dominant of the original key as a pedal tone acting as the basis for a reiteration of the melodic turn which permeates much of the movement. It is preceded by one measure as an introduction (m. 29). Example 4 illustrates the melodic drift of the first phase.

Ex. 4



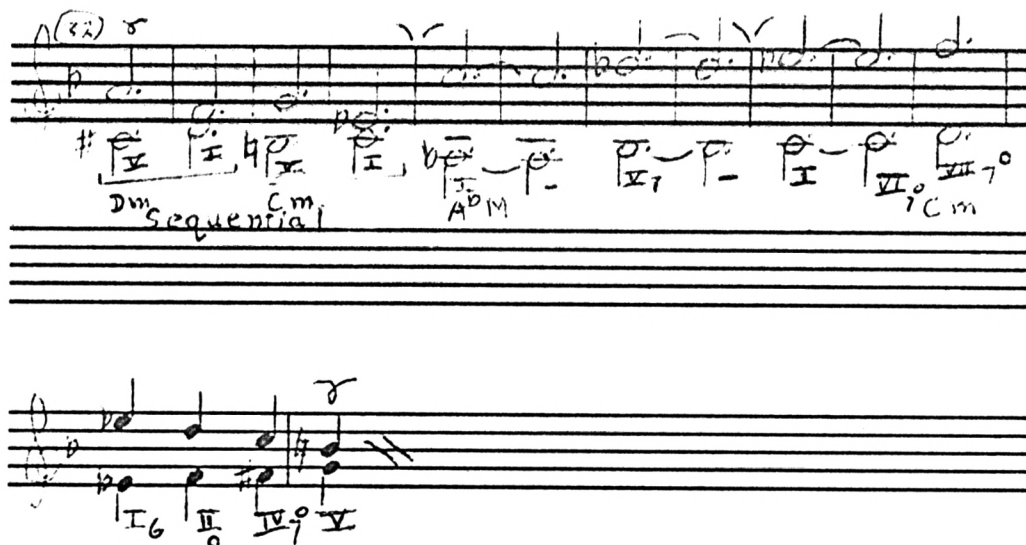
The theme beginning in m. 30 in the first violin part is a development of the turn-motive, as it occurs in mm. 13 - 14, and on; retaining the skip of the third.

Ex. 5



The second phase, mm. 37 - 49, is the modulatory phase. Its thematic material retains the significant turn-motive in the preceding material. Its lineal construction is shown in Example 6.

Ex. 6



material shown in Example 7. This rhythmic figuration occurs twice; in measure 38, and again in measure 40.

The increasing rhythmic intensity developed by imitative treatment of the turn-motive in mm. 41 - 46 culminates in a *sforzando* in m. 47 where only one note impulse occurs. This is followed by three quarter note impulses in m. 48, making the rhythmic scheme in Example 8, a reiteration of the rhythmic form in mm. 27 - 29.

Ex. 8



Exceedingly important is the fact that when rhythmic intensity is reduced, dynamic intensity is greatly increased as a compensating factor.

In the third phase, mm. 49 - 55, where material shown in Example 8 is used, rhythmic intensity reaches its highest point, and becomes cumulative to the whole passage.

Ex. 9



The thematic material, which falls in short segments, plays upon the root and third of the G major triad. It reaches a sixteenth note ceiling--the highest point that will show on the chart for this movement. The crescendo in m. 53, leads to the fortissimo octave scale passage in m. 54, ending the transition to the second theme group on the first quarter note in m. 55.

Second Theme Group

There are four members to the second theme group. Each ends on a perfect authentic cadence. All are in the key of the dominant--C major. The general form of the first member, mm. 55 - 72, is shown in Plate 1.

Though the thematic material in each phrase is presented by a different instrument in a contrasting register, the general effect is that of a continuous melodic line which reaches a climax in m. 70. This continuity is illustrated by the broken lines in mm. 60, 63, 64, and 70, in Plate I below. The phrases end in these cadence structures:

- Phrase 1 mm. 55 - 60, on a half cadence in C major
- Phrase 2 mm. 60 - 64, on a perfect authentic cadence
in the key of G major
- Phrase 3 mm. 64 - 68, on a half cadence in C major
- Phrase 4 mm. 68 - 72, on a perfect authentic cadence,
also in C major.

The first member of the second theme group seems to develop the descending third which occurs so persistently in the development of the turn-motive in mm. 30 - 33, and mm. 40 46. It occurs in each of the four parts, and provides a continuous melodic line throughout the first member.

EXPLANATION OF PLATE I

The form of the first member of the second theme group shows the continuity of the melodic line as it moves from one instrumental part to the next.

[illegible]

The second member of the second theme group, mm. 72 - 84, consists of two phrases. Harmonically, it is a simple chord progression in C major.

Ex. 10

The musical notation for Example 10 consists of two staves. The first staff, representing measures 72-78, begins with a circled '72' and a slash. It contains a melodic line with eighth and quarter notes and a bass line with half notes. Chord symbols below the staff are I CM, V, I7, and II. The second staff, representing measures 79-84, continues the melodic and bass lines. Chord symbols below this staff are V, -7, and I. A double bar line is present at the end of the second staff.

The thematic material of the first phrase, mm. 72 - 78, is very similar to the beginning phrase of the transition. A comparison will show that the turn-motive is present in the cello part in both passages. The two inner voices have the same accompanying figuration, and the pattern of harmonic rhythm is the same for the first four measures. Though the basic interval pattern of the upper line in the transition is suggested, the material used in this section is a mutation of the turn-motive.

There is no cadence in the first phrase segment. It concludes in a diminished seventh chord built on the raised tonic--C sharp, making a unified phrase ending on an elision into the succeeding phrase. The second phrase, mm. 78 - 84, is a point of high rhythmic intensity. It concludes in a perfect authentic cadence in C major. Rhythmically, it displays a metric displacement from triple metre to duple metre, and returns to triple metre in mm. 82 and 83. This is illustrated in Example 11.

Ex. 11



The third member, mm. 84 - 101, is a double period in which the first and third phrases are identical, except that the third phrase is an octave higher than the first. Both end in a half cadence in C major. The second and fourth, each entering after a measure of rest, serve as contrasting phrases in which the style is quite different to the first and third. Both end in perfect authentic cadences. At the beginning of the fourth phrase there is a modal change from C major to C minor. This highly chromatic device seems to be a characteristic used often by Beethoven--the alteration of the tonic major to the tonic minor--and his purpose here appears to be to heighten the rhythmic intensity of the concluding phrase of the third member of the group. It is a phrase generating tension and is climactic to all other phrases of this theme. This is achieved by:

1. Harmonic chromaticism brought about by a change to the parallel minor mode--and its subsequent resolution to the perfect authentic cadence in the major.

2. Reduction of rhythmic activity to half-note and quarter-note values, with emphasis upon great sonority; in fact, it and its parallel in the recapitulation are the most sonorous within the entire movement. (Note double stops in the first and second violin parts in both instances where this passage occurs.)

3. A high dynamic level with sfz and ff being indicated in the score.

The fourth member of the second theme group, the closing theme, mm. 101 - 114, contains three phrases. It is an anchor in C major with alternating harmony between the tonic and dominant seventh chords. The final six-measure phrase is on the tonic triad.

The first phrase, mm. 101 - 105, begins with the turn-motive in the cello part. The second violin and viola supply the harmonic rhythm (repeated eighth notes) while the violin reiterates again the melodic fragment first used in the first phase of the transition.

The second phrase is a variation of the first phrase. Greater intensity is achieved by the sixteenth-note figuration between the first violin and cello. This figure is a reconciliation to the turn-motive. These phrases are shown in Plate II.

EXPLANATION OF PLATE II

Plate II shows the variation of the turn-motive
and its further mutation of the turn-motive theme.

Plate II

Handwritten musical score for Plate II, featuring four systems of staves. The notation includes treble and bass clefs, various musical notes, rests, and chord symbols. The score is written in a key with one flat (B-flat).

System 1: Treble clef staff starts with a circled "101". It contains a melodic line with a trill (tr.) and a repeat sign (X). The bass clef staff has a melodic line with a trill (tr.) and a repeat sign (X). Chord symbols below the bass staff are A I, I, V7, and V7.

System 2: Treble clef staff has a melodic line with a trill (tr.) and a repeat sign (X). The bass clef staff has a melodic line with a trill (tr.) and a repeat sign (X). Chord symbols below the bass staff are A' I and I.

System 3: Treble clef staff has a melodic line with a trill (tr.) and a repeat sign (X). The bass clef staff has a melodic line with a trill (tr.) and a repeat sign (X). Chord symbols below the bass staff are V and V.

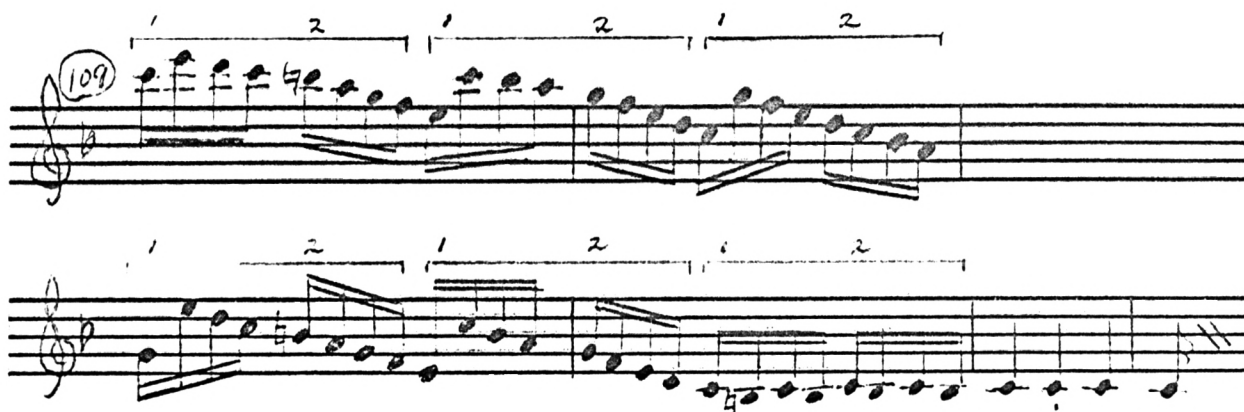
System 4: Treble clef staff has a melodic line with a trill (tr.) and a repeat sign (X). The bass clef staff has a melodic line with a trill (tr.) and a repeat sign (X). Chord symbols below the bass staff are I and I.

As shown in Plate II, A' is a variation of A, and X' is a variation of X.

Attention should be drawn to the use of this theme fragment. While Beethoven used the turn-motive extensively throughout the first movement, he also used it still further in varied forms. The first use in variation of the turn-motive occurs in the first phrase of the transition in the first violin part (m. 30). It receives an augmented treatment but is still recognizable as the turn. Again in the second theme group it appears in a shortened form in the first violin part (m. 102). Finally, the variation is still further simplified in the concluding theme of the second theme group as has been illustrated in Plate II (m. 106). Each time it is accompanied by the inner voices playing a repeated eighth-note pattern and with the turn clearly stated in the cello part.

This theme concludes with a sixteenth-note C major scale passage in the final phrase. As in the second theme of this group, there is a metric displacement of the rhythm pattern from three beats to two. This is shown in Example 12.

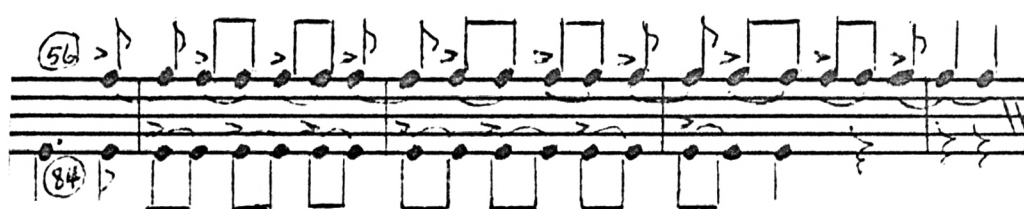
Ex. 12



The second theme group shows a parallel balance among members in the following manner:

Members one and three are similar in rhythmic content. The differences lie in where the accents fall and in the added contrasting second and fourth phrases of the third member.

Ex. 13



The second and fourth phrases of the third member are introduced by a measure of silence preceded by a half cadence. These pauses serve to heighten the intensity of the answering phrase by creating anticipation. The answering phrases end in perfect authentic cadences and momentarily conclude the intensity.

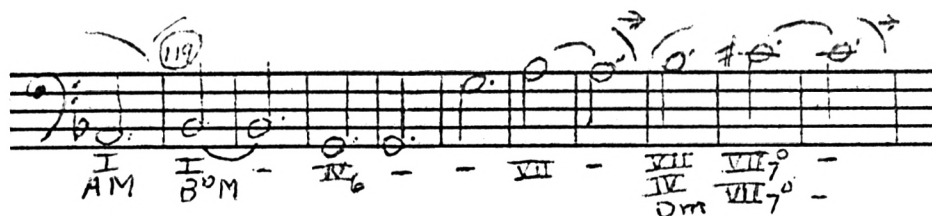
DEVELOPMENT (mm. 115 - 178)

The first phase, mm. 115 - 118, is a four-bar phrase in A major--the third relationship to the previous concluding phrase in C major. Harmonically, thematically, and rhythmically it is a reiteration of the concluding phrase of the second theme group. It also contains the same metric displacement.

Phase two, mm. 119 - 128, is a modulating phase, moving from B flat major into the VII⁷ of D minor. This phase is initiated in the final measure of the first phase by the three A's in m. 118, which become the

leading tone to B flat major at the beginning of the second phase. The harmonic line is shown in Example 14.

Ex. 14



Its thematic material is the reiteration of the first six measures of the exposition accompanied by an arpeggio figure in sixteenth notes in the first violin part. The material used in mm. 5 and 6, is utilized in mm. 123 - 128, with one measure of extension in m. 125, and again in m. 128.

The last measures, 123 - 128, develop the VII chord of D minor at a comparatively low rhythmic intensity.

The third phase, mm. 129 - 151, can best be described by examining the harmonic rhythm. It is built upon a harmonic sequence, VII⁷ - I, which ascends by intervals of a fourth through D minor, G minor, C minor, F minor, to B flat minor. The pattern of harmonic rhythm by which this is achieved is illustrated in Example 15 below. These phrases contain both a harmonic sequence pattern and a rhythmic sequence pattern, and are built on a framework of parallel construction.

The thematic material is based on the turn-motive worked by stretto-like imitation. It is manipulated by rhythmic imitation of the turn-motive pattern (or rhythmic fragments of it) through all four instrumental parts.

Ex. 15

Handwritten musical score for Example 15, consisting of five phrases of music on five-line staves. Each phrase is marked with a circled measure number and a key signature. The chords are written below the staves.

- Phrase 1 (mm. 129-132): Key of D minor (Dm). Chords: VII⁷, I₆, VII⁷, I₆.
- Phrase 2 (mm. 133-136): Key of G minor (Gm). Chords: VII⁷, I₆, VII⁷, I₆.
- Phrase 3 (mm. 141-144): Key of C minor (Cm). Chords: VII⁷, I₆, VII⁷, I₆.
- Phrase 4 (mm. 147-150): Key of F minor (Fm). Chords: VII⁷, I₆, VII⁷, I₆.
- Phrase 5 (mm. 151-154): Key of B^b minor (B^bm). Chords: VII⁷, I₆, VII⁷, I₆.

Chordal anchors occur in mm. 133, 134 in the first phrase; in mm. 139, 140 in the second phrase; in mm. 145, 146 in the third phrase; in mm. 147, 148 in the fourth phrase; and mm. 149 and 150 in the fifth phrase. These anchors serve as a means for establishing the progression of key centers.

The fourth phase, mm. 151 - 166, also may best be illustrated by its harmonic rhythm. This is shown in Example 16. These four phrases show a simple parallel construction. Thematically, the turn-motive is used exclusively on successive steps of the harmonic chord. It is accompanied by a repeated eighth-note figure throughout the phase. This is a modulating phase

back to the dominant of the first movement.

Ex. 16

Handwritten musical notation for Example 16. The notation consists of two staves. The first staff begins with a circled '151' and contains a series of notes with a '4p.' marking above them. The second staff also contains notes with a '4p.' marking. Below the staves, several chords are indicated: $I B^b m$, $I G^b m$, $I (4) F m$, $I F m$, $I D^b m$, and $I (4) VII_7^b$.

Phase five, mm. 167 - 178, is in effect an extension of the V^7 chord in preparation for the recapitulation. There are three four-measure phrases, each beginning on an elision with the preceding phrase:

- Phrase one (mm. 167 - 171); C major, or V in F major
- Phrase two (mm. 171 - 175); V^7 in F major
- Phrase three (mm. 175 - 178); V^7 in F major.

The thematic material consists of a descending sixteenth-note scale passage in C major in the first violin part in phrase one. In the second phrase, the first violin plays an ascending passage to the highest point in the development section--high B flat. The concluding phrase features contrasting ascending and descending scale passages based on the V^7 chord which resolves finally into the recapitulation in m. 179.

Rhythmically, this phase shows the greatest amount of intensity to be found in the development. It borrows rhythmic features used previously. The metric displacements first found in mm. 109 - 112 in the second theme group occur in both the first violin (mm. 167 - 170) and cello parts (mm. 173 - 174) in this phase. The rhythmic accompaniment of the cello in the

first phrase, 167 - 170, is a reiteration of the rhythmic accompaniment in mm. 49 - 53 of the inner voices of the transition.

RECAPITULATION (mm. 179 - 274)

The following facts regarding the material of the recapitulation may be observed:

1. The order of themes is the same as in the exposition--as is to be expected. The first theme, however, recurs as the climax to the development section with the sonority expanded to four octaves as against two in the exposition.
2. The first theme, rather than closing in an authentic cadence, is dissolved; therefore, the formal transition passage is dispensed with, but the thematic material of the former is incorporated into the later stages of the latter.
3. The harmonic drift of the first theme is from its tonic, F major, through a switch in m. 187 to a conclusion in an area expanding the V⁷ chord in that same key.

Switch

The switch is a replacement for the formal transition that occurred in the exposition. The thematic material is borrowed from previously stated material and is reworked to suit Beethoven's formal needs. An area of expansion occurs in mm. 191 - 195 in a sequential pattern.

In mm. 198 - 206, material that had been used as an introductory theme in the transition is reiterated. There is a modulation to C major--actually the dominant of F major--in mm. 206 - 210.

Ex. 17



Beethoven maintained a sense of suspense as a building climax in F minor before he finally resolves the conflict into F major at the beginning of the second theme group. The over-all scheme of the switch area may best be illustrated in its harmonic rhythm.

Ex. 18

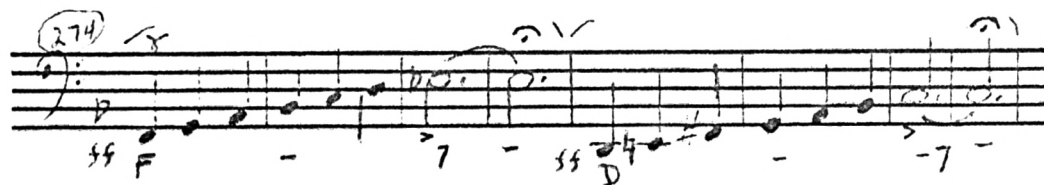
Handwritten musical notation for Example 18, showing three staves of music with harmonic analysis below each staff. The notation includes notes, rests, and various harmonic symbols such as FM, IV, I, V, and others, indicating the harmonic structure of the piece.

CODA (mm. 274 - 313)

There are four phases in the coda. The first phase contains new material, and the second, third, and fourth phases are final reiterations of the turn-motive.

Phase one, mm. 274 - 281, contains two phrases of ascending notes in octaves. The first phrase begins on F and ascends a seventh to E flat. The second phrase begins a third lower on D and also ascends a seventh, to C. This is shown in Example 19.

Ex. 19



This passage, beginning in an elision with the previous phrase is climactic to it. The chart will show a peak of twelve impulses in mm. 271 - 273 for the cumulative rhythm. This is accompanied by a crescendo beginning in m. 271. The only reasonable way to terminate the crescendo is to simplify the rhythm pattern of sixteenth notes to quarter notes and to increase the dynamic intensity in the succeeding phrase (m. 274) to a fortissimo climaxed in a sforzando on the seventh step of the scale which is held for six beats. This is another instance in which the rhythmic intensity is decreased while the dynamic intensity is increased. The purpose of this phase is to announce the beginning of the coda.

Phase two, mm. 282 - 290, is dynamically in direct contrast to the first phase. It contains two phrases in a sequential pattern-- G^7 to C^7 --resolving to F major in phase three. Both phrases are in two-part counterpoint with the other two voices entering in the cadence measure. Harmonically, the bass line moves up step-wise in the same pattern as in the first phase. This provides a means of rhythmic coherency between these phases. The first phrase is built on the G^7 chord; the second phrase is a fifth lower-- C^7 . Example 20 illustrates the second phase.

Ex. 20

282 Vln. 1 (simile)

G₇ Vln. 2 clo.

Vln. 2. (simile)

Vln. 1

Vla. C₇ clo. F_b₄

Phase three, mm. 290 - 302, begins in an elision. It also contains two phrases. The first phrase, mm. 290 - 293, contains two measures of tonic and two measures of dominant triads in F major. The thematic material consists of the turn followed by a descending triad (a pattern from the preceding phase) in the next measure.

Ex. 21

290 Vln. 2. Vln. 1 Vla. C. 7

This material is anticipated in the last two measures of the second phase. It is also used in the switch area, mm. 188 - 190, but in a rhythmically more complex manner. The purpose for using it here is to serve as a connecting figure to provide greater coherency between this and the previous phase.

There is not an unusual amount of rhythmic importance. The only area of intensity occurs in the cadence region, anticipating the next phrase.

The second phase, mm. 294 - 302, may best be illustrated through an example of its harmonic rhythm.

Ex. 22

Handwritten musical notation for Example 22, showing a two-staff excerpt with harmonic rhythm. The notation includes a treble and bass staff with notes, rests, and dynamic markings. Below the staves, Roman numerals indicate the harmonic progression: VI, II, I, II, III, IV, I, V, I. The progression is in F major, with the final I being the tonic. The notation is handwritten and includes various markings such as accents, slurs, and dynamic markings like 'f' and 'p'.

Virtually the whole phrase is an extension emphasizing the turn-motive in a sequential pattern. Thematically, it is a reiteration of material used in mm. 13 - 18 of the exposition. The chart will show that there is very little rhythmic action within this phrase. The only areas of dynamic intensity occur on the sforzandos in mm. 295, 297, and 299.

The fourth phase, mm. 302 - 313, contains two phrases. Phrase one, mm. 302 - 310, begins in an elision. Harmonically, it contains two triads in alternating harmony: the tonic F major and the sub-dominant B flat (in the

minor mode). This is written above an F pedal-point in the cello part. The thematic material consists of the turn-motive and a variation of it.

Example 23 illustrates this.

Ex. 23



The sixteenth-note figure is a variation of the turn and is played by all four instruments successively in alternate measures with the turn-motive played by the cello. This sixteenth-note figuration is a variation of the turn-motive and is reminiscent of mm. 105 - 107 in the exposition. The amount of rhythmic intensity within this phrase is derived from the sixteenth-note figure.

A crescendo in measure 309 leads to the second phrase and the final phrase of the first movement. It begins in an elision in m. 310. The key is F major with a perfect authentic cadence at the close.

The thematic material is the turn-motive slightly altered, as shown in Example 24.

The rhythmic intensity of the final four-bar phrase reaches a ceiling of seven rhythmic impulses (as illustrated on the chart) until the final measure. The accompanying dynamic intensity is high, as might be expected for the concluding phrase of the movement, and receives added emphasis in the sforzandos in each measure except the last.

Ex. 24

Viol. I.

Cello

f sf sf sf

I FM V I -

CONCLUSION

This quartet movement was one of the early examples of a great composer's composition for four string instruments. The form of this movement is the Classical Sonata-Allegro form, a form most often favored by Beethoven.

The composer established both the key of F major and presented all of the material of the first theme group in eight short measures, but the complete first theme area itself was extended to 29 measures. It was terminated in a perfect authentic cadence. The Transition that followed the main theme effected a shift of key from F major to C major. The dominant of the key of F was tonicised (used as a tonic) by matching it with its own dominant resulting in a modulation to C major. It reached the key of C major through the following keys: F - D minor - C minor - A flat - C minor - G (the dominant of C minor) - to C major in the Second Theme Group.

In the Exposition, the Second Theme Group was of longer duration (60 mm.) than the First Theme Group and was within the key of C major but with a modal shift to C minor in the third phase. The Recapitulation reiterated both the first and second theme groups in the key of F major. There were in the course

of the movement modulations to other keys. These usually occurred through dominant preparation. At other times the composer effected modulations through the use of the diminished chord (a substitute dominant), and more often, a diminished seventh chord. In one instance he modulated up one half step from A to B flat by using the A as a leading tone. The greatest number of modulations occurred in the Transition, the Switch, and the Development sections. These sections were characteristically episodic, and were thought of as unstable areas of progressing harmony. They were succeeded by chordal anchors which established a central tonal center.

This quartet movement illustrated Beethoven's well-known economy of thematic material. The turn-motive was used throughout the movement in nearly every phase. In fact, it was used 102 times, not including its variations and mutations. Such extensive use of a motive as brief as a turn would seem to have become monotonous. This was not so because it was used as a unit which gave character to a much broader melodic sweep--a sweep that far transcended its own dimensions.

The chart, while it showed areas of rhythmic activity, could not show precisely the character of the harmonic sonority. A fact learned from studying this score was that when rhythmic activity is reduced, it may be compensated by harmonic sonority. At such places the score may indicate forte and sforzando dynamic markings.

The chart clearly showed the cumulative rhythmic intensity patterns as they appeared throughout the movement. Most noticeable were the levels of rhythmic intensity that occurred at the end of each major section of the movement. Contrasts of intensity were also discernible between phrases.

The composer created higher levels of rhythmic intensity through the use of metric displacements from triple metre to duple metre. These occurred

in the Second Theme Group, and the Development. Metric displacements either introduced or concluded the section of the movement of which they were a part.

The use of sequential patterns provided lineal expansions of the harmonic material and added strength to the harmonic rhythm. They appeared most often in the Development section, but also appeared in other areas of the movement.

The Development section concluded in the dominant of the key of F major at a high level of rhythmic intensity and led directly into the Recapitulation.

The order of themes of the Recapitulation was the same as in the Exposition except that the main theme was reduced to eight measures. The harmonic sonority of the main theme was expanded to four octaves against two octaves in the Exposition. The Switch replaced the formal transition of the Exposition and redirected the harmonic drift to the second theme group into the key of F major.

A Coda concluded the movement. It was based, following an eight-measure introduction, on the turn-motive and stressed the tonic-dominant in F major.

Finally, the over-all construction of this movement was in terms of broad form units, or long harmonic progressions that extended from one principle cadence to the next. Above these broad spans the composer built his themes and phrases. This principle is an underlying factor of all music in larger forms.

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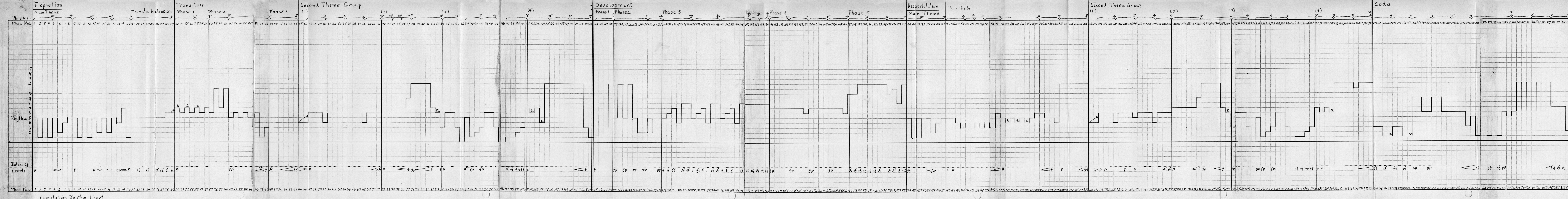
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APPENDIX



BEETHOVEN'S STRING QUARTET OP. 18, NO. 1,
THE FIRST MOVEMENT: AN ANALYSIS

by

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AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Music

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1963

Purpose of the Report

The author chose to analyze Beethoven's String Quartet Op. 18, No. 1, the First Movement because of a personal interest in and acquaintance with it for several years, and because he wanted to make a detailed study of the various elements of this composition--rhythmic, thematic, and harmonic--in order to better understand the construction of this work of art.

Approach in This Analysis

There are few books on the analysis of Beethoven's techniques of composition that treat the subject in the manner that this report approached it. There were three books available to the writer concerning this quartet. However, the authors tended to generalize their discussion of the movement.

The paper approached the analysis of this quartet from the thematic, rhythmic, and harmonic points of view. Care was taken to study and explain every detail of each of these three facets of the movement. These were then studied together and in conjunction with the accompanying levels of intensity as expressed by Beethoven in dynamic and accent markings that were printed in the score. The chart that accompanies this analysis was prepared to show the character of the cumulative patterns of rhythm as they progress from phrase to phrase. Also shown are the dynamic levels of intensity as indicated by Beethoven in the score. This chart, therefore, helps define the places of climax as well as the places of repose that occur throughout the movement in association with the cumulative rhythmic action.

Summary of Findings

This quartet movement was one of the early examples of a great composer's

compositions for four string instruments. The form of this movement is the Classical Sonata-Allegro form, a form most often favored by Beethoven.

The composer established both the key of F major and presented all of the material of the first theme group in eight short measures, but the complete first theme area itself was extended to 29 measures. It was terminated in a perfect authentic cadence. The Transition that followed the main theme effected a shift of key from F major to C major. The dominant of the key of F was tonicised (used as a tonic) by matching it with its own dominant resulting in a modulation to C major. It reached the key of C major through the following keys: F - D minor - C minor - A flat - C minor - G (the dominant of C minor) - to C major in the Second Theme Group.

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