THE STYLISTIC CHARACTERISTICS OF
BEETHOVEN'S EARLY PIANO TRIOS

THESIS

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF MUSIC

By

Donald C. Hoff, B.M.
Denton, Texas
January, 1969
# TABLE OF CONTENTS

**LIST OF TABLES.** .......................................................... iv

**LIST OF ILLUSTRATIONS** .............................................. vi

**Chapter**

I. INTRODUCTION ............................................................ 1
   - Purpose and Scope of the Study
   - Organization and Procedures
   - Terminology
   - General History of the Piano Trio
   - Before Beethoven

II. THE BONN TRIOS .......................................................... 18
   - Trio in G Major, for Flute, Bassoon, and Pianoforte, WoO 37
   - Trio in E-flat Major, for Violin, Violoncello, and Pianoforte, WoO 38
   - Fourteen Variations in E-flat Major, for Violin, Violoncello, and Pianoforte, Op. 44

III. OPUS ONE ................................................................. 71
   - Trio in E-flat Major, for Violin, Violoncello, and Pianoforte, Op. 1, No. 1
   - Trio in G Major, for Violin, Violoncello, and Pianoforte, Op. 1, No. 2
   - Trio in C minor, for Violin, Violoncello, and Pianoforte, Op. 1, No. 3

IV. SUMMARY ................................................................. 149
   - Form
   - Thematic Relationships
   - Elements of Contrast
   - Key Schemes
   - Modulations
   - Altered Chords
   - Non-Harmonic Tones
   - Chord progressions
   - Conclusion

**BIBLIOGRAPHY.** .......................................................... 165
**LIST OF TABLES**

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Key Schemes, Trio in G, WoO 37</td>
<td>33</td>
</tr>
<tr>
<td>II. Key Relationships in Modulations,</td>
<td>34</td>
</tr>
<tr>
<td>Trio in G, WoO 37</td>
<td></td>
</tr>
<tr>
<td>III. Altered Chords, Trio in G, WoO 37</td>
<td>36</td>
</tr>
<tr>
<td>IV. Non-Harmonic Tones in Per Cent,</td>
<td>37</td>
</tr>
<tr>
<td>Trio in G, WoO 37</td>
<td></td>
</tr>
<tr>
<td>V. Normal Progressions in Per Cent,</td>
<td>38</td>
</tr>
<tr>
<td>Trio in G, WoO 37</td>
<td></td>
</tr>
<tr>
<td>VI. Key Schemes, Trio in E-Flat, WoO 38</td>
<td>53</td>
</tr>
<tr>
<td>VII. Key Relationships in Modulations,</td>
<td>54</td>
</tr>
<tr>
<td>Trio in E-Flat, WoO 38</td>
<td></td>
</tr>
<tr>
<td>VIII. Altered Chords, Trio in E-Flat, WoO 38</td>
<td>55</td>
</tr>
<tr>
<td>IX. Non-Harmonic Tones in Per Cent,</td>
<td>56</td>
</tr>
<tr>
<td>Trio in E-Flat, WoO 38</td>
<td></td>
</tr>
<tr>
<td>X. Normal Progressions in Per Cent,</td>
<td>57</td>
</tr>
<tr>
<td>Trio in E-Flat, WoO 38</td>
<td></td>
</tr>
<tr>
<td>XI. Altered Chords, Fourteen Variations, Op. 44</td>
<td>64</td>
</tr>
<tr>
<td>XII. Non-Harmonic Tones in Per Cent,</td>
<td>65</td>
</tr>
<tr>
<td>Fourteen Variations, Op. 44</td>
<td></td>
</tr>
<tr>
<td>XIII. Key Schemes, Trio in E-Flat, Op. 1, No. 1</td>
<td>96</td>
</tr>
<tr>
<td>XIV. Key Relationships in Modualtions,</td>
<td>97</td>
</tr>
<tr>
<td>Trio in E-Flat, Op. 1, No. 1</td>
<td></td>
</tr>
<tr>
<td>XV. Altered Chords, Trio in E-Flat, Op. 1, No. 1</td>
<td>99</td>
</tr>
<tr>
<td>XVI. Non-Harmonic Tones in Per Cent,</td>
<td>100</td>
</tr>
<tr>
<td>Trio in E-Flat, Op. 1, No. 1</td>
<td></td>
</tr>
<tr>
<td>XVII. Normal Progressions in Per Cent,</td>
<td>101</td>
</tr>
<tr>
<td>Trio in E-Flat, Op. 1, No. 1</td>
<td></td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>XVIII.</td>
<td>Key Schemes, Trio in G, Op. 1, No. 2</td>
</tr>
<tr>
<td>XIX.</td>
<td>Key Relationships in Modulations, Trio in G, Op. 1, No. 2</td>
</tr>
<tr>
<td>XX.</td>
<td>Altered Chords, Trio in G, Op. 1, No. 2</td>
</tr>
<tr>
<td>XXI.</td>
<td>Non-Harmonic Tones in Per Cent, Trio in G, Op. 1, No. 2</td>
</tr>
<tr>
<td>XXII.</td>
<td>Normal Progressions in Per Cent, Trio in G, Op. 1, No. 2</td>
</tr>
<tr>
<td>XXIII.</td>
<td>Key Schemes, Trio in C Minor, Op. 1, No. 3</td>
</tr>
<tr>
<td>XXIV.</td>
<td>Key Relationships in Modulations, Trio in C Minor, Op. 1, No. 3</td>
</tr>
<tr>
<td>XXV.</td>
<td>Altered Chords, Trio in C Minor, Op. 1, No. 3</td>
</tr>
<tr>
<td>XXVI.</td>
<td>Non-Harmonic Tones in Per Cent, Trio in C Minor, Op. 1, No. 3</td>
</tr>
<tr>
<td>XXVII.</td>
<td>Normal Progressions in Per Cent, Trio in C Minor, Op. 1, No. 3</td>
</tr>
<tr>
<td>XXVIII.</td>
<td>Percentage Comparison of Keys Employed</td>
</tr>
<tr>
<td>XXIX.</td>
<td>Average Number of Different Keys Employed</td>
</tr>
<tr>
<td>XXX.</td>
<td>Percentage Comparison of Key Relationships in Modulations</td>
</tr>
<tr>
<td>XXXI.</td>
<td>Percentage Comparison of Types of Altered Chords</td>
</tr>
<tr>
<td>XXXII.</td>
<td>Percentage Comparison of Types of Non-Harmonic Tones</td>
</tr>
</tbody>
</table>
LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Trio in G, WoO 37, First Movement, Measure 5</td>
</tr>
<tr>
<td>2.</td>
<td>Trio in G, WoO 37, First Movement, Measure 12</td>
</tr>
<tr>
<td>3.</td>
<td>Trio in G, WoO 37, First Movement, Measure 29</td>
</tr>
<tr>
<td>4.</td>
<td>Trio in G, WoO 37, Second Movement, Measures 4 and 5</td>
</tr>
<tr>
<td>5.</td>
<td>Trio in E-Flat, WoO 38, First Movement, Measures 1-4</td>
</tr>
<tr>
<td>6.</td>
<td>Trio in E-Flat, WoO 38, Second Movement, Measures 9 and 79</td>
</tr>
<tr>
<td>8.</td>
<td>Trio in E-Flat, Op. 1, No. 1, Second Movement, Measures 12 and 22</td>
</tr>
<tr>
<td>Figure</td>
<td>Page</td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>19. Abstract Form of Figure which Recurs Throughout the Trio in C Minor, Op. 1, No. 3.</td>
<td>137</td>
</tr>
<tr>
<td>25. Trio in C Minor, Op. 1, No. 3, Third Movement, Measure 46.</td>
<td>139</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Purpose and Scope of the Study

The purpose of the present study is to determine the stylistic characteristics of Beethoven's early piano trios. For the purposes of this study, the term "piano trio" is defined as any work for three instruments in which a piano participates. Of the twelve such trios written by the composer, the first six are dealt with. There is in addition a brief discussion of a trio of uncertain origin. These six piano trios were composed over a span of about ten years (1785-1795), between the ages of fifteen and twenty-five. Although there is a great deal of uncertainty as to the exact time and place of origin of these trios, the first three are generally considered to have been written in Bonn, and the last three in Vienna.

The stylistic characteristics of the music are divided into eight categories as follows: 1) form, 2) thematic relationships, 3) elements of contrast, 4) key schemes, 5) modulations, 6) altered chords, 7) non-harmonic tones, and 8) chord progressions. There is of course a great deal of overlapping between these categories, but it has been considered desirable to study them separately, insofar as
possible, in order to form a more precise picture of each individual characteristic.

Included under form is the overall structure of each movement, its tonal contrasts, how it differs, if at all, from the "textbook version" of its structure, and obvious unifying devices such as the recurrence or development of themes.

The sections on thematic relationships deal with less obvious unifying devices, such as may not be consciously noticed by the listener, but which hopefully serve as subconscious unifying devices. The most common such device used in this music is a short melodic figure, usually three or four notes, which appears in varying contexts throughout a movement or even throughout an entire work. A recurrent rhythmic pattern can function in the same way.

The category called elements of contrast includes all types of contrast except tonal contrast, which is included under the heading of form. This leaves contrasts in character, rhythmic construction, texture, dynamics, articulation, orchestration, etc. These elements are not discussed exhaustively, but rather the attempt is made to point out those instances where they are more essential to the structure of the music.

The fourth category, key schemes, lists the number of keys used in each movement, and how they are related to the tonic. Modulations are listed according to the tonal
distance between the two keys involved. This is determined by the difference between the key signatures of the respective keys. The differences range from zero to five accidentals in this music. Altered chords are simply listed by types. Secondary dominant and leading tone triads are listed separately from the respective seventh chords.

Non-harmonic tones are also listed by types. Due to the large numbers involved, percentages are used to show the extent to which the various types are employed within a movement or an entire trio. Chord progressions are assessed by percentage of normal progressions, using McHose's (9, p. 308ff.) definition of normal.

Organization and Procedures

The six trios are divided into two groups; the three Bonn trios (chapter II), and the three trios of opus one (chapter III). The analysis of each trio is preceded by historical and general information about the work. The analyses proceed by discussing separately each of the eight categories of stylistic characteristics mentioned above. The final chapter summarizes the accumulated material in each of the categories, and attempts, in conclusion, to relate the various findings.

In the numbering of the measures for analysis, all repeat signs are ignored. In the case of alternative first and second endings, only the second ending is numbered.
The first ending is referred to by name where necessary. The separated codas of minuet and scherzo movements are numbered as they appear on the page, immediately following the trio sections, ignoring the interpolation, in performance, of the minuet or scherzo section between the trio section and the coda. In the case of a theme with variations, each variation is numbered separately in order to facilitate the comparison of parallel passages in the different variations. All tabulations are made without recounting passages which are marked with repeat signs. Musical examples are included only where the point being discussed would not be immediately recognizable from looking at the appropriate measure of a printed score.

Terminology

The following list includes two types of terminology. Those which are footnoted are borrowed from other writers and may not be familiar to all readers. Those which are not footnoted are generally familiar terms, but may be subject to a variety of interpretations. An attempt is made to clarify the specific way or ways they are used in the present study. For the sake of convenience, they are listed in alphabetical order.

Borrowed chords—Ottman's (12) designation for altered chords which are diatonic in the opposite mode, e.g., a minor subdominant chord in the major mode.
Chord classification--A system devised by McHose (9) whereby all chords in a given key, except the tonic, are divided into four classifications. The classification is determined by its harmonic distance from the tonic, in terms of statistically determined normal progressions toward the tonic. The normal progression of any chord is to a chord of the next lower classification (i.e., fourth classification to third). First classification chords normally progress to tonic.

Closely related keys--The keys which are closely related to any tonic are those whose key signatures do not differ from that of the tonic by more than one accidental.

Dissolution--A term used by Goetschius (3, p. 109) to describe the absence of a definite beginning to a transition. In such cases, the transition is gradually developed out of the final phrase of the preceding subject. The phrase is thus said to "dissolve."

Involution--Hanson (4, p. 17) uses this term to refer to so called "mirror inversion," thus distinguishing it from the other type of inversion, the vertical rearrangement of a chord or interval by octave displacement.

Passage work--Morris (10, p. 40) offers the colorful definition of "...a plebeian retinue of scales and arpeggios..." In this study, it refers to the use of material which emphasizes display of the performer's technique.
Remote key--Any key which is not closely related to a particular tonic is a remote key. For the purposes of this study, remote keys are classified as being "remote by" a certain number of accidentals. A key whose key signature differs from that of the tonic by two accidentals is considered to be remote by one accidental, since it is only one accidental away from the sphere of closely related keys. The number of accidentals given, then, will always be one less than the difference between the key signatures of the two keys.

Secondary leading tone chords--Ottman (12) offers this term to refer to altered chords whose construction and function is like a leading tone triad or seventh chord. They normally resolve to a major or minor triad whose root is a semitone higher than that of the altered chord.

Stabilization--Forte's (1, p. 274) term to describe a decrease in the tendency of a chord or tone to resolve. This is accomplished by changes in the tonal surroundings of the chord or tone.

Subject--A full statement of material within a larger form. It usually has a form of its own, such as aba', aa', ab, etc. It usually includes a theme and may include one or more repetitions of that theme, development of the theme, material to contrast the theme, or sometimes even a second theme. Aside from the presentation of thematic material,
its importance lies in the establishment of a tonality within a larger form.

Subtonic triad--An altered chord, formed by constructing a major triad on the tone one whole step below the tonic of a major key.

Theme--A melody which assumes a structural significance. Also, in variation forms, the initial statement upon which the variations are built.

Tonicize--Sessions' (14, p. 243) term to refer to changes in the tonal environment of a chord or pitch, which cause it to partially assume the character of a tonic. This is normally accomplished through the use of altered tones which imply a major or minor scale beginning on the tone or chord root in question.

Transition--A passage or section used to connect different thematic statements.

WoO--The numbering system used in Kinsky's catalogue (6) has been adopted for the works which do not have opus numbers. The appropriate Arabic numerals are preceded in each such case by the letters "WoO." This means Werk ohne Opuszahl, or "work without opus number."

General History of the Piano Trio Before Beethoven

In Baroque music, a trio was a composition in three voices, and was not necessarily performed by three instruments. There could be doubling of one or more of the
voices, and sometimes the keyboard instrument would play two or even all three of the voices. It was not until the **basso continuo** was replaced by specific scoring for specific instruments that the term trio began to mean a piece for three performers.

One of the reasons why the **basso continuo** style held prominence for so long, thus preventing the crystallization of specific chamber ensembles, was the nature of the harpsichord tone. Its evanescent quality was far better suited to an accompanimental function than a soloistic (2, p. 219). Newman (11, p. 336) points out that it was not until the 1760's, the time when the pianoforte was beginning to replace the harpsichord, that the **basso continuo** really gave way to written out keyboard parts. The pianoforte was more capable of holding its own against stringed and wind instruments.

It was in chamber music that composers first began to dispense with the **basso continuo** (13, p. 124). Several factors contributed to its decline. In addition to the above mentioned rise of the pianoforte, keyboard instruments were beginning to develop an idiomatic technique, as seen in the keyboard concertos of J. S. Bach. This made the skilled keyboard players less content with playing a strictly accompanimental role. Possibly the most important factor, however, was the general decline in the ability to realize a figured bass adequately. Now that keyboard
players were developing an idiomatic technique, they were less willing to spend long hours learning how to play old style accompaniments. In addition, the(919,231),(928,303)tremendous popularity of amateur music making during the Rococo period accounted for many keyboard players who were unable to render a figured bass.

The earliest type of written out keyboard part in ensemble music was not simply a written realization of the figured bass, as might be expected. Instead, it was a polyphonic approach, specifically the transcription of trio sonatas, to sonatas for keyboard and one melody instrument (11, p. 333). One of the melody parts of the trio sonata was given to the right hand of the keyboard player. The melody instrument whose part the keyboard player performed was not always eliminated, however. It commonly remained, merely doubling the *clavier*. The left hand part was still doubled by a bass instrument as it always had been.

This was done in Italy as early as 1626, by Biagio Marini (7, p. 693). It did not become common practice, however, until the Germans adopted it about the time of Bach. Johann Gottlieb Graun (1703-1771) and other composers published trio sonatas in three different versions: 1) the traditional arrangement of two soprano instruments and *basso continuo*, 2) an arrangement in which the keyboard player's
right hand doubles one of the soprano instruments, and
3) the same as the latter, with the doubled melody in-
strument eliminated (11, p. 336).

It can be seen that the last of these versions ap-
proaches the instrumentation of the classical piano trio,
since the bass line was performed by both keyboard and bass
instrument. Both J. S. Bach and his son Carl Philipp
Emmanuel arranged some of their trio sonatas for this com-
bination (11, p. 334; 13, p. 125). A keyboard part thus
written out came to be known as obbligato.

The use of figured bass persisted for a time even after
the advent of written out keyboard parts. For some time,
figures would occasionally appear with the bass, generally
when the right hand of the keyboard part had rests. In
time, the rests were filled in and the figures eliminated.
Since these early written out parts were strictly poly-
phonic, the use of an improvised chordal accompaniment
throughout was still considered by some to be necessary.
It was sometimes added to the written out part if the player
had sufficient skill, and other times it was provided by a
second keyboard instrument (13, p. 129). Both of these
practices were eventually eliminated, when the written parts
began to abandon the strict polyphonic texture.

The next step toward the classical piano trio was the
appearance of original compositions for this combination of
instruments. Among the earliest are J. S. Bach's twelve
sonatas for one melody instrument and harpsichord. That it was still common practice to reinforce the bass line with a bass instrument can be seen in the title affixed to the six sonatas for keyboard and violin (1730): "Six Sonatas for Concerted Harpsichord and Solo Violin with an Optional Accompanying Bass Viola da Gamba." (13, p. 130)

At approximately the same time, the piano trio was being formed in a different way in France. A new idiomatic style of solo keyboard music was developing throughout Europe in the first half of the eighteenth century, due to the innovations of Johann Schobert, C. P. E. Bach, and others. It became common practice in France, early in that century, to reinforce a solo keyboard piece by doubling the right hand part with a violin and the left hand with a violoncello (13, p. 131).

Although the pianoforte was invented about the time this practice was beginning, it was still not in common use. Thus the solo literature was performed mainly on the harpsichord. Its inadequacy of tone had led to the common practice of doubling the bass line with another instrument in figured bass realization, and likewise led to the doubling of the melody line with a treble instrument. This allowed a singing style of melody, more suitable to the galante ideal.

Another reason for the widespread adoption of this practice was the opportunity which it afforded amateurs to
participate in musical performances. Whether or not this factor entered into the origin of the practice, it certainly contributed to its popularity. This is clearly shown by the incredible simplicity of some of the string parts (11, p. 341).

Originally, these accompaniments were of two types: 1) *ad libitum*--those which doubled the keyboard instrument verbatim and were therefore considered optional, and 2) *obbligato*--those which differed slightly from the keyboard part and were thus considered obligatory (16, p. 165). The strict usage of this terminology was short lived. *Obbligato* accompaniments could often be omitted, and *ad libitum* string parts were sometimes essential.

In general, there was a marked trend toward greater independence of the parts from one decade to the next. The earliest pieces of this type did not even have written out string parts, but simply an indication on the keyboard score that stringed instruments could accompany. The next step was separate parts, but without a full score. This led to some confusion in later times about precisely how certain pieces were to be performed. The violin part began to acquire independence before the violoncello part, probably because of the deeply ingrained *basso continuo* tradition. For this reason, a separate violin part was sometimes published, but no violoncello part. Newman (11, p. 330) says
that the inclusion of the violoncello was taken for granted, whether it had a separate part or not.

In 1734, Jean-Joseph de Mondonville, in his Pièces de clavecin en sonates avec accompagnement d'un violon, attempted to place the violin in a position equal to the keyboard instrument (13, p. 132). This was not common practice at the time, but did indicate the general tendency toward a better integrated style of ensemble writing.

Probably the most important accompanied keyboard sonatas were written by Johann Schobert, shortly after the middle of the eighteenth century. Although his string parts were still sometimes marked as optional, and still contain extensive doubling, they cannot really be eliminated without damage to the music (11, p. 330).

Other important composers of accompanied keyboard sonatas, works now considered to be early piano trios, were: Franz Xaver Richter, C. P. E. Bach, J. C. Bach, Anton Filtz, and Johann Stamitz.

Haydn wrote approximately thirty-five piano trios. The exact number is uncertain because of several works not conclusively attributed to him. They were all written between 1760 and 1800, with the majority falling in the second half of that period (5, p. 681). In spite of the relatively late dates of many of them, they are for the most part still accompanied keyboard sonatas. In his titles and correspondences, Haydn referred to them as sonatas, and not trios.
Sometimes the accompanying stringed instruments were mentioned, and sometimes not. His pupil Pleyel published the trios as _Collection complète des Sonates d'Haydn pour Forte-Piano_ (15, p. 542). The violin parts have a certain degree of independence, but the violoncello is almost entirely confined to doubling the keyboard bass line. For this reason, string players have little interest in them and they are seldom heard, despite the high quality of much of the music contained in them.

The seven piano trios of Mozart can be said to contain the first genuine piano trio writing. They were composed between 1776 and 1788 (8). The violin and violoncello both assume a new degree of independence. There are passages where, for the first time, the stringed instruments join together and oppose the keyboard instrument. It should be noticed that the appearance of these trios roughly coincides with the emergence of the pianoforte as the principal keyboard instrument. This suggests that the inability of the harpsichord to play _cantabile_ may have retarded the development of an integrated ensemble style with keyboard and strings.

It can be seen that Beethoven's piano trios form an approximate continuation of Mozart's, both chronologically and stylistically. Mozart's last trio was written in 1788, about the same time as Beethoven's first. Stylistically,
the connection is not quite as precise. It took Beethoven a few years to equal the integrated style of Mozart's last trios. Before too long, however, he had not only equalled, but surpassed it.


CHAPTER II

THE BONN TRIOS

Beethoven was born in Bonn in 1770, and except for a trip to Vienna for a few months in 1787, he lived there continuously until 1792. Bonn was then the center of government for the state of Cologne, one of the wealthiest states in the German Empire. The two electors who ruled during Beethoven's years there, Max Friedrich and Max Franz, were both enthusiastic patrons of the arts. Music was maintained in the chapel as well as in the theater, affording the young composer a broad musical experience.

In about 1781, Ludwig began his study with Christian Gottlob Neefe. Apparently Neefe was a worthy teacher for the young genius, as Beethoven praised him even in his later years. Neefe was the court organist, and by assisting him in his duties, young Beethoven worked his way into the musical activity at the court. In 1783, he was placed, unofficially by Neefe, in charge of the opera orchestra. His first official position, that of assistant court organist, came in 1784. In 1788, he was engaged as a violist in the theater orchestra, where he had an opportunity to come in contact with a considerable amount of contemporary music.

The works written during these early years, none of which are considered to be important now, show both his assimilation of contemporary styles and his originality. There are three piano trios generally considered to have been
written by him during this period: Trio in G, WoO 37; Trio in E-flat, WoO 38; and Fourteen Variations, later published as Op. 44. A trio in D has been inconclusively added by some scholars.

Trio in G Major, for Flute, Bassoon, and Pianoforte, WoO 37

Among the papers of Beethoven's estate was a manuscript, trio for flute, bassoon, and piano. It was signed "Ludovico van Beethoven organista," which places it in the Bonn period when he was assistant organist at the court of Elector Max Franz. The exact date of composition can only be estimated. Grove (8, p. 311) and Ulrich (25, p. 247) assign it to 1786, Bekker (3, p. 361) and Wessel (28, p. 281) to 1787. Prod'homme (19, p. 130) suggests it was written after Beethoven's first trip to Vienna (spring of 1787, until June or July of the same year) during which he had a brief encounter with Mozart. Mersmann (15, p. 24) says only that it was written before 1790. Saint-Foix (21, p. 282) and Kinsky (10, p. 479) place it anywhere between 1786 and 1790.

The work may have been written for Count von Westerhold, a bassoonist, whose son played the flute and whose daughter played the piano (23, I, p. 137). Saint-Foix, however, conjectures that Ludwig wrote it for himself, the flutist Pfeiffer, and "the bassoon player of Bonn." (21, p. 282) It was first published in 1888, by Breitkopf and Härtel, in the supplement to their complete edition of Beethoven's works (2). The manuscript, which brought twenty florins at the sale of the composer's effects, is now in the Berlin Öffentliche Wissenschaftliche Bibliothek.
Although this is a genuine trio, and not a keyboard sonata with accompaniment, the patrimony of the older form is clearly discernible. The piano introduces almost all of the thematic material. There are many instances of the flute doubling the right hand of the piano part, and the bassoon the left. Passages where the wind instruments are confined to long sustained tones, and sections where the flute and right hand engage in a dialogue while the bassoon merely supports the left hand, are also characteristic of the accompanied keyboard sonata of the rococo and early classical times.

As Saint-Foix has pointed out, the influence of Mozart is present in this trio (21, p. 282). It is particularly noticeable in the first movement. The Mannheim school, with its "sighs" and "rockets," was also an important factor in the development of Beethoven's early style. These devices occur throughout the work.

The handling of the form, harmony and thematic material is not generally striking or original. It conforms, for the most part, to the conventions of the time at which the work was written.

The first movement, Allegro, is in G major, 4/4 meter, and sonata form. The economy and compactness of the later works are not found here. There is an overabundance of thematic material, most of which undergoes little development
or transformation. One idea follows another in a style reminiscent of improvisation, an art which he had already developed to a high degree of skill (23, I, p. 63).

The second movement, Adagio, is in G minor, 4 meter, and in an improvisatory style which is difficult to label as any specific form. There is no real return of any previously stated material. New ideas are continually appearing and being replaced. There are few modulations, a natural result of improvisation, with its greater attention to ornamentation than to structure.

The third movement, Thema Andante con Variazione, is in G major, 4 meter, and variation form. Nelson (16, p. 3) has divided variation works into seven general groups. The present movement falls into the group called "the ornamental variation of the eighteenth and nineteenth centuries."

More pertinent to this study, however, is his classification of variation works according to technical procedures. The technique of variation, he says, consists basically of altering certain elements of the original material, while others remain constant (16, p. 8). On this premise, he delineates four distinct techniques, and labels them according to the element or elements which remain constant throughout the variations. The movement at hand falls into the "melodico-harmonic" category, since the melody and harmony are the elements which remain relatively constant (16,
The phrase structure of the theme has also been found to be a constant element.

**Form**

First movement.--The first movement is in sonata-allegro form. It has three subjects, in addition to other themes and thematic fragments. It is unusual that the second subject reappears after the third subject. This happens only in the exposition. The development section is relatively short and simple, concerning itself with a theme of its own, rather than with the material presented in the exposition. The transitions consist mostly of passage work, and make little use of the thematic material of the movement.

The first subject, containing two distinct parts, is stated in the tonic key. The latter part is repeated with embellishment and cadences on the tonic in measure 11.

The transition, which begins at this point, is in two parts. Both parts are constructed primarily of passage work, with only occasional references to the material of the first subject. Goetschius (6, p. 96) states that the first part of a transition usually leads to the dominant of the new key, and the second part establishes this dominant. Such is not the case here. The first part cadences on the old tonic in measure 20. The second part, beginning here, moves directly to the new tonic, without any prolongation of its dominant. This new tonic, D major, is introduced by
an authentic cadence in measure 27. Following the second such cadence two measures later, there is a brief modulation to E minor, which causes the appearance of the second subject, in D major, to sound fresher. This device, the use of an intermediate or extraneous key in transitions, is typical of Beethoven (26).

The second subject begins at measure 34. It consists of a four-measure phrase which is repeated with an extension.

The transition (measure 43) following the second subject is constructed of passage work, with no reference to either subject. Although it approaches a third subject in a new key, it does not modulate to this key. It begins and ends in D major. It contains, however, in measure 54, a transient modulation to E minor, just as the previous transition did.

After a cadence on D major in measure 58, the third subject enters in D minor in the following measure. This has been called a new subject because it differs from the second not only in key, but in character as well. After a half-cadence in D minor, the theme is repeated in F major. The tonality then returns to D minor, whose dominant chord is embellished for several measures with a German sixth chord.

The resolution of this dominant (measure 75) is to D major, beginning a reappearance of the second subject, slightly altered. This is followed by another transition,
in two parts. The first of these, measure 82, begins in D major and moves to its dominant through a secondary leading tone triad on G-sharp. The second part, measure 95, embellishes this dominant.

A codetta theme in D major is heard in measure 100. It is new, but uses fragments from previous material.

The development section (measure 111) is only 29 measures in length, in a movement of 244 measures. It is entirely based on a new theme. A single sequence is about the extent of thematic development in the section. The harmony is little more adventurous. There are only three keys: D minor, E minor, and G minor. The latter key is primarily concerned with embellishing its dominant chord, which is accomplished through the appearance and normal resolution of many C-sharps and E-flats.

The recapitulation (measure 141) begins as a literal repetition of the exposition, until measure 161, where the transition following the first subject is required to take a different turn. Although its construction is similar to the parallel transition in the exposition, it contains no modulation.

The second subject recurs in measure 174 in the tonic key. Contrary to what one might expect, the transition (measure 182) following it is considerably different from the parallel spot in the exposition. Like its prototype,
however, it consists mostly of passage work, and contains no modulation.

The third subject enters in measure 196, in G minor, introducing an abrupt change of mode, as it did in the exposition. Instead of being followed by a reappearance of the second subject, as happens in the exposition, it is followed by a section of dialogue in G major, built from a figure at the end of the theme. At measure 211 the dialogue ends, and the transition which led to the codetta in the exposition returns. The codetta theme comes in measure 230, in the tonic key.

The coda, if it can be called such, is a scant five measures. It is built on the alternation of tonic and dominant chords, described by Tovey (24, p. 111) as the "tonic-and-dominant swing." This device, seen here in miniature, assumed grandiose dimensions in Beethoven's later works.

Second movement.--It is difficult to label the second movement as any specific form. It begins with a thematic statement, but this theme is never heard again. After eighteen measures in the tonic key, followed by thirty-two measures in the relative major, there is a modulatory section which allows three keys to be heard in six measures. After these modulations, there is an indistinct recall of previous material, nothing more than fragments. The movement appears to be dominated by the spirit of improvisation.
The initial melody of four measures is confined within the range of a perfect fifth. This, in addition to the fact that it ends on the third of the tonic chord, would make it reasonable for the listener to expect a four-measure consequent phrase. Indeed the phrase enters as expected, adding rhythmic interest, and expanding the pitch range in both directions. But it turns out to be only three measures in length. Thus a degree of expectancy is maintained. The antecedent phrase is repeated, slightly embellished, and finally the full four-measure consequent is heard. It expands the range of the melody nearly an octave, and presents a scale figure in thirty-second-notes which proves to be the germ of the next section.

The second section (measure 19) is reached by a repetition of the consequent phrase which modulates to B-flat, the relative major. The entire second section, thirty-two measures long, remains in this key. It is built largely of thirty-second-note scales, and incorporates occasional motives from the first section.

A modulatory section begins in measure 51, ending the long stay in B-flat. The melodic material is derived from a three-note pattern, found in the first section. After modulating from B-flat through C minor, the tonality begins to settle in D minor. In measure 58, the dominant seventh chord of B-flat major suddenly follows a D minor chord, and resolves normally in the following measure.
Here (measure 59) a concluding section begins. Its first measure recalls a figure from the first section, over an accompanimental pattern from the third section. Its second measure is a scale passage, typical of the second section. These are repeated in G minor, in which key the scale passage assumes an unusual form, the descending melodic minor, with a raised fourth scale degree. By taking this form, it is able to fit the augmented sixth chord which underlies it. This leads to the dominant of G minor, which is elaborated for the rest of the movement by augmented sixth chord and secondary leading tone seventh chord. The final chord is the dominant seventh of G. This suggests that in performance, the third movement should begin immediately, without pause.

**Third movement.**--The third movement is a theme with seven variations. The theme is simple in all respects. Each of the variations retains the melody, harmony, and phrase structure of the theme. They consist of various ornamental treatments of the melody, and to a certain extent, the harmony. The melody is often found in both the ornamental solo line and the accompaniment. The overall structure is two successive rises to climax, separated by a relaxed minor variation.

The melody, harmony, and phrase structure of the theme are relatively simple. The melody is characterized by a scale which rises and returns. The harmony is mostly tonic,
dominant, and subdominant. A third classification chord appears about midway, and resolves normally. The form is A - A' :||: B - A'. Each of the four parts is four measures in length. An elementary approach to variation writing is indicated by the fact that each of the variations also contains the repeat signs, rather than a written out, slightly altered, repetition.

In variation IV, the minor variation, the harmony follows its prototype somewhat less strictly than it did in the other variations, a typical situation in this style (16, p. 83).

After the seventh variation, the theme returns, allegro. It was ordinary, in variation works of this type, for the final allegro to be greatly expanded, and often in a different meter (16, p. 81). The absence of such expansion in this case may be taken as a further indication of the composer's yet undeveloped style.

**Thematic Relationships**

**First movement.**--The first movement was found to contain several melodic figures which appear in more than one context, thus furnishing a unifying element. Such a case is the three-note figure first appearing in the first subject, in measure 5. It reappears in the second subject
Figure 1--Trio in G, WoO 37, first movement, measure 5 (measure 35), in inversion in the third subject (measure 60), and in the codetta theme (measure 101), as well as in the transition between subjects one and two in both the exposition and the recapitulation. Another three-note figure, introduced in the first transition (measure 12),

Figure 2--Trio in G, WoO 37, first movement, measure 12 is found again in the codetta theme (measure 103) and also becomes a part of the otherwise independent theme of the development section. The transient modulation to E minor, which occurs in each of the first two transition sections,

Figure 3--Trio in G, WoO 37, first movement, measure 29
has a characteristic melodic figure, unifying the otherwise different melodic material of the two modulations (measures 29 and 54).

In addition to these figures, the second subject is related to the first by the common use of a syncopated rhythmic figure, and a Mannheim "sigh" at the end of the phrase. The codetta theme is further related to the first subject by the common use of a unison arpeggio figure.

Second movement.--The second movement relies entirely on recurrent figures for its thematic organization, since it has no return of a full statement. It divides itself into four sections, the latter three each containing fragments from the first. The second section (beginning in measure 19) is based primarily on scales in thirty-second-notes, which may be traced to such a figure in measure 13. The third section (beginning in measure 51) uses melodic material derived from a three-note figure bridging measures 4 and 5. This same melodic figure was also used recurrently in the first movement (see Figure 2). It is interesting that it is used most extensively, in both movements, in

Figure 4--Trio in G, WoO 37, second movement, measures 4 and 5.
that section which is characterized by frequent modulations (development section of the first movement). The fourth section (beginning in measure 59) has, in its first measure, a figure from the first section over an accompanimental pattern used in the third section. The following measure contains a scale passage, typical of the second section. Thus there is a sort of summing up of the preceding sections.

In addition to the above mentioned three-note figure (Figure 4) there are two other figures which are reminiscent of the first movement. One is the syncopated rhythmic pattern in measures 27 through 29, and the other is the inversion of another of the recurrent figures from movement one (Figure 1), which is found in measures 33 and 34.

**Third movement.**--The third movement, being a series of ornamental variations, makes essentially no use of recurring melodic fragments of the type being dealt with here. This type of variation movement may be described as a continual change of details, without changing the underlying context. The type of fragments which are being sought here may, on the other hand, be described as details which remain constant while the underlying context changes.

**Elements of Contrast**

**First movement.**--One of the most important elements of contrast in the first movement is the alternation between thematic statement and passage work. It provides a contrast
in texture, rhythmic activity, and melodic interest. The contrast of moods provided by the three subjects is also important, but is essentially restricted to their respective statements. Neither the development section nor any transition makes any significant reference to these moods, either to develop them or to combine them.

The first subject is found to contain two distinct and contrasting elements within itself. The first is a staccato arpeggio figure, loud, which introduces a syncopated rhythm. The second, measure 4, is a legato idea, soft, and also uses a syncopated rhythm.

Second movement.--The division of the second movement into four sections, on the basis of harmonic and thematic construction, is reinforced by the rhythmic construction. Each of the first three sections has a characteristic rhythmic structure which contrasts the others. The fourth section is a summing up of these rhythms, as it is of the thematic fragments.

Third movement.--The third movement, being in variation form, relies heavily on elements of contrast. In view of the virtual absence of change in the harmonic structure, and the severe restrictions imposed on the changes in the melodic structure, the contrast of rhythms, textures, orchestration, and dynamics assumes a higher
degree of importance than it normally has in other forms. Every variation offers a sharp contrast to the preceding one in at least two of these categories.

**Key Schemes**

The first movement, by far the longest of the three, contains the greatest number of different keys, half of them being remote from the tonic of the movement. The second movement uses no remote keys, and the third movement, since it is in variation form, uses only two keys, the tonic and its parallel minor. Thirty-three per cent of the keys used in this trio are remote from the tonic of the movement. No key is used which is remote from the tonic by more than two accidentals.

**TABLE I**

**KEY SCHEMES, TRIO IN G, WoO 37**

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of keys used</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Number of keys closely related to the tonic</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Number of keys remote by one accidental</td>
<td>2</td>
<td>\cdot \cdot \cdot</td>
<td>\cdot \cdot \cdot</td>
</tr>
<tr>
<td>Number of keys remote by two accidentals</td>
<td>1</td>
<td>\cdot \cdot \cdot</td>
<td>1</td>
</tr>
</tbody>
</table>
Modulations

The first movement, contrary to what one might expect in music of this style, has fewer modulations to keys of the same mode a fifth up or down than it does to keys of the opposite mode on the same pitch. In other words, of the two keys involved in a modulation, the second is usually the parallel major or minor of the first, rather than its dominant or subdominant. The second movement, on the contrary, avoids modulations to the opposite mode altogether. The only key changes in the third movement are those resulting from the single minor variation. The following table shows the number of modulations in each of the various categories of key relationships.

**TABLE II**

KEY RELATIONSHIPS IN MODULATIONS, 
TRIO IN G, WoO 37

<table>
<thead>
<tr>
<th>To key with same key signature</th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>2</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>To key one accidental away</td>
<td>4</td>
<td>2</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>To key two accidentals away</td>
<td>1</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>To key three accidentals away</td>
<td>7</td>
<td></td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>
It should be observed that most of the relatively large number of modulations to keys three accidentals away are only changes of mode on the same tonic, not a particularly adventuresome type of modulation. Otherwise, it would seem peculiar that there are so few modulations to keys two accidentals away. There are no modulations to keys more than three accidentals away.

**Altered Chords**

The first movement contains no great variety of altered chords. The short second movement, in fact, uses just as many different types. The third movement has a little more variety, along with a considerably greater frequency. This is probably due to the fact that since the composer, in a variation movement of this type, is bound to a harmonic framework, he will employ more altered chords to give greater harmonic variety without drastically changing the framework. The following table shows the number of each type.
TABLE III

ALTERED CHORDS, TRIO IN G, WoO 37

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary dominant seventh</td>
<td>14</td>
<td>7</td>
<td>20</td>
<td>41</td>
</tr>
<tr>
<td>Secondary leading tone seventh</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Secondary dominant triad</td>
<td>..</td>
<td>..</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Secondary leading tone triad</td>
<td>..</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Augmented sixth</td>
<td>4</td>
<td>5</td>
<td>..</td>
<td>9</td>
</tr>
<tr>
<td>Borrowed</td>
<td>..</td>
<td>..</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Augmented triad</td>
<td>2</td>
<td>..</td>
<td>..</td>
<td>2</td>
</tr>
</tbody>
</table>

Each of the movements contains more secondary dominant seventh chords than any other type. In the trio taken as a whole, they constitute fifty-nine per cent of the total.

Non-Harmonic Tones

There is a rough similarity between the three movements in the extent to which they employ each of the various types of non-harmonic tones. This may be seen in the following table.
TABLE IV

NON-HARMONIC TONES IN PER CENT,
TRIO IN G, WoO 37

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diatonic passing</td>
<td>71</td>
<td>51</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td>tones</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbor tones</td>
<td>14</td>
<td>20</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>Chromatic passing</td>
<td>7</td>
<td>8</td>
<td>..</td>
<td>5</td>
</tr>
<tr>
<td>tones</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appogiaturas</td>
<td>..</td>
<td>12</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Suspensions</td>
<td>..</td>
<td>..</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>8</td>
<td>9</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Each movement can be seen to contain many more diatonic passing tones than any other type of non-harmonic tone, with neighbor tones being the second most common in each case. The relatively large number of appogiaturas in the second movement, and suspensions in the third movement, result from their characteristic use in the initial thematic material of the respective movements.

Chord Progressions

The percentage of normal progressions is remarkably similar in the three movements. They are all within three
per cent of one another. The trio as a whole has eighty-three per cent normal progressions.

TABLE V

NORMAL PROGRESSIONS IN PER CENT,
TRIO IN G, WoO 37

<table>
<thead>
<tr>
<th>Movement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Movement</td>
<td>84</td>
</tr>
<tr>
<td>Second Movement</td>
<td>81</td>
</tr>
<tr>
<td>Third Movement</td>
<td>82</td>
</tr>
<tr>
<td>Overall Trio</td>
<td>83</td>
</tr>
</tbody>
</table>

Trio in E-flat Major, for Violin, Violoncello, and Pianoforte, WoO 38

This trio, like the one in G major, was found among Beethoven's posthumous papers. Schindler (22, p. 42) reports that Beethoven told him the work was "one of his worthiest experiments in the art of composition," and that it had been written at the age of fifteen. It seems that due to the attempts of Ludwig's father to astound the musical world with his talented son, he had early subtracted two years from the boy's actual age. As a result, the composer thought he was two years younger than he really was. If this error had been present in his statement to Schindler, his actual age would have been seventeen, and the year 1787. This is the date given by Grove (8, p. 260). Kinsky (10, p. 480) says that stylistic considerations contradict this
date, and assigns it to 1790-1791, while Bekker (3, p. 363) places it as late as 1792. Prod'homme (19, p. 309) only says, "1787-91?"

Apparently Beethoven had intended to include this trio in his Opus 1, but later decided it was too weak. It was first published by F. T. Dunst, Frankfort-on-the-Main, in 1830. Its authenticity was verified at that time by Diabelli, Czerny, and Ries, all of whom had been closely associated with the composer. Wegeler, one of the composer's closest personal friends, attested the handwriting to be Beethoven's. The autograph was formerly in the possession of Schindler, but its present location is unknown.

The characteristics of the accompanied keyboard sonata are much less apparent in this trio than in the earlier trio in G major. The stringed instruments often join together to form a distinct tonal body, which is opposed or contrasted to the piano. This is the piano trio style which Beethoven later developed to a high degree, and which became the standard treatment of the medium throughout the nineteenth century.

This work is much more economical in its use of thematic material than the G major trio. From this point of view, it is easy to understand why there is some doubt concerning Schindler's report of its early origin. In all three movements, the thematic material is used extensively, transformed and manipulated in various ways.
The first movement, \textit{Allegro Moderato}, is in E-flat major, $\frac{2}{4}$ meter, and sonata form. It is a monothematic sonata, such as Haydn commonly wrote until his later years.

The second movement, \textit{Scherzo - Allegro ma non Troppo}, is in E-flat major, $\frac{3}{4}$ meter, and ternary form. This is "possibly . . . the first of the [scherzo] line in chronological order." (21, p. 286) Despite the designation \textit{Scherzo}, it does not differ a great deal from the normal minuet movement which it replaces. The lighter texture and repeated chords, though, are characteristics of the coming Beethoven \textit{scherzo}.

The third movement, \textit{Rondo - Allegretto}, is in E-flat major, $\frac{6}{8}$ meter, and rondo form. Like the first movement it is monothematic, yet the sections are not defined by changes of key. This highly unusual rondo structure will be discussed in detail under the heading of form. The movement is dominated by a motoristic activity, resulting from nearly continuous sixteenth-note motion.

\textbf{Form}

\textit{First movement}.—The first movement is in sonata-allegro form. It has, however, only one real theme. The second subject is in the dominant key, but instead of having a theme of its own, it has only short melodic fragments. The development section contains transformations and contrapuntal treatment of the theme, whereas that of the
earlier trio in G did not. Probably the most unusual feature of the form is the recapitulation of the second subject in the dominant key, just as it was stated in the exposition. It is followed by a modulatory section, finally returning to the tonic key for the codetta. The coda is considerably more extended than it was in the G major trio.

The theme occupies the first six measures, and contains two distinct parts of two and four measures respectively. The latter part is repeated a fifth higher, giving the impression of a shift to the dominant key. This impression is reinforced by a raised fourth scale degree (A-natural) near the end of the phrase. This treatment of the dominant chord may be referred to as tonicization. The following section sustains the tonicization by using another A-natural, but soon returns to the use of A-flats and in measure 18 reaches a half cadence in the tonic key.

The theme is heard again, in an elaborated version, in measure 19. Once again, the second part is repeated a fifth higher, but this time there are three A-naturals to support the feeling of modulation to the dominant (B-flat major), instead of only one, as in the former case.

The second subject begins at the end of this repetition (measure 28), in B-flat major, and remains in that key throughout. It has three distinct melodic ideas, none of which is a true theme. The first is simply broken chords to establish the new key (measure 28), the second is the
ornamental elaboration of a single pitch (measure 32), and the third is related to the opening theme, using in an ascending form a tetrachord which was formerly in a descending form (measure 36).

In measures 48 and 49, these three ideas converge to form a sixteen measure codetta, still in B-flat. Harmonically, it consists solely of a "tonic-and-dominant swing," with two shifts to the parallel minor, and the subsequent return to major.

The development section (measure 64) begins immediately with passage work on the leading tone triad of E-flat major. Without any definite resolution of this chord to its tonic, a flatted seventh is added, making it a borrowed leading tone seventh chord. This chord is then respelled as the leading tone seventh chord of C minor, to which key it eventually resolves in measure 76. During this passage work, fragments of the theme are occasionally interjected. In measure 76, a rhythmic transformation of the beginning of the theme is heard in C minor. In measure 78, this is repeated in C major, after which C minor returns with six measures of passage work on its tonic triad. In measure 86, the theme enters in A-flat major. It is followed by several measures of imitative counterpoint. The theme vanishes in measure 93, where the primary concern becomes the modulation back to E-flat. A simple arpeggio becomes the melodic material.
The effectiveness of the recapitulation (measure 100) is somewhat heightened by the absence of the theme from the last part of the development section. This return of the theme is greatly extended. The dominant chord is again tonicized, as it was in the exposition, and returns again to the tonic, E-flat major, for a repetition of the theme. Still following the former plan, the theme modulates to the dominant for the second section.

It is quite unusual that the second subject reappears in the dominant key, B-flat major, the key it was in in the exposition. The first two of the three ideas in this subject return in B-flat, but the third returns in G minor. A modulatory section is built on this idea, passing through D minor, F major, and F minor, and finally reaching E-flat major in measure 160, where the "tonic-and-dominant swing" of the codetta is heard again. In measure 172, after a conclusive sounding cadence on the tonic, a D-flat is added to the tonic chord, resolving to the subdominant to begin a twenty measure coda of virtuoso passage work.

Second movement.--The second movement is in ternary form (scherzo and trio). The scherzo section of the movement is in sonatina form. It is rather unusual that the trio section is in the same key as the scherzo section. Its form is A - A' :||: B - A'.

The first four measures contain the thematic material of the first subject. This is then immediately repeated in
C minor, the relative minor. The following measures lead back to E-flat, using, in measure 9, a figure which hints at the coming thematic material of the second subject.

A modulation to the dominant key begins in measure 15. The melodic passage first appearing here becomes the thematic material for the remainder of the exposition. The new key, B-flat major, is soon established and also stays for the remainder of the exposition.

The section following the exposition may be described as a quasi-development. It is a bit long (28 measures) and harmonically active to be considered a bridge. It uses the first theme and the figure from measure 9 which hinted at the second theme. These two melodic ideas are first stated in E-flat major, with an extension, then repeated, beginning in C minor. But before the repetition is completed, there is a modulation to B-flat major. The same extension is then heard, in B-flat, but greatly lengthened, and eventually replacing the A-naturals with A-flats, becoming the dominant of E-flat.

The recapitulation in measure 57 follows, in general, the pattern of the exposition. It remains, however, in the tonic key throughout, and is six measures shorter than the exposition. It closes, as did the exposition, with a "tonic-and-dominant swing."

The trio section begins and ends in the key of the scherzo section, E-flat, a somewhat unusual situation. The
first half (A - A'), sixteen measures, is built on a pattern resembling the figure from measure 9, the one which was used in the quasi-development part of the scherzo section. The entire sixteen measures are diatonic in E-flat, without a single altered tone. The second eight measures are a variant of the first eight.

The second half of the trio section (B - A') begins with a modulation to the dominant, B-flat. Here, the thematic material is related to the second theme of the scherzo section. The last eight measures return to the tonality and thematic material of the first half of the trio section, being in fact a literal repetition of the second eight-measure phrase.

**Third movement.**—The third movement is in rondo form. This is an unusual rondo in two respects: 1) there is only one real theme, and 2) the traditional contrast of key areas is absent. It consists of an alternation between sections containing the theme or fragments thereof, and sections from which the theme is entirely absent. The latter sections are built from a scale figure stated immediately after the initial presentation of the theme, which is thereafter absent from the sections containing the theme. Thus, although these sections are not differentiated by key area, they are clearly differentiated by thematic content.

Upon examining the modulations, it does not seem likely that key areas mark the sections of the rondo. In only one
case does a key other than the tonic endure for more than a few measures. In this case, the dominant key is heard for about twenty measures near the middle of the movement. Its thematic content, however, is the same as what was heard immediately before it in the tonic key. In a movement of 198 measures length, it seems unlikely that these twenty measures could be the only contrasting section. Equally unlikely is the possibility that any of the fleeting appearances of other keys constitute contrasting sections, particularly since they always deal with thematic material recently heard in the tonic key. Therefore, the thematic construction, which follows the rondo principle quite clearly, has been chosen as the basis of dividing the movement into sections. This is supported by Goetschius (7, p. 106) who says, "The structural basis of the Rondo, and other . . . forms, is the Subject or Theme."

According to this premise, the movement at hand is a second rondo: A-B-A'-B-A"-coda. Each of the sections, except the coda, begins in the tonic key, E-flat major. In order to avoid harmonic monotony, each of the A sections contains several modulations, and ends in some key other than the tonic of the movement. Thus, although the B sections enter in the tonic key, they do not sound redundant.

The theme occupies the first four measures. A subsequent four-measure extension leans toward the dominant key. This is followed (measure 9) by the scale passage, four
measures long, from which section B will be built. It firmly restores the tonic key. Upon the completion of this scale passage, the theme returns, creating a small ternary form. These first sixteen measures are then repeated, with a change of orchestration.

In measure 33, a development of the theme begins. It modulates from E-flat major to G major, through the circle of fifths, pausing momentarily in each major key along the way, as well as some of their relative minors. Fragments of the theme appear throughout these key changes. The scale passage from measure 9, however, is entirely absent. It is being reserved for the B sections. Not too long after the key of G major is reached, an F-natural is added to the G major chord (measure 60), soon bringing the A section to a close on the dominant seventh of C minor.

There follows a bridge passage which modulates from C minor to E-flat major. It has no melodic material whatever, only chords, sustained in the strings and broken in the piano.

After this bridge, the change in thematic material discussed above takes place (measure 71). The theme and fragments thereof are no longer found, and the scale passage from measures 9 through 12 reappears. It is therefore considered to be the B section. It is unusual for the B section of a rondo to be in the tonic key, but it is acceptable here because of the harmonic contrast provided by all
the modulations in the preceding section. The first measure of the B section is similar, but not identical, to the scale passage from measure 9. If there is any doubt about the origin of the material found here, it is dispelled in measure 79 by the reappearance of the original scale passage, only slightly altered. Except for a transient modulation to the dominant key, section B remains in E-flat.

The return to section A in measure 87 has no straightforward statement of the theme. Instead, the theme appears in fragments, being tossed around from one instrument to another. In general, it is a section of thematic development. It begins in E-flat and soon modulates to B-flat, where it remains for some time. Near the end it passes briefly on through G minor and E-flat major, and finally ends in C minor.

Section B and the bridge passage leading to it are repeated literally beginning in measure 125. This is followed, in measure 146, by a repetition of the developmental portion of section A, originally found in measures 33 through 65. The first nineteen measures are exactly as before, and the last fourteen only slightly altered.

The coda (measure 179) begins with a brief modulation to the subdominant key, a device which was also used in the first movement. Fragments of the theme appear throughout the coda. After the return to tonic in measure 184, the movement is concluded with fifteen measures of brilliant passage work.
Thematic Relationships

First movement.--The first movement has only one theme, with most of the material used throughout the movement being somehow related to this theme. Many fragments can be traced to the theme through their intervalic construction, rhythmic construction, articulation, or combinations of these factors. Indeed, the theme itself has two distinct parts, the second of which is a transformation of the first. The descending tetrachord from the first two measures is given a different rhythmic structure, and is repeated on the same pitch level instead of dropping a scale degree each time.

This monothematic construction creates a situation somewhat similar to ornamental variations, as regards the present study of recurring melodic fragments. Whereas this study is concerned with fragments which recur in differing thematic contexts, this movement can be said to have only one thematic context, since it is built of one theme throughout.
Second movement.--The only thematic fragment which appears in more than one context is the one first appearing in the scherzo section, measure 9. It returns, transformed, in the first measure of the trio section, measure 79. It may be argued that this relationship is rather vague, but the measures immediately following measure 79 clarify the

Figure 6--Trio in E-flat, WoO 38, second movement, measures 9 and 79.

relationship by offering the "missing link (measure 84)."

Third movement.--This movement, like the first, is monothematic. It has, however, a melodic passage which contrasts the theme, creating differing thematic contrasts and providing an opportunity for the composer to use fragments common to the differing contexts. He has chosen not to use them, however. Instead, he carefully avoids thematic similarities between the two. This may be due to the fact that the contrasting melodic passage does not have a great deal of character as a real theme would, and thus offers no marked contrast to the theme. The lack of clear harmonic contrast between the respective sections in which the two ideas are used makes it increasingly mandatory to keep them clearly separated thematically.
It may be noted that the first part of the contrasting melodic passage mentioned above (measure 9) is quite similar to the same measure of the second movement (see Figure 6).

Elements of Contrast

First movement.--The first movement is so tightly constructed from the single theme at the beginning, that obvious contrasts do not have an important role. The theme itself contains a contrast in rhythmic construction and articulation, which is used thereafter, but it is not a glaring contrast designed to attract attention. Such a contrast only occurs in the coda, when a \textit{fortissimo} full chord is immediately followed by a \textit{pianissimo} broken chord.

In the earlier G major trio, which also had a theme containing contrasting elements, the composer needed to allow himself further contrasts (two additional themes) in order to construct an interesting movement. In the present trio, however, he successfully built the entire movement from the limited initial material.

Second movement.--The \textit{scherzo} section contains two contrasting figures; a repeated quarter-note and a scalewise passage of legato eighth-notes. The trio section turns exclusively to legato eighth-notes and contrasts the \textit{scherzo} section by using simpler textures, rhythms, and harmonies. This demonstrates the traditional minuet-trio contrast which has been discussed in detail by Blom (4).
Third movement.--This movement appears to be governed by an alternation of sections containing the single theme or fragments thereof with sections from which the theme is absent. These later sections are built from a short passage which is not really a theme. This passage offers a three-fold contrast to the theme: 1) it is louder than the theme, 2) it incorporates conjunct melodic motion as opposed to the disjunct motion of the theme, and 3) it is built of sixteenth-notes whereas the theme is built of eighth-notes. When sixteenth-note motion is later adopted in the sections dealing with the theme, it consists only of "Alberti" accompanimental figures and strictly ascending scales, carefully avoiding any suggestion of the descending scale pattern of the contrasting passage, thus preserving the contrast. After the sixteenth-note motion becomes continuous throughout both ideas, the three places where it is briefly suspended provide an effective contrast to that motion.

Key Schemes

The first movement, although somewhat shorter than the third, contains the greatest number of different keys, slightly less than half of them being remote from the tonic of the movement. The second movement uses a limited key scheme with no remote keys, and the third movement, although using fewer keys than the first, uses a key farther from the tonic than is found in either of the other movements.
TABLE VI

KEY SCHEMES, TRIO IN E-FLAT, WoO 38

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of keys</td>
<td>11</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of keys closely</td>
<td>6</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>related to the tonic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of keys remote</td>
<td>3</td>
<td>..</td>
<td>1</td>
</tr>
<tr>
<td>by one accidental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of keys remote</td>
<td>2</td>
<td>..</td>
<td>1</td>
</tr>
<tr>
<td>by two accidentals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of keys remote</td>
<td>..</td>
<td>..</td>
<td>1</td>
</tr>
<tr>
<td>by three accidentals</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thirty-six per cent of the keys used in this trio are remote from the tonic of the movement. No key is used which is remote from the tonic by more than three accidentals.

Modulations

The first movement, like the first movement of the earlier G major trio, has more modulations to the parallel major or minor than to keys a fifth away. The second movement, also like the G major trio, contains no modulations to parallel major or minor keys. The third movement is probably the earliest of the larger movements here under study to use more modulations to keys a fifth away than any other type. These still constitute less than half of the total
number, however. The following table shows the number of modulations in each of the various categories of key relationships.

**TABLE VII**

**KEY RELATIONSHIPS IN MODULATIONS,**
**TRIO IN E-FLAT, WoO 38**

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>To key with same key signature</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>To key one accidental away</td>
<td>7</td>
<td>6</td>
<td>14</td>
<td>27</td>
</tr>
<tr>
<td>To key two accidentals away</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>To key three accidentals away</td>
<td>9</td>
<td>..</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>To key four accidentals away</td>
<td>..</td>
<td>..</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

The two modulations to keys four accidentals away are precisely the same; C minor to G major. In each case, C minor makes a relatively short appearance between C major and G major, almost giving the impression of an extended altered chord. Thus the modulation is still rather conservative.

**Altered Chords**

The first two movements contain very few altered chords. The second movement, in fact, has only three, being essentially the same chord each time. The third movement
uses them somewhat more frequently. The following table shows the number of each type.

TABLE VIII

ALTERED CHORDS, TRIO IN E-FLAT, WoO 38

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary dominant seventh</td>
<td>2</td>
<td>8</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Secondary leading tone seventh</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Secondary dominant triad</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Secondary leading tone triad</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Borrowed</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Two of the three movements (the short middle movement being the exception) contain more secondary dominant seventh chords than any other type. In the trio taken as a whole, they constitute forty-two per cent of the total.

Non-Harmonic Tones

Each movement contains many more diatonic passing tones than any other type of non-harmonic tone, fifty-eight per cent of the total altogether. This may be seen in the following table.
TABLE IX

NON-HARMONIC TONES IN PER CENT,
TRIO IN E-FLAT, WoO 38

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diatonic passing tones</td>
<td>53</td>
<td>70</td>
<td>51</td>
<td>58</td>
</tr>
<tr>
<td>Neighbor tones</td>
<td>37</td>
<td>10</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Appogiaturas</td>
<td>4</td>
<td>14</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Chromatic passing tones</td>
<td>..</td>
<td>..</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Suspensions</td>
<td>3</td>
<td>..</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

It is exceptional that in two of the three movements, there are more appogiaturas than neighbor tones. It is especially noticeable in the third movement where the difference is so great.

Chord Progressions

The percentage of normal progressions varies a bit more from one movement to another than it did in the earlier G major trio. The first movement has the highest rate of normal progression of any of the movements within the scope of this study. The overall percentage of normal progressions
TABLE X

NORMAL PROGRESSIONS IN PER CENT,
TRIO IN E-FLAT, WoO 38

<table>
<thead>
<tr>
<th>Movement</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Movement</td>
<td>89</td>
</tr>
<tr>
<td>Second Movement</td>
<td>86</td>
</tr>
<tr>
<td>Third Movement</td>
<td>81</td>
</tr>
<tr>
<td>Overall Trio</td>
<td>85</td>
</tr>
</tbody>
</table>

is curiously enough, higher than it was in the earlier G major trio, despite the more advanced style of writing found here.

Fourteen Variations in E-flat Major, for Violin, Violoncello, and Pianoforte, Op. 44

In spite of its designation as Op. 44, this trio is generally believed to have originated in Beethoven's last years in Bonn. A sketch of the work was found beside a sketch of the song Feuerfarbe, which points to the year 1792 (17, p. 7). Other than this, there is no evidence of its date of origin except for stylistic considerations. Bekker (3, p. 363) assigned it to 1792. Saint-Foix (21, p. 288) agrees with this date, noting in it the influence of Mozart, a characteristic of the Bonn works. Grove says it was composed in 1791-1792 (8, p. 262), but on a later page says 1792-1793 (8, p. 281). This can be averaged out to 1792.
MacArdle (13, p. 89) feels that the work was probably begun in that year, but that some of the variations must have been worked out at a later date. This idea is supported by d'Indy (9, p. 89) who lists it as a second period work, placing it between 1801 and 1803.

In 1803, Beethoven's brother offered it to Breitkopf and Härtel for publication and was turned down (1, p. 97). In January of the following year, Ludwig sold it to Hoffmeister and Kuhnel, who published it as Op. 44. Thayer (23, I, p. 137) points out that in his letter to the publisher, Beethoven seems to show no particular interest in the work, a fact which points to an earlier date of composition. The autograph has been lost.

The heritage of the accompanied keyboard sonata is particularly clear in the first variation, throughout which the strings do nothing but double the chords in the left hand of the piano part. Each of the first several variations is a solo for one of the three instruments. Beginning with variation IX, however, they become ensemble pieces, with the strings joined to oppose the piano. This suggests the possibility of these later variations having been composed several years after the first few.

There is some question as to what Beethoven meant by his tempo marking, Andante, cut time. Kolisch (11, p. 310) suggests that the half-note should move at fifty beats per minute. This produces the rather curious circumstance of
having a theme and thirteen "ornamental" variations without any opportunity for the performers to show off their technique. Until the final variation, the fastest notes in a passage of any length are eighth-note triplets, which are certainly not brilliant at this speed. Yet a faster tempo would not really be Andante. Perhaps all of the variations need not be played at a uniform speed, but why then are four of them marked with specific tempo changes? An interesting example of this is variation XIII, which is marked Adagio, but remains in cut time.

Form

As in the case of the earlier variation movement in G major, these variations are classified as "the ornamental variation of the eighteenth and nineteenth centuries." The "melodico-harmonic" technique of variation is also in evidence again, but not as strictly as in the former variations. Some of the variations deviate considerably from the original melody, and thus can be classified as "harmonic" technique, since the harmony is the constant element. This does not affect, however, the classification of the total work as "melodico-harmonic," since this is the dominant procedure. Nelson (16, p. 12) states that such generalization is valid, because very few variation works really follow a single technique throughout. In this work the
phrase structure is also a constant element, except for variation VIII which has one extra measure, and the greatly expanded final variation.

The harmony of the theme is not duplicated in each variation quite as strictly as in the earlier variation work discussed, but it still can be considered a constant element. There is extensive use of harmonic embellishments which add variety but do not change the basic course of the harmony. These consist of alterations of formerly diatonic chords and the addition of extra chords which embellish the basic framework. The two minor variations, VII and XIII, show greater harmonic independence than the others. They are both in the parallel minor.

The melody of the theme is also reflected to some extent in each of the variations. In most of the first seven variations, it can only be seen in the first few measures, after which the melodic material of the variation goes freely afield from the theme. Sometimes the general melodic contour of the theme can still be seen, but at other times even this is absent. A turning point occurs in variation VIII, where the theme is stated in the bass in its entirety. Thereafter, the variations tend to follow the melodic pattern of the theme more closely.

The theme of the work is very modest. Its rhythmic and melodic structure are so simple that it can scarcely
be considered a cogent musical statement by itself. It consists entirely of broken chords. It does, however, make a suitable variation theme. The phrase structure is not entirely square. There are four measures in the tonic key, four measures modulating to the dominant, six measures of harmonic digression, and eight measures again in the tonic key. The digression consists of the appearance of a third classification chord, and its normal resolution. The fermata in measure 14, which recurs in all but two of the variations, was possibly used as a place for improvisation.

According to Nelson (16, p. 81), it was typical, in variation works of this type, for the first few variations to embody successive increases in the rate of motion. This can be seen in variations II and III of this work, but variation IV breaks the pattern by returning to a slower rate of motion.

In variation IX the theme is heard in the bass, almost verbatim. Upon observing how naturally the theme serves in the capacity of a bass line, one may suspect that the composer had this in mind while he conceived it. Both its rhythmic and melodic construction are typical of a bass line.

The final variation, in $\frac{6}{8}$ and marked Allegro, is ninety-one measures long, as compared to the twenty-two measure theme. It begins with a statement of the theme, converted, of course, to a different rhythmic structure.
Instead of appearing in a continuous statement, it is divided into two parts, of eight and fourteen measures respectively. Each part is stated and immediately repeated with a change of orchestration.

A coda, in three parts, begins in measure 45. The first part is solely passage work, with no reference to the theme. It contains no modulations and ends with a deceptive cadence on the submediant. The second part, measure 61, returns to the original tempo marking, Andante, in cut time. It begins similarly to variation XIII, the second minor variation, but in the relative rather than the parallel minor. This C minor chord does not really become a tonic, however. After being embellished with a single secondary dominant chord, it progresses normally to E-flat major, each chord along the way being likewise embellished with a secondary dominant. There is eventually a cadenza which terminates on the dominant seventh chord of E-flat. The third and final part, beginning in measure 76, is a written out accelerando of the opening arpeggio figure of the theme, finally reaching Presto in measure 86, where a few measures of passage work bring the piece to an end.

**Thematic Relationships**

Most of the variations use characteristic figures which recur within the variation, but there are no melodic
fragments which recur from one variation to the next, except for the theme itself. In short, the work provides no material for study in this category.

**Elements of Contrast**

Due to the limited changes in the harmonic and melodic structure of the variations, a relatively high degree of importance is given to contrasts in rhythmic structure, texture, articulation, orchestration, dynamics, tempo, and meter. A typical contrast may be seen between variations VIII and IX. Variation VIII is marked *Un poco adagio*. The strings play sustained harmonies softly while the piano plays a wandering melodic line, reminiscent of an improvised fantasy. Variation IX returns to the original tempo and consists of lively staccato broken chords tossed between the strings and the piano, along with trills in the piano. These trills have a purely ornamental, as opposed to an expressive, function. That is, they are used merely to sustain tones, rather than to intensify particularly important or expressive tones in a melodic line. This latter device was a characteristic of Beethoven's mature style (18).

**Key Scheme**

The work contains only two keys. One of these is the tonic and the other is the parallel minor, which is remote by two accidentals.
Modulations

Since this work is a set of variations, it has only four changes of key. Two of these are to the parallel minor for the two minor variations, and the other two are the subsequent returns to major. Thus all four are to keys three accidentals away.

Altered Chords

The great majority of altered chords are secondary dominant seventh chords. They constitute no less than seventy-two per cent of the total. The following table shows the number of each type.

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Dominant Seventh</td>
<td>54</td>
</tr>
<tr>
<td>Secondary Leading Tone Seventh</td>
<td>8</td>
</tr>
<tr>
<td>Secondary Dominant Triad</td>
<td>7</td>
</tr>
<tr>
<td>Secondary Leading Tone Triad</td>
<td>5</td>
</tr>
<tr>
<td>Borrowed</td>
<td>4</td>
</tr>
<tr>
<td>Augmented Triad</td>
<td>4</td>
</tr>
</tbody>
</table>

This lends further support to the idea that these variations originated in the composer's early years while he was still in Bonn. The other trios written during that period have considerably higher percentages of secondary dominant seventh chords than the ones written later in Vienna.
Non-Harmonic Tones

There are more diatonic passing tones than any other type, making forty-one per cent of the total. This may be seen in the following table.

TABLE XII

NON-HARMONIC TONES IN PER CENT, FOURTEEN VARIATIONS, OP. 44

Diatonic Passing Tones.............. 41
Neighbor Tones...................... 37
Chromatic Passing Tones......... 10
Appoggiaturas...................... 6
Miscellaneous...................... 6

This trio has a lower percentage of diatonic passing tones than any of the other trios taken as a whole.

Chord Progressions.

The work has seventy-nine per cent normal progressions.

Trio in D Major, for Violin, Violoncello, and Pianoforte

In 1880-1881, the Manuscript Department of the British Museum acquired a trio in D major for piano, violin and violoncello. It was bound together with four other works and catalogued as Additional Manuscript 31,748. All five works were attributed to Mozart. The trio is in two movements, Allegro and Rondo, with one or two pages missing from the beginning of the Allegro. In 1920, Saint-Foix
(21, p. 292) declared that three of the five works in Additional Manuscript 31,748, the trio included, were not composed by Mozart, but by Beethoven. To support this contention, he cited stylistic traits such as the juxtaposition of D major and F major, a mark, he said, of Beethoven's early style. He assigned the trio to the years 1785-1795, when Beethoven's works showed the influence of Mozart.

In 1945, Deutsch (5, p. 49) announced that one of the three works assigned to Beethoven by Saint-Foix had recently been traced conclusively to Leopold Anton Kozeluch. The three duets for piano, four hands, which Saint-Foix had examined, had turned out to be arrangements of portions of a ballet by Kozeluch, the published score of which was in the Music Department of the Cambridge University Library. Deutsch said:

After the final attribution of the three Duets to Kozeluch it was very tempting to look for the pianoforte Trio... among Kozeluch's works; but with the available material the search was in vain. As may be imagined, however, the genuineness... [of the work] became subject to suspicion (5, p. 50).

Leichtentritt (12, p. 447) heightens the suspicion by saying that Kozeluch was a specialist in trios, and he wrote a great number of them.

Saint-Foix did not change his opinion about the authorship of the trio, however, and said:

... my faith in the authenticity of various manuscripts ascribed to Beethoven by the British Museum remains entirely unshaken (20, p. 24).
MacArdle (13, p. 92), who consulted with the museum authorities on the matter, says they gave no indication of being committed to the ascription of the trio to Beethoven.

The trio was edited by Saint-Foix and published in 1926 in *Oeuvres inédites de Beethoven*, Volume II of *Publications de la Société Francaise de Musicologie*. The edition was limited to 500 copies. A new edition of the second movement was published by Jack Werner in 1941, at which time he cited Tovey's opinion that the work was indeed by Beethoven (27, p. 39)

Due to the inaccessibility of the score and the uncertainty of its ascription to Beethoven, an analysis of the work will not be undertaken.
CHAPTER BIBLIOGRAPHY


24. Tovey, Donald Francis, Beethoven, with an editorial preface by Hubert J. Foss, London, Oxford University Press, 1945.


CHAPTER III

OPUS ONE

In November of 1792, Beethoven left Bonn to go to Vienna, which was to become his permanent home. He took with him letters of introduction from Elector Max Franz and Count Waldstein, both of Bonn. With the aid of these letters, and possibly also due to a misinterpretation of the "van" in his name as an indication of nobility (14, p. 173), the Viennese aristocrats soon accepted him as a virtuoso pianist. The conditions were generally favorable. Vienna was then the musical capital of the world and many of the noblemen patronized music extensively.

Variation making, both extemporaneous and prepared, seems to have been particularly in vogue. According to Hadow (6, p. 126), Beethoven introduced himself as a pianist by playing his set of twenty-four variations on Righini's "Venni, amore." The work, with its octaves, double-thirds, and wide range of emotional content, made a highly favorable impression on the connoisseurs.

Success as a performer was not enough to satisfy the young Beethoven, however. He also desired recognition as a composer. Because of the large quantity of music being published in Vienna at the time, an unknown work would have
little chance of finding a sizeable market. So he waited three years, until 1795, to publish his first important group of works. During those first three years in Vienna, three unimportant variation works, all composed in Bonn, were published, but only one by a Viennese company (9, p. 755). Of the other two, both published by Simrock in Bonn, one, the variations on a theme by Waldstein, is known to have been done without Beethoven's consent. Upon discovering that the work was being engraved, he wrote a letter of reprimand to Simrock.

The fact is that I had no desire to publish at the present moment any variations, because I wanted to wait until some more important works of mine, which are due to appear very soon, had first been given to the world (1, p. 16).

He saw to it that the "more important" works referred to in the letter to Simrock, the three trios of Opus 1, were performed as much as possible prior to their publication. This enabled the gentry to become familiar with them and become accustomed to their revolutionary qualities. The result of this was a sizeable list of subscribers by the time he sent them to the publisher.

The first performance, according to an account by Beethoven's pupil Ries (19, p. 102), took place at a private concert in the house of Prince Lichnowsky, one of Beethoven's long standing patrons. Haydn was present, and his opinion of the new works was eagerly awaited. The trios were well received, by Haydn included. He advised,
however, against the publication of the third trio in C minor, believing that the public would not be able to grasp it, thus not accept it. This advice was ill received by Beethoven, who believed the third trio to be the best. He interpreted Haydn's words to be the result of jealousy.

Ries was not present, but was told this story by Beethoven. It must be accepted with some reservation, since Ries did not arrive in Vienna until 1801, many years after the event had taken place (16, p. 165). Ries does not include a date in his account, but the event is generally believed to have taken place late in 1793, one year after the composer's arrival in the city, and two years before the publication of the works. Thayer (17, I, p. 137) says the year was 1793 "beyond controversy," but Kinsky (9, p. 4) is not so sure, saying it may not have been until the beginning of 1794.

There is a great deal of conjecture about the time of origin of these trios. Bekker (3, p. 294) and Thayer (17, I, p. 185) express the opinion that they originated in the Bonn period. This opinion is shared by Wessel (20, p. 280), who notes certain thematic mannerisms characteristic of that time, and by Ulrich (18, p. 248), who says that an early completed version was worked out in 1792, his first year in Vienna.

King (8, p. 46) states that the trios were reworked intermittently between 1792 and 1795. This is supported by
Bekker (3, p. 294) and Ulrich (18, p. 248), who point out the Viennese mannerisms in them, as well as the Bonn characteristics. Riezler (13, p. 27) has mentioned sketches of the C minor trio, which belong to the early Vienna period, and Nottebohm (12, p. 27) found sketches of the trio in G major among Beethoven's counterpoint studies under Albrechtsberger, which places them in that period as well.

Nottebohm (11, p. 7) concluded that the earliest possible completion date for the trios, in the versions known today, was 1794. Thayer (17, I, p. 137) insists that they definitely were not ready even that soon. Schindler (15, p. 67) mentioned that the C minor trio was the first of the group to be completed, but Nottebohm (12, p. 28) says this is unlikely, and that the chronological order of the three trios is uncertain because the trio in E-flat cannot be dated. Kinsky (9, p. 4), whose work postdates Nottebohm's by nearly seventy years, says the E-flat trio is probably somewhat older than the other two.

Publication took place in 1795, by Artaria and Co. in Vienna. In May of that year, the Wiener Zeitung carried an advertisement of the forthcoming publication, requesting subscribers. The subscription copies were delivered in July, and the music was placed on public sale in October. Despite a relatively high price, almost two-hundred and fifty copies were sold. The works were dedicated to Prince
Carl Lichnowsky, at whose house Beethoven had been living until about the time of their publication. The autograph of the trios is now missing.

In about 1817, without Beethoven's consent, a string quintet arrangement of the C minor trio was published. Beethoven considered it to be poor and determined to replace it with an arrangement of his own for the same medium. The latter arrangement was first performed in December of 1818, and was published by Artaria and Co. as Opus 104 in February of the following year. It bore a highly sarcastic inscription condemning the author of the previous arrangement.

The first two trios still show noticeable traces of the influence of the accompanied keyboard sonata. The disposition of the instruments is governed by the old form about one half of the time, while a newer type of organization, with the strings joined to oppose the piano, dominates the remaining portions. The third trio in C minor, however, relies almost exclusively on the new disposition.

The three trios of Opus 1 generally show a tighter thematic construction than the Bonn works. With his increasing technique, the composer was able to develop greater variety within the confines of a single thematic idea. According to d'Indy (7, p. 85), Beethoven made the following remark to the flutist Drouet:
My first three trios were not published in the form in which I originally wrote them. When I re-read the manuscripts I wondered at my folly in collecting into a single work materials enough for twenty. When a beginner, I should have perpetrated the most egregious follies in composition but for Papa Haydn's advice.

Whether or not it was due to Haydn's advice, his ability to develop thematic material had definitely improved by the time the three trios were published. Not to be overlooked is the changed nature of the thematic material itself. It shows a new richness and originality, and reflects the grace of the Viennese style.

The harmonic language of the trios contains more color and unexpected movements than it did in the earlier works. There is greater use of remote keys, and a wider range of keys is included in a single movement.

The use of recurring rhythm patterns and melodic fragments assumes a greater degree of importance, particularly in the G major trio. These serve as a unifying device by recurring in different contexts throughout a movement. The characteristic Beethoven sforzando can also be seen in a more crystallized form.

These are Beethoven's first works with piano in which he uses the four-movement form. Ulrich (18, p. 247) attributes this to the influence of Haydn. However, originality is not lacking in the area of form. The scherzi of the first two trios approach the later symphonic scherzi,
losing their minuet character almost entirely. The movements in sonata form have a new length, with expanded developments and codas. It is significant that all three trios use this form, in favor of the rondo, for their final movements.

In general, the third trio is the most revolutionary of the set. This is the one which Haydn advised Beethoven not to publish. It contains modulations and sharp emotional contrasts which were quite uncommon at the time.

D'Indy notes that there are no traces of foreign influence in Beethoven's writing at this time. He is solely concerned with the German style. The influence of Haydn and C. P. E. Bach is particularly noticeable (7, p. 85).

Trio in E-Flat Major, for Violin, Violoncello, and Pianoforte, Op. 1, No. 1

Of the three trios in Opus 1, the first in E-flat bears the strongest resemblance to the older accompanied keyboard sonata. There are long passages where the violoncello part varies only slightly from the left hand of the piano part. The violin shows some of the same dependence, doubling the right hand of the piano part, or moving parallel to it in thirds or sixths. This trio makes greater use of rocket-like thematic material than do the other trios in the opus. This was a characteristic device of Beethoven's boyhood works in Bonn. A less developed style can be inferred from
the use of chords without thirds in the piano part, the strings furnishing the missing tone. Due to the difference in attack and timbre, the empty fifth tends to be heard as such in spite of the third being sounded. This appears less frequently in his later trios.

All of these considerations point to an early time of origin, which supports Kinsky's (9, p. 4) suggestion that this trio antedates the other two of the opus. Progressive traits are not absent though. The harmonic idiom has been expanded through the increased use of remote keys, and the scherzo is a further departure from the minuet prototype than is found in either of the other two trios.

The first movement, Allegro, is in E-flat major, $\frac{4}{4}$ meter, and sonata form. The piano dominates throughout, drawing the greater share of both the thematic material and the passage work. In general, passage work has a relatively unimportant role in the movement. It is used primarily before cadences, strengthening them by providing a rush toward the point of resolution.

The second movement, Adagio Cantabile, is in A-flat major, $\frac{3}{4}$ meter, and second rondo form. A more balanced approach to ensemble writing is found here than in the first movement. The strings command about as great a portion of the melodic interest as the piano.

The third movement, Scherzo-Allegro Assai, is in E-flat major, $\frac{3}{4}$ meter, and ternary form. This is one of the first
genuine scherzi. Only the form and meter retain the minuet characteristics. Czerny (5, p. 85) indicated that the dotted half-note should move at one hundred and twenty-six beats per minute. Obviously, the character of the minuet cannot survive at this tempo.

The fourth movement, Finale-Presto, is in E-flat major, 2\textsuperscript{4} meter, and sonata form. The grouping of the instruments is somewhat unusual. There are two opposed and roughly equal bodies of sound, but instead of the piano simply opposing the strings, the left hand of the piano part is allied with the strings, all opposing the righthand. As a result, the left hand and the violoncello are quite similar, but the right hand and the violin are considerably different from one another.

Form

First movement.--The first movement is in sonata form. The treatment of the form is quite regular except for the absence of the second theme from the development section. As if to compensate for this absence, it appears in the coda.

The movement begins with an eight-measure theme containing two distinct parts; a staccato arpeggio figure and a legato scale figure. The theme is followed by a four-measure extension.
Beginning in measure 13, there is a short development of a three-note figure from the theme. The figure is found three times in the last two measures of the subject. In this developmental passage, the figure is used in eighth-notes in the piano part, and in quarter-notes in the string parts. The four-measure phrase in measures 13-16 is repeated with embellishment, bringing the first subject to a close at measure 21.

The following transition has three distinct parts. The first, using the arpeggio figure from the beginning of the first subject, shifts the tonality up to the dominant key, B-flat major. This takes only four measures, after which an E-natural appears, marking the beginning of the second part and partially tonicizing the dominant of the new key. E-naturals persist throughout the second part, six measures in length. It is a section of passage work, leading to a cadence on an F major chord. This chord lacks, though, the complete stability of a tonic chord. Looking back at the two measures preceding the cadence, it can be seen that they each contain an E-flat, inserted into the F major scale as a chromatic passing tone. This has been enough to prevent a feeling of complete modulation to F major. The third part, a brief two-measure bridge based on a figure from measure 10, leads the F chord to the key of B-flat.
The second subject is in two parts. The first, measure 33, consists of an eight-measure period which is repeated with a change of orchestration and a two-measure extension. The second part, measure 51, also consists of an eight-measure statement which is repeated with a change of orchestration. This time, however, there is a lengthy extension. Notwithstanding occasional leanings toward C minor and F major, B-flat has remained the tonality since its establishment at the beginning of the second subject.

The codetta is also in two distinct sections. The first, measure 80, uses an ascending scale in triplets which will be used in the development section. Twice the tonality shifts abruptly to G minor, and just as abruptly back to B-flat. The second section, measure 97, is a typical "tonic-and-dominant swing," with the speed of the harmonic changes doubling in measure 101.

The development section deals with the first subject and the codetta material. The first subject is taken up first. Its harmonic treatment follows the circle of fifths, beginning in C minor and progressing through A-flat major to D-flat major. In general, the staccato arpeggio figure is used to move from one key to the next, and the legato scale passage is used to establish the new key once it is reached.

In measure 128, attention is turned to the codetta material. After a statement of the rising triplet scale
passage in D-flat major, a B-natural is added to the D-flat major triad, forming a German sixth chord in F minor. It resolves normally to a C major chord, which then sounds like the dominant of F minor. But it is immediately followed by a C major scale which contradicts the dominant feeling. The following measure contains an A-flat, bringing F minor back to mind. Thus the listener cannot be sure whether the chord is tonic or dominant. Before the controversy has been resolved, the C major chord changes to C minor, and becoming the supertonic of B-flat major, progresses normally to its tonic.

The same passage is then repeated on this pitch level, but since the original appearance of the chord in question (B-flat major) has a tonic sound this time, instead of a dominant as it did before, it sounds more like a tonic throughout. Following the previous pattern, the B-flat major chord changes to minor. But it soon reappears as major, with an added A-flat (measure 193). This chord is given a sforzando and a relatively long duration to stress the fact that B-flat is now a dominant. The "swinging" portion of the codetta material follows, firmly establishing B-flat as a dominant, by alternating the B-flat major-minor seventh chord with an E-flat triad, first major then minor. After seven measures of this, the "swinging" comes to a rest on a B-flat chord. The listener is certain at this point that it is definitely a dominant and not a tonic.
Yet it is followed by a B-flat major scale. After a few more measures of ambiguity, the dominant function of the B-flat chord is finally reaffirmed and it resolves to E-flat major for the recapitulation.

The return of the first subject (measure 160) is shortened from twenty measures to twelve. The transition follows the same three part scheme it did before, but without the modulation in the first part. Thus there is a tonicization of the dominant chord (B-flat), and its return to the tonic, E-flat major.

The second subject, measure 183, is almost exactly as in the exposition. The length has not been decreased as it was in the case of the first subject. This may be attributed to its absence from the development section.

Not until the codetta, measure 230, does the recapitulation show any important deviation from the exposition. This section is expanded into a full coda by the interpolation of additional material between its two parts. The first part of the codetta, seventeen measures long, closely parallels its earlier form. It is followed by a florid version of the first part of the second subject, extended, and ending with the cadential passage from the second part of the same subject.

This is followed, in measure 267, by a developmental treatment of the opening arpeggio figure (first subject),
after which the second part of the original codetta finally returns. It is followed by a few closing measures, again using the arpeggio figure.

**Second movement.**--The second movement is in second rondo form. The structure of the rondo is A-B-A'-C-A''-coda. With the exception of A', which is only eight measures, each of the six divisions (including the coda) is between twenty and twenty-seven measures in length. The longest part is C, a modulatory section which gives the effect of a development.

The A section is a small ternary form. It begins with an eight-measure theme. This is followed by four measures of staccato chords, which slightly tonicize the dominant chord. The eight-measure theme then returns in the tonic key.

Section B, measure 21, begins immediately in the key of E-flat major, after the authentic cadence on A-flat which closed section A. The controversial tone D is neatly avoided until the fourth measure, where it appears natural, confirming the new key.

The theme of this section, a two-voice dialogue, is four measures long. It is immediately repeated with a change of orchestration and a fairly long extension. A bridge passage begins in measure 38 and leads to the return of section A.
The first return of section A in measure 43 consists only of the eight-measure theme in the tonic key. Section C, beginning in measure 51, is a modulatory section which contains five different keys. The theme of this section is new, but bears some resemblance to theme A. Four measures long, its final measure has syncopated harmonic changes which lead to a new key. It is first stated in A-flat minor, then in E-flat minor, and finally in F minor. This last time, the syncopated final measure is replaced by a D-flat major chord, the VI chord of the key. This chord is followed by the appearance and resolution of its own dominant. When the dominant appears for the second time, a process of chromatic alteration begins, eventually leading to the dominant of C major, which resolves to its tonic in measure 68.

In measure 70, all tones except those belonging to the C major triad are eliminated. Five measures later, only the single tone C remains, sounding alone for two measures. This tone then becomes the pivot for a modulation back to A-flat major.

The second return of A, in measure 78, follows the twenty-measure pattern of the original A section. The only change is an increase in ornamentation.

The coda, which begins in measure 97, is in two parts. It continues the rondo idea of alternating the A theme with other material. The first part, which of course follows an
A section, draws its material from the B and C sections. Neither of the themes, but only characteristic figures from these sections, are used. The second part (measure 111) returns to theme A, which appears in a highly florid version.

**Third movement.**—The third movement is a **scherzo** with trio. The **scherzo** section is in sonata form as regards the harmony, but without contrasting themes. The trio section is binary, and in the subdominant key of the **scherzo**.

The eight-measure opening theme begins with an unaccompanied melodic line, which implies C minor and then F minor, before the accompaniment begins and brings it to a cadence on B-flat. When these eight measures are repeated, the final cadence goes a different direction, to E-flat major, the tonic of the movement. Thus the tonic chord has been withheld until the fifteenth measure.

From this point, the theme is not stated in its entirety for almost one hundred measures. Yet practically every measure of the **scherzo** section contains a fragment from the theme. The fragment construction begins in measure 17, right after the establishment of the tonic. In measure 25 there is a modulation to the dominant with no changes, however, in the thematic material. The double barline in measure 40 marks the end of the exposition in this short monothematic sonata form.
The development section begins with what appears to be a three-voice canon at the octave, using the opening theme. Immediately after the entrance of the third voice, however, the strict imitation is broken. From that point, the fragment construction resumes. The development begins and ends in B-flat major, but passes through several keys, ranging from two to six flats.

Only the first sixteen measures of the recapitulation (measure 101) resemble the exposition. The cadence at the end of this similar portion, measure 113, is thematically foreign to the scherzo section material and provides a hint of the coming trio section. The remainder of the scherzo section is again built of fragments from the theme, but they are used in new ways.

The trio section, in A-flat major, is a simple binary form with a modulation to the dominant and the subsequent return to the tonic. The thematic material is only broken chords.

A fifteen-measure coda recalls the harmonic ambiguity of the beginning. There is no tonic chord until the very end. The chord is further delayed by a ritard in the last few measures.

**Fourth movement.**--The fourth movement is in sonata form. The form is handled in very much the same way as it is in the first movement. The development section contains no
reference to the second subject. Instead, it uses the first subject and the codetta material, in addition to new material not found in the exposition. The second subject is later used, along with other material, to form the coda.

The eight-measure opening phrase begins with a broken tenth which is used throughout the movement. It concludes on a half cadence and is repeated, the second time ending with an authentic cadence on the tonic. This material is then spun out, reaching a section of passage work in measure 26, which constitutes the second part of the subject. There is a strong cadence on the tonic in measure 38, marking the end of the subject.

The transition begins at that point. It continues the passage work, with no reference to the previously stated thematic material. It modulates to the dominant key without passing through any intermediate keys.

The second subject, measure 60, is built of a four-measure phrase. The phrase is stated four times consecutively in the same key, only the orchestration changing. This is followed by a transformation of the phrase which doubles its length and introduces some chromatic harmony. There is no modulation, however, and the latter eight-measure phrase is repeated, further transformed.
Passage work returns in measure 92 for a codetta of thirty measures. It remains in B-flat throughout, making only an indefinite reference to the second part of the first subject.

The development section begins in measure 122. The opening theme is stated and repeated in G minor, after which the material from the codetta appears. It is given first in G minor, and then in C minor. A sequence begins in this key, still using the codetta material, and after hinting at three other keys, it returns to C minor.

In measure 172, a new idea is heard. It is a quiet legato section, describing chord patterns without really spelling out a distinct melody. It provides a moment of repose after a long period of energetic activity. It wanders about harmonically, beginning in C minor, passing through E-flat major and B-flat major, and finally reaching a half cadence in E-flat major.

The return of the first subject (measure 215) follows the pattern of the exposition. The first transition also follows the previous pattern, except that it is preceded by a modulation to the subdominant key, so that when it modulates up a fifth, it will be in the tonic key instead of the dominant.

The second subject returns in measure 282. After its conclusion, the recapitulation no longer follows the pattern of the exposition. The section beginning here may be
described as a coda, but is not a typical example of same. Whereas a coda normally follows the codetta, the long section at hand is interpolated between the second subject and the codetta. It is not, in addition, built of forceful passage work as Beethoven's codas so often are.

It begins with the broken tenth from subject one, which modulates to E major, the Neapolitan key. Here (measure 342) the first part of the second subject is heard again. After a modulation back to the tonic key, the second subject is stated still another time (measure 360), this time in its entirety. The protracted appearance of the second subject, as well as the delay in the appearance of the codetta, may be accounted for by the absence of the second subject and the extensive use of the codetta material in the development section.

At the conclusion of this full statement of the second subject, one might expect to finally hear the codetta begin. But once more the expectation is thwarted. This time the legato idea, which first appeared in the development section, makes an abbreviated appearance (measure 394).

The codetta finally begins in measure 410. It is expanded from its original length by the addition of a section using the broken tenth from subject one.
Thematic Relationships

First movement.--The first movement makes extensive use of the arpeggio figure from its first subject. It is used in transitions, the development section, and the coda. The second subject has two parts which are related by a common rhythmic idea. They both begin with sustained tones and then proceed to faster moving ones.

Second movement.--The second movement, in second rondo form, has figures in both of the contrasting sections which are common to section A. The first contrasting section, section B, has a scale figure incorporated in its thematic material which resembles a figure found in measure 12 of Figure 7--Trio in E-flat, Op. 1, No. 1, first movement, measures 33-36 and 51-52.
section A. This figure also occurs in its original form in the bridge passage at the end of section B, as well as in the coda. The second contrasting section, section C, has a four-measure theme which follows the melodic contour of the first four measures of theme A, producing similar figures.

Third movement.--The scherzo section is built from various constructions of three fragments which the composer has extracted from the eight-measure opening theme. They are found in measures 1, 6, and 7, and have been labeled A, B, and C respectively.

Almost every measure of the scherzo section contains one or more of these fragments. Yet the music is constantly
changing because of the variety of ways in which the fragments are used.

In measures 58-61, figure C is used in such a way as to resemble, in its overall melodic contour, measures 2-5 of the theme.

![Figure 10](image)

Figure 10--Trio in E-flat, Op. 1, No. 1, third movement, measures 58-61.

In measures 76-79, figure A is used in much the same way. In measures 139-140, figure B is involuted and stated twice in succession to form a six-note descending scale.

The trio section is thematically unrelated to the scherzo section except for measures 113-114 of the scherzo section, which contain, quite foreign to the surroundings, the arpeggio figure which becomes the thematic substance of the trio section.

Fourth movement.--The fourth movement makes little use of short recurring fragments. Unity is mainly achieved through the recurrence of entire passages and sections. More subtle unifying devices are not entirely absent, however. The four-measure thematic idea of subject two is rhythmically related to the first four measures of subject one. In both cases, the rate of motion doubles in the
second half. The first two measures of each contain four notes, and the next two measures have eight notes in each case. In the first case the faster moving notes form a descending arpeggio, and in the second case a descending scale. Another unobtrusive unifying device is the echoing, in the last few chords of the movement, of the rhythm of the opening figures.

Elements of Contrast

First movement.--In the first movement, the contrast between staccato and legato has an important position. Both the first and second subjects, as well as the codetta and coda, contain a conspicuous contrast of this type. The first subject begins with a rising staccato arpeggio passage which is immediately followed by a falling legato scale passage. The second subject begins with an eight-measure period which contains a pair of four-measure phrases. These two phrases are very similar, but the latter part, which is legato in the antecedent, is staccato in the consequent. There is no sharp contrast in character between the two subjects. The most important contrast between them is the relatively static melodic motion of the second, as compared to the arpeggios and scales of the first.

Second movement.--The sections of the second movement rely primarily on harmony for their contrast to one another.
But the two contrasting sections, B and C, both offer contrast to the A sections in some other way. Section B has an overall rhythmic simplicity and straightforwardness in comparison to the more ornate section A. Section C has a more restless mood, with rapid changes of key center and orchestration, along with some syncopated harmonic rhythm.

Third movement.--As with the first movement, the contrast between staccato and legato is important here. But this time it functions on a larger scale. The scherzo section is principally staccato, while the trio section is entirely legato. There are no striking contrasts within the sections. The trio is simpler than the scherzo section in all ways, demonstrating the traditional contrast between the two sections. The trio section consists only of legato quarter-notes, accompanied by sustained chords.

Fourth movement.--In the fourth movement, sections of passage work alternate with sections of thematic statement. A third texture is introduced in the development section (measure 172). It has neither the energetic activity of passage work, nor the melodic content of a thematic statement. The opening theme contains an immediate contrast; a broken tenth is repeated three times and is immediately followed by three measures of stepwise motion. This does not become a recurrent principle throughout the movement, however, as it did in the first movement.
Key Schemes

The first movement contains the greatest number of different keys. The second movement is probably the most adventurous harmonically, and contains the highest percentage of remote keys. The third movement uses quite a few keys for a simple ternary form, but they are nearly all closely related to the tonic. The fourth movement has surprisingly few keys considering its great length.

TABLE XIII

KEY SCHEMES, TRIO IN E-FLAT, OP. 1, NO. 1

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of keys used</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Number of keys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>closely related to the tonic</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Number of keys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>remote by one accidental</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of keys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>remote by two accidentals</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Number of keys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>remote by three accidentals</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of keys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>remote by four accidentals</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
Twenty-nine per cent of the keys used in this trio are remote from the tonic of the movement. No key is used which is remote from the tonic by more than four accidentals.

**Modulations**

Although most of the modulations in the first movement are to the relative major or minor, the overall trio has far more modulations to keys a fifth away. The second movement is rather venturesome in its modulations, while the final movement, aside from the single appearance of the Neapolitan key, is remarkably conservative. The following table shows the number of modulations in each of the various categories of key relationships.

**TABLE XIV**

**KEY RELATIONSHIPS IN MODULATIONS,**
**TRIO IN E-FLAT, OP. 1, NO. 1**

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>To key with same</td>
<td>8</td>
<td>..</td>
<td>..</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>key signature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To key one accidental away</td>
<td>7</td>
<td>4</td>
<td>7</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>To key two accidentals away</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>..</td>
<td>4</td>
</tr>
<tr>
<td>To key three accidentals away</td>
<td>1</td>
<td>1</td>
<td>..</td>
<td>..</td>
<td>2</td>
</tr>
<tr>
<td>To key four accidentals away</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>..</td>
<td>4</td>
</tr>
<tr>
<td>To key five accidentals away</td>
<td>..</td>
<td>1</td>
<td>..</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
One of the prominent characteristics of the Bonn trios, the large percentage of modulations to keys three accidentals away, is quite different here. Modulation to keys five accidentals away, of which there are three examples in this trio, was not found at all in the Bonn trios.

**Altered Chords**

Although there are considerably more secondary dominant seventh chords than any other type of altered chord in the overall trio, both of the outside movements contain a greater number of some other type. The second movement, despite its adventurous key relationships, is quite ordinary in terms of altered chords. The following table shows the number of each type.
TABLE XV

ALTED CHORDS, TRIO IN E-FLAT, 
OP. 1, NO. 1

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary dominant</td>
<td>18</td>
<td>11</td>
<td>8</td>
<td>17</td>
<td>54</td>
</tr>
<tr>
<td>seventh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary leading</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>21</td>
<td>37</td>
</tr>
<tr>
<td>tone seventh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary dominant</td>
<td>16</td>
<td>...</td>
<td>2</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>triad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary leading</td>
<td>23</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>31</td>
</tr>
<tr>
<td>tone triad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borrowed</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>Augmented sixth</td>
<td>1</td>
<td>1</td>
<td>...</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Augmented triad</td>
<td>3</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>3</td>
</tr>
</tbody>
</table>

In the overall trio, the secondary dominant seventh chords constitute thirty-two per cent of the total number of altered chords, a considerably lower percentage than in any of the Bonn trios.

Non-Harmonic Tones

The first, second, and fourth movements are roughly similar in the extent to which they use each of the various types of non-harmonic tones. The fact that the third
movement is so much different is due to the nature of its
thematic material, and the extent to which that material
governs the movement. A comparison of the various types is
given in the following table.

TABLE XVI

NON-HARMONIC TONES IN PER CENT,
TRIO IN E-FLAT, OP. 1, NO. 1

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diatonic passing tones</td>
<td>64</td>
<td>54</td>
<td>14</td>
<td>69</td>
<td>56</td>
</tr>
<tr>
<td>Neighbor tones</td>
<td>13</td>
<td>31</td>
<td>82</td>
<td>21</td>
<td>31</td>
</tr>
<tr>
<td>Appoggiaturas</td>
<td>11</td>
<td>5</td>
<td>...</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Chromatic passing tones</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Suspensions</td>
<td>6</td>
<td>4</td>
<td>...</td>
<td>...</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Just as in the Bonn trios, diatonic passing tones consid-
erably outnumber the other types, with neighbor tones being
the next most common.
Chord Progressions

In general, the percentage of normal progressions is a bit lower in this work than it was in the Bonn works. The trio as a whole has seventy-nine per cent normal progressions.

TABLE XVII

NORMAL PROGRESSIONS IN PER CENT,
TRIO IN E-FLAT, OP. 1, NO. 1

<table>
<thead>
<tr>
<th>Movement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Movement</td>
<td>82</td>
</tr>
<tr>
<td>Second Movement</td>
<td>76</td>
</tr>
<tr>
<td>Third Movement</td>
<td>73</td>
</tr>
<tr>
<td>Fourth Movement</td>
<td>84</td>
</tr>
<tr>
<td>Overall Trio</td>
<td>79</td>
</tr>
</tbody>
</table>

Trio in G Major, for Violin, Violoncello, and Pianoforte, Op. 1, No. 2

In terms of ensemble grouping, this trio stands midway, in the composer's development, between the other two trios of the same opus. The characteristics of the accompanied keyboard sonata are not as much in evidence as they were in the E-flat trio, but neither has the balanced grouping of the C minor trio yet been achieved. The harmony likewise represents an intermediate stage of development.

There is extensive use of characteristic figures, both rhythmic and melodic, which pervade an entire movement and furnish a unifying factor to different thematic ideas.
The character of the work is generally light, particularly in the outside movements, both of which abound with flashy passage work. This is the longest of all Beethoven's early piano trios. Not until 1808 did he write a longer one.

The first movement, *Adagio-Allegro Vivace*, is in G major, $\frac{2}{4}$ meter, and sonata form. This is the earliest known instance in which Beethoven used a slow introduction with a sonata movement (4, p. 397). The ensemble grouping leans more toward the later than the earlier style. For a first movement, there is an unusual emphasis on technical display.

The second movement, *Largo con Espressione*, is in E major, $\frac{6}{8}$ meter, and sonatina form. The violin is relatively independent in this movement, and shares the thematic material with the piano. The violoncello, however, is excluded for the most part from handling the thematic material, and resorts to doubling the left hand of the piano part on occasion. Wessel (20, p. 280) and d'Indy (7, p. 85) have both pointed out the resemblance of this movement to the keyboard works of Carl Philipp Emmanuel Bach.

The third movement, *Scherzo-Allegro*, is in G major, $\frac{3}{4}$ meter, and ternary form. It is definitely a scherzo and not a fast minuet. Czerny (5, p. 87) has set the tempo at eighty-eight dotted half-notes per minute. Although not as fast as the corresponding movement of the E-flat trio,
Op. 1, No. 1, this is too fast to be a minuet. Curiously enough, the early sketches for this movement bore the title "Minuetto (12, p. 22)." The piano dominates the ensemble, especially in the trio section, but the strings participate in some contrapuntal activity.

The fourth movement, finale-Presto, is in G major, $\frac{2}{4}$ meter, and sonata form. Mersmann (10, p. 40) says this movement reflects the spirit of Tafelmusik, the German word for music to be played as dinner entertainment. There is a great deal of passage work using scales and arpeggios, and having little thematic content. The ensemble grouping relies to a great extent on the style of the accompanied keyboard sonata.

**Form**

**First movement.**—The first movement is in sonata form. It begins with a slow introduction, the only such movement in all of the trios under study. The development section makes no use of the second subject, but introduces some new material. The recapitulation differs from the exposition more than it did in the earlier trios.

The slow introduction is improvisatory in style and contains the germ of the coming first subject. The first subject begins in measure 28. It is a small ABA form, with the A part being a continuous sixteen-measure statement without a cadence until the end. After the short interim
passage (B), the sixteen-measure theme is restated, considerably embellished and with a different orchestration.

The transition (measure 66) incorporated fragments of the subject just stated. In measure 72, it reaches E minor, an intermediate key. In measure 78, there is a shift from E minor to D major, in which key root position tonic chords are avoided and B-flats are used in place of B-naturals. These devices prevent the key feeling from solidifying, thus allowing the entrance of the second subject, in that key, to command more attention. Beginning in measure 86, the embellishment of the dominant of D becomes the major concern for the remainder of the transition.

The second subject enters in D major in measure 99. After a single eight-measure period is stated, the material begins to be broken up into fragments. Soon (measure 113), fragments from the first subject begin to appear mixed in with the second subject material. Before too long, the second subject is almost entirely replaced by material using fragments from the first subject. Of the second subject, only the key of D major and occasional short melodic fragments remain.

The codetta begins in measure 140. Its thematic material also incorporates fragments from the first subject. It concludes with a few measures of passage work.

The development section (measure 167) begins with a new four-measure melodic idea, also containing a fragment
from subject one. It is presented four times in four different minor keys, beginning in G minor and progressing through the circle of fifths to B-flat minor. In the latter key, there is no root position tonic triad. The dominant pitch, F, is the bass note throughout the statement as well as an eight-measure extension.

The dominant chord resolves to B-flat major in measure 194, where another new four-measure melodic idea is heard. Once again, it contains a fragment from the first subject. This new material becomes the thematic basis for the remainder of the development section. It passes from B-flat major through C minor and G minor, and eventually to D major. C-naturals begin to appear in measure 244, signaling the return to G major.

The recapitulation takes place in measure 252. The sixteen-measure principal theme is raised an octave and slightly altered. It is immediately followed by more manipulation of its fragments, leading to a new idea in measure 271.

The transition begins in measure 288. Its first half is completely different from in the exposition, but is still built from fragments of the preceding subject. The keys of A minor and B minor are briefly passed through, after which G major returns. The second half of the transition is similar to its occurrence in the exposition. It embellishes the dominant of G.
The second subject, measure 320, follows its previous pattern. The codetta does likewise, up until the section of passage work which concluded the exposition. The latter is expanded from ten measures to twenty, reaching a conclusive sounding tonic cadence in measure 296. The movement could possibly have ended here, but Beethoven has attached a sixty-six-measure coda.

It begins with the single tone G. Then an E-flat is added, and finally a full E-flat major triad is heard. At this point, measure 402, the four-measure melody from the beginning of the development section recurs, reaching an authentic cadence on C minor. An extension of it leads to G minor where once again, the root position tonic chord is avoided. The dominant chord, D, is reached in measure 417. The next twenty-eight measures are an elaboration of this chord, using various fragments from the first subject. The final eighteen measures are a lengthy "tonic-and-dominant swing."

**Second movement.**--The second movement is in sonatina form. There are three subjects, each presented in a different key. If performed at Czerny's (5, p. 86) tempo, it approaches ten minutes in length. Despite these factors, the movement falls into the sonatina category because it lacks a development section. Instead of a development
section there is only a seven-measure bridge passage connecting the third subject with the return of the first subject.

The movement begins with an eight-measure period. The repetition of this period is not completed, but leads, by dissolution, into the transition. There is a modulation to B minor and a half cadence in that key in measure 18. This is an intermediate key between the first two subjects. The following section establishes the dominant of the new key, avoiding root position tonic triads. The dominant pitch, F-sharp, is the bass note throughout, except for occasional embellishments by E-sharp and G-natural.

When the second subject enters in B major (measure 26), one would normally expect the previous F-sharp bass note to resolve to B. Beethoven surprises the listener, however, by retaining F-sharp as the principal bass note throughout the subject. The subject contains no root position tonic triads in rhythmically strong positions. This creates a feeling of incompleteness, and prevents the third subject from sounding superfluous.

The repetition of the first phrase is left incomplete, as it was in the case of the first subject. In measure 33, the F-sharp bass note is suddenly changed from the fifth of the chord to the third, forming a first inversion dominant seventh in G major.

The third subject, in G major, begins in measure 35. It consists only of a four-measure phrase with a one-measure extension.
The bridge passage (measure 40) to the recapitulation uses the first two measures of subject one as its melodic material. A diminished seventh chord is formed on D-sharp, moves upward to E-sharp, and finally to F-double-sharp, where it resolves to G-sharp minor. This chord then becomes the mediant of E major and resolves, iii-V-I.

The first subject returns in measure 47. The full theme is heard in an embellished form. Its repetition is once more incomplete, the second phrase dissolving as it did in the exposition. Instead of a modulation, there is a tonicization of the dominant chord, B. Just as the stability of the chord is approaching that of a tonic, a C-natural appears and resolves to B. This immediately imparts a tinge of dominant quality to the B chord, preparing the entrance of the second subject.

In measure 67, the second subject returns in the tonic key, following the same pattern as it did in the exposition, including the modulation to the key a third below, this time C major.

The third subject (measure 76) is stated in C. A two-measure extension modulates to A minor, where the coda begins in measure 82.Thematically, the coda is built from fragments of the first subject. The tonality soon works its way back to E major. The tonic key is no sooner reached than it is left again moving first to C major and then to A
minor, where a climax is built. The thematic material remains that of the first subject.

The tonic key is regained in measure 100, where a final section begins, still using freely adapted material from the first subject. It remains in the tonic key throughout.

Third movement.—The third movement is a scherzo with trio. Both sections are in binary form. The key relationship between the scherzo and trio is somewhat unusual; G major - B minor.

Almost every measure of the scherzo section can be traced back to the five-note figure with which the movement starts. This is discussed in detail under the heading of thematic relationships. There is no real theme in the ordinary sense of the word. Immediately after the first statement of the five-note figure, it begins to be repeated and developed. There is an authentic cadence on D major, the dominant key, in measure 16, marking the end of the first part of the binary form.

The second part, over three times as long as the first part, begins with a sequence, which leads to B minor in measure 23. This key does not remain long. A modulation to E minor soon follows, and the tonic key, G major, is regained in measure 38. It remains through the rest of the
scherzo section. A new thematic idea is introduced in measure 47, but it too is an offspring of the original five-note figure.

The trio section, in B minor, uses new thematic material, but even this is not wholly unrelated to the five-note figure. The first part of the binary form ends in the relative major, D. The second part, using the same thematic material, begins in D major, passes briefly through G major and E minor, and returns to B minor.

The eighteen-measure coda is once more built from the original five-note figure. It contains no modulations.

Fourth movement.--The fourth movement is in sonata form. There is nothing particularly striking or unusual in the treatment of the form. This regularity goes hand in hand with the light character of the music.

The movement begins with an eight-measure theme. It cadences on the dominant, and the repetition with a change of orchestration begins in that key, but cadences on the tonic. A third statement of the theme is begun, but is left incomplete, leading into the transition by dissolution.

In measures 26-28 of the transition, some new material is introduced. Fragments from this material are subsequently used throughout the movement. It will be referred to as the transition material. Beginning in measure 34, the first subject material is no longer heard. It is replaced by constructions of fragments from the transition
material of measure 26-28. In measure 48, the dominant of D major is reached. The next twenty-four measures are devoted to embellishing this dominant.

The second subject begins at measure 72, in D major. The initial four-measure phrase is repeated twice, the second time dissolving into a section of passage work (measure 86).

The codetta (measure 104) is built from a two-measure fragment which is formed from previous materials. The entire section remains in D major. The first and second endings of the exposition offer alternative modulations to G major and E minor respectively.

The development section incorporates material from both subjects. It begins in E minor with a section of passage work built from the transition material. The second subject follows in E major. It is simply stated, and not subjected to any developmental treatment. A modulatory section is next, using material from the first subject. It redefines E as a dominant by adding a D-natural to the chord, resolves it to A minor, and passes through the circle of fifths to C minor. The dominant of the last named key is embellished with the transition material, and eventually resolves to C major, where the second subject enters again. This time it is developed, leading to G minor in measure 214.

Subject one enters on the dominant of this last key, soon making it a tonic by using the D major scale as the
basis of both the melody and the harmony. Only the first four measures of the subject are used, being stated four times in succession. At the conclusion of the fourth time, there is a spinning out of the triad figure with which it ended. This triad is eventually expanded into a larger broken chord pattern, which in turn is reduced to a scale in broken thirds.

It is over these broken thirds that the first subject returns in the tonic key (measure 253). There is no definite cadence to announce it. Instead, it enters softly and somewhat inconspicuously. The eight-measure theme is stated three times, each time by a different instrument. The last time has a four-measure extension, ending on the dominant chord, D major.

The latter part of the original transition is then recalled, that part which prepared for the second subject by embellishing its dominant for twenty-four measures. The same function is performed here, on a different dominant of course.

The second subject, in the tonic key, is heard in measure 308. It is lengthened by a repetition of the statement portion, before the ensuing passage work begins.

The codetta returns in measure 358. Instead of remaining in one key as it did in the exposition, it modulates to the supertonic and subdominant keys. This is to compensate perhaps, for the lack of modulatory activity in the
recapitulation as opposed to the exposition. The return of the tonic key involves an additional few measures of passage work, once more using the transition material.

The sixty-four-measure coda (measure 592) remains in the tonic key throughout, with no more than occasional inflections toward the dominant key. It begins with a transposition, to the tonic, of a passage from the development section, where subject one entered in D major. This is completed at measure 416, where a new figure enters. This figure is developed until measure 434, where material from the first few measures of the first subject takes over for the remainder of the movement.

Thematic Relationships

First movement.--There is an abundance of thematic material, but a degree of unity is maintained by the use of two recurring figures. They are introduced in measure 3 of the slow introduction, and used in various guises throughout the movement. Figure A is primarily a rhythmic

![Figure A](image)

Figure 11--Trio in G, Op. 1, No. 2, first movement, measure 3
pattern and occurs most frequently on a single pitch, although melodic motion is occasionally added. Figure B is a rhythmic-melodic pattern, since both elements usually remain constant in its various appearances.

The first subject begins with figure A and B respectively, as does the following transition, measure 66. In this latter case, figure B is repeated several times on different pitch levels. The second part of the transition, that part which establishes the dominant of the new key, also makes use of figure B (beginning in measure 86).

The second subject, measure 99, begins with the rhythm of figure A, and the articulation of its subsequent measures suggests a continuation of the same rhythm. In measure 113, figure B is also incorporated into this subject. The codetta, measure 140, makes further use of both figures.

The development section contains two new thematic ideas, both four measures long. The first of these, measure 167, incorporates figure B, while the second, measure 194, incorporates figure A. In addition, this second idea has an accompaniment which uses altered versions of figure B, including an involution. Directly after the first statement of this idea, a basso ostinato is formed from figure B (measure 198). Aside from a single four-measure interruption, it continues until measure 226. This figure is
found throughout the remainder of the development section. In measures 245-249 it is heard in augmentation for the first time.

The return of the first subject contains another new thematic idea using figure A (measure 271) and a variant of figure B (measure 273).

The following transition has a completely different first half from the corresponding portion of the exposition. In a two-voice dialogue, figure B is first stated in its original version, and then answered in augmentation and involution.

Figure 12--Trio in G, Op. 1, No. 2, first movement, measures 289-292.

The coda, measure 397, begins with figure A and uses both of the figures throughout.

Second movement.--The second movement has no recurring figures which relate the subjects to one another. It does, however, make use of fragments from the first two subjects (especially the first two measures of the first subject) in transitions, in the bridge passage connecting the exposition with the recapitulation, and in the coda.
Third movement.--As in the first movement, there are two characteristic figures which unify the work. They are both derived from the five-note motive which begins the movement. Figure A consists of the middle three tones, a simple scale fragment. This figure appears almost as frequently in involution as in its original form, and sometimes it appears in a different rhythmic guise. When the five-note motive is stated twice in succession, the rhythm results at the jointure. Since this happens frequently,

that rhythm becomes a characteristic figure and will be referred to as figure B. It is not restricted to any particular melodic construction. The variant will also be referred to as B.
Almost every measure of the scherzo section contains either figure A or figure B. Beginning in measure 12, an amalgamation of the two can be seen. The melodic movement

![Figure 15](image_url)

*Figure 15—Trio in G, Op. 1, No. 2, third movement, measures 12-16.*

or the upper voice is three ascending tones, followed by the same three tones, descending and embellished.

The figure introduced in measure 47 is another combination of the two figures. The six notes within the measure

![Figure 16](image_url)

*Figure 16—Trio in G, Op. 1, No. 2, third movement, measure 47*

are simply the descending pattern G, F-sharp, E, with changing tones (F-sharp and A) embellishing the G. The rhythm of the three principal tones as they occur, ignoring the changing tones, is a slight variant of figure B. The entire group of notes shown in Figure 16, therefore, is an embellished involution of the original five-note motive.
The six-note figure in the middle of this dominates the remainder of the scherzo section.

The trio section begins with a five-note figure in the same rhythm as the five-note motive beginning the scherzo section. Figures A and B are both used in the trio section, but not as consistently as in the scherzo section.

The coda consists of several repetitions, on different pitch levels, of the five-note opening motive from the scherzo section, causing an alternation of figures A and B. The closing chords echo figure B one last time.

Fourth movement.—This movement has three recurrent figures. The first is simply the use of repeated tones, and is introduced in the first measure as the beginning of the main theme. The other two first appear in measures 27 and 28 in the first transition.

Figure 17—Trio in G, Op. 1, No. 2, fourth movement, measures 27-28.

They have been labeled A and B in the order of their appearance. These two figures as well as the characteristic repeated tone are subsequently used in the transition. The
second subject (measure 72) uses the characteristic repeated tone in its thematic statement as well as in the passage work which follows.

The codetta (measure 104) is built from a two-measure fragment, which is a clever amalgamation of previous materials. It begins with figure B, the first three notes of

\[ \text{Figure 18--Trio in G, Op. 1, No. 2, fourth movement, measures 107-108.} \]

which are cast into a triplet. This is followed by figure A, in eighth-notes, and incorporating the characteristic repetition of tones. The first and second endings of the exposition both use repeated chords, and the rapid repeated tone from the first subject.

The development section makes use of all three of these characteristic figures. The coda contains a new melodic idea (measure 416) which once again uses the characteristic repeated tone. The movement ends with fragments from the beginning of the first subject.

Elements of Contrast

This trio is not dramatic in nature, and does not incorporate many conspicuous contrasts. Other than the harmony, the change of texture is the most important element
of contrast. Such changes are usually enhanced by a change in dynamic level, articulation, orchestration, or some combination of these.

Two particular uses of contrast are noteworthy. The first is the frequent shifting of melodic interest from one instrument to another in the development section of the first movement. This, along with the frequent changes of key, creates a degree of tension as opposed to the more stable sections of thematic statement in the exposition. The second is the use of the traditional minuet-trio contrast in the third movement. The trio section is softer than the scherzo section, as well as being simpler in texture, rhythm, and harmony.

**Key Schemes**

The first and last movements, being in sonata form, have larger key schemes than the middle two movements. Each of the sonata form movements uses about one half remote keys. The slow movement has slightly more than half remote keys, and the scherzo, with the smallest key scheme, has only closely related keys.
TABLE XVIII

KEY SCHEMES, TRIO IN G, OP. 1, NO. 2

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of keys used</td>
<td>10</td>
<td>7</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Number of keys closely related to the tonic</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Number of keys remote by one accidental</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Number of keys remote by two accidentals</td>
<td>2</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Number of keys remote by three accidentals</td>
<td>1</td>
<td>2</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Number of keys remote by four accidentals</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of keys remote by five accidentals</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Forty-three per cent of the keys used in this trio are remote from the tonic of the movement. In one case in the first movement, a key is used which is remote from the tonic by five accidentals. This is the maximum possible distance.

Modulations

Both of the outside movements have an overwhelming majority of modulations to keys one accidental away. This is the category which includes modulations to keys of the same mode a fifth away. In the second movement, over half
of the modulations are to keys four accidentals away. This may well have been the sort of thing which shocked Beethoven's contemporaries. The following table shows the number of modulations in each of the various categories of key relationships.

**TABLE XIX**

KEY RELATIONSHIPS IN MODULATIONS,
TRIO IN G, OP. 1, NO. 2

<table>
<thead>
<tr>
<th>To key with same key signature</th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>To key one accidental away</td>
<td>10</td>
<td>1</td>
<td>6</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td>To key two accidentals away</td>
<td>1</td>
<td>1</td>
<td>**</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>To key three accidentals away</td>
<td>2</td>
<td>1</td>
<td>**</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>To key four accidentals away</td>
<td>3</td>
<td>6</td>
<td>**</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

Although there are quite a few modulations to keys four accidentals away (twenty per cent) there are none to more distant keys, as there were in the E-flat trio, Op. 1, No. 1.

**Altered Chords**

Just as with key schemes and modulations, the outside movements are similar in their usage of altered chords. The inside movements are somewhat different, particularly the
scherzo, which has very few altered chords. The following table shows the number of each type.

**TABLE XX**

**ALTERED CHORDS, TRIO IN G, OP. 1, NO. 2**

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary dominant seventh</td>
<td>15</td>
<td>11</td>
<td>1</td>
<td>19</td>
<td>46</td>
</tr>
<tr>
<td>Secondary leading tone seventh</td>
<td>9</td>
<td>10</td>
<td>••</td>
<td>8</td>
<td>27</td>
</tr>
<tr>
<td>Secondary dominant triad</td>
<td>4</td>
<td>••</td>
<td>2</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Secondary leading tone triad</td>
<td>10</td>
<td>4</td>
<td>2</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>Borrowed</td>
<td>7</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>27</td>
</tr>
<tr>
<td>Augmented sixth</td>
<td>2</td>
<td>1</td>
<td>••</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Subtonic triad</td>
<td>2</td>
<td>••</td>
<td>••</td>
<td>••</td>
<td>2</td>
</tr>
<tr>
<td>Augmented triad</td>
<td>1</td>
<td>••</td>
<td>••</td>
<td>••</td>
<td>1</td>
</tr>
</tbody>
</table>

Three of the four movements contain more secondary dominant seventh chords than any other type. In the trio taken as a whole, they constitute thirty-two per cent of the total.

**Non-Harmonic Tones**

Each of the movements has more diatonic passing tones than any other type, particularly the scherzo, because of
the scalewise motive from which the movement is built. A comparison of the various types is given in the following table.

**TABLE XXI**

**NON-HARMONIC TONES IN PER CENT, TRIO IN G, OP. 1, NO. 2**

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diatonic passing tones</td>
<td>39</td>
<td>41</td>
<td>70</td>
<td>64</td>
<td>52</td>
</tr>
<tr>
<td>Neighbor tones</td>
<td>31</td>
<td>28</td>
<td>11</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>Suspensions</td>
<td>3</td>
<td>••</td>
<td>9</td>
<td>••</td>
<td>2</td>
</tr>
<tr>
<td>Chromatic passing tones</td>
<td>15</td>
<td>••</td>
<td>••</td>
<td>••</td>
<td>6</td>
</tr>
<tr>
<td>Changing tones</td>
<td>••</td>
<td>••</td>
<td>6</td>
<td>••</td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>12</td>
<td>31</td>
<td>4</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

This trio has an unusually high percentage of miscellaneous non-harmonic tones, indicating a wider variety. The slow movement has a particularly large variety.

**Chord Progressions**

The various movements show considerable variety in their percentages of normal progressions. The second movement has the lowest percentage of all the movements included
in the study, while the final movement has the third highest. The overall trio has eighty-two per cent normal progressions.

TABLE XXII

NORMAL PROGRESSIONS IN PER CENT,
TRIO IN G, OP. 1, NO. 2

<table>
<thead>
<tr>
<th>Movement</th>
<th>Progression</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Movement</td>
<td>83</td>
</tr>
<tr>
<td>Second Movement</td>
<td>71</td>
</tr>
<tr>
<td>Third Movement</td>
<td>79</td>
</tr>
<tr>
<td>Fourth Movement</td>
<td>85</td>
</tr>
<tr>
<td>Overall Trio</td>
<td>82</td>
</tr>
</tbody>
</table>

Trio in C minor, for Violin, Violoncello, and Pianoforte, Op. 1, No. 3

This trio is by far the most progressive of the opus. It marks a new height for the piano trio. Not only have the stringed instruments reached a full equality with the piano, but the two bodies of sound are united in a more satisfactory way. Each instrument is permitted to behave in its own characteristic manner, yet the result is well unified.

The handling of sonata form also shows progressive thinking. Both of the movements in that form have an introductory idea, preceding the main theme. These ideas recur throughout the movements, often providing abrupt modulations. In general, this work has a tighter thematic
unity than any of the preceding trios. There is less thematic material presented, and greater variety developed within its boundaries.

This is the first case in which Beethoven used the key of C minor for an entire work (10, p. 42), a fact which assumes some significance when one considers the importance of that key in the composer's middle period.

The first movement, Allegro con Brio, is in C minor, $\frac{3}{4}$ meter, and sonata form. This is the only sonata form movement in the early trios which does not have a full return of the first subject at the beginning of the recapitulation. It is also the only sonata form movement in $\frac{3}{4}$ meter and the first one in a minor key.

The second movement, Andante Cantabile con Variazioni, is in E-flat major, $\frac{2}{4}$ meter, and variation form. Once again, these are ornamental variations, using the "melodico-harmonic" technique. The theme, however, is more refined melodically than the earlier variation themes.

The third movement, Menuetto - Quasi Allegro, is in C minor, $\frac{3}{4}$ meter, and ternary form. This is the only minuet or scherzo movement in the early trios which is in a minor key. It is full of sharp contrasts, imitations, and sforzandi.

The fourth movement, Finale-- Prestissimo, is in C minor, cut time, and sonata form. This is the only case, in all of Beethoven's piano trios, in which the final
movement does not conform to the classical convention of a buoyant and happy ending.

Form

First movement.--The first movement is in sonata form. The thematic construction is somewhat unusual. The first subject has two distinct parts. The first of these functions as an introduction and the second as the principal theme. The second part is considered to be the principal theme not only because of its strong character as opposed to the tentative, introductory sound of the first part, but because of its harmonic stability. The first part of the subject is often used to modulate to various keys. Throughout the movement they are used together in their original order. Therefore, they are both considered to be parts of the subject.

The movement opens with a four-measure unison passage which is extended and eventually reaches a florid half cadence in measure 10. Its quiet, legato movement and fermata ending suggests an adagio introduction. It functions as the first part of the first subject. The second part, a completely different thematic idea, begins in measure 11. This is considered to be the principal theme of the movement. The extension of this theme reaches a forceful half cadence in the tonic key in measure 30, bringing the first subject to a close.
The transition begins in measure 31. It starts with the introductory material in A-flat major. At first it sounds like the VI chord in C minor, but the E-flat major triad which soon follows changes that impression. The new key is no sooner established than it is left again.

In measure 39, the key of E-flat minor has been reached, and the principal theme begins to appear in fragments. For nine measures, B-flat is the bass note. A root position tonic chord finally does appear (measure 48), but not without mitigating factors. A stable resolution would be out of place in a transition, the primary function of which is to lead to something by maintaining a degree of expectancy. A stable resolution to E-flat minor would be particularly undesirable in this case, since it has the same tonic pitch as the material being approached. So Beethoven has used A-naturals, C-naturals, and D-naturals in the measures preceding the root position E-flat minor chord. These tones, all belonging to the B-flat major scale, partially tonicize the B-flat chord in measure 47. Thus the E-flat minor chord in the following measure has a tinge of subdominant quality, and the stable resolution is avoided.

The second subject begins in measure 59, in E-flat major. The four measure thematic idea is stated twice in that key and then twice in A-flat major. The remaining portion of the subject, built of figures taken from the
thematic idea and its accompaniment, begins with a return to E-flat major. Then it modulates to E-flat minor, hints at B-flat major, and finally returns to E-flat major again.

The codetta, measure 98, is in three sections. It begins with a forceful section using the introductory material against passage work. The agitation is greatly augmented by the harmony, which briefly tonicizes each degree of the ascending E-flat major scale between E-flat and C. Upon reaching the last named pitch, the ascent ceases, and E-flat major is reaffirmed.

The second section is essentially without thematic content. It consists primarily of sustained harmonies, including a colorful Neapolitan chord. It remains in E-flat major.

The final section uses fragments of the principal theme, and introduces a rapid descending scale figure.

The development section (measure 138) deals first with the introductory material, the first four measures of which are stated in E-flat minor. The repetition of the latter two measures, instead of moving to a VI chord as it originally did, forms the leading tone triad of B major, to which key it resolves. The first four measures are stated again in this key. The repetition of the latter two measures modulates again, this time to the remote key of F minor. To simply repeat the material once more would
be redundant, so the composer builds an imitative section from the figure which was just used to modulate.

The principal theme enters in F minor in measure 176. Upon its conclusion, there is an abrupt shift to A-flat major, where it is repeated. In measure 191, the tone G-flat is added to the A-flat major triad. This seventh chord continues during an extension of the first subject material until measure 196, where the G-flat is respelled as F-sharp, creating a German sixth chord in C minor. This chord resolves to the dominant of that key, which is embellished for the remainder of the development section. The rapid descending scale figure, introduced in the coda, is heard again.

The recapitulation, measure 214, begins as the exposition did, with the introductory idea in C minor. It lacks, however, the fermata over its last two chords. Instead of being followed by the principal theme, it is repeated in C major and D-flat major respectively. A sequence beginning in the latter key modulates back to C minor. Because of the approaching second subject in that key, root position tonic triads are avoided again, as they were in the first transition. It is in this transition that the principal theme finally emerges, but only in fragmentary form. Possibly the absence of a full statement is due to its use in the latter part of the development section.
The second subject returns in measure 262, in C minor. The four measure thematic idea is stated twice in that key, then once in A-flat major, and finally in F minor. Immediately thereafter, C minor returns, and the rest of the subject remains in that key. As in the exposition, it is built of figures taken from the four-measure thematic idea.

In measure 301, the codetta returns. Its first two sections are similar to their previous appearance, but the final section is expanded into a thirty-measure coda, using the same material as it did in the exposition.

Second movement.--The second movement is in variation form. It consists of a theme, five variations, and a coda. The variations are ornamental, using the "melodico-harmonic" technique, the outline of the melody being obscure if present at all.

The theme is rhythmically and harmonically simple. The harmony seldom ventures further from tonic than to a second classification chord. There is a single third classification chord in measure 20. The form is binary. There are two eight-measure periods, each of which is stated and immediately repeated with a change of orchestration.

Variation I is a piano solo, but the accompaniment in the strings is not the mere doubling found in earlier works. Instead, it consists of interspersed fragments which are
freely derived from the piano part. The first three variations embody successive increases in the rate of motion. Variation III, which is the most rhythmically active of all the variations, is the most independent from the theme in its melodic and harmonic construction. Variation IV, in the parallel minor, returns to a slower rate of motion, more like the theme, and closely follows the melody of the theme. The final variation returns to the major mode, and juxtaposes the original melody, in its slow rate of motion, with a rhythmically active line. Thus it is a sort of summing up of what has previously been heard. It ends with a deceptive cadence on the submediant, preparing for the coda.

The coda furnishes a release from the harmonic boundaries of the theme. It improvises freely on the opening phrase of the theme, and ends with a quiet "tonic-and-dominant swing."

Third movement.—The third movement is a minuet with trio. Both the minuet and trio sections are in binary form. Each contains a single modulation and the subsequent return to the original key. The minuet section, in C minor, modulates briefly to its relative major, and the trio section, in C major, modulates briefly to its dominant. The minuetto section does not really have a theme in the ordinary sense of the word. That is, there is no melodic statement which later returns. Instead, it is
constructed motivically from the material presented in the first measure. This is discussed in greater detail under the heading of thematic relationships. There is a modulation to the relative major, E-flat, in measure 12, the end of the first section of the binary form. Near the beginning of the second section, which begins in E-flat major, there is an arpeggio figure, which is conspicuously foreign to the tightly unified motivically constructed thematic material surrounding it. The tonality soon returns to C minor. The arpeggio figure makes intermittent appearances until measure 26, where it is heard for the last time. The remaining sixteen measures are built from the opening material, remaining in C minor.

The trio section is in C major. It does not have the rhythmic intricacy of the menuetto section. It begins with a rapidly descending scale, which is followed by a four-measure melody marked dolce. In measure 48 the scale enters again, and is once more followed by the dolce melody, this time extended and modulating to the dominant key, G major. This concludes the first section of the binary form. The second section begins with a development of the scale passage which brings the tonality back to C major. The remainder of the section consists of two more alternations between the scale passage and the dolce melody.

Fourth movement.—The fourth movement is in sonata form. As in the first movement, the first subject has two
distinct parts, the first functioning as an introduction and the second as the principal theme. The introductory idea is considered to be part of the subject because of its recurrent use in the structure of the movement, while the second part is considered to be the principal theme because of its much more extensive use.

The introductory idea occupies the first eight measures, the last of which is a whole rest with a fermata. The principal theme follows, twelve measures in length. Its initial statement is followed by an extended repetition. In measure 35 the first part of the subject returns, modulating from C minor to A-flat major, and bringing the first subject to an end.

Following a full measure of rest with a fermata, the transition begins in measure 43. Since it begins in E-flat major, the key in which the second subject will eventually enter, something must be done to prevent the key from sounding old before then. The first device employed to that effect is the avoidance of root position tonic triads. When an E-flat does come in the bass in measure 51, a D-flat has been added to the chord, still preventing the feeling of settling into the key. A harmonic sequence ensues, leading to E-flat minor, an intermediate key. This will allow the entrance of the second subject to sound fresher. The thematic material of the transition is the first subject, to which a counterfigure has been added.
The second subject begins in measure 69, in E-flat major. It consists of an eight-measure theme which is repeated with a change of orchestration and extended.

A two-part codetta begins in measure 89. The first part uses the first measure of the principal theme against turbulent arpeggios, while the second part uses the first two measures of the same theme in imitative passages. The entire codetta remains in E-flat major, with leanings toward A-flat minor in the second part. The first and second endings of the exposition offer alternative modulations to C minor and F minor respectively.

Except for the use of the introductory idea at its beginning, the development section is entirely built from the second subject. The introductory idea modulates from F minor to F major, where the eight-measure theme from the second subject is first stated, in measure 155. At the end of its repetition in the same key, the tone F is sustained for two measures without accompaniment. While the tone is still sounding, a D-flat major chord enters, beginning another repetition of the theme in that key.

Beginning in measure 180, the second subject material is contrapuntally developed. In the space of about thirty measures, there are five different keys. The order of the keys is as follows: D-flat major, E-flat minor, F minor, G minor, and C minor. The dominant pitch of the last key
becomes firmly rooted in the bass in measure 218. The rest of the development section is an embellishment of this dominant.

The recapitulation in measure 238 begins with the principal theme, omitting the introductory material. The theme is repeated with an extension as before. The introductory material is also absent from its previous position at the end of the first subject. The subject closes with the repetition of the principal theme.

The transition closely resembles that of the exposition, except for its changed harmonic scheme. It begins in C minor, and after a harmonic sequence, returns to that key. Root position tonic chords are avoided throughout.

The second subject, measure 290, begins in C major. During the extension of the repetition of the eight-measure theme, the mode suddenly shifts back to minor.

The codetta, measure 314, follows the same two-part scheme as it did in the exposition, with the second part greatly lengthened. In measure 262 there is an abrupt modulation from C minor to the remote key of B minor. The return to C minor, in measure 274, is effected by simply resolving the VI chord in B minor to a C minor triad.

In measure 383, E-natural replaces E-flat for the remainder of the movement, but the key of C major is not allowed to crystallize as yet. It is obscured by implications of F minor, caused by the use of D-flats and
A-flats. In measure 391, the counter-figure from the first transition is mixed with material from the principal theme. Beginning in measure 410, C major is firmly established by eleven measures of C major scales, over the continuously repeated tonic triad.

Thematic Relationships

This trio has a recurrent figure which appears in nearly every theme throughout the work. It is found in this full four-note form, as well as in either of two three-note forms, with either the first or the last tone absent. All three of these forms will be referred to as figure 19.

First movement.—Figure 19 is first heard at the end of the introductory idea (measures 8-10). Immediately thereafter it appears in the principal theme, first

Figure 19--Abstract form of figure which recurs throughout the Trio in C minor, Op. 1, No. 3.

Figure 20--Trio in C minor, Op. 1, No. 3, first movement, measures 8-10.
incomplete (bridging the barline between measures 10 and 11), and then complete (bridging the barline between measures 12 and 13). It can also be found in the second subject, bridging the barline between measures 60 and 61.

In addition to the recurrence of Figure 19, the accompaniment to the second subject, in measure 61, contains a six-note figure lifted directly from the principal theme, measures 13 and 14 (the last six notes of Figure 21).

Second movement.--The theme of these variations is the only theme in the entire trio which does not contain Figure 19. It is, however, found in the first variation. It appears here in a three-note form, with the first note missing.
Third movement.--The menuetto section of this movement is built almost entirely from the four-note motive stated in the first measure. Its first three notes are like the last three of figure 19, and vice versa. The trio section has a four-measure theme which also contains the recurrent figure. With the ornamental tone considered as part of the line, it is Figure 19 in its complete form.
Fourth movement. -- The figure can also be found in both of the themes of this movement. It is incomplete in the principal theme (measure 10) and complete in the subordinate theme (measures 75-76).

Figure 26--Trio in C minor, Op. 1, No. 3, fourth movement, measures 10 and 75-76.

Elements of Contrast

First movement. -- In Beethoven's earliest piano trios, he sometimes combined contrasting staccato and legato elements into a single theme. In this work, however, an entire theme is appropriated to each. The principal theme is staccato and vigorous, while the subordinate theme is legato and marked dolce. These two moods are combined in various ways in the development section.

Second movement. -- The variations contain the usual contrasts of rhythmic construction, dynamics, texture, etc. to one another. Several of these elements are used in conjunction to build up to a mild climax in the third variation.

Third movement. -- The legato-staccato contrast is used on both a large and a small scale. The menuetto section
is mainly staccato, while the trio section is mainly legato. The use of legato arpeggios in the _menuetto_ section, and staccato arpeggios in the trio section, provides a small scale contrast, sometimes changing in each measure. Further contrast is brought about by frequent and sudden changes in the dynamic level.

**Fourth movement.**—As in the first movement, the principal and subordinate themes offer a sharp contrast of moods. But instead of being homogeneously combined in the development section, they are contrasted to one another sectionally. Another contrast is found in the somewhat lengthy codetta, which is divided into a forceful and a gentle section respectively, providing some change in face of the lack of change in the harmony and thematic material.

**Key Schemes**

As usual, the outside movements, both in sonata form, have much wider key schemes than the inside movements. The exceptionally small key scheme of the second movement is due to its being in variation form.
TABLE XXIII

KEY SCHEMES, TRIO IN C MINOR, OP. 1, NO. 3

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of keys used</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Number of keys closely related to the tonic</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Number of keys remote by one accidental</td>
<td>1</td>
<td>•</td>
<td>•</td>
<td>2</td>
</tr>
<tr>
<td>Number of keys remote by two accidentals</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Number of keys remote by three accidentals</td>
<td>1</td>
<td>•</td>
<td>1</td>
<td>•</td>
</tr>
<tr>
<td>Number of keys remote by four accidentals</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>1</td>
</tr>
</tbody>
</table>

Fifty per cent of the keys used in this trio are remote from the tonic of the movement. This is the highest percentage in all of the early trios. No key is used which is remote from the tonic by more than four accidentals.

Modulations

This trio breaks one of the patterns which has been forming through the chronological study of these trios. The earliest trio has more modulations to keys three accidentals away than any other kind, but in subsequent trios, these become less frequent and the modulations to keys one accidental away become more common. But this trio, the latest of the group, reverts to the earlier distribution. The following table shows the number of modulations in each of the various categories of key relationships.
TABLE XXIV

KEY RELATIONSHIPS IN MODULATIONS,
TRIO IN C MINOR, OP. 1, NO. 3

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>To key with same key signature</td>
<td>2</td>
<td>..</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>To key one accidental away</td>
<td>7</td>
<td>..</td>
<td>2</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>To key two accidentals away</td>
<td>2</td>
<td>..</td>
<td>..</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>To key three accidentals away</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>To key four accidentals away</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>To key five accidentals away</td>
<td>1</td>
<td>..</td>
<td>..</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

This trio contains, as does the E-flat major trio of the same opus, three modulations to keys five accidentals away. This is the most distant key relationship which Beethoven uses in these trios.

Altered Chords

Despite rather striking similarities between the first and last movements in the areas of form and key schemes, their respective distributions of altered chords are highly dissimilar. Particularly noticeable is the low number of secondary dominant seventh chords in the first movement. The second movement has a considerable number of altered
chords for its length, a typical situation for ornamental variations. The following table shows the number of each type.

TABLE XXV

ALTERED CHORDS, TRIO IN C MINOR, OP. 1, NO. 3

<table>
<thead>
<tr>
<th></th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary dominant seventh</td>
<td>4</td>
<td>18</td>
<td>5</td>
<td>24</td>
<td>51</td>
</tr>
<tr>
<td>Secondary leading tone seventh</td>
<td>12</td>
<td>12</td>
<td>4</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Secondary dominant triad</td>
<td>1</td>
<td>4</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary leading tone triad</td>
<td>9</td>
<td>5</td>
<td>4</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Augmented sixth</td>
<td>4</td>
<td>3</td>
<td>9</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Borrowed</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Neapolitan</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Three of the four movements contain more secondary dominant seventh chords than any other type. In the trio taken as a whole, they constitute thirty-four per cent of the total.

Non-Harmonic Tones

The outside movements have a similar distribution of types of non-harmonic tones, and one which is typical of the style. The large number of chromatic passing tones in
the second movement is a result of an extensively used chromatic scale in one of the variations. The very unusual distribution in the third movement, including eight per cent ritardations, is a result of the constant use of the initial motive. A comparison of the various types is given in the following table.

<table>
<thead>
<tr>
<th>Non-harmonic Tones in Per Cent, Trio in C Minor, Op. 1, No. 3</th>
<th>First Movement</th>
<th>Second Movement</th>
<th>Third Movement</th>
<th>Fourth Movement</th>
<th>Overall Trio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diatonic passing tones</td>
<td>57</td>
<td>46</td>
<td>13</td>
<td>55</td>
<td>51</td>
</tr>
<tr>
<td>Neighbor tones</td>
<td>22</td>
<td>28</td>
<td>16</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Appoggiaturas</td>
<td>10</td>
<td></td>
<td>26</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Suspensions</td>
<td>5</td>
<td></td>
<td>26</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Chromatic passing tones</td>
<td></td>
<td>18</td>
<td></td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Ritardations</td>
<td></td>
<td></td>
<td>8</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>6</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>

The trio as a whole contains more diatonic passing tones than any other type, constituting fifty-one per cent of the total.
Chord Progressions

Both of the other trios in this opus have a higher rate of normal progression for each of the outside movements than for either of the inside movements. This trio, however, is exactly the opposite. As a whole, it has seventy-eight percent normal progressions.

TABLE XXVII

NORMAL PROGRESSIONS IN PER CENT,
TRIO IN C MINOR, OP. 1, NO. 3

First Movement. . . . . . . . . . . . . . . . . . 78
Second Movement . . . . . . . . . . . . . . . . . . . 81
Third Movement. . . . . . . . . . . . . . . . . . . 82
Fourth Movement . . . . . . . . . . . . . . . . . . 76
Overall Trio. . . . . . . . . . . . . . . . . . . . . . 78


CHAPTER IV

SUMMARY

Form

In the six trios studied there are eight movements in sonata-allegro form, four movements in ternary form, two movements and one entire work in variation form, two movements in rondo form, one movement in sonatina form, and one movement in a freely treated form not fitting into any of the standard categories. Only the first three of these categories will be discussed in the present summary, since the remaining three are too sparsely represented to allow a valid generalization.

Sonata-Allegro Form

Of the eight movements in this form, only one has a slow introduction (Op. 1, No. 2, first movement), while the others begin immediately with the first subject. Two of the first subjects contain only one idea. Of the six which contain two ideas, three are in open form and three are closed. That is, three end with a different idea from the one with which they began, while the other three end, after having presented a second idea, with the same idea with which they began.
Only two of the movements have transitions between the first and second subjects which are constructed solely of passage work, with no reference to the previously stated thematic material. The other six use the first subject material. Four of these transitions contain no intermediate key, three contain one intermediate key, and one contains two intermediate keys (Op. 1, No. 3, first movement).

Two devices are commonly used in approaching the second subject. One is the lengthy embellishment of the dominant of the coming key. It is done with augmented sixth chords, scale passages, etc. It is sometimes continued for twenty measures or more. The second device, which is employed when the new key is reached before the subject begins, is the avoidance of root position tonic triads in that key. This prevents the key feeling from solidifying and maintains a degree of expectancy until the subject begins.

Six of the movements have a second subject in the dominant key, and two have a second subject in the relative major key. Only one of the eight second subjects has two ideas (Op. 1, No. 1, first movement), and these are arranged in open structure. The rest contain only one idea, often repeated several times with changes of orchestration, extensions, etc.
Three of the movements have fragments of the first subject after the statement of the second subject. Only one has a third subject (WoO 37, first movement), and it is followed by a reappearance of the second subject. Five of the eight codettas contain new material.

The development sections average about one-fifth the length of the movement, and include an average of five different keys. Five of them deal with only part of the thematic material presented in the exposition, two of them deal with all of it, and one deals with none of it (WoO 37, first movement). This particular development section, along with two others, contains new material.

The recapitulations do not generally differ a great deal from the expositions. This is particularly true of the Bonn trios, while those of Opus 1 generally show more divergence between the two sections. In each recapitulation however, there is some notable difference from the exposition. It may be a changed transition, or more commonly, an expanded codetta. Only one of the recapitulations contains new material (Op. 1, No. 2, first movement). All of the first subjects and all but three of the second subjects return in the tonic key. Two of these exceptions return in the parallel major or minor of the tonic, preserving in both cases their original mode. The other exception returns in the dominant key, as it appeared in the
exposition (WoO 38, first movement). The codas average about one-seventh the length of the movement.

**Ternary Form**

In all four examples of this form, both the minuet section and the trio section are binary. In one case the binary minuet section can be considered a sonatina form (WoO 38, second movement), and in another case, a short sonata form (Op. 1, No. 1, third movement). The key relationships between the minuet and trio sections are to be noted. They are all different: tonic-tonic, tonic-subdominant, tonic-mediant, and tonic-parallel major.

The minuet or *scherzo* section is usually built tightly from a limited amount of thematic material. In only one case does it contain what might be considered a second idea. This is the one which is in sonatina form. The one which may be considered a short sonata form has only one thematic idea. The thematic material of the trio section is always limited, and bears some indistinct relationship to the thematic material of the minuet or *scherzo* section. Although the change from minuet to *scherzo* is embodied in this group of trios, it affects the form very little. The main differences are in tempo and character.

**Variation Form**

The full variation work has a through-composed theme, while both of the variation movements have binary themes
with the form $A - A' : \| : B - A'$. One of these has written out repeats (Op. 1, No. 3, second movement), but the form is nonetheless clear. In each of the three cases, the variation theme contains a single third classification chord, all the rest of the chords being second class, first class, and tonic. The "melodico-harmonic" technique is used in each case, with occasional leaning toward "harmonic" technique in two cases (Op. 44, and Op. 1, No. 3, second movement). In all three, the phrase structure of the theme is essentially the same in each of the variations. Two of the variation works have one minor variation, and the other has two. One movement has a separate coda after the final variation (Op. 1, No. 3, second movement), another has a slightly expanded final variation (WoO 37, third movement), and the full variation work has a greatly expanded final variation. They all belong to the ornamental variation category.

**General Remarks**

Five of the six trios are divided into movements, the other being a large-scale variation work. Two of them have three movements, and three of them have four movements. The two three-movement trios are both Bonn works, and antedate the three four-movement trios of Opus 1. The keys of the movements of the Bonn trios contain little diversity: G, G minor, G; and E-flat, E-flat, E-flat. Those of Opus 1 trios contain a little more: the first is E-flat, A-flat,
E-flat, E-flat; the second is G, E, G, G; and the third is C minor, E-flat, C minor, C minor. There are four movements altogether which step outside of the prevailing key of the trio. Not only is each of these a slow movement, but there are no slow movements which are not included in this group. Therefore the E-flat trio, WoO 38, is in one key throughout because it lacks a slow movement. All four of these slow movements are in a different form.

Thematic Relationships

It has been found that this music contains extensive use of inconspicuous unifying devices. In one case, two thematic statements of four measures each have similar melodic contours (Op. 1, No. 1, second movement), and in another case two themes have similar rhythmic constructions (Op. 1, No. 1, fourth movement). By far the most common such device, however, is the use of a short figure, usually three or four notes, which recurs in different contexts. It may be a melodic pattern which appears in a variety of rhythms, it may be a rhythm pattern which appears with a variety of melodic constructions, or it may be a rhythmic-melodic pattern, where both elements are more or less constant. The most common of these three is the melodic pattern.

This type of unifying device operates best in movements which contain more than one idea. In movements which contain only one idea, such as variation movements and certain
monothematic movements, the derivation of all materials from the single idea is obvious. The inconspicuous type of unifying device with which this section deals is used to unify materials which are intended to be different from one another, such as the principal and subordinate themes of a sonata form. By remaining inconspicuous, they do not negate the contrast which the ideas offer to one another, yet they help the ideas to function well together in a single structure.

Of the eighteen movements studied, fourteen incorporate this type of unifying device. Eight of these have figures common to more than one theme, while the other six have figures common to a theme and some other part of the movement such as a transition, bridge passage, etc.

Occasional examples are found of figures which are common to more than one movement of a trio, but only in the last trio in C minor is this idea fully developed. In that trio, all four movements make use of the same figure. But this is still not the idée fixe of later romantic music. In the first place, the figure is too short (four notes) and ordinary to have any real character (see Figure 19). In the second place, it is often used with either its first or last tone absent, giving it even less character. Finally, it is treated with great rhythmic freedom, leaving it almost no character.
Elements of Contrast

Beethoven's use of contrast in dynamics, articulation, texture, register, rhythmic construction, instrumental tone color, etc., is so diverse that it defies categorization. His variety in this area is virtually unlimited. Certain patterns, however, recur often enough to attract attention.

The most conspicuous such pattern is the increase in the importance, frequency, and sharpness of the contrasting elements in variation works. This is undoubtedly due to the virtual absence of variety or contrast in the harmony and phrase structure, as well as restricted changes in the melodic structure. In longer movements, the contrast in texture and dynamics between sections of thematic statement and sections of passage work is often conspicuous. In sonata form movements, the recapitulation usually offers a contrast of orchestration to the exposition.

In five of the eight movements in sonata form, the first theme may be said to contain contrasting elements within itself. Apparently, this device can also be found in other of the composer's works. The topic has been dealt with by Schmitz (3).

The contrast between legato and staccato is a particularly important device, sometimes contributing materially to the organization of a movement. In two of the four movements in ternary form (Op. 1, No. 1, third movement, and Op. 1, No. 3, third movement), the minuet section is
characteristically staccato while the trio section is characteristically legato.

In every instance of ternary form, whether minuet or scherzo, the trio section contrasts the preceding section in the traditional manner. This manner, which has been discussed at length by Blom (1), is basically a simplification of all the musical elements during the trio section. Dyson (2, p. 209) has pointed out the importance of contrast in all of Beethoven's music.

Key Schemes

Sixty-one per cent of the keys used in these trios are within the sphere of keys closely related to the tonic of the movement. The remaining thirty-nine per cent includes keys remote by one through five accidentals, the latter being the maximum possible harmonic distance from tonic. The following table shows the distribution.

**TABLE XXVIII**

PERCENTAGE COMPARISON OF KEYS EMPLOYED

<table>
<thead>
<tr>
<th>Relationship of Key to Tonic</th>
<th>Per Cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closely Related to Tonic</td>
<td>61</td>
</tr>
<tr>
<td>Remote by One Accidental</td>
<td>11</td>
</tr>
<tr>
<td>Remote by Two Accidentals</td>
<td>17</td>
</tr>
<tr>
<td>Remote by Three Accidentals</td>
<td>7</td>
</tr>
<tr>
<td>Remote by Four Accidentals</td>
<td>3</td>
</tr>
<tr>
<td>Remote by Five Accidentals</td>
<td>1</td>
</tr>
</tbody>
</table>
It can be seen that with one exception, the frequency of the use of any key is proportional to its harmonic distance from tonic. In other words, the more remote a key is from the tonic, the less it is used. The single exception to this pattern is the group of keys remote from the tonic by two accidentals. This is due to the extensive use of parallel major and minor keys on the tonic pitch.

It has been found that certain types of movements tend to have larger or smaller key schemes.

TABLE XXIX

AVERAGE NUMBER OF DIFFERENT KEYS EMPLOYED

<table>
<thead>
<tr>
<th>Type of Movement</th>
<th>Number of Keys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonata Form Movements</td>
<td>8.4</td>
</tr>
<tr>
<td>Ternary Form Movements</td>
<td>4.3</td>
</tr>
<tr>
<td>Slow Movements, Regardless of Form</td>
<td>5</td>
</tr>
<tr>
<td>Variation Forms</td>
<td>2</td>
</tr>
</tbody>
</table>

Modulations

The modulations are to keys ranging from those with the same key signature to those five accidentals away. There are no modulations to keys six accidentals away, the maximum possible harmonic distance. The following table shows the distribution.
TABLE XXX

PERCENTAGE COMPARISON OF KEY RELATIONSHIPS IN MODULATIONS

<table>
<thead>
<tr>
<th>Key Relationship</th>
<th>Per Cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Keys One Accidental Away</td>
<td>41</td>
</tr>
<tr>
<td>To Keys Three Accidentals Away</td>
<td>24</td>
</tr>
<tr>
<td>To Keys with the Same Key Signature</td>
<td>19</td>
</tr>
<tr>
<td>To Keys Four Accidentals Away</td>
<td>7</td>
</tr>
<tr>
<td>To Keys Two Accidentals Away</td>
<td>6</td>
</tr>
<tr>
<td>To Keys Five Accidentals Away</td>
<td>3</td>
</tr>
</tbody>
</table>

Modulations to the dominant and subdominant keys are both a distance of one accidental away, explaining the high percentage of that group. The next most frequent group is to a key three accidentals away, including modulations to the parallel major or minor. The third most frequent group, those to a key with the same key signature, are the modulations to the relative major or minor.

Altered Chords

There are more secondary dominant seventh chords than any other type. This is true of each trio, and all but five of the individual movements. The extent to which each type of altered chord is used is shown in the following table.
TABLE XXXI

PERCENTAGE COMPARISON OF TYPES OF ALTERED CHORDS

<table>
<thead>
<tr>
<th>Type of Altered Chord</th>
<th>Per Cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Dominant Seventh.</td>
<td>40</td>
</tr>
<tr>
<td>Secondary Leading Tone Seventh.</td>
<td>18</td>
</tr>
<tr>
<td>Secondary Leading Tone Triad.</td>
<td>13</td>
</tr>
<tr>
<td>Borrowed.</td>
<td>13</td>
</tr>
<tr>
<td>Secondary Dominant Triad.</td>
<td>7</td>
</tr>
<tr>
<td>Augmented Sixth</td>
<td>6</td>
</tr>
<tr>
<td>Augmented Triad</td>
<td>2</td>
</tr>
<tr>
<td>Neapolitan.</td>
<td>.7</td>
</tr>
<tr>
<td>Subtonic.</td>
<td>.3</td>
</tr>
</tbody>
</table>

Secondary dominant and leading tone chords account for seventy-eight per cent of the total. Those with an added seventh are considerably more frequent than the plain triads. A tendency has been found, in the chronological progression of the trios, toward fewer secondary dominant seventh chords, and more borrowed chords, secondary leading tone chords, and augmented sixth chords.

Non-Harmonic Tones

Diatonic passing tones are the most frequent type of non-harmonic tones in all but two of the movements. The high percentage of them is partly due to the extensive use
of scale passages in passage work. The distribution of the various types is shown in the following table.

TABLE XXXII

PERCENTAGE COMPARISON OF TYPES OF NON-HARMONIC TONES

<table>
<thead>
<tr>
<th>Type of Non-Harmonic Tone</th>
<th>Per Cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diatonic Passing Tones</td>
<td>53</td>
</tr>
<tr>
<td>Neighbor Tones</td>
<td>25</td>
</tr>
<tr>
<td>Appogiaturas</td>
<td>6</td>
</tr>
<tr>
<td>Chromatic Passing Tones</td>
<td>4</td>
</tr>
<tr>
<td>Suspensions</td>
<td>3</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>9</td>
</tr>
</tbody>
</table>

There can be seen, in the chronological progression of the trios, a tendency toward fewer diatonic passing tones and more in the miscellaneous category. This is due to the greater use of a wider variety of non-harmonic tones in the later trios. These miscellaneous non-harmonic tones, which include virtually all types, have not been listed separately, since it is felt that a long list of very small percentages would not be of great value in defining the characteristics of the style.

Chord Progressions

The six trios taken together have eighty-one per cent normal progressions. The individual movements range from
seventy-one per cent to eighty-nine per cent. In a very
general sort of way, the later trios tend to have lower
percentages of normal progression than the earlier ones.

Conclusion

Although certain changes took place in Beethoven's
style during the period within which these six trios were
written, it is felt that they still are closely related
enough to allow the formation of a single style picture
for the entire group. Perhaps the most drastic change
which took place within this group of trios is the eleva-
tion of the string parts to an equality with the piano, an
aspect which is only peripheral to this study. The six
trios studied can be considered a bridge between the Rococo
accompanied keyboard sonata and the integrated trio style
of the nineteenth century.

It is unfortunately beyond the scope of this study to
determine the extent to which Beethoven's early piano trios
 correspond with the style of his other music at the time.
It should be borne in mind, however, that the piano trio
was a medium of considerable importance to the composer
during those years. It not only permitted him to partici-
 pate in performances, but because of the small number of
players required, the works could be heard more often. For
this reason, it may not be incorrect to assume that the
trios give a fairly accurate view of the composer's efforts in general.

It is felt that these six works constitute a highly important segment of the piano trio literature. They embody the rise of the medium to a new artistic height. The last works of this group can be said to mark the beginning of a new era of piano trio writing.
CHAPTER BIBLIOGRAPHY


BIBLIOGRAPHY

Books


__________, Lessons in Music Form, Philadelphia, Pa., Oliver Ditson Co., 1904.


Prod'homme, Jacques Gabriel, La Jeunesse de Beethoven (1770-1800), Paris, Payot, 1921.


Tovey, Donald Francis, Beethoven, with an editorial preface by Hubert J. Foss, London, Oxford University Press, 1945.


Periodical Articles


Encyclopedia Articles


Music