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A STUDY OF THE USE OF CONTRAPUNTAL TECHNIQUES IN SELECTED PIANO SONATAS OF LUDWIG VAN BEETHOVEN

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BOBBIE JEFFERS RALPH
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A STUDY OF THE USE OF CONTRAPUNTAL TECHNIQUES IN SELECTED PIANO SONATAS OF LUDWIG VAN BEETHOVEN

APPROVED BY

DISSERTATION COMMITTEE

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Loving appreciation is extended to my husband, Damon, for his patience and encouragement, and to our children, Alice, Gary, and Nancy, for their respectful attitudes toward academic pursuit.

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CHAPTER I

INTRODUCTION

Statement of the Need

It has been traditional in college theory courses for the fourth semester of harmony to be followed by a fifth semester of studies in counterpoint. The introduction to this phase of theory generally is designed to present the basic skills of writing counterpoint, and too little emphasis is placed on improving the skills of analytical study. By the end of the fourth semester theory students have been introduced to the complexities of harmonic structures and are aware of the numberless potentials. The students learn to think vertically, by habit, and forget to look at the horizontal aspects.

Since polyphony can be the result of melodic lines arriving at chords or harmonies with interwoven, independent melodies, we are faced with the age-old argument of which came first, indeed, the harmony or the melody. Yet to reduce abruptly two years of study of four-voice theory to the simplest two-voice treatment without first presenting examples of relationships between the two styles is to omit a most useful pedagogical resource.

Contemporary students of theory are, in the main,

conditioned to hear music homophonically and sectionally. Developmental techniques derived from the polyphonic style contribute abundantly to thematic development and to transition material in these sectional compositions.

Increased use of chromaticism toward the middle and end of the nineteenth century ultimately resulted in a breakdown of the tonal system. One contributing factor was the use of altered tones in polyphonic writing. This important compositional development should be observed, and for the student such music should be interpreted polyphonically as well as analyzed harmonically.

Purpose of the Study

The purpose of this work is to provide a number of analyzed resource materials that point out the use of polyphonic techniques in homophonic music. It is further an attempt to disclose the transitional aspects of early nineteenth century piano music that include the use of contrapuntal techniques. The process involves an attempt to relate polyphonic style to the homophonic structure by calling attention to portions of compositions that employ both techniques. By mastering the ability to recognize these techniques and their significance within the composition, the reader will be able to appreciate more fully the artistic intent of the musical presentation. For this purpose, the emphasis of this study has been placed on the unique offerings

of selected Beethoven piano sonatas. The intent is to suggest the principles involved in analysis, and to encourage continued search for these and other organizing principles and techniques that contribute to the understanding of music.

Choice of Material

The sonatas of Ludwig van Beethoven have been selected for the body of material to be examined in this study. Beethoven is a transition composer whose writing represents techniques drawn from both the homophonic and the polyphonic tradition.

The book Beethoven and His Three Styles (1855) by Wilhelm von Lenz divides the works of Beethoven into three periods, which he calls the period of imitation or assimilation (through Sonata in D, Op. 28), the period of realization (through Sonata in E Minor, Op. 90), and the period of contemplation (through Sonata in C Minor, Op. 111). This division is refuted by Newman who justifies five categories (cf. Appendix E).[1] Such divisions of works sometimes assist in attempts to discover a composer's musical intention, and consequently inspire the performer's more artistic interpretation.

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[1]William S. Newman, The Sonata in the Classic Era (Chapel Hill, N. C.: University of North Carolina Press, 1963).

Limitations of the Study

All of the sonatas of Beethoven have been surveyed by the writer and all but seven of them have been selected for analysis in this study. Sonata in G Minor, Op. 49, No. 1 and Sonata in G Major, Op. 49, No. 2, which were written much earlier than they were published, are out of place in the chronological opus numbers (cf. Appendix E). They contain only a few examples relevant to this study and, therefore, are not analyzed. Except for these two sonatas the difficulty generally progresses from the easier to the more difficult in the order of the opus numbers, which is an incidental convenience to the consecutive arrangement of study.

Since the purpose of this study is to point out the use of polyphonic techniques in primarily homophonic music, the last five sonatas are not included: Sonata in A, Op. 101; Sonata in B Flat, Op. 106; Sonata in E, Op. 109; Sonata in A Flat, Op. 110; and Sonata in C Minor, Op. 111. Contrapuntal features dominate the character of these sonatas, and we are less within the area of homophonic music that incorporates polyphonic texture, and more within purely polyphonic realms. Since this study is designed as supplementary material for the beginning third year theory student, the study and analysis of these difficult compositions should be reserved for those students who have grasped the technique of advanced analysis of the fugue.

Procedure

The reference feature of this study has been facilitated by the choice of a particular edition of published Beethoven sonatas, viz., Beethoven Sonatas for Pianoforte, edited by Harold Craxton, with commentaries and notes by Donald Francis Tovey, and published by the Associated Board of the Royal Schools of Music, London, England. Measure numbers in the Tovey edition are used exclusively. The numbering of sonatas consecutively is consistent in at least three other publications--Universal (Schenker edition), Simon and Schuster (Schnabel edition), and G. Schirmer (Bülow-Lebert edition). The same consecutive numbering has been used in this study and is combined with the consecutive numbering of the examples of analyses for each sonata.

CHAPTER II

HISTORICAL BACKGROUND

The best results of instruction in music theory include studies in both harmony and counterpoint. The study of counterpoint begins with melodies that, when combined, must develop into a progression of acceptable chord combinations. Harmony begins with the study of chord combinations where progressions are enhanced by rules of good voice leading that stem from melodic writing.

An outline of the history of contrapuntal theory practically defines the reasons for the correlative concepts of counterpoint and harmony. During the Middle Ages the term "counterpoint" meant the same thing as "polyphony", but in modern times the terms are more distinct. Polyphony becomes one of two large divisions of music, generally designating structurally horizontal aspects of the contrapuntal melodic lines. Homophony, its correlative, calls to mind the vertical and harmonic features.

The ninth to the fourteenth centuries span the beginnings of contrapuntal theory. Examples of organum (c. 900 A.D.) are the oldest form of polyphonic music in existence. Parallel organum is based chiefly on parallel fourths and fifths. Rules of the treatment of consonances

and dissonances were gradually established on the basis of common usage. The Franconian law, in about 1250 A.D., established for the first time a rule for counterpoint: "At the beginning of a measure in all modes (certain metrical orders), a consonance must be placed, regardless whether the first note is a long, a breve, or a semibreve".[1]

The intervals of thirds and sixths were introduced during the twelfth or thirteenth centuries and were classified as dissonances. At the turn of the fourteenth century English, Netherland, and French composers gave impetus to new attitudes toward consonance and dissonance, and the chord became a factor as a harmonic and vertical element.

During the fifteenth century the Flemish writer Johannes Tinctoris (c. 1435-1511) provided for us the link between the Middle Ages and the Renaissance. His immediate predecessors were Dufay, Dunstable, and Binchois. Tinctoris was the first to discuss systematically the principles of species counterpoint, which he outlined in eight basic rules:[2]

1. All counterpoint must begin and end with a perfect concord.

2. Parallel imperfect concords are permitted, parallel perfect ones are not.

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[1]Knud Jeppesen, Counterpoint, trans. by Glen Haydon (Englewood Cliffs, N. J.: Prentice-Hall, 1939).

2. Johannes Tinctoris, The Art of Counterpoint, trans. and ed. by Albert Seay (American Institute of Musicology, 1961).

3. With a tenor remaining on the same pitch, it is possible to repeat the same interval, but changes of intervals are more desirable.

4. Scalewise motion of counterpoint is preferable.

5. Cadences should not be made on notes that deny the mode.

6. Repetition of figures is to be avoided, save in special cases.

7. Consecutive cadences should not be made on the same pitch, for this brings monotony.

8. Variety is the soul of counterpoint.

The art form of vocal polyphony was zealously refined during these centuries by the English, French, and Netherlanders. It was then transplanted to Italy, and reached its peak of perfection in the works of Palestrina (1524-1594) and his pupils. The forms of the mass, the motet and the secular songs, chansons, Italian frottole and madrigals, and German Lieder were essentially the same forms as those used by the fifteenth century composers. The difference was in the content, which now was distinguished by a wealth of tonal combinations, and by the fruitful inclusion of increased imitation.[1]

The beginning of the seventeenth century brought a new form to music with the creation of opera. This provided a framework for subjective music, capable of giving expression to feelings and passions of an individual.

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[1]Ibid., pp. 13-14.

Expressive features were made possible within this form by more lenient treatment of dissonance, and by the introduction of a more chordal style. In addition, the ecclesiastical modes were replaced by the major and minor modes, contributing to the refinement of tonal combinations.[1]

Pedagogical attempts to present contrapuntal theory as a means to the mastery of compositional technique were brought about during this same century. Jeppesen's discussion of the cantus firmus summarizes the significance:[2]

> For modern musicians "counterpoint" as a pedagogical term is closely associated with the idea of a cantus firmus and the "species". So far as the cantus firmus is concerned, we find this idea not only in the seventeenth century but also in the theorists of earlier times. Originally it was not motivated by pedagogical considerations, but was taken over into theory without further deliberation because it played a very important role in the earlier polyphony. Closely related to the innermost nature of music, it embodies one of the oldest and most profound musical ideas. The following rule may be set up as a primary law in the evolution of music: from a certain form A, one arrives at a new form B, by varying A gradually until finally it is so far varied that it becomes the new form B. From this viewpoint one may, with a certain justification, regard all music up to this time, after a thousand years of continuous modification, as a gigantic process of variation. It is an unending chain of variations, all naturally standing in more or less obvious relation to the theme, but all having one thing in common, namely, the visible or invisible, actual or ideal cantus firmus, to which they are linked and upon which they continue to build. Polyphony itself is based upon this principle of variation in one of its most primitive forms, the so-called heterophony (which in the evolution of our music

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[1]Ibid., pp. 33-34.

[2]Jeppesen, The Art of Counterpoint, pp. 36-37.

> lies before the time from which the examples of polyphony are transmitted to us). In heterophony there arises a certain rather accidental kind of polyphony when several voices sing the same melody simultaneously while each singer or instrumentalist varies the melody according to his inclination. And in the previously mentioned organum, which is the oldest western European form of polyphony preserved for us, the compositions are built up by adding one or more upper parts to a Gregorian melody. This principle of construction is retained in the motet writing of the twelfth and thirteenth centuries; indeed its influence is strongly felt until well into the fifteenth century. The cantus firmus --whether it is now an ecclesiastical melody or a folk song--occurs generally in the tenor but occasionally in one of the other voices. And for a long time, in fact until the ordinarium compositions of the sixteenth century, this principle was strongly felt, but here the cantus firmus technique is often of a more ideal character. For example, one no longer felt obliged to give to a single voice the sole right to the cantus firmus, but allowed all voices in succession to use certain motives taken from this basic melody. Hence it was not at all remarkable that the theorists of the Middle Ages should accept this technique (which thus has its deeper basis in the fact that music displays a certain gravitating tendency and inertia in its evolution and adheres to its first principles with remarkable tenacity). On the other hand, it is more remarkable that this technique can assert itself within contrapuntal theory and that it is retained when composers only rarely treat the cantus firmus in such an obvious manner. Meanwhile it is quite significant that <u>contrapuntal theory is in the process of changing from a discipline concerned with describing a style as best it can to one which emphasizes pedagogical ends</u>.

In Italy during Monteverdi's lifetime distinctions were drawn between old and new practices of composition, and in his polemic writings Monteverdi challenged theorists to a match that was not to take place during his century. In fact, one system was to be interpreted by Johann Joseph Fux (1660-1742) in <u>Gradus ad Parnassum</u>, published in 1725 in Vienna, and another by Jean Philippe Rameau (1683-1764) in

Traite de l'harmonie, published in 1722 in Paris. The writings of these two theorists resulted in modern categorical distinctions between "counterpoint" and "harmony."[1]

The rhythmical arrangements that Fux used in his famous textbook were not his own inventions, for the beginnings of the system of the "species" came in the late 1500's. Fux did not base his theories on the music of his contemporaries, Bach and Handel, as might have been expected, but chose that of Palestrina. The value of Fux's treatise lies in the excellent pedagogical organization of material. According to Jeppersen, the significance of the work is his disciplined attitude toward the various approaches to the matter of music theory.

Jeppesen also makes the observation that in counterpoint--the act of preserving the melodic independence of the voices in a polyphonic, harmonically balanced complex--only two periods are to be considered seriously: the culminations of music characterized by the names of Palestrina and Bach. Their points of departure are opposite. Palestrina begins with melody lines and arrives at chords; Bach begins with an ideally harmonic background from which melodies flow with bold independence. Theorists who follow in the Palestrina tradition were Cerone, J. J. Fux, Cherubini, Albrechtsberger,

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[1]Johann Joseph Fux, The Study of Counterpoint from Johann Joseph Fux's Gradus ad Parnassum, trans. and ed. by Alfred Mann (New York: W. W. Norton & Company, Inc., 1965).

S. W. Dehn, Heinrich Bellermann, Haller, Rockstro, Prout, Kitson, Morris Stohr, Schenker, and Roth. Some of those who follow the Bach tradition are John Philip Kirnberger, E. F. Richter, S. Jadassohn, Hugo Riemann, and Ernest Kurth.

In historical retrospect we observe the music of Palestrina to be modal counterpoint and the music of Bach to be harmonic polyphony. Purely polyphonic passages are written by many composers of the nineteenth century, but the fusion of polyphony with the homophonic texture is the characterizing element in Mozart, Beethoven, Brahms, Wagner, and Richard Strauss, to mention a few.

The outcome of this study will be found to have focused on the interrelationships of polyphony and homophony through the process of analysis. It will be discovered that the two courses in music theory, harmony and counterpoint, are essentially two ways of saying the same thing. This fact needs to be recognized early in courses of study.

It has been said in this brief historical outline of contrapuntal theory that counterpoint came first, yet it is left to consider whether counterpoint is intrinsic to harmony, or whether harmony sets up the structure for counterpoint. The extent of this relationship between counterpoint and harmony is brought to realization especially in the highly chromatic progressions of before mentioned composers such as Wagner of the Romantic tradition, and Strauss, a post-Romantic composer. If we survey the changes during the past five

centuries of music we observe the completion of a cycle in the matter of material and texture, for contemporary music is relatively more polyphonic than homophonic. "Modern composers, abandoning tonality, nevertheless utilize contrapuntal forms and devices of their predecessors."[1]

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[1]Maurice Liebermann, Creative Counterpoint (Boston: Allyn and Bacon, Inc., 1966).

CHAPTER III

CONTRAPUNTAL ANALYSES OF BEETHOVEN SONATAS

When excerpts are used for analytical study choices must be made as to which excerpts are the most appropriate. Appropriateness, in this case, is defined to be those passages which best illustrate the use of contrapuntal devices within a homophonic composition. Often the polyphonic style is so interwoven with the homophonic that it is difficult to label the passage as one style or the other, and we are faced with a dilemma.

Reasons for this dilemma are found in the various compositional techniques. First of all, there are a number of specific devices used in melodic writing. The list includes repetition, sequence, motivic variation, and the use of submotives, rhythmic patterns, shifted rhythms, and pitch significance. Use is made of the addition and deletion of tones, and the expansion or contraction of intervals. Other devices of melodic writing which have a particularly unifying effect are transposition, inversion, diminution, and augmentation.[1] All of the devices of melodic writing are used within

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[1]H. Owen Reed, Basic Contrapuntal Technique (New York: Mills Music, Inc., 1964), p. 12.

the contrapuntal style, and many of them are common to means of thematic development in homophonic music.

A second reason for the difficulty of making choices lies in the complex process of thematic development. A term frequently used for describing this process is the "working out" of music, and particular "working out" is credited for creating form.[1] Means for developing thematic material include change of tonality, varied harmonization, change of register, and different accompaniment. There can be variety in rhythmic treatment, with change of accent and time and extension of phrase lengths. A favorite device for thematic development is contrapuntal treatment where imitation, dialogue, augmentation, diminution, and invertible counterpoint can be used.[2] Here again, many of the above mentioned means of thematic development are used in either the homophonic or polyphonic style, and our descriptions begin to overlap.

It becomes apparent that the techniques that are used for writing music are available to any composer, any form or medium, and to both the homophonic and polyphonic styles. We discover that the horizontal aspects of polyphonic and homophonic music can be described in much the same way. Nevertheless, we are aware that some of the techniques

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[1]Ibid., p. 116

[2]Stewart Macpherson, Form in Music (London: Joseph Williams [n. d.], pp. 138-144.

are more appropriate to certain styles, and we come to one conclusion: that the essential difference is in the degree to which the techniques predominate. It becomes a responsibility to establish a base of distinction.

A discussion of the particular features of contrapuntal music needs to be brought to a point in order to get at the problem. These certain features can best be summarized by the following statements from Roberts and Fischer in their comparison of the two branches of musical study, harmony and counterpoint.[1]

> 1. Harmony deals with chords in succession; counterpoint deals with melodies in combination.
>
> 2. Harmony is expressed in the vertical aspect of the written score; in counterpoint the emphasis is on the horizontal aspect.
>
> 3. Harmony may be said to concern itself chiefly with the element of color in music; counterpoint is concerned more with line.
>
> 4. In harmony one melody is likely to predominate; in counterpoint all parts should be of almost equal melodic interest.
>
> 5. In harmony all parts unite to convey a single idea; in counterpoint each part conveys its distinct and individual idea.

Each of the above comparisons emphasizes the vertical versus the horizontal aspect. The one remaining characteristic that is essential to the contrapuntal style is the element of independence between separate voices. Methods of

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[1]Stella Roberts and Irwin Fischer, A Handbook of Modal Counterpoint (New York: The Free Press, 1967), p. 1.

achieving independence between two or more melodic lines fall into categories of (1) relative motion, (2) rhythmic activity, (3) timbre, and (4) register.

Under the category of relative motion, we find that melodic lines in contrapuntal music are characteristically contrary, since similar motion actually destroys the independence of the voices. Numerous examples of contrary motion are to be found in Beethoven's works.

Independent rhythmic activity in each of the voices again characterizes the contrapuntal style, and can be achieved by such methods as transference of activity from one voice to another, by change of accent, phrase extension, augmentation, and diminution. The rhythmic contrast is often described according to the ratio of notes in the opposing voices. The various devices are intended to contribute to the forward motion of the composition.

A third category, the use of varying timbres, often provides maximum contrast in opposing voices even when the register is the same. The scoring for contrasting timbres is possible for instrumental or vocal ensemble, or even pipe organ, but obviously not for the piano.

The question of imitation and dialogue for a solo instrument is answered by the use of dissimilar registers. This device is often exploited by a composer for either an instrument of single timbre, or for combinations of instruments with single timbres. Often elements other than register

are involved, creating further contrast. Imitation might appear, for example, in a high range at a low dynamic level, or in a low range at a high dynamic level, and Beethoven employed both of these effects.

All of these means of developing independence between voices, coupled with the summary comparison of the features of harmony and counterpoint, serve as a basis for making distinctions between those excerpts that are contrapuntal within a homophonic texture, and those that are not.

The conclusion to be drawn from the previous discussion and review is that the compositional material to be examined in this study is limited to examples of purely contrapuntal devices selected from passages that are primarily contrapuntal in texture. When other developmental devices are relevant they may be discussed, but their inclusion will remain incidental to the expressed purpose of the study.

The term "thematic variation" has been included as a contrapuntal device. Actually, the ability of a composer to embellish a melody is important in both homophonic and polyphonic styles, and it is with reluctance that the writer includes only those within a contrapuntal texture. One such example that has not been included appears in Sonata 3, Adagio. An embellished version of the rondo theme (measures 1-10) appears in measures 67-76 of the coda. Such treatment illustrates one method of effecting a change of character in the horizontal line without discarding the

original melody, and without changing register. However, the entire movement is decidedly homophonic.

Numerous examples of simultaneous independent melodies have been included. At times when two independent melodic lines appear, certain liberties have been taken concerning additional voices. In primarily two-voice passages, when the additional voices are passive in harmonic activity, the two voices are considered to be contrapuntal within the homophonic context. On the other hand, in two-voice texture, when the subordinate line is not simply arpeggios, Alberti figurations, or scale lines, the area is considered as two-part counterpoint.

It is to be noted that when a passage has been analyzed in the exposition the analysis is not repeated for its recurrence in the recapitulation of the exposition material. Analyses of repeated areas, as they occur in rondo forms, for example, are not restated. It is further to be noted that Nos. 1 and 2 of Opus 49 have been omitted because of the sparsity of contrapuntal materials in them. Analyses for Opus 101 through Opus 111 are not included because the compositional technique has become so predominately contrapuntal that it no longer suits the subject of this dissertation, which, it is to be recalled, is the survey of contrapuntal content within homophonic compositions. The last five sonatas are contrapuntal compositions, and homophonic qualities are

subjugated to a contrapuntal expression. Students studying these sonatas should be equipped to analyze the fugue.

With this chapter we begin the detailed study of the use of contrapuntal techniques in selected piano sonatas of Ludwig van Beethoven. The reader is advised always to consider the analysis of the separate examples of contrapuntal techniques in their harmonic contexts. Extensive contrapuntal passages need to be examined for their relationships to formal organization. Characteristically contrapuntal movements should be related to the sonata as a whole, since entire themes, sections, and movements are often presented in contrasting polyphonic and homophonic textures.

For the initial introduction to study, listening to recordings is recommended. Many silent readings of the scores are also invaluable to the student of theory and piano, especially when these readings are guided by intelligent interpretations and analyses.

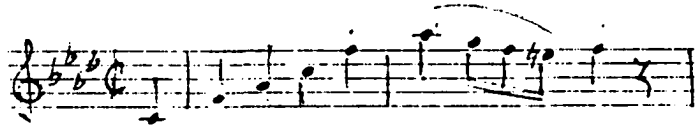
Sonata in F Minor, Op. 2, No. 1

Thematic Index

Allegro

F minor

Sonata-allegro form



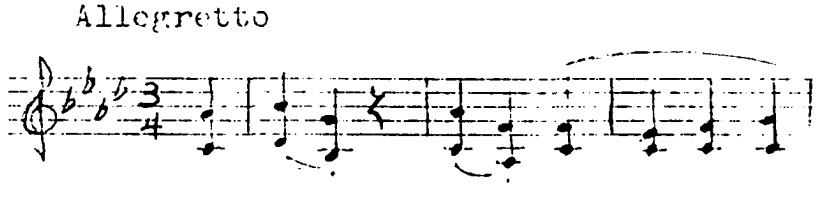
Adagio

F minor

Sonata-allegro without Development

Menuetto

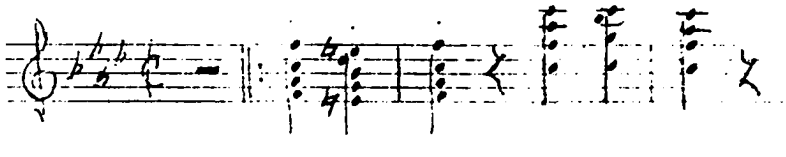
F minor with Trio in F major



Prestissimo

F minor

Sonata-allegro form



Discussion of Contrapuntal Materials

Allegro

Sonata 1, Example 1. Measures 8-14. Imitation, dialogue, and sequence.--A motive  appearing in measure 10 is imitated in dialogue between the alto and soprano, measures 11-13, and appears once in sequence in measure 14. Further contrapuntal development of the same material appears in measures 108-119 (cf. Example 5).

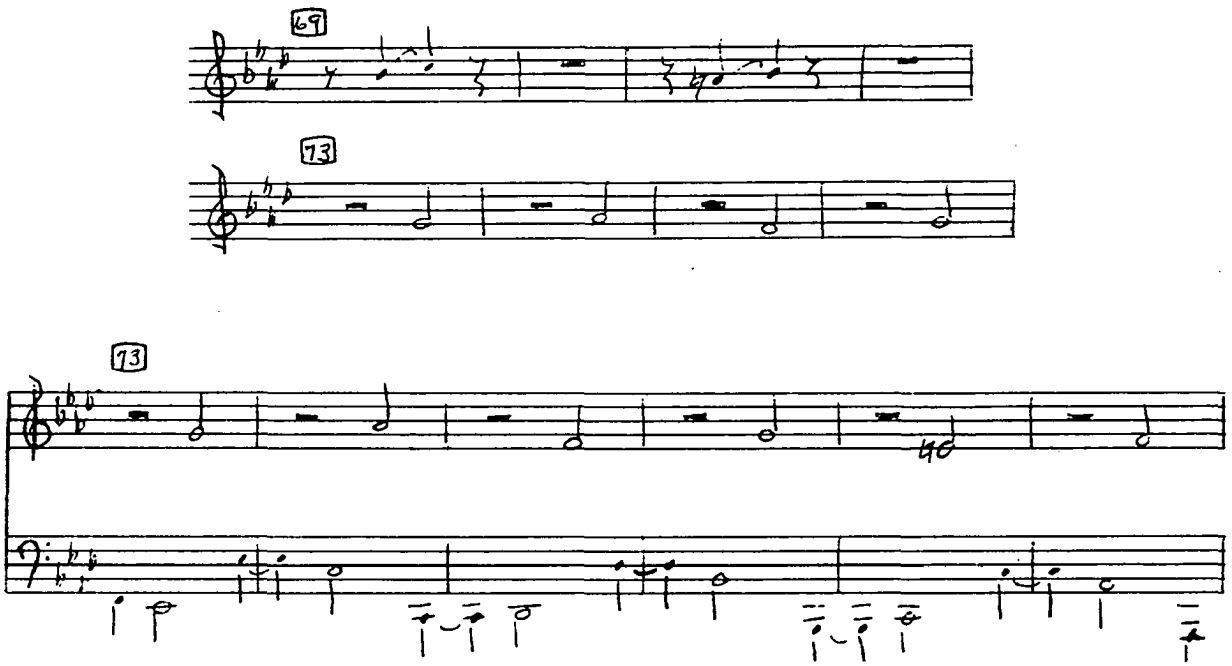
Sonata 1, Example 2. Measures 26-32. Repetition, sequence, and contrary motion.--Simultaneous melodies are found in the two-voice texture beginning at measure 26. The principal beats of the bass line outline a melody that generally is in contrary motion to the upper part. A melodic sequence, beginning also at measure 26, includes a gradual melodic expansion of the ascending interval. Repetition of the sequence occurs an octave higher in measures 31-32. The independent melodies of the two voices that continue through measure 33 release the static quality of the preceding measures 20-25.

Sonata 1, Example 3. Measures 48-80. Repetition, imitation, sequence, contrary motion, dialogue, and augmentation.--Measures 48-73 represent an area that is purely homophonic at the beginning and becomes contrapuntal as it moves along. The two-measure phrase, measures 55-57, appears eight times in succession. It appears in repetition (measures

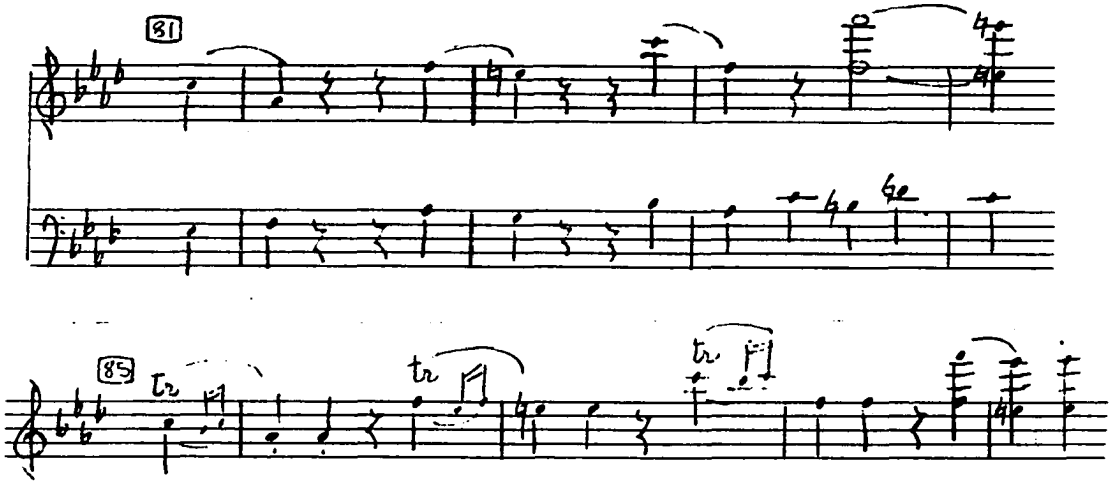
57-59), in interrupted repetition (measures 59-60), and in sequence (measures 63-67). The phrase is found in a different voice in measure 67, and twice in sequence in measures 69-73.

One interruption to the repetitions of the two-measure phrase (measures 55-57) is accountable to measures 61-63. Here a two-measure contrapuntal episode provides a contrasting link between the repeated two-measure phrases and serves as a vehicle for modulation. Rhythmic independence, motivic sequence, and contrary motion are present.

The soprano line in measures 73-80 is characterized by augmentation of note values that eliminates the previous use of quarter rests in measures 69-71. A sequential bass line is formed that is in dialogue with the soprano line.



Sonata 1, Example 4. Measures 81-94. Repetition, imitation, and pedal point.--Measures 81-93 contain simultaneous melodies between an inner voice and the top voice. The simple two-note motive from the upper voice is repeated and embellished in measures 85-89 to form a slightly varied repetition. Repetition in this instance serves to delay the forward motion in spite of the variety offered. The delay is reinforced by pedal point in the bass and by receding dynamic level through measure 94.



Sonata 1, Example 5. Measures 108-119. Imitation, dialogue, two-part counterpoint, first species, and mirror. Material from measures 8-14 (cf. Example 1) is used again in measures 108-114 with a slightly different exchange of voices. Imitation and dialogue are employed. The motive  is used in measure 115 as an anacrusis to a four-measure phrase of first-species counterpoint (measures 115-119) that includes free mirror (measures 117-118).

Menuetto

Sonata 1, Example 6. Measures 15-18, 29-34. Mirror, stretto, and second species.--Vertical mirror of a phrase is found in measures 15-18 based on motives from measures 1-2 of this song form. Two upper voices enter in measure 14 and two lower voices enter two beats later presenting the effect of stretto. This stretto effect of measures 15-18 seems to be reappearing when the motive enters in measure 29 with free mirror. As it progresses through measure 34 there is a simultaneous sounding of the mirrored motives and the effect of stretto dissipates.

Sonata 1, Example 7. Measures 40-50, 66-73. Two-part counterpoint, and second species.--Two-part counterpoint and second species is found in measures 40-44. The second half-phrase, measures 45-48, simulates invertible counterpoint due to the switching of melodic and rhythmic activity in the two outer voices. When in measure 66-73 the entire phrase reappears in shortened form, two-part counterpoint and second species are consistent.

It is relevant to contrast the soprano lines of two phrases, the first in measures 45-48, and the second in measures 70-73. Although essentially the same notes are used for the phrases, the upper voice first appears simply as an accompaniment figure, buoyed up by a third voice in dotted half notes. This is to be contrasted to the singularly

melodic phrase that is presented without the third voice in the latter instance. The internal phrase (measures 45-48) supports the idea of continuing energy while the latter (measures 70-73) is more terminative in character.

Sonata in A Major, Op. 2, No. 2

Thematic Index

Allegro vivace

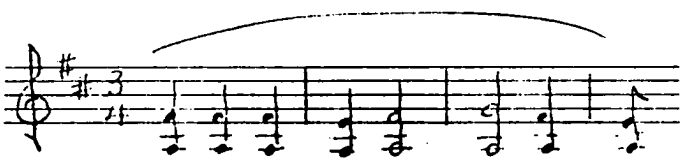
A major

Sonata-allegro form

Largo appassionato

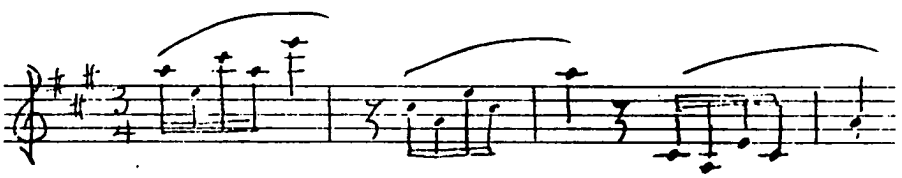
D major

Rondo form



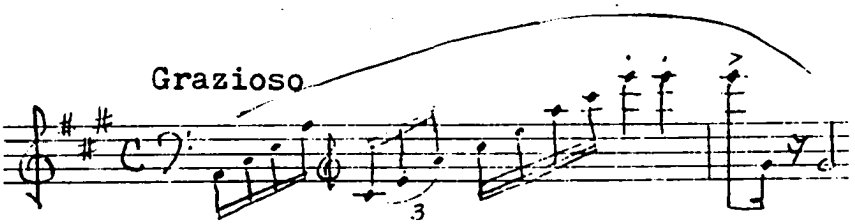
Scherzo

A major



Rondo

A major



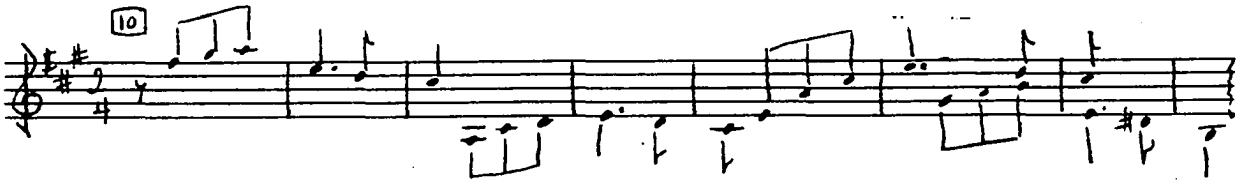
Discussion of Contrapuntal Materials

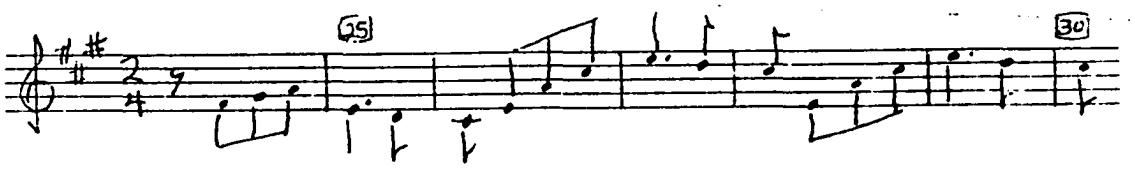
Allegro vivace

Sonata 2, Example 1. Measures 10-20, 24-32.

Imitation, stretto, and change of register.--An important motive appears in measures 10-12 that is the basis for thematic development in two associated passages. In the first passage, measures 10-20, two imitations of this motive are found (measures 12-14, and measures 14-16). A fourth appearance of the motive is found in stretto in measures 15-17 between the upper and inner voices.

In the second passage, measures 24-32, the first entry of the motive is in a different register (measures 24-26), the third imitation in the first passage (measures 10-20) becomes the second entry in measures 26-28, and the third entry appears in exact imitation of the second in a different voice (measures 28-30).





Sonata 2, Example 2. Measures 32-46, 92-99. Change of register, imitation, second species, and invertible counterpoint.--In the transition beginning with measure 32 a series of ascending legato triplets, against a contrasting staccato rhythm in 3:1 ratio, is assigned alternately to the two voices, providing melodic and rhythmic contrast. This passage is connected by three measures (39-41) to a similar passage of two-part counterpoint in second species, measures 42-46. The reduction from 3:1 to 2:1 ratio accounts for a degree of tension reduction, and two-part writing reduces to a single-line texture at measure 46ff.

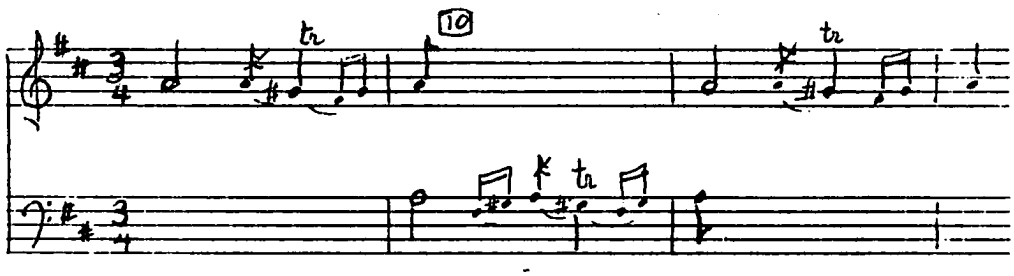
Measures 92-99 of the codetta are found to be similar to measures 32-38 with the addition of invertible counterpoint at multiple octaves in measures 94-98.

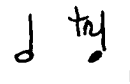
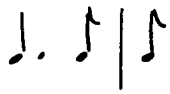
Sonata 2, Example 3. Measures 104-112. Repetition, change of register, and third species.--The melodic phrase in measures 104-107, repeated in measures 108-111, is accompanied by ascending octave scale passages that give the impression of continuous scale line but which are actually two-measure imitations in different registers. The rhythmic ratio is 4:1.

Largo appassionata

Sonata 2, Example 4. Measures 1-12. Two-part counterpoint, imitation, and repetition.--Measures 1-8 contain contrasting melodies in the outer voices that form

two-part counterpoint. Measure 9 presents a motive that overlaps its own imitation in measure 10 and in measure 11.



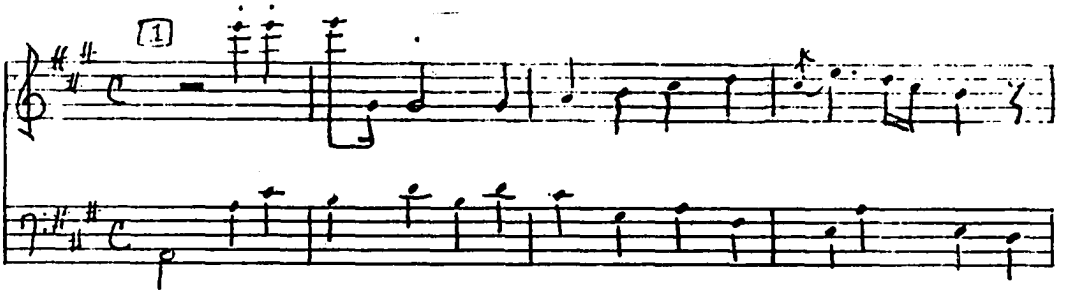
An interesting side note is that the three-note motive  of measure 9 is rhythmic augmentation of the motive  initiated in measure 11 of the first movement.

Scherzo

Sonata 2, Example 5. Measures 44-68. Mirror and contrary motion.--The persistent and nearly continuous use of vertical mirror and contrary motion between the voices of this trio gives it contrapuntal character. Much of the contrary motion is between the alto and bass voices, with the soprano forming its own contrary motion to the alto in such locations as measures 46 and 48.

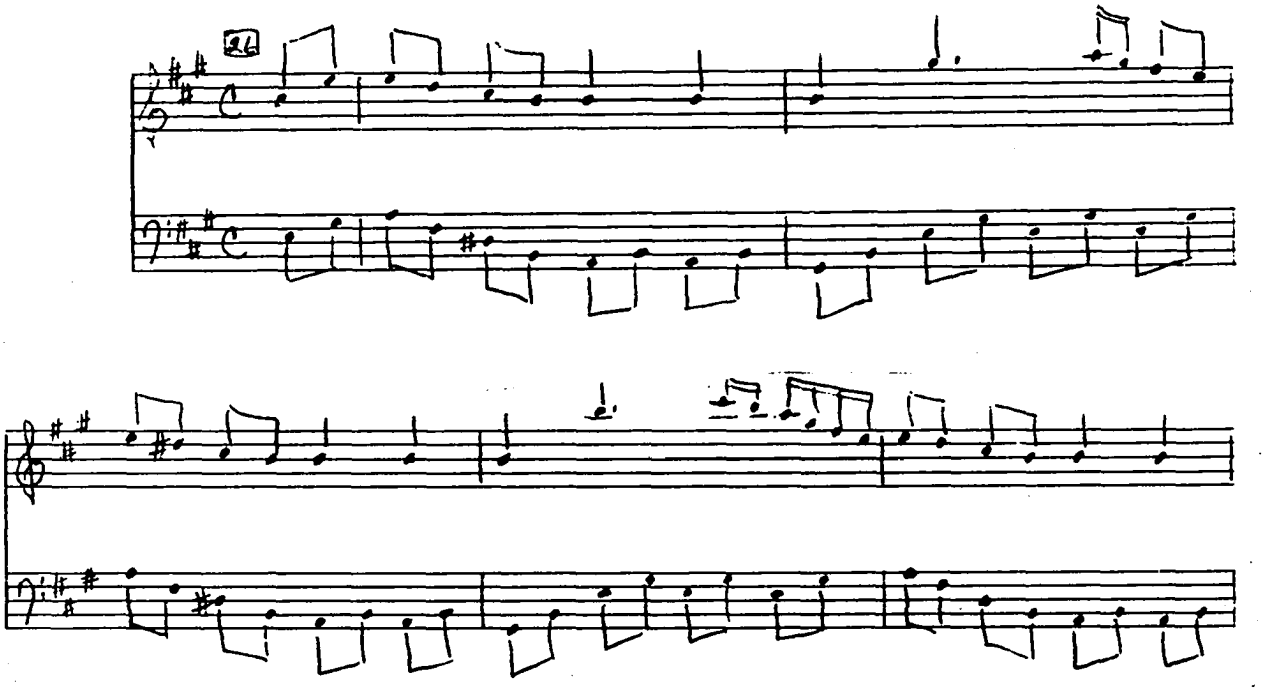
Rondo

Sonata 2, Example 6. Measures 1-12. Two-part counterpoint, imitation, and three-part counterpoint.--The main theme of this Rondo is presented with a counter melody in the lowest voice in measures 1-8.



In measures 8-12 use is made of motivic imitation that is assigned to various voices, and simple three-part imitative counterpoint is the result.

Sonata 2, Example 7. Measures 26-32. Two-part counterpoint.--Two independent melodies can be extracted from measures 26-32. If the repeated notes are omitted the regular rhythm of the bass part can be heard in contrast to the less regular rhythm of the soprano line, contributing to the independent character of the two melodies.



The use of repeated tones is an important factor that contributes largely to the difference between arpeggiated bass lines in Beethoven, and the Alberti bass lines of past masters. The Alberti bass makes no pretense of presenting melody, while Beethoven's use of arpeggiated bass with repeated tones actually highlights the melodic line. Another consequence of the sound of the repeated tones accounts for the forward drive of musical energy that exacts the listener's attention. When counterpoint is present, as in this example, it is disguised by the alternation of arpeggiation and repeated tones.

Sonata 2, Example 8. Measures 57-72. Contrasting lines, imitation, second species, and stretto.--At measure 57, in the third theme of this Rondo, Beethoven has combined a single-line texture with a homophonic theme to produce a contrasting effect (measures 57-66). The chromatic theme that is continued in measures 67-72 is given imitative treatment that involves overlapping and continues the 3:1 rhythmic ratio of the third theme.

Sonata 2, Example 9. Measures 100-187. Thematic variation and dialogue.--Restatements of the first and second themes begin in measure 100 and need to be examined for the effect of thematic variation. Progressively more numerous melodic elaborations change the character of the horizontal line through the restatements and the coda. All of the original contrapuntal features of the separate themes still

exist (cf. Examples 1-8). An additional contrapuntal device that appears in this section is dialogue between the treble and bass in measures 148-153. The imitation that is assigned to this dialogue is derived from the arpeggiated first measure of Theme I of the Rondo. This arpeggio now sounds like an anacrusis to the theme, and with its numerous restatements leads one to expect an entire statement of the melodic theme. In this case what we expect does not materialize, but it will be seen that there are instances in other sonatas when it does. For the description of such a pattern of motives preceding a thematic area we apply the term "anticipatory imitation". The term, as applied, is borrowed from a similar technique that was used in sixteenth century music.

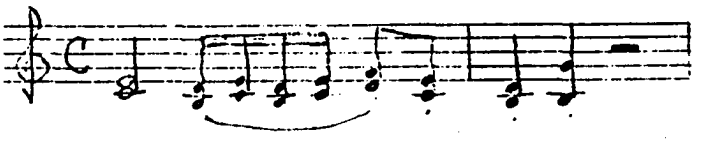
Sonata in C Major, Op. 2, No. 3

Thematic Index

Allegro con brio

C major

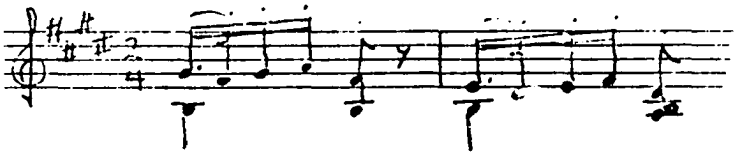
Sonata-allegro form



Adagio

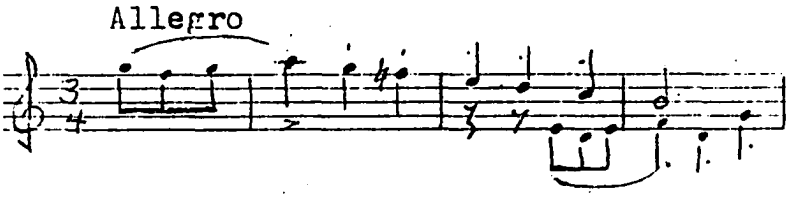
E major

Special rondo form



Scherzo

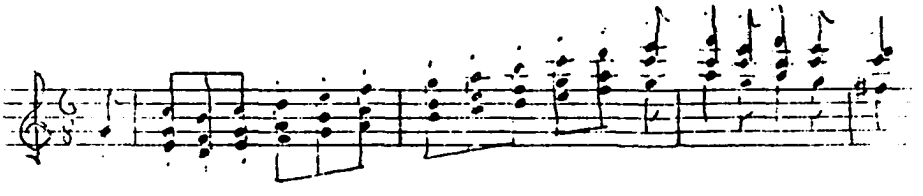
C major with Trio in A minor



Allegro assai

C major

Rondo form



Discussion of Contrapuntal Materials

Allegro con brio

Sonata 3, Example 1. Measures 47-58. Imitation, stretto, and invertible counterpoint.--A theme beginning in measure 47 is characterized by a two-measure canonic interplay of upper and lower voices through measure 50. The same contrapuntal treatment recurs in measures 55 through 58, this time creating invertible counterpoint at multiple octaves.

Sonata 3, Example 2. Measures 113-138. Sequence, canonic treatment, ostinato, imitation, stretto, and pedal point.--A series of melodic sequences appear in measures 113, 117, and 121. Each sequence unit is alternated with two measures of canonic writing in measures 115-117, 119-121, and 123-126. In each instance the canon appears at a melodic interval of a minor second and at a time interval of two beats. For its third appearance the canon is lengthened by sequence (measures 123-126).

At measure 129 the six-note motive from the melodic sequence returns as an eight-note ostinato in the second lowest voice. Simultaneously, in measures 130, 132, and 134 there are modified imitations of the motive at successively higher pitch locations. These imitations, combined with the ostinato figures, produce stretto above a dominant pedal point that stabilizes the energy, measures 129-134. Once

again the melodic sequence from measures 113-114 appears in measures 135-138. This time the effect is an anticipation of the main theme.

Sonata 3, Example 3. Measures 203-207. Fourth species and sequence.--The use of syncopation, appearing as fourth species counterpoint and combined with sequence, is found in measures 203-207.

Scherzo

Sonata 3, Example 4. Measures 1-28. Imitation, stretto, and contrary motion.--The Scherzo opens with a single-voice motive in imitative style. A second tonal entry is made at the interval of a tenth below, and one more exact imitation enters at the double octave. Measures 17-28 utilize stretto and contrary motion. The provocative interchange of voices leads one to expect invertible counterpoint that does not materialize. The relative motion of the two voices is decidedly contrapuntal.

Allegro assai

Sonata 3, Example 5. Measures 55-63. Invertible counterpoint.--Following the homophonic second theme of this Rondo there is an area of linear writing (measures 45-54) that leads into counterpoint (measures 55-63). In measures 55-63 invertible counterpoint results from the exchange of treble and bass parts.

Invertible counterpoint at the octave is always a static sound. This kind of writing creates plateau effects and serves in this instance to separate two distinct rondo themes.

Sonata 3, Example 6. Measures 111-118, 127-134. Two-part counterpoint, imitation, and contrasting lines.--In measures 111-118 two voices appear in different registers and with contrasting rhythmic patterns. There is no doubt that the upper voice is the more dependent in spite of unique arpeggiation and rhythmic placement that gives it individuality.

In measures 127-134 the parts have been exchanged, and the now lower part has assumed a new melodic direction. Although the notes have changed in the lower part, identity has been kept through the rhythmic and motivic characterizations. Further examination of the passages shows that the now upper part, which was the less dependent and the more conjunct of the two parts, has been provided with triadic harmonization. Such usage underscores the potential in development of the original melodic theme through other than exact inversion of parts.

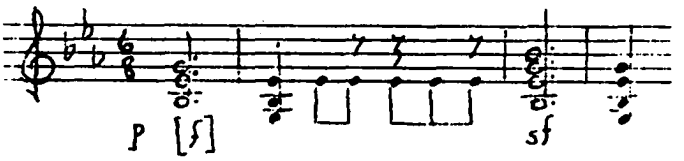
Sonata in E Flat Major, Op. 7

Thematic Index

Allegro molto e con brio

E-flat major

Sonata-allegro form



Largo, con gran espressione

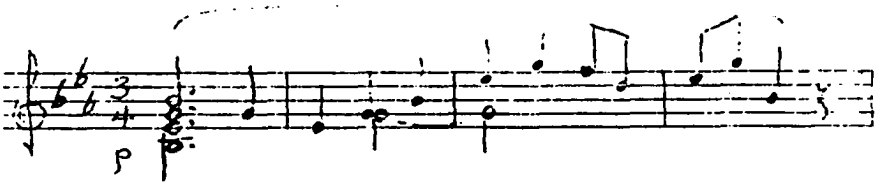
C major

Rondo form

Allegro

E-flat major

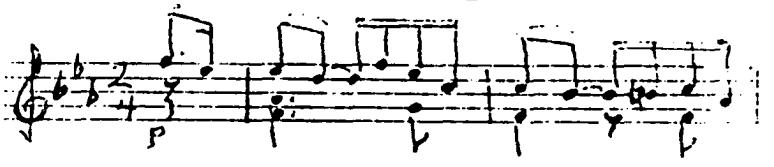
Scherzo with Trio



Rondo

Poco allegretto e grazioso

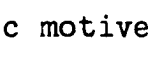
E-flat major



Discussion of Contrapuntal Materials

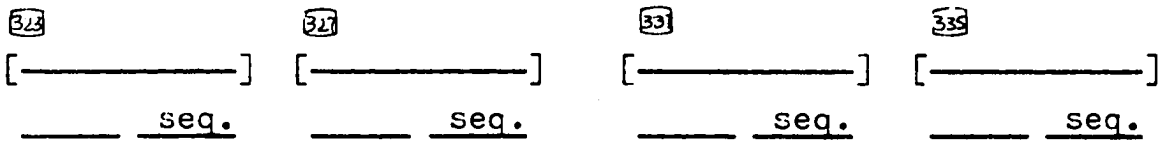
Allegro molto e con brio

Sonata 4, Example 1. Measures 59-81. Four-part counterpoint, thematic variation, and sequence.--An eight-measure phrase of four-voice counterpoint begins in measure 59, and is partially restated in measures 67-73 with the addition of non-harmonic tones in 3:1 ratio. A melodic fragment of this restated phrase sets up a sequence in measure 73-76. Certain tones and rests are then deleted and the sequence reduces in length in measures 77-78 and disappears in measure 79. The contrapuntal features have disappeared as well. All of these devices, the counterpoint, sequences, and melodic and rhythmic variations, contribute to the point of climax in measures 79-81.

Sonata 4, Example 2. Measures 323-339. Four-part counterpoint, invertible counterpoint, contrasting lines, contrary motion, and sequence.--Contrapuntal material derived from measures 59-69 (cf. Example 1) returns in measures 323-339. Measures 323-327 appear in four-voice counterpoint in measures 327-331 where three of the parts are exchanged. The four-beat melodic motive  beginning in measure 323 becomes the germinal idea for sequential treatment within a polyphonic texture. Each set of sequences is established within four beats and appears once. Each set is an outgrowth of the preceding eight beats. Beginning in

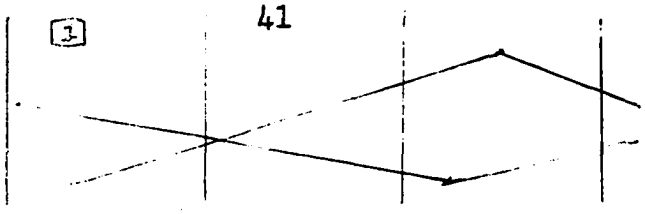
measure 327 variations of the melody and rhythm of the former soprano line of measures 323-327 establish a 3:1 ratio with the other voices through measure 338. The consecutive sixths beginning in measure 331 set up a third set of sequences that transform into a fourth set in measures 335-339.

The element of sequence is important for its unifying strength. Here the consecutive sequences that ascend continually up a second are quite suggestive of continued forward movement since resulting chromatic alterations demand resolution. The contrasting descending line of the soprano in measures 323-327 is brought to attention in an inner voice at measure 327, and the descending feature is fortified by the consecutive intervals of the sixth in measures 331-338. An opening wedge of contrary motion between the two registers with an accompanying crescendo leads logically to the climax in measure 339ff.

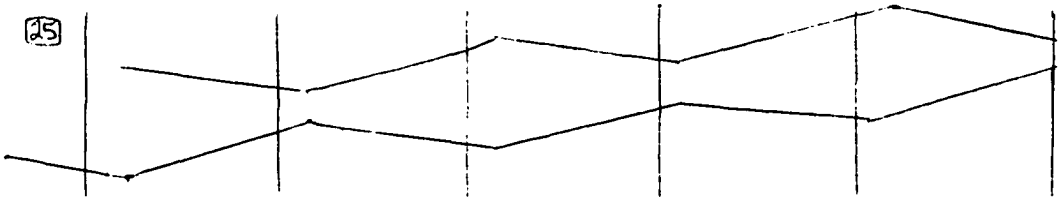


Allegro

Sonata 4, Example 3. Measures 1-54. Contrary motion, imitation, repetition, and stretto.--Convergent wedges of contrary motion are produced by mirror in measures 1-4 and 9-12.



Independence of voices is achieved and there is reason for considering the four-measure phrase to be contrapuntal. The contrapuntal potential is realized when the subject reappears in measure 25ff. of the second section. Here it is presented in canon at the octave at the interval of one measure, and three ascending two-measure wedges of contrary motion result (measures 25-31).



The subject itself is altered to outline a diminished seventh chord, and the imitative presentation combines with stretto, and contrary motion for a contrasting and conclusively contrapuntal effect.

Sonata 4, Example 4. Measures 57-68. Contrary motion and four-part counterpoint.--In measures 57-68 there occur two consecutive closing wedges of contrary motion that implicate more than two voices. Actually, the lowest three voices are in contrary motion to a single soprano voice.

The passage begins with four-part counterpoint that is created by independence of rhythms rather than by contrasting melodies. Four-voice texture begins to disappear in measure 65 when the tenor voice becomes stationary and in measure 66 when there is no longer an alto part.

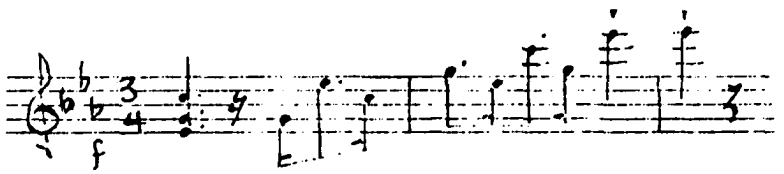
Sonata in C Minor, Op. 10, No. 1

Thematic Index

Allegro molto e con brio

C minor

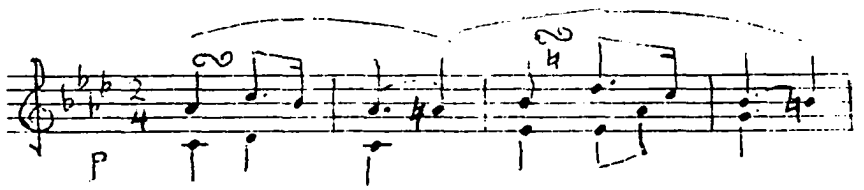
Sonata-allegro form



Adagio molto

A-flat major

Sonata-allegro without Development

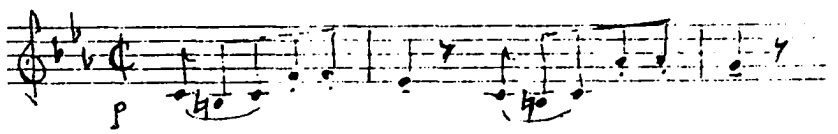


Finale

Prestissimo

C minor

Sonata-allegro form

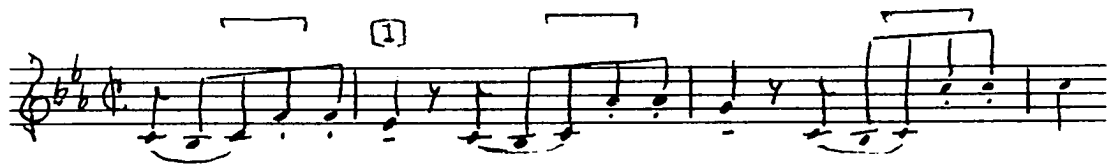


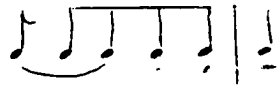
Discussion of Contrapuntal Materials

Finale

Sonata 5, Example 1. Measures 16-27. Imitation, mirror, stretto, and change of register.--The genius of expression that goes into the making of a great melody is possessed by rare artists indeed. The study of melody differs from the study of harmony in that the latter is subject to rational premises and systematic learning. From the standpoint of analysis, melody represents the horizontal element of musical texture, and cannot be separated from rhythm, whereas harmony represents the vertical element. Some of the ingredients of melodic contour may be combinative rhythms, expressive phrasing, motivic manipulation, interpretive inflections, and sequential treatment, to mention a few.

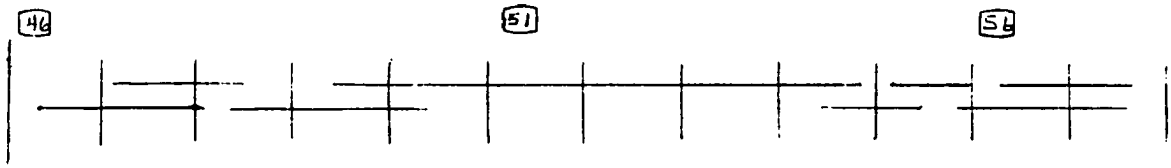
The single-line melody or theme of this final movement written in sonata-allegro form is characterized by a six-note motive. An expanded interval within each rhythmic motive reveals its melodic detail.



The subordinate theme, beginning in measure 16, uses the same rhythmic motive  with shifted accent. This new melody is treated with free mirror, imitation, and stretto in measures 20-27.

Sonata 5, Example 2. Measures 46-57, 114-122.

Imitation and dialogue.--The brief twelve-measure development section, measures 46-57, consists of an unequal dialogue between two voices based on the same rhythmic motive from the exposition theme (cf. Example 1).



Worthy of note is a particularly unifying area that appears in the Tempo I, measures 114-122. The first of these eight measures, measure 114, contains by way of restatement another form of the C minor arpeggio that opened the first movement. This is followed by a one-measure phrase fragment of the subordinate theme in dialogue with imitated motives from the principal theme (measures 115-121).

This entire movement is primarily homophonic with single-line melodic interest except for the brief contrapuntal treatment of the subordinate theme. The extensive use of imitative technique is well within the overall homophonic scheme.

Sonata in F Major, Op. 10, No. 2

Thematic Index

Allegro

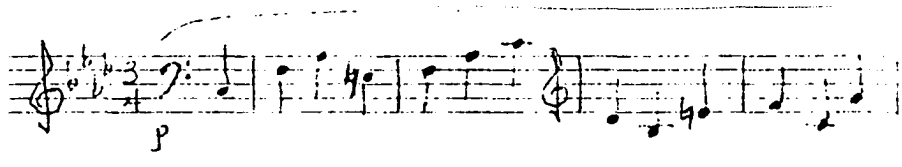
F major

Sonata-allegro form

Allegretto

F minor

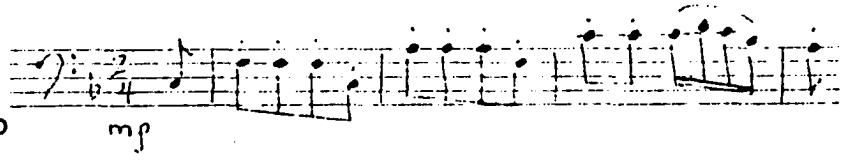
Minuet and Trio



Presto

F major

Sonata-allegro form



Discussion of Contrapuntal Materials

Allegretto

Sonata 6, Example 1. Measures 8-16, 22-30. Imitation, sequence, and stretto.--Measures 8-15 make patterned use of neighboring tones in a six-note melodic sequence  that ascends by seconds. The entire sequence is answered imitatively in stretto by the alto voice at the interval of a fifth. Typical of Beethoven, the sforzando in each measure makes folly of the bar line by shifting the rhythmic emphasis to the third beat.

Imitation appears in measures 20-22 when the second six notes of the theme are used for a second voice entry. This fragmentary entry serves as anticipatory imitation (cf. Sonata 2, Example 9) for a four-measure melodic phrase in measures 22-26. The phrase is combined with new material in the upper voice and is imitated an octave lower in measures 26-30.

Sonata 6, Example 2. Measures 38-70, 70-124. Contrasting lines, sequence, exchange of voices, and dialogue.--The opening measures of the Trio introduce a purely homophonic theme. Contrapuntal contrast is injected by means of a melodic bass phrase at measures 55-59. Two sequences of this phrase are found in measures 59-63 and 63-67. Harmonies from the Trio theme are used in the upper parts and are combined with the single-line melody for a simulated two-part contrapuntal effect (measures 54-70).

In the measures following (70-124), the polyphonic lower and the homophonic upper "voices" are exchanged and form dialogue. The homophonic texture is thinner and the melodic motives are shorter than before.

Sonata 6, Example 3. Measures 132-140, 148-158. Imitation, two-part counterpoint, and fourth species.--In the da capo of this minuet a variation appears that involves measures 132-140. The first five of these measures merely present the same melody in syncopation with itself. This suggestion of counterpoint is carried a step further in measures 148-154 where we find a second independent melody presented in fourth species, replacing the syncopated imitation of measures 132-140.

Presto

Sonata 6, Example 4. Measures 1-32, 32-67, 69-76, 87-103, 125-141. Imitation, pedal point, dialogue, inversion, contrary motion, exchange of voices, two-part counterpoint, and invertible counterpoint.--This movement opens with a two-voice imitation at the octave at a four-measure time interval. A third voice (tenor) also enters imitatively and the bass assumes a dominant pedal point from measure 23 to the double bar (measure 32).

The texture of the theme is thickened by doubling in measure 32, and at measure 41 intervals are substituted for the doubling. Motives and modifications of motives from

the theme are used in numerous imitations, intermittent dialogue (measures 44-62), and inversion (measures 53 and 61). Measures 63-67, which present the imitated motive in harmonic sixths, create tension that is supported by sforzandi on the first beat of each measure.

The themes from measures 23-32 recur in measures 69-76. This time there is an added soprano voice that mirrors the tenor part in measures 71-72 and 75-76.

Two-part counterpoint occurs in measures 87-90 and is inverted in measures 91-93. In measure 94 the counterpoint is modified in order to link to the following sequence. The two-part counterpoint and its inversion is found in sequence in measures 95-102, and the two-part counterpoint begins a third sequence in measures 103-106 that leads into a variation using broken octaves and thirds in sixteenth-note values.

[	———	//	Inv. Ctpt.	][	Seq.	//	Inv. Ctpt.	][	Seq.	]
	87-90		91-94		95-		-103		103-106	

The tenor theme from measures 23-32 again recurs in measures 125-140. This time an arrangement of voices that is different from either the original or that of measures 69-76 varies the presentation (measures 133-141). The contrary motion that grew into being in an unpretentious presentation between top and inner voices in measures 69-76 now

attracts attention in inner voices that are within a close range of activity with static voices on the outside.

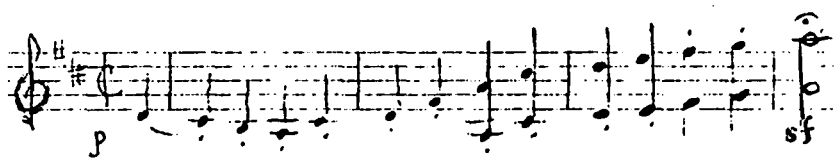
Sonata in D Major, Op. 10, No. 3

Thematic Index

Presto

D major

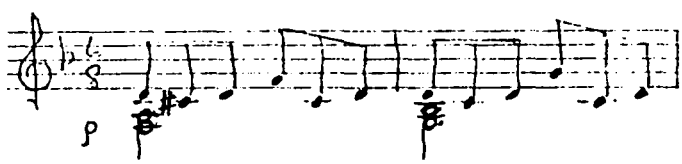
Sonata-allegro form



Largo e mesto

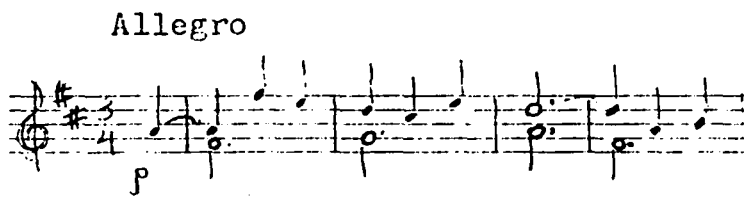
D minor

Sonata-allegro form



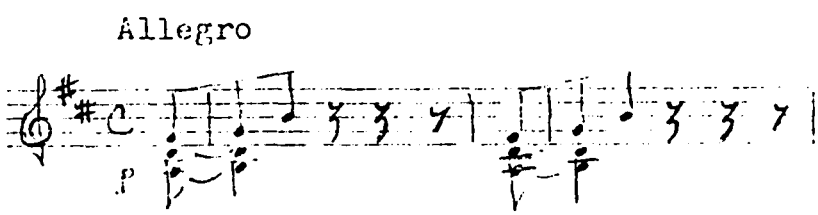
Menuetto

D major with Trio in G major



Rondo

D major



Discussion of Contrapuntal Materials

Presto

Sonata 7, Example 1. Measures 74-85, 93-105, 316-332. Contrary motion, exchange of voices, invertible counterpoint, pedal point, repetition, imitation, and mirror.--Measures 74-85 of this first movement include a number of wedge figures. In these measures the motive  that originates in measures 0-1 of the principal theme is treated contrapuntally with contrary motion and exchange of voices.

Two independent voices in a four-measure phrase in measures 93-97 move in contrary motion. At measure 93 pedal point enters as a repeated tone, disguising the counterpoint, and becomes a sustained tone in measures 97-105. Due to the pedal point the rhythmic ratio is 2:1 although the counterpoint is first species. When the voices are exchanged in measures 97-101 invertible counterpoint is created. The inversion places the contrary motion within the octave for the beginning measure 97, and at multiple octaves in measures 101-105.

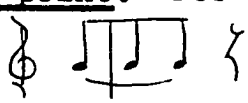
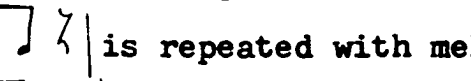
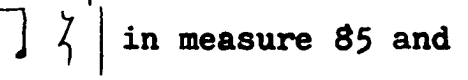
Measures 316-332 demonstrate the manipulation of wedge figures from measures 74-85 above. Thinner texture appears in alternate measures, and the tenor assumes a melodic function. Repetition, imitation, and inversion contribute to this climactic passage.

Menuetto

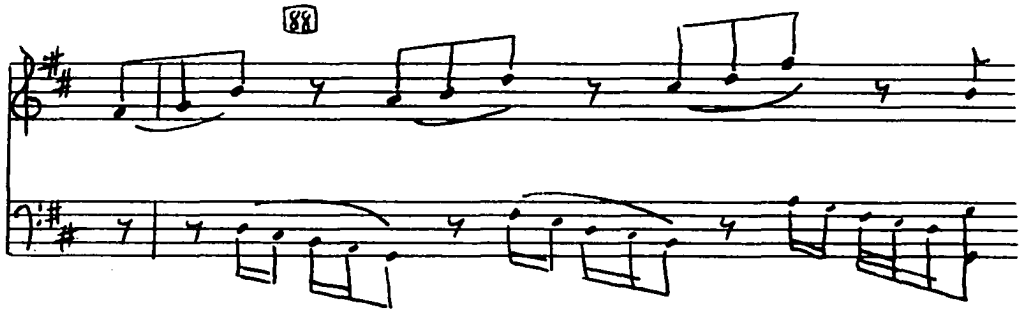
Sonata 7, Example 2. Measures 1-8, 16-25, 32-36. Canonic treatment and sequence.--Beginning with measure 16 an eight-measure, four-voice canon at the fourth appears with entries at time intervals of two measures or less, and ending with measure 25. The first two measures of the theme are presented in sequence in measures 32-34 and 35-36.

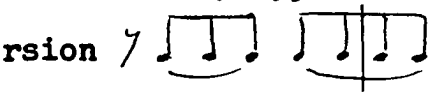
Rondo

Sonata 7, Example 3. Measures 9-15. Two-part counterpoint, ostinato, and exchange of voices.--In measures 9-13 a bass ostinato figure with its own melodic character appears supporting an individual melody in the top voice. In measure 13 the parts are exchanged and the first note of each ostinato figure is dropped, thereby deleting the descending melodic line that was present in the bass.

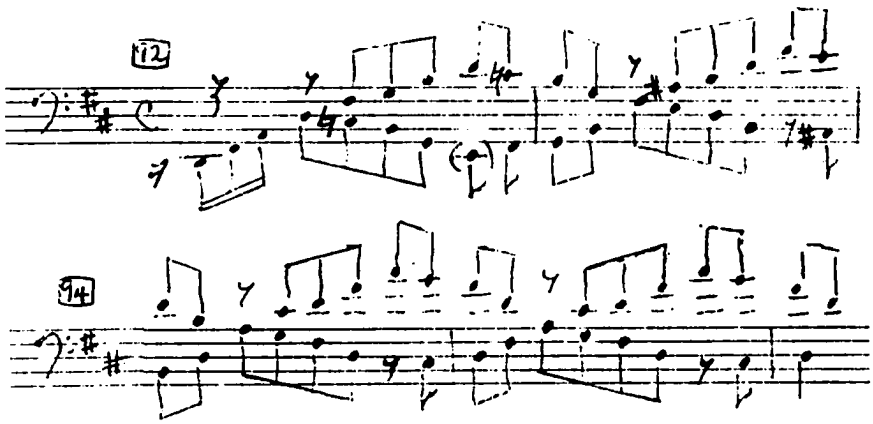
Sonata 7, Example 4. Measures 83-113. Mirror (vertical), dialogue, repetition, diminution, sequence, contrary motion, imitation, two-part counterpoint, mirror (horizontal), contrasting lines, and pedal point.--For the third return of the Rondo theme the motive  of measures 83-84 is inverted for dialogue in the bass voice. This inversion  is repeated with melodic embellishment  in measure 85 and the original motive is found with rhythmic and intervallic diminution in measure 86. Measures 87-90 include a sequence of the three-

note motive that overlaps the inverted and embellished motive.



Contrary motion between two independent melodies is concealed by repeated notes in the bass in measures 92-98. The soprano melody of measures 92-93 combines the original motive with its inversion  for a composite motive that sequences in measures 93-94/94-95, is repeated in measures 95-96, and is fragmented for still another series of imitations in measures 96-97. The bass melody in measures 92-94 is a composite of the same motives that appear in mirror that is both horizontal and vertical. This melody is in stretto with the soprano melody.

A skeletal diagram reveals that repeated notes have been interpolated in the lower melody and that the passage is written basically in first species. The alternation and imitation of a melodic motive by the two voices illustrates not only an important contrapuntal device, but serves to illustrate the importance of analyzing such instances for the purpose of reading and interpretation. The desired effect is for the voices to sound in conformity with each other.



Measures 99-101 exchange the voices for the original motive and its inversion, and suggest stretto with a one-note overlap. Parenthetically, four measures of homophonic texture and contrasting dynamics (measures 101-105) serve to separate two sections of contrapuntal character. The following and final measures of the Rondo (measures 106-113) include an ascending chromatic, sixteenth-note passage that proceeds in contrary motion to a contrasting sequential and descending motive in the lower voice. The upper voice reverses itself after two measures and follows the lower voice in similar motion as it repeats the sequence pattern. A pedal point is sustained from measure 106 through the remaining measures.

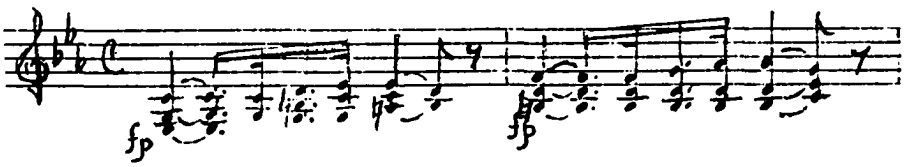
Sonata in C Minor, Op. 13

Thematic Index

Grave

C minor

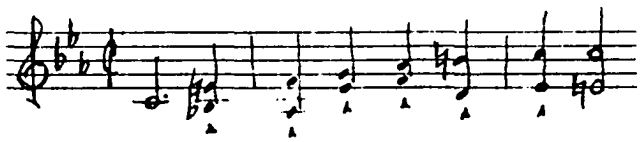
Introduction



Allegro di molto e con brio

C minor

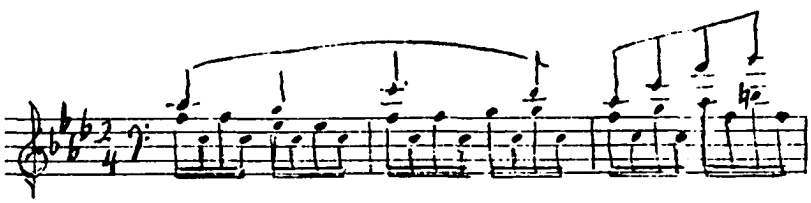
Sonata-allegro form



Adagio cantabile

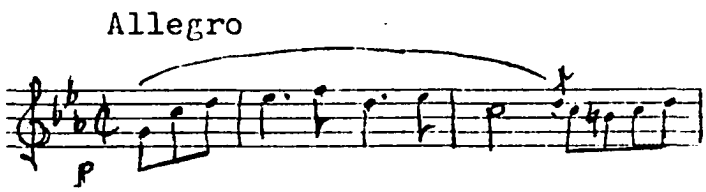
A-flat major

Rondo form



Rondo

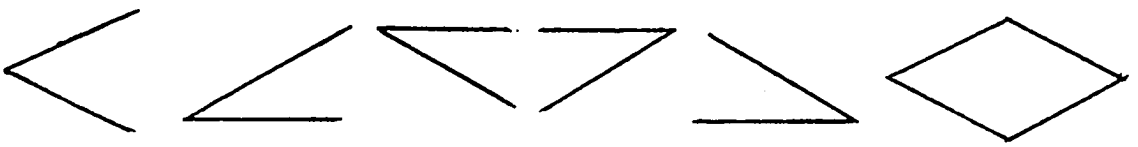
C minor



Discussion of Contrapuntal Materials

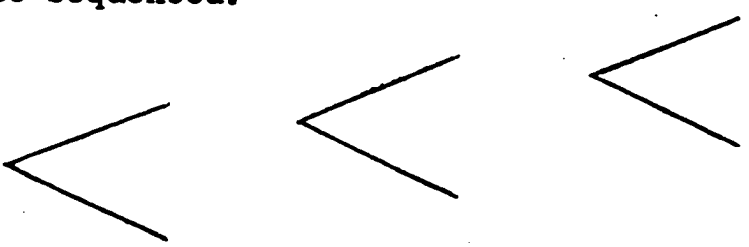
Contrary, oblique, and similar motion are listed as means of creating certain effects in the presentation of musical ideas. These are descriptive terms, used chiefly to define the comparative directional tendencies of two separate melodies. Contrary motion is distinctively a contrapuntal device.

In previous sonatas we have already encountered uses of contrary motion that are adaptive to, and characteristic of contrapuntal writing. Particularly in the "Sonata pathetique" a phenomenon takes place that is related to these directional characteristics of music. In the following graphic illustrations the melodies are represented by directional lines. The wedge-form melodies may occur in various combinations:



They may appear as part of the whole:

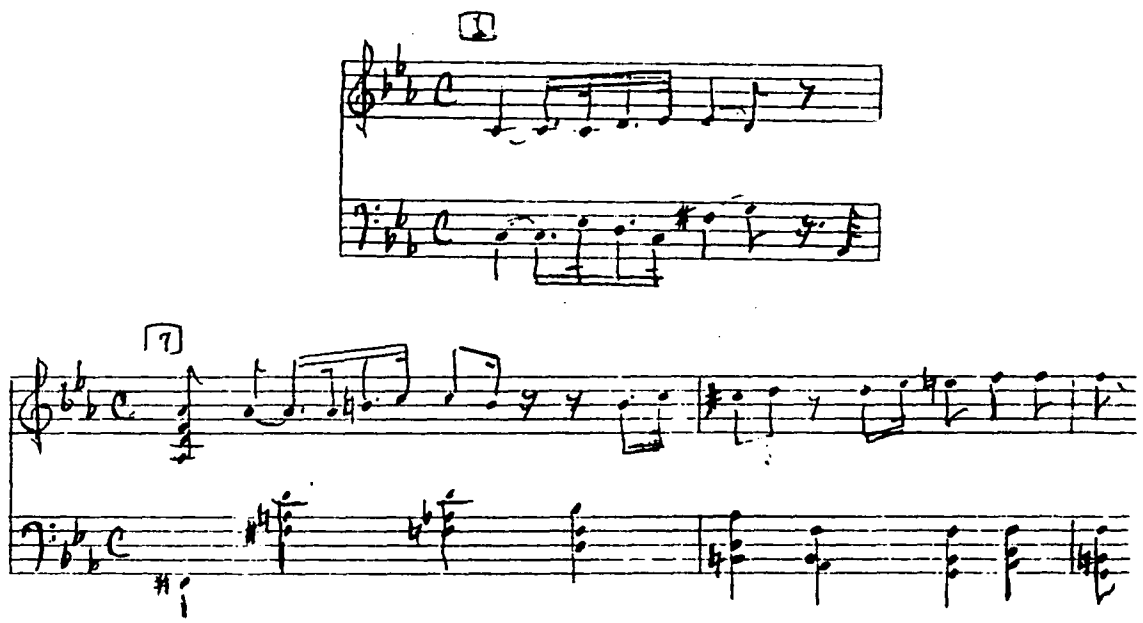
They may be sequenced:



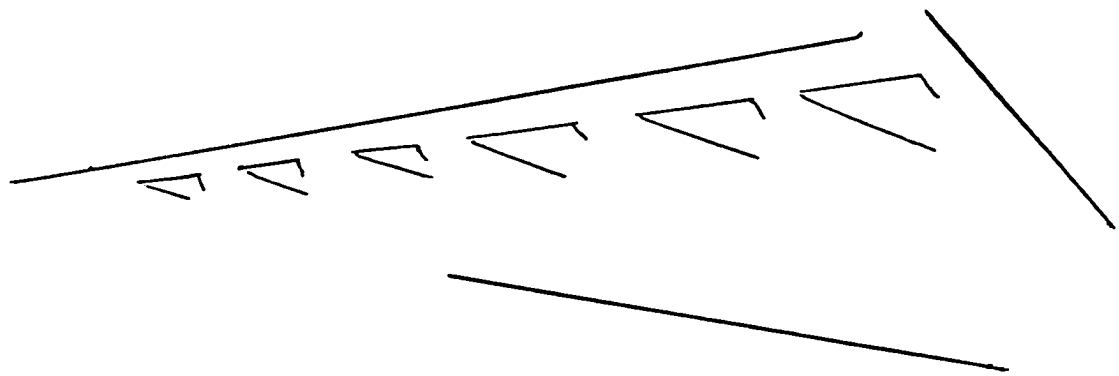
Such melodic patterns as the above are described in various textbooks, usually under the general classification of melodic curve. The term "wedge" connotes more angular patterns and is useful for describing what happens in some of the sonata movements. The term generally is synonymous with "contrary motion".

Grave

Sonata 8, Example 1. Measures 1-10. Contrary motion, imitation, repetition, and sequence.--The Grave introduction is composed of a succession of wedges in the outer voices of a purely homophonic motive. In its several reappearances this motive is sequenced and expanded into a two-measure opening wedge of contrasting "voices" in measures 7-8.

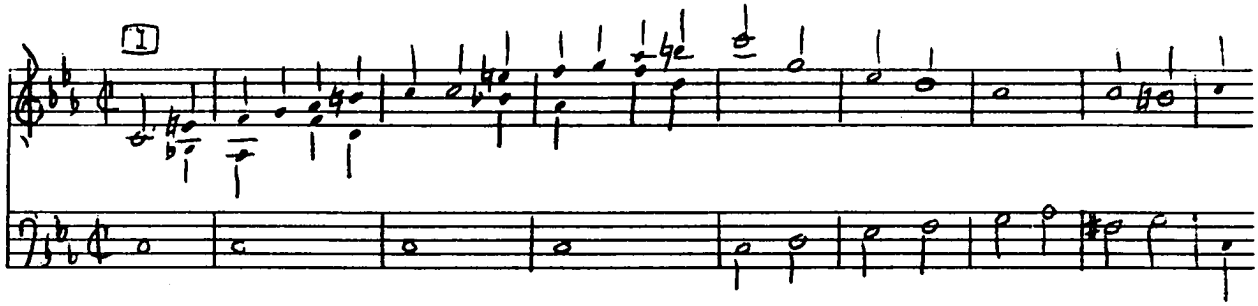


The entire Grave section (measures 1-10) could be considered one massive wedge, to include various motive-size wedges. The following diagram illustrates the sequential treatment:

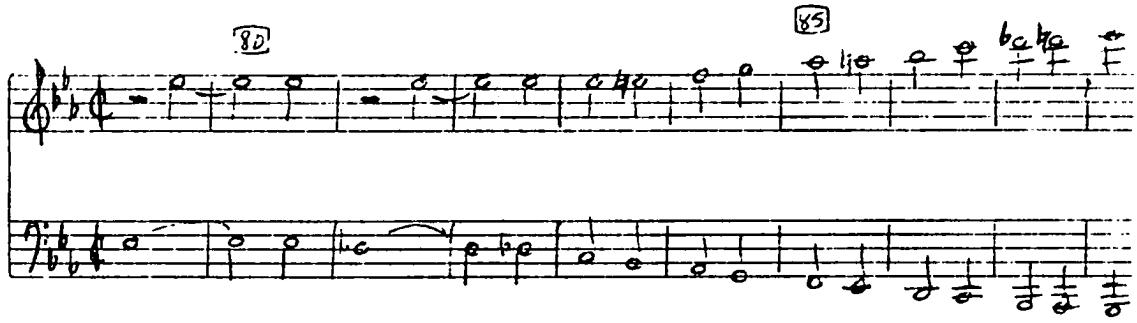


Allegro di molto e con brio

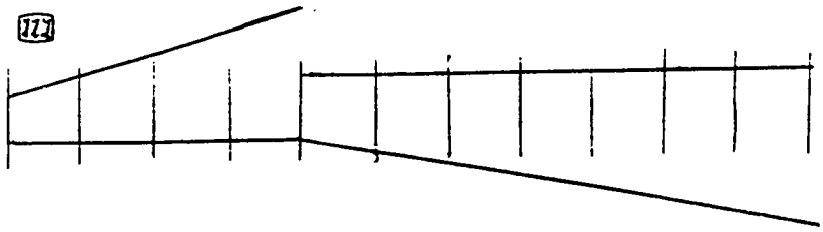
Sonata 8, Example 2. Measures 1-17, 79-88, 91-100, 111-120. Contrary motion and pedal point.--The principal theme of the Allegro movement sets up another formation worthy of notice. The oblique motion above broken octaves in measures 1-4 gives some stability to the ascending melody, and the last four measures of the phrase, measures 5-9, close a wedge of contrary motion, all of which is repeated in measures 9-17. Within these extended wedge-phrases are four two-note wedges that belong to the identity of the theme. These wedges are present in each reappearance of the main theme, as is the broken octave pedal point.



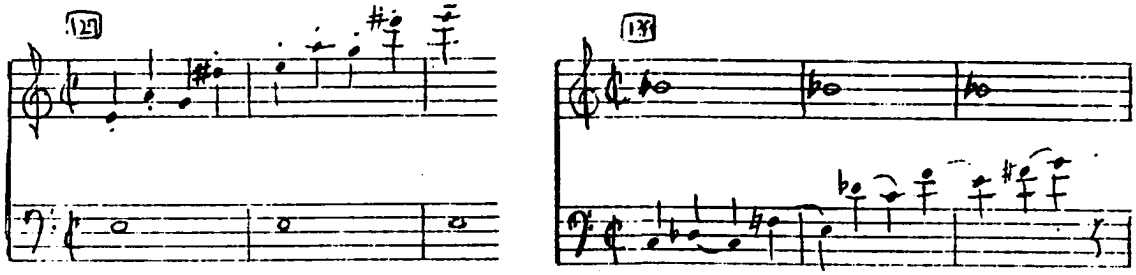
The excerpts included in this text are from conspicuous locations, and the wedge-forms recur a number of times throughout the movement. Measures 79-88 expand the idea of a short wedge-motive into a ten-measure passage that is repeated in measures 91-100.



Another application of the technique illustrated is present in the transition in measures 111-120.



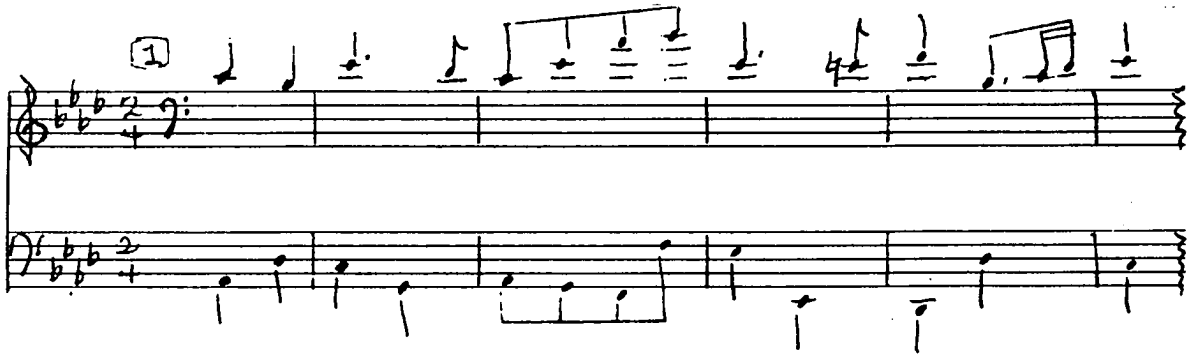
Sonata 8, Example 3. Measures 127-134. Sequence.--The opening measures of the development section, measures 127-138, are consistent with the wedge-form patterns at the beginning of the movement. At measure 139 a sequence is established that occurs in measures 143-145 and 147-149.



Consistent with aesthetic interpretations of this composition, the agitation caused by this musical activity is dissipated by means of similar motion, by descending melodic line, and by decreasing dynamic level in measures 149-157.

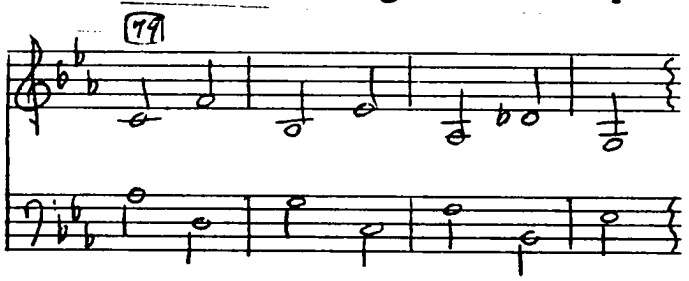
Adagio cantabile

Sonata 8, Example 4. Measures 1-16. Two-part counterpoint and first species.--The melodies in the two outer voices of Theme I of the Adagio illustrate 1:1 relationship.



Rondo

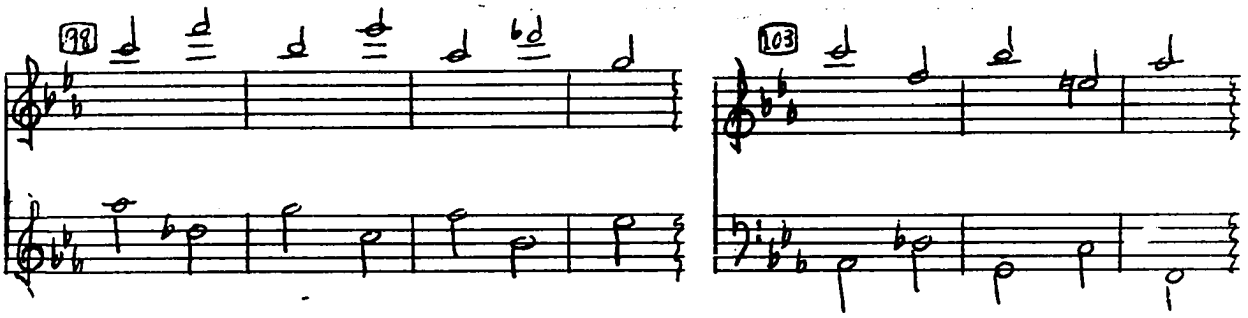
Sonata 8, Example 5. Measures 79-106. Two-part counterpoint, first species, fourth species, mirror, stretto, third species, second species, invertible counterpoint, and third species.--A four-measure phrase of two-part counterpoint in measures 79-82 appears six times in succession within measures 79-106. The counterpoint is first presented in 1:1 relationship, or note against note. The passage in first species is brief since a relationship of 1:1 limits rhythmic independence. The measures following give surprisingly involved treatment to this straight forward presentation.



The four-measure phrase, measures 83-86, inverts the first four notes of both the soprano and bass voices and places this inversion in fourth species. Measures 87-94 restate measures 79-86 with an added third voice that specifies the harmony. In measure 94 the lower voice introduces a related six-note motive that is imitation in stretto.

Both upper voice and lower voice themes from the two-part first species counterpoint in measures 79-86 return in measure 98 where third species is alternated with second species. When the melodic theme is transferred to the bass in measures 103-105 the exchange of voices creates invertible

counterpoint that is combined with the 4:1 scale passages. Skeletal analysis reveals the organization and source of the material.



Sonata 8, Example 6. Measures 134-150, 182-193.

Three-part counterpoint, second species, imitation, and sequence.--When Theme II of this rondo form recurs in measures 134-142 it is presented in three-part counterpoint using primarily 2:1 relationships. Imitative devices are used in measures 143-146, with a complete four-measure sequence following at a fifth below (measures 147-150).

Sonata in E Major, Op. 14, No. 1

Thematic Index

Allegro

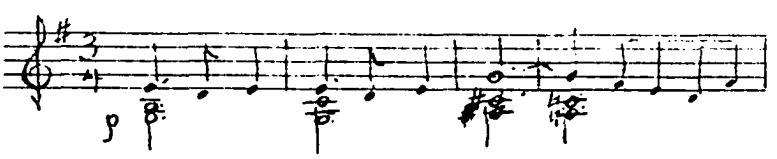
E major

Sonata-allegro form

Allegretto

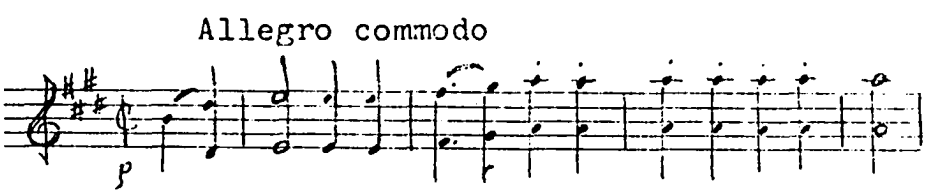
E minor

Song-form with Trio in C major



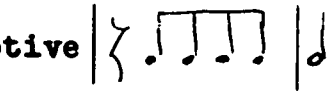
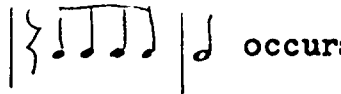
Rondo

E major



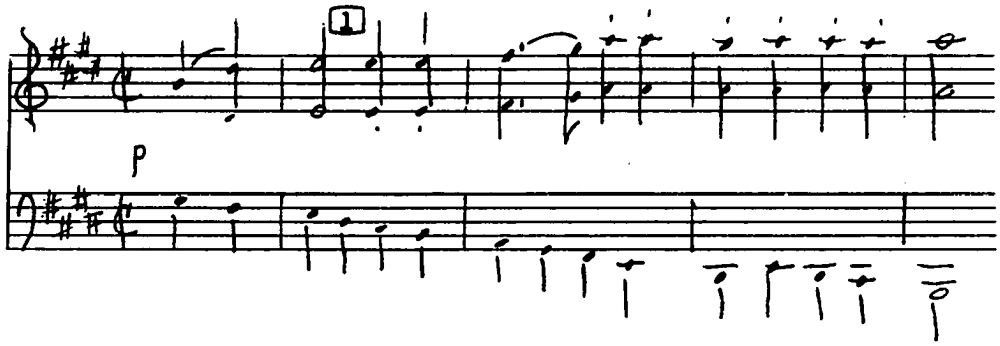
Discussion of Contrapuntal Materials

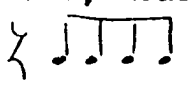
Allegro

Sonata 9, Example 1. Measures 5-6, 22-38. Imitation, repetition, sequence, and two-part counterpoint.--A motive with its imitation at the octave is found in measure 5, and measure 6 repeats measure 5 at the octave below. A significant five-note motive  that originates in measure 9 begins a phrase at measure 22. This phrase is sequenced in measures 26-30. The melody from these combined phrases, measures 22-30, is transferred to another register and voice, and is repeated at the octave in measures 30-38. Imitation of the five-note motive  occurs twice in measures 31-33 as counterpoint to the melody. The two-part counterpoint from these measures (30-34) continues in sequence for measures 34-38.

Rondo

Sonata 9, Example 2. Measures 0-4, 8-14, 30-34, 38-42, 83-87, 108-116. Contrary motion, two-part counterpoint, first species, and fourth species.--The principal theme of this Rondo is one grand sweep of contrary motion, an opening, wedge-like phrase four and one-half measures in length. The wedge appears in measures 0-4, 8-14, 30-34, 38-42, 83-87, and 108-116. For each phrase appearance the lowest notes of the three-note bass figuration follow a descending scale line that most often forms two-part counterpoint in 1:1 relationship with the upper voice.



When the wedge appears in measures 108-116 fourth species is used. There is a reversal in the direction of the contrary motion at measure 112 and the syncopation is transferred to the lower voice for a closing wedge of melodies. The last presentation of this theme is found in measures 121-125 where imitative counterpoint in second species is offered against the same descending figuration in the bass. The motive  that is used contrapuntally in these measures is an embellished form of the original melodic theme, measures 1-4, and is free inversion of the motive  from measures 30-34 of the first movement (cf. Example 2).

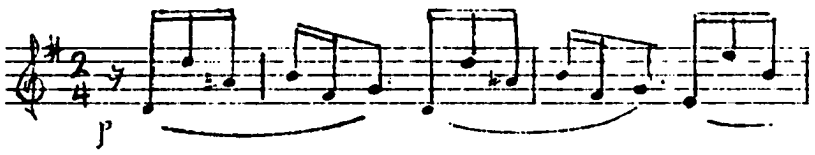
Sonata in G Major, Op. 14, No. 2

Thematic Index

Allegro

G major

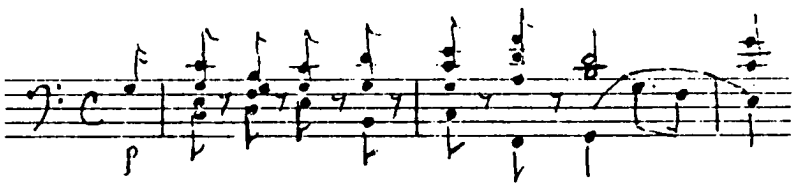
Sonata-allegro form



Andante

C major

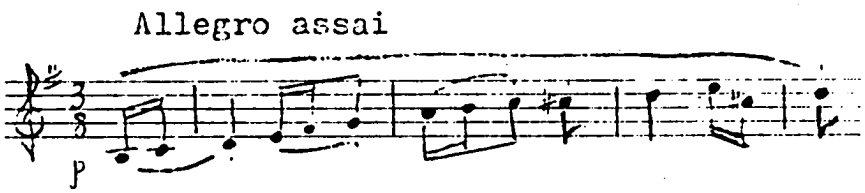
Theme with Variations



Scherzo

G major

Rondo form

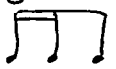


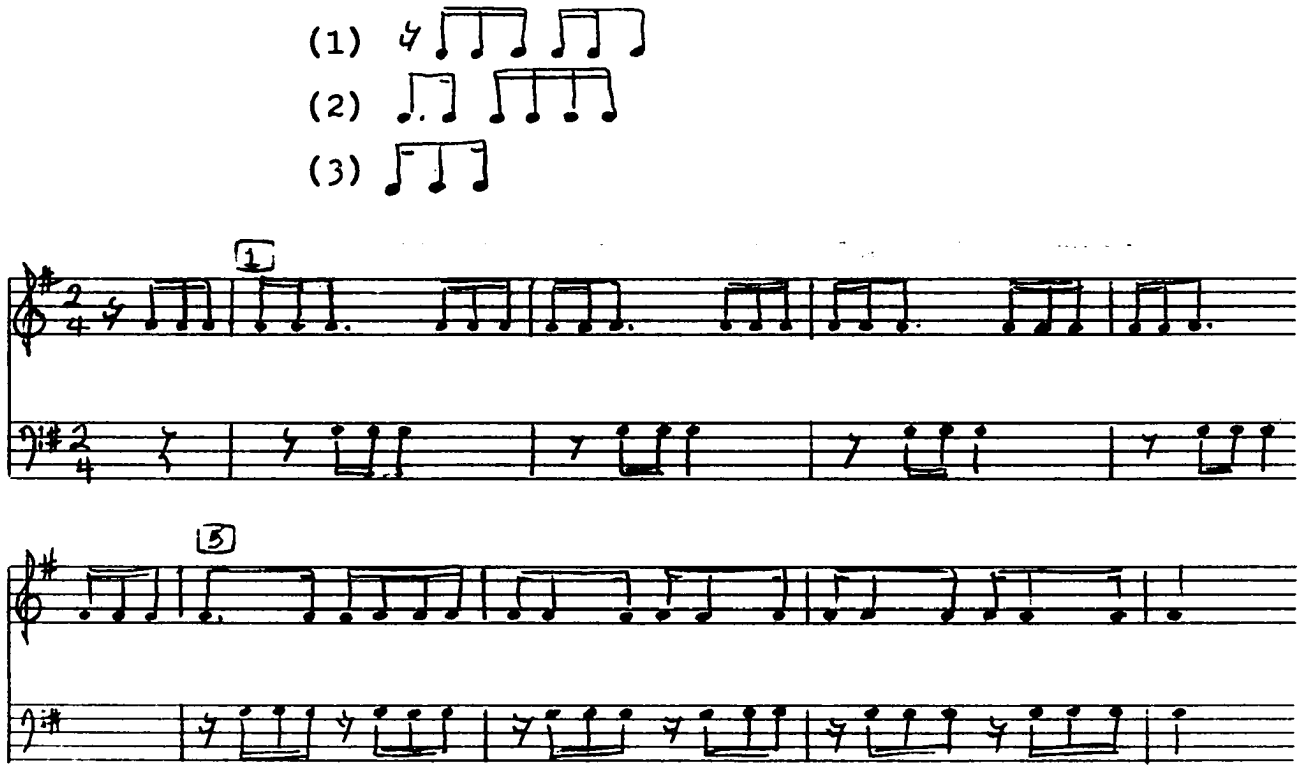
Discussion of Contrapuntal Materials

Allegro

The unifying strength of this movement is in the rhythmic and melodic dialogue. Dialogue is succinctly defined as a musical arrangement suggestive of a conversation. It is generally supposed to be an exchange of ideas and opinions. As a contrapuntal technique the procedure may include imitation, repetition, and change of register. Identical, similar, and different motives may be alternated, and the patterns are usually short.

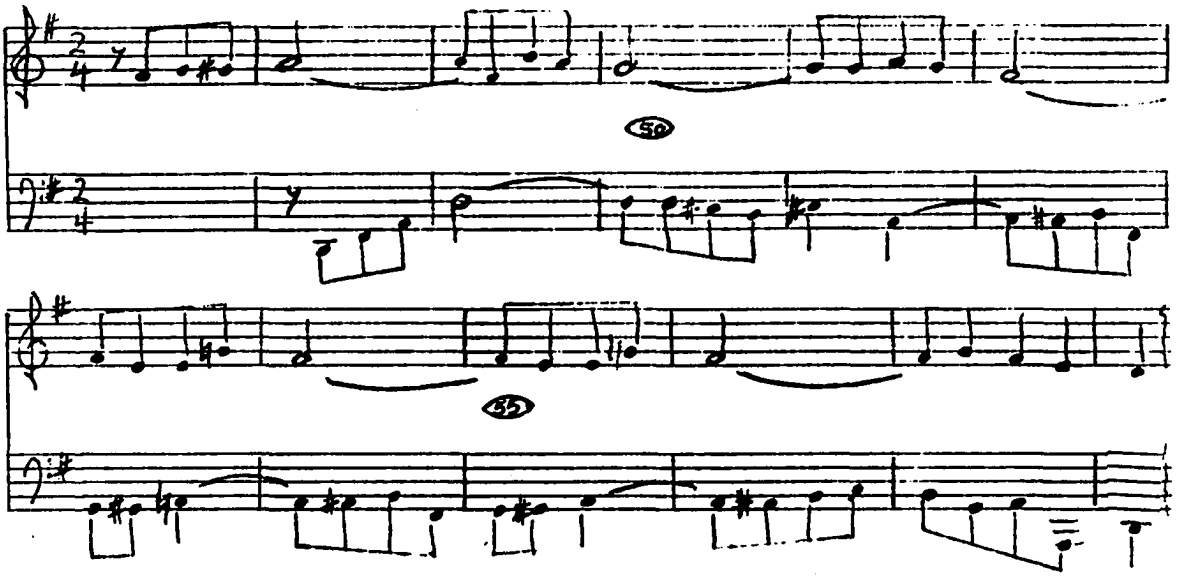
Musical dialogue is a contrapuntal technique that is often used in brief areas of thematic development. In this movement, however, dialogue seems to be given primary importance for entire themes. The discussion of this movement will place emphasis on the use of the contrapuntal technique of dialogue even though the excerpts are lacking in consistent contrapuntal texture. Examples 1-7 show the consecutive appearances of dialogue.

Sonata 10, Example 1, Measures 1-8. Dialogue.--The dialogue of measures 1-8 contains consistent three-note motives  and  for the bass component. The upper voice uses three different melodic motives with three different rhythms.



Sonata 10, Example 2. Measures 26-32. Dialogue.--An extended melodic passage preceding measure 26 is followed by a rather terse dialogue in measures 26-32. The upper line of successive thirds is considered as one "voice" and is in conversation with a second voice of melodic octaves spanning three registers.

Sonata 10, Example 3. Measures 47-57. Two-part counterpoint, imitation, and dialogue.--Measures 47-57 contain two independent melodies between the outer voices. Both voices have the same rhythmic patterns that imitate at the time interval of one measure. The resulting dialogue is both rhythmic and melodic. This area is truly contrapuntal.

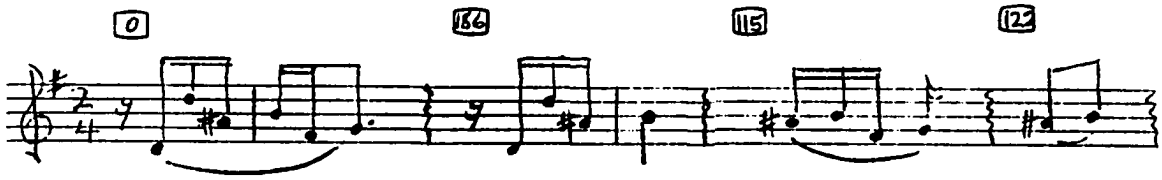


Sonata 10, Example 4. Measures 63-73. Dialogue.--Measures 1-4 reappear at measure 63 and in measure 67 the dialogue motives become fragmented. Stretto of the first motive appears in measures 70-72.

Sonata 10, Example 5. Measures 98-107. Two-part counterpoint, dialogue, sequence, and repetition.--Measures 1-5 reappear in measures 98-103, and this time the fifth measure, measure 103, establishes a sequence for measures 104/105/106. A descending scale line results that establishes new pitches and demands new harmonies for each pattern. The passage from 107-114 offers 4:1 rhythmic ratio against the inner-voice melody and with pedal point. Measures 107-108 are repeated two times.

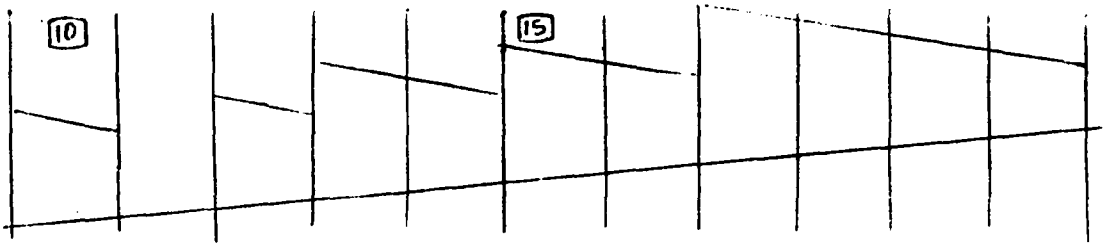
Sonata 10, Example 6. Measures 115-124. Dialogue and diminution.--Measures 115-124 present fragments of the signature motive in dialogue above and below an Alberti figuration. The change of register by two octaves for the motive

gives the impression of two voices. There is diminution of the time interval between the motives that creates a stretto effect. The motive itself is severed in half and sequenced in single-line texture to measure 124. It is interesting to note the deletion of notes from the signature motive.



Sonata 10, Example 7. Measures 187ff. Dialogue.--The motives in measure 187ff. of the Coda have been abbreviated, and syncopated measures 6-8 from the principal theme have been eliminated. The shortened motives and theme combine with the rise and fall of melodic line and corresponding dynamic levels to reduce tension and minimize forward energy.

Sonata 10, Example 8. Measures 8-20. Contrary motion and sequence.--The consistent use of the contrapuntal technique of dialogue in a composition quite lacking in contrapuntal texture is now apparent with the exception of two areas. The first contrapuntal area is in measures 47-57 and has already been discussed in Example 3. The remaining area is in measures 8-20. In these measures an ascending bass line beginning in measure 8 continues through measures 19, causing several wedges of contrary motion in conjunction with sequence.



Andante

Sonata 10, Example 9. Measures 1-20, 20-40, 40-64, 65-80. Two-part counterpoint, pedal point, sequence, contrary motion, and exchange of voices.--The first section of this Andante movement places the principal melody in the top voice and the subordinate melody in the bass (measures 1-20). Variations I and II present the principal melody against other melodies.

The first variation, measures 20-40, places the two contrapuntal melodies in the bass and tenor while measures of inverted pedal point are used as additional counterpoint. The last four measures, 37-40, are in exception, and a sequence of two-note wedges of contrary motion is present.

In the second variation, measures 40-64, the principal melody is still in the top voice, but the descending scale line of the "tenor" voice offers a new melody in counterpoint. The contrapuntal texture is weaker throughout this section.

For the third variation, measures 65-80, the principal melody is still placed in the true soprano voice,

maintaining the original countermelody in the bass in note values that have doubled. This melody has not been augmented in the contrapuntal sense since the time interval between the pitches has not changed.

Scherzo

Sonata 10, Example 10. Measures 8-16, 23-40, 68-71, 164-167, 169-172. Dialogue, repetition, imitation, and second species.--Dialogue prevails in the contrasting "voices" of measures 8-16. Repetition of measures 8-10 is present, and imitation of a scale line with shifted accent causes a variation in pitch significance that is almost imperceptible to the ear. A dialogue of textures and dynamics continues in measures 23-40 where 3:1 counterpoint alternates with *forte* chords.

Imitation with one-note overlapping occurs in measures 68-71 and again in measures 164-167. Imitation without the overlapping occurs in measures 169-172.

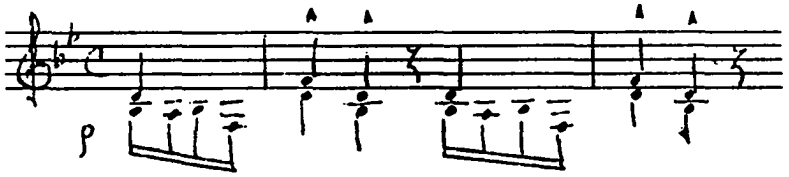
Sonata in B Flat Major, Op. 22

Thematic Index

Allegro con brio

B-flat major

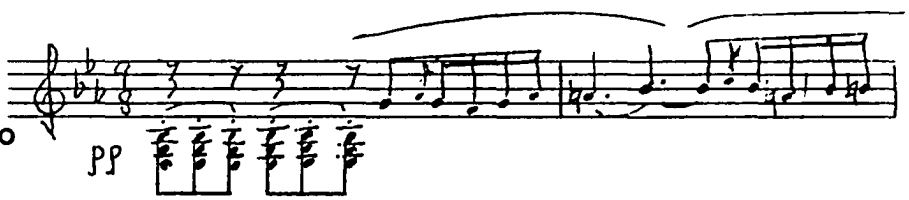
Sonata-allegro form



Adagio con molta espressione

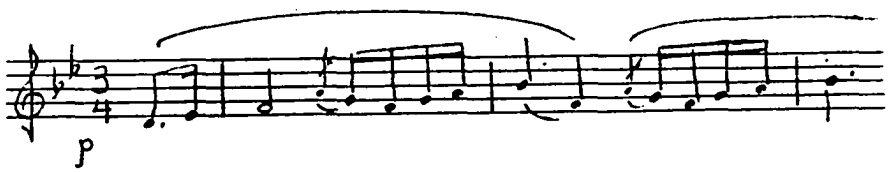
E-flat major

Sonata-allegro form



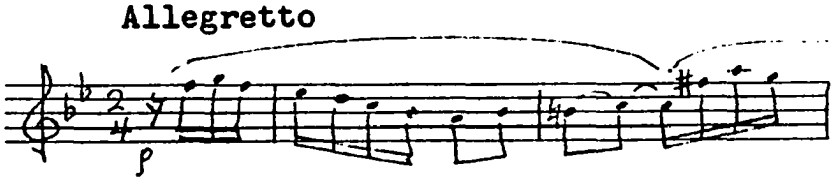
Menuetto

B-flat major with Trio in G minor



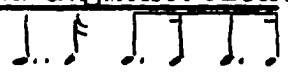
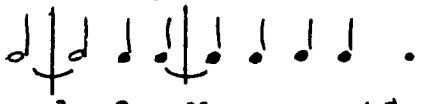
Rondo

B-flat major

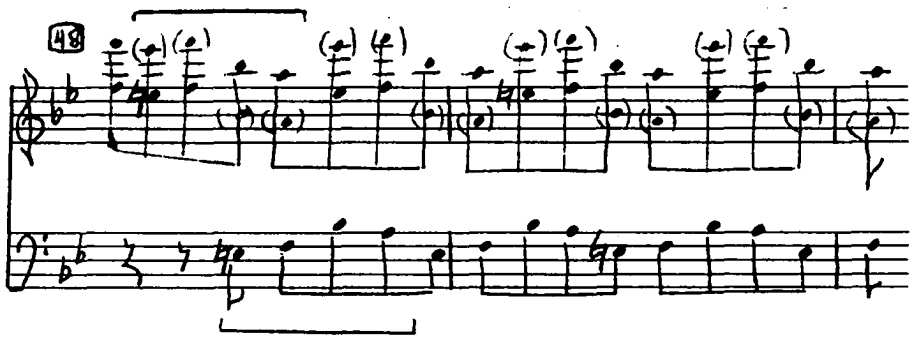


Discussion of Contrapuntal Materials

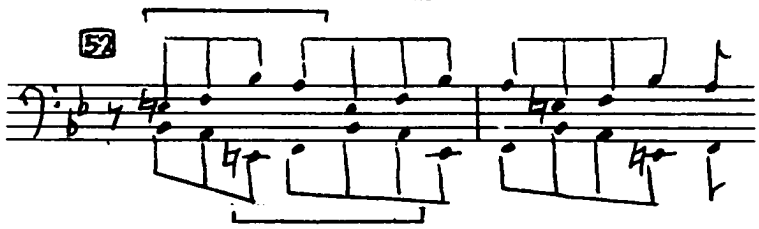
Allegro con brio

Sonata 11, Example 1. Measures 13-15. Imitation and augmentation.--Free imitation of the bass voice motive  in measure 13 is found in the soprano voice in augmentation  .

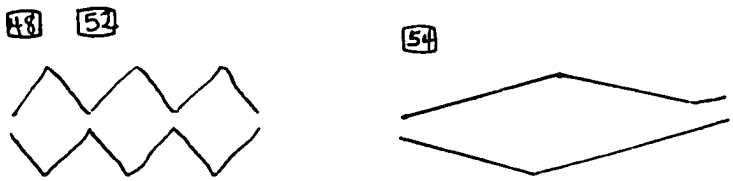
Sonata 11, Example 2. Measures 48-55. Imitation, repetition, stretto, mirror, and exchange of voices.--In measures 48-49 there is repetition and imitation of a symmetrical four-note melodic motive. Inversion of the repeated motives in another voice does not affect the symmetry, and stretto is present.

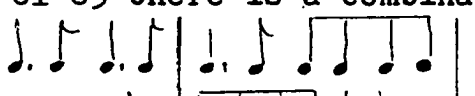
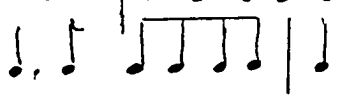


In measures 52-53 there is a restatement of measures 48-49. This time the broken octaves are omitted, leaving the motives to become strict mirror in adjacent voices. Despite actual stretto, there is no aural impression of it because of simultaneous entry.



The two areas, measures 48-49 and 52-53, seem to anticipate the expanded use of contrary motion in measures 54-55.



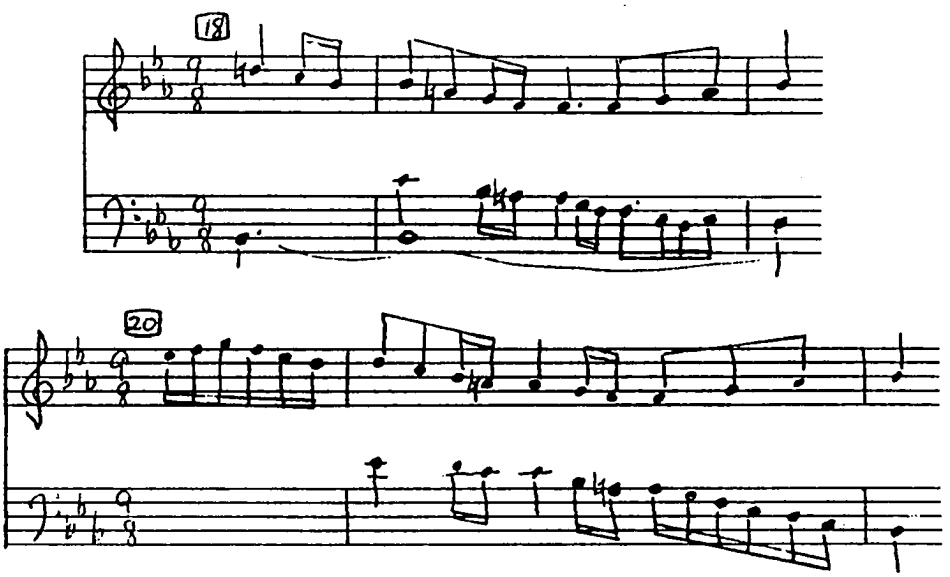
Sonata 11, Example 3. Measures 69-70, 81-91. Imitation, repetition, sequence, stretto, contrary motion, and diminution.--The development section opens with two measures of imitation and repetition (measures 69-70) and contrapuntal texture appears in measures 81-83, 85-87, and 89-91. In measures 81-83 there is a combination of an ascending scale passage  and a descending scale passage  in stretto. This includes imitation of the bass line at the interval of a sixth, and partial diminution in the inverted imitation of the descending soprano line. The contrapuntal texture is linked by two measures of single line texture, and a sequential appearance occurs in measures 85-87 and 89-91. The material for measures 81-91 originally appears in ascending and descending

sequence without stretto and contrary motion in measures 62-66.

Adagio con molta espressione

Sonata 11, Example 4. Measures 18-22, 34-39.

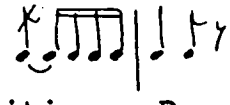
Imitation, stretto, and pedal point.--A significant motive occurs in measures 18-20 above a pedal point on B-flat. It is briefly and freely imitated in stretto in an inner voice, and measures 21-22 reinforce the listener's impression by repetition of the same melodic phrase, this time using different rhythmic placement of the melodic notes.



A melodic motive in measures 34-35 that combines motives from measure 1 and measure 4 is imitated four times in succession, each time at a fifth below. The imitations overlap by one note but two-voice counterpoint never really develops.

Although this movement is primarily homophonic, the implications of contrapuntal textures are unifying. Motives from measures 1-4 that are used imitatively, and the spun out melody with its embellished presentations, borrows the melodic intention of unceasing activity of contrapuntal lines.

Menuetto

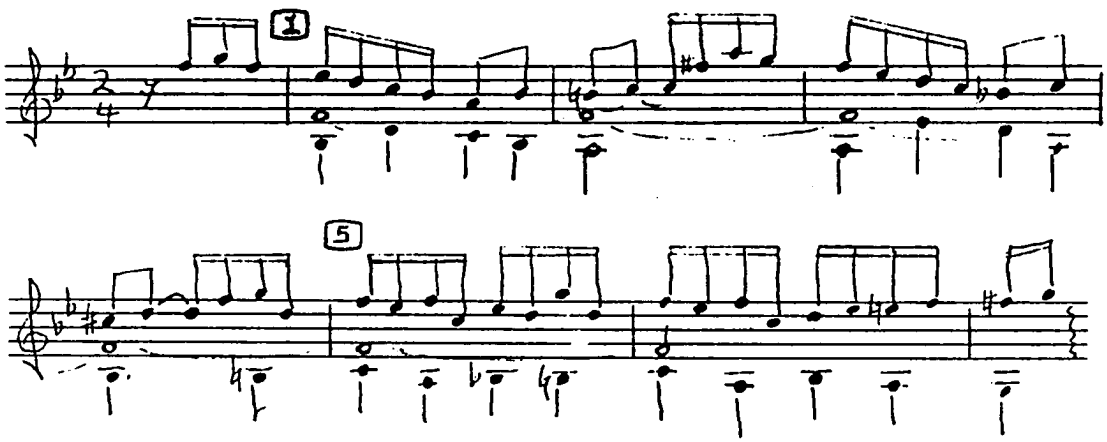
Sonata 11, Example 5. Measures 1-30, 30-46. Sequence, imitation, repetition, diminution, and contrasting lines.--The bass voice of measures 1-4 of the Menuetto is considered here as a second contrapuntal line rather than an accompanying line because of the auxiliary notes which could have had less interesting substitution of chord members. In measures 24-29 the identifying motive  is reworked with sequence, imitation, and repetition. Partial diminution in note values combines with diminishing time lapses between motives. There is dissolution of forward energy because of repetitious melodic motives in each voice.

In measures 30-46 the Trio, labeled Minore, combines contrasting lines into a convincing polyphonic sound. This is a hybrid of textures, a combinative form, more closely related to aural perception than to the rules of written counterpoint. The strong 4:1 contrapuntal relationship is present, and the chordal accompaniment has a horizontal aspect.

Rondo

Discussion of the materials in sequential manner is not reasonable for this movement because of the divisional structure of the rondo form, A B A C A B A.

Sonata 11, Example 6. Measures 1-18, 49-67, 111-129, 164-182. Two-part counterpoint, pedal point, stretto, contrary motion, exchange of voices, thematic variation, and third species.--Theme I, measures 1-18, contains independent melodies in the outer voices. Although the melody in the bass is subordinate to the soprano line, it does contain melodic interest, and it is present in each return of the theme. There is an accompanying internal pedal point.



The imitative passage in measures 40-49 is derived from the main theme. Contrapuntal importance of this passage is in the rhythmic treatment of the motive, which results in shifted pitch significance. A brief overlapping of figures creates momentary stretto in measures 44-46.

The first return of Theme I in measure 49 is an exact repetition. Variation of the second return of the principal theme, measures 111-129, is accomplished by placing the soprano melody in the bass voice and by characterizing with a succession of sixths. Exchange of parts places the pedal point in the soprano voice, this time with broken octaves (measures 111-117). The passage cannot be labeled contrapuntal until measure 115ff. where voices become melodically and rhythmically independent. There is an addition of non-harmonic tones in measures 118-119 after which the soprano voice picks up the theme and varies it with broken octaves.

The final presentation of the rondo theme, beginning with measure 164, uses the original subordinate bass melody with an embellishment of triplets against the principal melody, forming third species counterpoint on either side of the pedal point. The second eight measures are varied slightly by deleting the first members of the triplets until their return is commanded in measure 176. There is noticeable addition of non-harmonic tones in this third return of the theme.

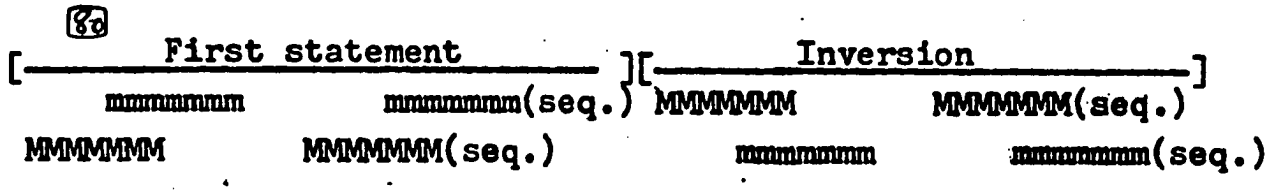
Sonata 11, Example 7. Measures 24-32, 88-95, 137-145. Fifth species and four-part counterpoint.--In appearances of part B, measures 24-32, 88-95, and 137-145 are of contrapuntal texture. There is use of syncopated rhythms

and wedges of contrary motion. Four-part counterpoint is at least implied.

Sonata 11, Example 8. Measures 72-80, 80-95. Sequence, imitation, and contrary motion.--The first portion of the third theme of this Rondo is comprised of a 3 + 3 + 2 measure formation. The first measures, 72-74, contain contrary motion and sequence, the second measure being a sequence of the first. Consecutive thirds assume the function of a single voice against a single voice texture in the upper voice. The melodic interest of the upper voice is on the after beat, leaving the static repeated note to appear as a simulated pedal point. These three measures (72-74) are imitated at the octave in measures 75-77 with vertical octaves added to the stationary tones. The last measure of the eight-measure phrase, measure 79, is a repetition at the octave of the preceding measure.

Measures 80-88, derived from measures 18-22, include invertible counterpoint. The first pair of melodic imitations, measures 80-82, is presented in sequence in measures 82-84. Measures 82-84 are inverted at the octave for the adjaaent measures 84-86. Measures 86-88 could be considered both an inversion at the interval of a tenth of measures 82-84 and a sequence of measures 84-86. The ear perceives the entire area as three sequences to measures 80-82.

M = Motive 1
m = Motive 2



Sonata 11, Example 9. Measures 182ff. Repetition, third species, and imitation.--The Coda of this masterfully organized composition uses material derived from measures 18-22. The first four measures, 182-186, are presented in homophonic form. For measures 186-190 the upper parts are repeated exactly, and the embellishment in the lower part is in third species to the rhythm of the melody. The embellishment of the lower voice gives it melodic strength that it did not have when it was simply the lower voice of a homophonic section. The contrapuntal style continues through measure 193. The scale passages of measures 194-195 are given imitative treatment and descend to the next octave for repetition, forming the final phrase and leading into the cadence.

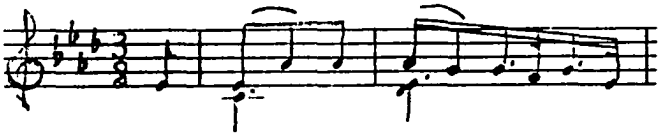
Sonata in A Flat Major, Op. 26

Thematic Index

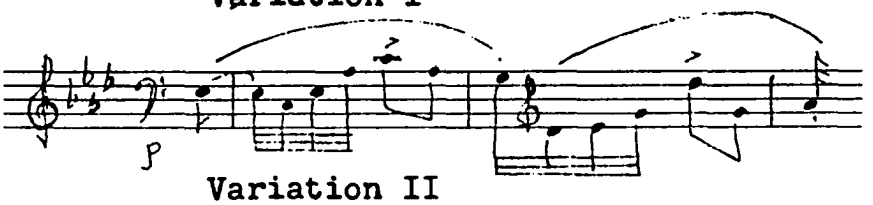
Andante con variazioni

A-flat major

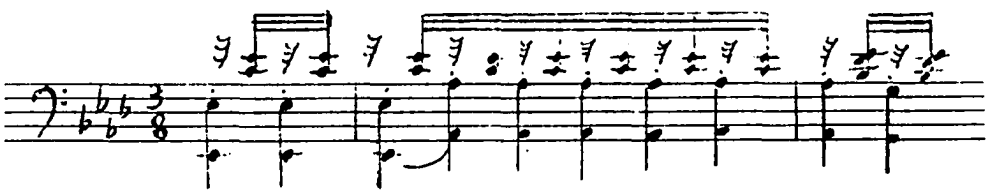
Ternary form



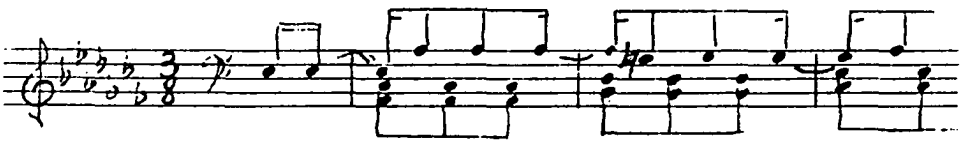
Variation I



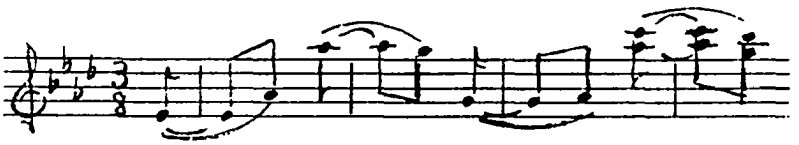
Variation II



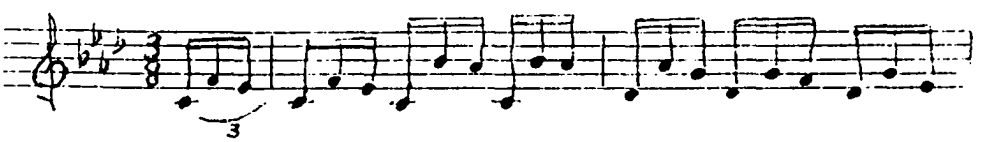
Variation III



Variation IV



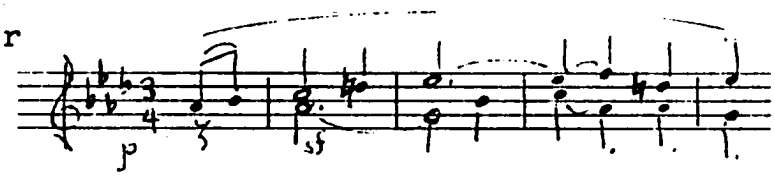
Variation V



Scherzo

Allegro molto

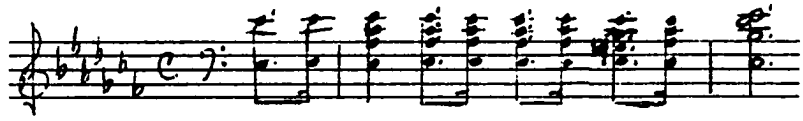
A-flat major



Marcia funebre sulla morte d'un Eroe

Maestoso andante

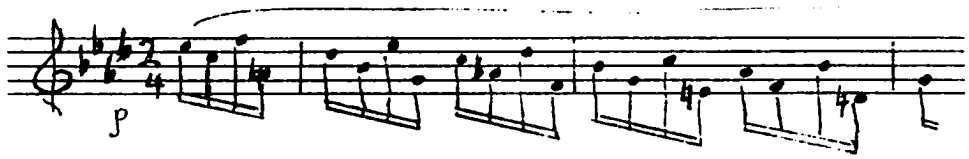
Funeral march
in A-flat minor
with Trio in
A-flat major



Allegro

A-flat major

Rondo



Discussion of Contrapuntal Materials

Andante con variazioni

Sonata 12, Example 1. Measures 16-20, 50-54. Two-part counterpoint.--The independent melodies that appear in the two "voices" of measures 16-20 of the theme are provided with further contrast in measures 50-54 of Variation I. Arpeggiation, which is the characteristic sound of this variation, has embellished the original melody and completely transformed the horizontal line. The arpeggiated activity of part A, measures 34-50, is kept in prominence throughout the variation even though in the contrapuntal area of measures 50-54 the harmonic support is above the arpeggiation rather than below it.

Sonata 12, Example 2. Measures 84-88. Exchange of voices and thematic variation.--The two melodies from measures 16-20 (cf. Example 1) reappear in measures 84-88. Voices have been exchanged, placing the melody of thirds in the lower part as broken tenths, and presenting the modified version of the lower melody in the soprano in octaves.

Sonata 12, Example 3. Measures 136-170. Fourth species and dialogue.--The use of suspension in Variation III becomes a unifying device and is in evidence for three consecutive variations. Variation IV is an excellent example for showing the use of suspension rhythms to characterize a motive. The use of contrasting registers creates the impression of dialogue in the soprano line.

Sonata 12, Example 4. Measures 170-178, 186-196. Contrary motion, three-part counterpoint, and second species.--The melody notes in Variation V are placed in the weakest rhythmic position but are given prominence by the appoggiature in the first eight measures (170-178). In measures 186-196 the voices are exchanged as in Variation II. This contrapuntal area contains contrasting rhythms as well. In measures 193-195 the inner part becomes independent and three-part counterpoint develops.

It is important to note that not one of the movements of Opus 26 is in sonata-allegro form, and this especially labels the ternary variation forms of the first movement as unconventional. The consecutive arrangement of the remaining movements is unusual in that the slow movement becomes the third in order rather than the second, and the scherzo form moves to second place.

Scherzo

Sonata 12, Example 5. Measures 0-16, 44-67, 91-95. Three-part counterpoint, sequence, repetition, exchange of voices, second species, and invertible counterpoint.--The Scherzo begins with a repeated period in three-part counterpoint. The opening four-measure phrase is followed by one recurrence in sequence. The period is then repeated with the injection of chromatic passing tones that cause obvious variation because of their melodic significance. The identity

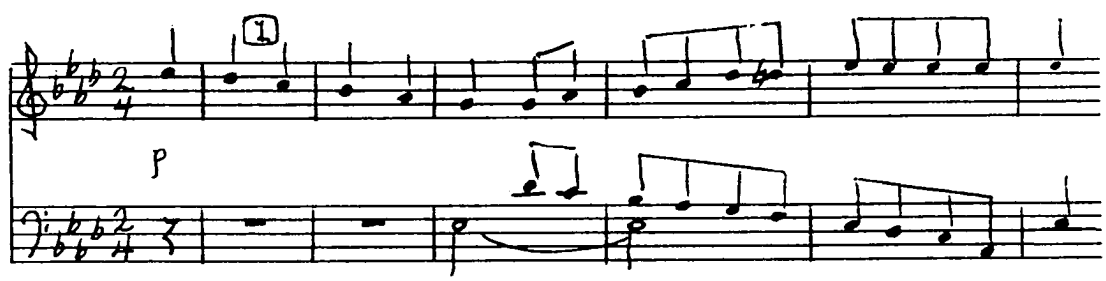
of each voice is clear, and it is important in performance that they be conscientiously presented. For instance, the B-flat in measure 2 must not become part of the soprano melody, because it belongs to the melody of the inner voice.

Beginning in measure 44, the melody is assigned to the lower voice for eight measures of second species counterpoint. At measures 52-60 the exchanged parts produce invertible counterpoint at the octave. The extended cadence harmonies that follow are in the same texture and style.

A brief sequence occurs in measures 91-95 of the Trio. These few notes accomplish a modulation and a transition from the homophonic style of the Trio to the polyphonic style of the Scherzo.

Allegro

Sonata 12, Example 6. Measures 1-28, 48-56. Imitation, retrograde, contrary motion, exchange of voices, invertible counterpoint, sequence, and pedal point.--The Allegro begins with a melodic figuration of a descending scale line (measures 1-2). Imitation and diminution of this scale line appears in the tenor voice, and is in retrograde and diminution for the soprano voice to form contrary motion in measures 3-4.



Without a pause the figuration from measures 1-2 is transferred to the bass voice in measure 6 and set against itself in contrary motion. This inversion places the theme in the soprano voice in measures 9-12, and the result is invertible counterpoint in measures 3-6 and 9-12.

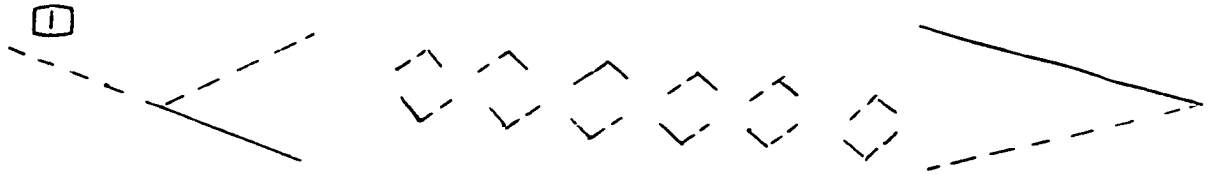
A new melodic theme enters at measures 12-14 in contrary motion to the melodic tones of the soprano voice. These measures appear as invertible counterpoint at the octave in measures 14-16. Measures 16-18 appear as invertible counterpoint at the tenth and a cadence follows in measure 20. Measures 12-20 appear as invertible counterpoint at the octave in measures 20-28.

At measure 48, as if in anticipation of the descending figurations, four measures of figuration appear above a bass pedal point. The pedal point continues through the descending melodic figuration of the restated first measures and leads into the pedal point that has already appeared with each presentation of the principal theme (measures 55-56).

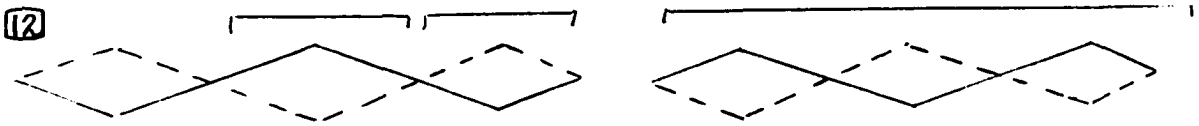
A graphic illustration of melodic treatment in the Allegro movement follows. The dashed and solid diagonal lines represent figured and non-figured melodies respectively. These lines also represent the contours and comparative lengths of melody lines. Solid horizontal lines represent pedal point.

Theme I

1



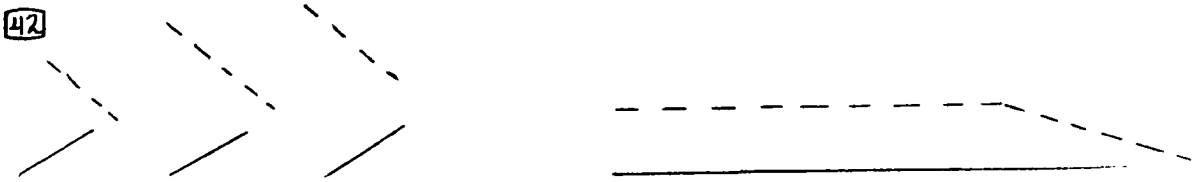
12



Theme II

28

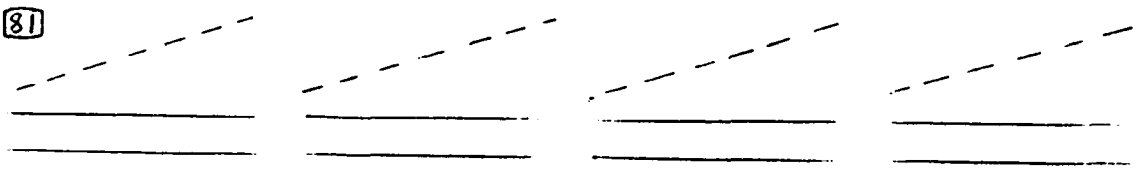
42



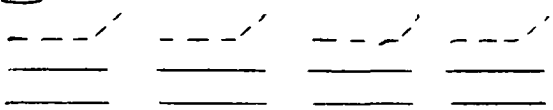
Theme I -- Same as above.

Theme III

81



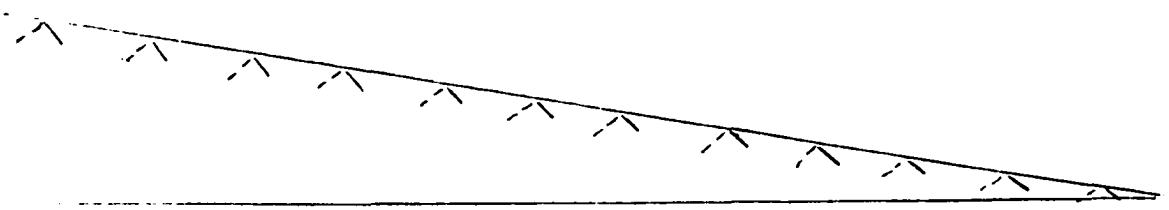
88



Theme I, Theme II -- Same as above.

Theme I

154



Sonata in E Flat Major, Op. 27, No. 1

Thematic Index

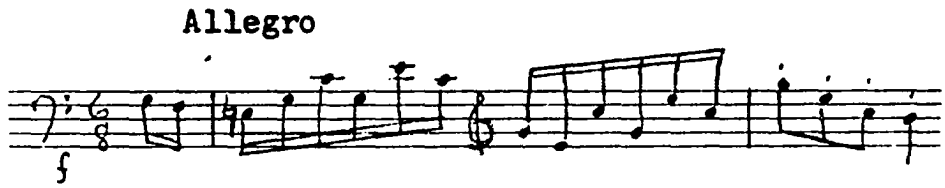
Andante

E-flat major

Sectional form

Episode

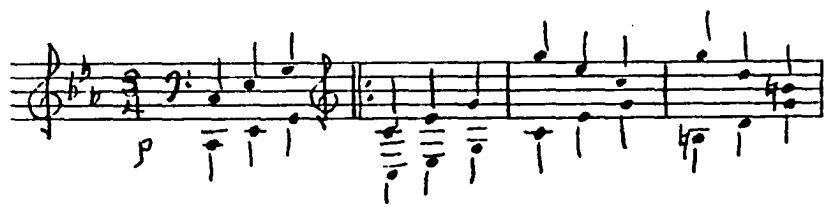
C major



Allegro molto e vivace

C minor

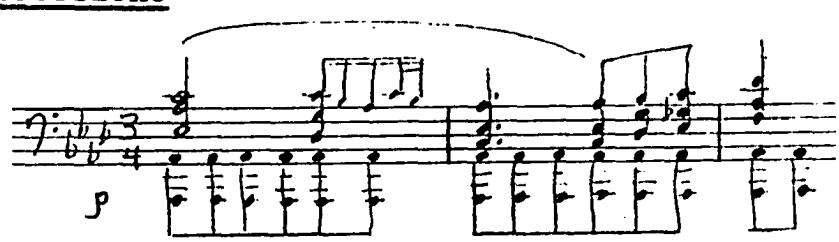
Scherzo with Trio in A-flat major



Adagio con espressione

A-flat major

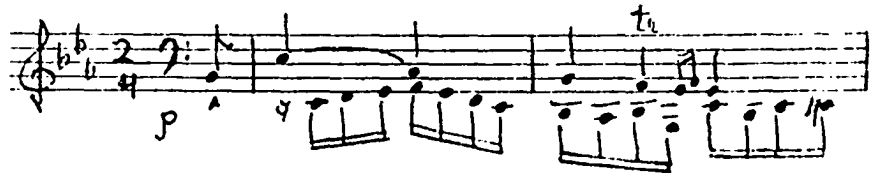
Ternary form



Allegro vivace

E-flat major

Sonata-rondo form



Discussion of Contrapuntal Materials

Andante

Sonata 13, Example 1. Measures 1-36, 63-78. Contrasting lines, dialogue, and invertible counterpoint.--This sectional movement first presents a sixteen-bar form, A A B B, that contains a combination of polyphonic and homophonic ingredients. The upper and lower parts are distinct, however, and maintain their individuality to the end of the movement. This creates polyphony throughout, and a dialogue of "chordal" melodies and scale-line melodies is the result.

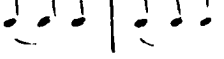
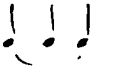
The complete sixteen-measure statement is contained in measures 1-8 with repeats. Dialogue begins in measure 1 and the contrapuntal texture is consistent. Restatement of the tune is varied only slightly with chord repetitions and appoggiature in measures 21-36. The final restatement in measures 63-78 includes an inversion of the parts in each of the four-bar phrases. Specifically, measures 63-66 are inverted in measures 67-70, and measures 71-74 are inverted in measures 75-78, simulating double counterpoint with two contrasting melodic lines.

Sonata 13, Example 2. Measures 13-16. Contrary motion, vertical mirror, diminution, stretto, and horizontal mirror.--A phrase belonging to measures 13-16 enters homophonically but soon breaks into contrapuntal texture. Beginning with an opening wedge of contrary motion in measure

14, the suspension of the high A-flat in measure 14 begins a closing wedge of contrary motion. Retrograde inversion and diminution of the scale passage from measure 14 appears in measure 15 with an added attraction of stretto. The retrograde inversion (horizontal mirror) of both soprano and bass voices of measure 15 are found as invertible counterpoint in measure 16.

Allegro molto e vivace

Sonata 13, Example 3. Measures 1-40, 73-140.

Repetition, dialogue, contrary motion, and canon.--This delightful scherzo form is a play on contrary motion and dialogue. Repeated and imitated three note motives  comprise the entire song form section. The repeated motive  appears initially in one presentation of similar motion in measures 1-2. Thereafter the couplet of triplets appears in continual wedges of contrary motion. Each couplet is heard in a different register, giving the distinct impression of dialogue.

At measure 89 an adjustment to the idea of dialogue must be made. The previously heard simultaneous triplets are now presented in syncopation at the half-beat. Dialogue still exists between registers, but in addition there is an effect of canon.

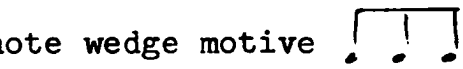
Allegro vivace

Sonata 13, Example 4. Measures 1-2, 5-6. Two-part

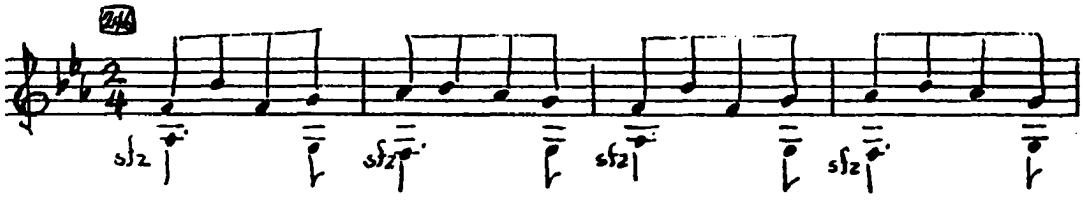
counterpoint and invertible counterpoint.--The first two measures of two-part counterpoint in the theme are deceiving because what appears to be a polyphonic setting quickly dissipates and is only to be hinted at once more in the invertible counterpoint of measures 5-6.

Sonata 13, Example 5. Measures 24-35. Dialogue and contrary motion.--The treatment of motives in measures 24-35 introduces a dialogue of three- and four-voice texture. The dialogue includes two devices that are also commonly used for the development of melodic lines, i. e., imitation and change of register. The motivic units are kept short, and continuous wedges of four-note and two-note motives in contrasting dynamics contribute to the imitative effect.

Sonata 13, Example 6. Measures 106-120, 121-128, 123-128, 135-165. Invertible counterpoint, stretto, contrary motion, and sequence.--The contrapuntal features of the first two measures of this sonata-rondo form place their imprint on the development section for its beginning measures. The first four measures, measures 106-108, appear as invertible counterpoint in measures 112-114. An interesting phrasing divergence is found in the three-measure groupings of melodic exchanges in measures 106-120.

After the brief two-measure stretto in measures 121-122 an arrangement of a three-note wedge motive  in duple meter produces a shift in pitch significance, and a phrase of continuous sequence is formed (measures 123-128).

Sonata 13, Example 7. Measures 246-249. Contrary motion and repetition.--There is within measures 246-249 an example of contrary motion combined with repetition.



The resulting repetition leads into an opening wedge of contrary motion in measures 250-255.

Sonata 13, Example 8. Measures 266ff. Two-part counterpoint and contrary motion.--The brief twenty-measure Presto at the close of the movement contains independent melodies in the outer voices, and contrary motion prevails through measure 277.

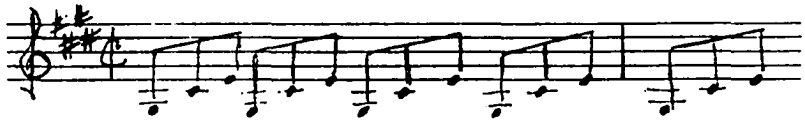
Sonata in C Sharp Minor, Op. 27, No. 2

Thematic Index

Adagio sostenuto

C-sharp minor

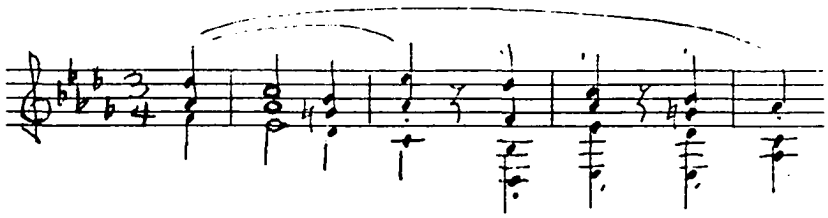
Continuous melody



Allegretto

Tonic major

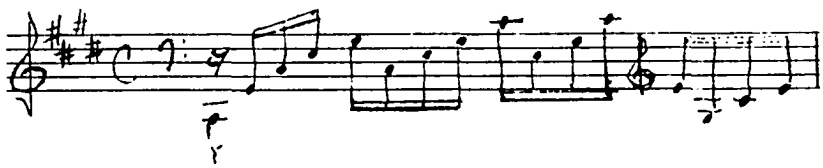
Song form with Trio



Presto agitato

C-sharp minor

Sonata-allegro form



Discussion of Contrapuntal Materials

Presto agitato

Sonata 14, Example 1. Measures 43-57. Contrary motion.--A brief area of contrapuntal activity presents opening and closing wedges of scale line contrary motion in each measure of measures 43 through 47 and 49 through 52. Measures 47-48 and 53-56 also use the idea of contrary motion, but the areas are heard as homophonic and provide contrast to the areas preceding and following them.

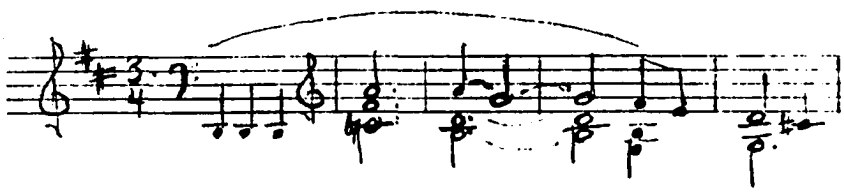
Sonata in D Major, Op. 28

Thematic Index

Allegro

D major

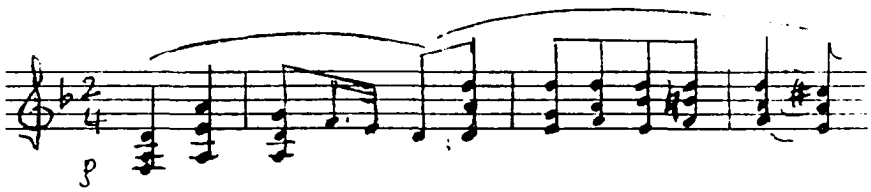
Sonata-allegro form



Andante

D minor

Song form with Trio in D major



Scherzo

Allegro vivace

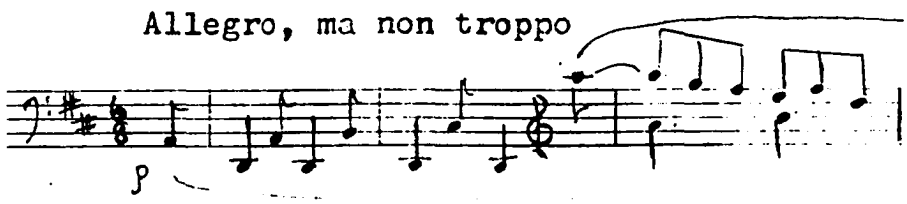
D major

Scherzo with Trio in B minor

Rondo

Allegro, ma non troppo

D major



Discussion of Contrapuntal Materials

Allegro

Sonata 15, Example 1. Measures 1-20, 40-47, 48-60. Pedal point, imitation, repetition, sequence, and third species.--The first presentation of the antecedent phrase of the theme in measures 1-10 is homophonic, but its repetition at the octave in measures 11-20 distributes the parts in a moderately polyphonic texture above a bass pedal point. A singularly identifying characteristic of this movement is the pedal point that supports this opening theme and appears with it in each restatement, including the one in the Coda (measures 438-461).

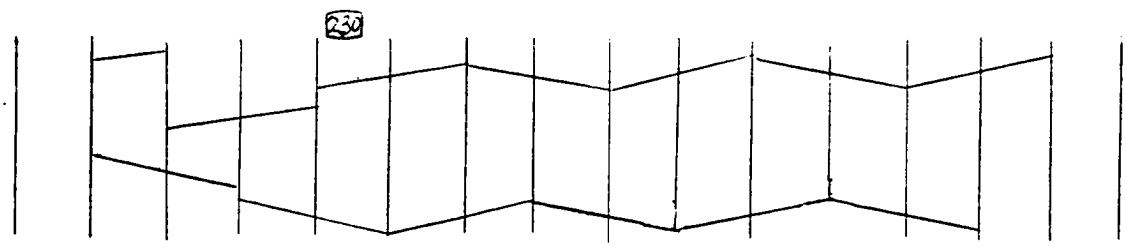
The transition that begins in measure 40 includes a homophonic sequence of its first four measures 44-47. In measures 48-60 a repetition of these primarily homophonic measures is embellished with melodic counterpoint in 6:1 ratio.

Sonata 15, Example 2. Measures 167-265. Three-part counterpoint, imitation, third species, sequence, invertible counterpoint, repetition, contrary motion, mirror, diminution, pedal point, and exchange of voices.--The develop-section of this Allegro movement is contrapuntal in texture. The opening bars, measures 168-176, are written in simple three-part counterpoint, utilizing both the theme and the pedal point of measures 1-10. Measures 177-178 combine the

third species of measures 48-49 with the principal theme, and this leads into third species counterpoint again at measure 183. The contrapuntal activity continues for a sequence in measures 187-190. The same eight measures (183-190) are inverted in measures 191-198. The last two measures of this section are inverted alternately at measures 199 and 201. These four measures (199-202) appear both in sequence and as invertible counterpoint in measures 203-206.

Measure 207 introduces an extended passage that gradually opens a wedge of contrary motion. The outer voices are continuing in an independent manner, the upper voice deleting notes from its motive, and the lower voice offering counterpoint consistent with the harmonic sequence.

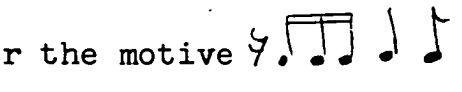
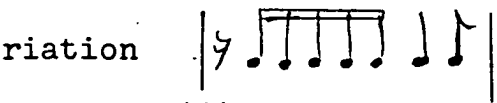
An inversion of the continuous three-note motive  from measure 207ff. is transferred to the bass in measure 219 and is pitted against its inverted and diminutive form. This motivic activity is supported by a sforzando pedal point that is doubled. Variation occurs with the exchange of voices in measure 228 and results in an inverted pedal point in measure 229ff. The next twelve measures consist of rhythmically offset and repetitive patterns of contrary motion.

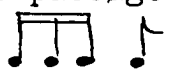


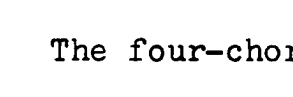
Scherzo

Sonata 15, Example 3. Measures 71-94. Two-part counterpoint.--The soprano melody of the Trio is accompanied by a melody in the bass that maintains its own character at least through the first eight bars. At measure 79 the bass melody appears almost to succumb to an Alberti bass style.

Rondo

Sonata 15, Example 4. Measures 0-16, 56-57. Two-part counterpoint and thematic variation.--The theme of the Rondo consists of two repeated four-measure phrases in measures 0-16, and two-voice counterpoint is created between the soprano and tenor lines. The motive of measures 12-15 is treated with variation. The rhythmic formula of the motive  is reused in part for the motive  in measures 56-57. The motives account for two measures of melodic interest that have been added to the theme for its first return. Measures 118-119 account for still another variation  in the second return of the theme at measure 114.

Sonata 15, Example 5. Measures 28-32, 32-36, 36-40. Canonic treatment, imitation, thematic variation, exchange of voices, and repetition.--Measures 28-32 present a brief imitative passage. Its repetition is embellished with a motive  that is also from measures 12-15.

The four-chord group  in measures 35-36 is repeated three times in measures 36-40. Because of the

exchange of voices every two measures, there is an impression of dialogue. The result is a solidly homophonic interlude using contrapuntal techniques.

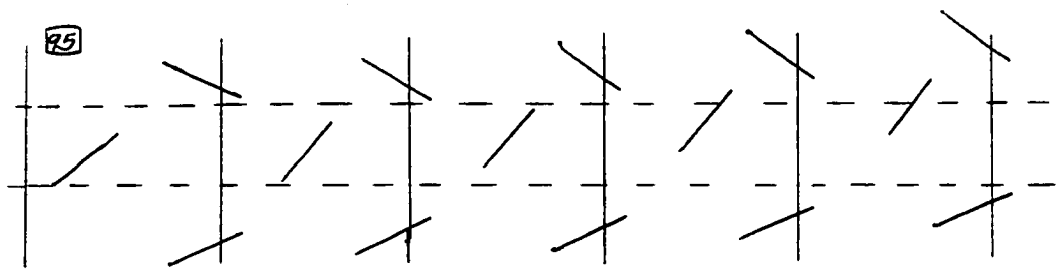
Chord group	Chord group inversion	Chord group	Chord group inversion	Repetition of chord group inversion

Sonata 15, Example 6. Measures 79-100. Two-part counterpoint, imitation, fifth species, pedal point, dialogue, and contrary motion.--The intricacies of measures 79-100 can be traced to polyphonic origins. Strictly speaking, early rules of counterpoint would not tolerate so many parallel imperfect consonances. When considering the influence of counterpoint on later works, a long run of parallel thirds and sixths can be classified as a single-voice impression, at least aurally. Thus, the thirds and tenths of measures 79-86 are heard as one voice against a counterpoint in a third voice. Three independent voices continue in mixed species from measure 86 through measure 90.

Measure 91 begins with what is advisedly interpreted as two-voice imitative counterpoint. The use of thirds and doublings provide a vertically thicker texture above a pedal point on the note G-natural.

In measures 95-100 dialogue and contrary motion between three voices form three-part counterpoint. The upper register three-note motive  is in contrary motion with

the motive in the lower staff, and both of these motives form dialogue with the motives in the middle register.



Sonata 15, Example 7. Measures 177-186. Sequence and pedal point.--A melodic sequence derived from the Rondo theme is used for an extended two-part sequence that ascends in oblique motion against a pedal point in measures 177-182, and descends with a new sequential pattern of two-note wedges that fall into hemiola rhythm in measures 183-186.

A comparison of measures 1-10 and 11-20 of the Allegro and measures 177-187 of the Rondo will point out the validity of the counterpoint. Each of these excerpts contains melodic writing above a pedal point. The first example, measures 1-10, can only claim one independent melody and is, therefore, not contrapuntal. The second example uses the same melody and harmonies, yet presents three independent melodic lines, and thus three-part counterpoint (measures 11-20). Measures 177-187 of the Rondo place a two-voice sequence above the pedal point.

Sonata 15, Example 8. Measures 192-210. Second species and third species.--The opening measures of the Rondo are reiterated in the bass octaves of the Più Allegro.

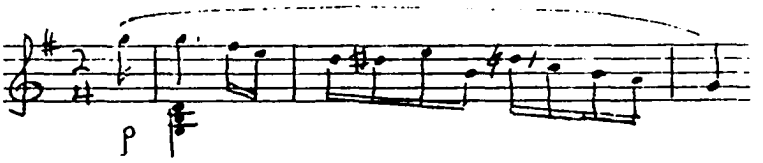
Motives in the upper voice expand their contrapuntal ratio in second and third species to the limit of previously established rhythmic units.

Sonata in G Major, Op. 31, No. 1

Thematic Index

Allegro vivace

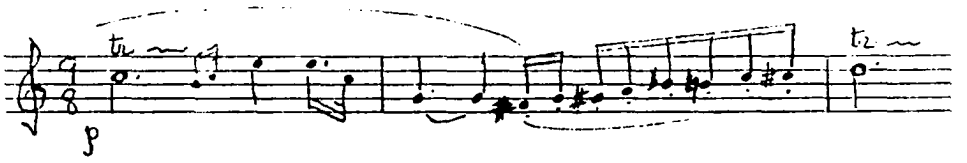
G major,
B major,
and
B minor



Sonata-allegro
form

Adagio grazioso

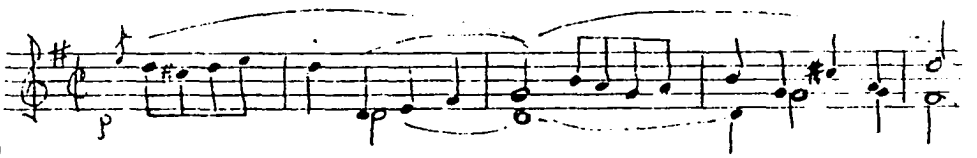
C major



Ternary form
with coda

Rondo

G major



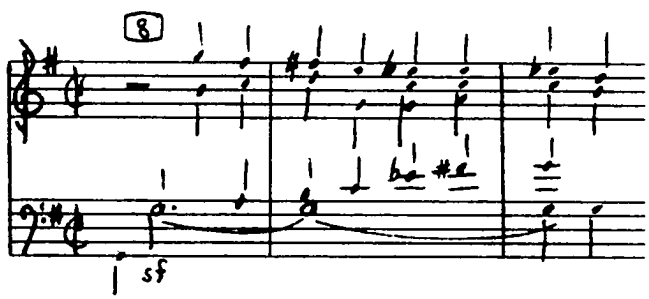
Sonata-rondo
form

Discussion of Contrapuntal Materials

Rondo

Sonata 16, Example 1. Measures 1-16. Two-part counterpoint and pedal point.--Two independent melodies appear in the soprano and tenor voices that are in first and second species. The third voice is rather inactive but becomes independent in measures 8-10 and 12-14. The bass voice functions as a dominant and tonic pedal point or chord tone for the entire theme, measures 1-16.

Sonata 16, Example 2. Measures 8-14, 24-30, 74-80, 102-114, 140-147, 156-162, 206-212. Contrary motion, three-part counterpoint, pedal point, exchange of voices, two-part counterpoint, sequence, third species, and invertible counterpoint.--Content from contrapuntal measures 8-10 and 12-14 appears in the movement a number of times and the procedure will be to trace its development through each reappearance. The consistent elements are chromatic and contrary motion, usually with pedal point.



Measures 24-26 and 28-30 place the soprano voice in the tenor and other "exchanged" voices cannot be traced

although contrary motion and pedal point are both present.

In measures 74-76 and 78-80 there is a thickening of the harmonic texture. Harmonic thirds represent a single voice, the pedal point has become part of an independent voice line, and an inner voice has assumed the function of an independent bass line in broken octaves. Contrary motion and chromaticism also identify the passage.

Measures 102-114 present the melodic motives from the theme simultaneously with the chromatic elements and the contrary motion of measures 8-10 and 12-14.

The pair of excerpts reappearing in measures 140-142 and 144-146 are embellished in 3:1 ratio with differing melodic lines that fall within the descending chromatic melody line.

In measures 156-158 and 160-162 chromatic elements are placed in the lower voices in an opening wedge of contrary motion against an inverted pedal point. As might be expected, this is soon responded to by a closing wedge of contrary motion and the matching pair claim still another variation.

Within the Coda (measures 196-275) measures 206-209 and 209-212 are invertible counterpoint at the octave. The descending chromatic line can be traced from measure 206 through measure 212 and is found against the usual pedal point. The material is clearly derived from the excerpts examined above.

Sonata 16, Example 3. Measures 17-23. Third species and change of register.--Counterpoint in 3:1 relationship above the theme in a new register appears in measure 17 and continues to measure 23.

Sonata 16, Example 4. Measures 42-51, 66-74. Third species, two-part counterpoint, and pedal point.--A 3:1 rhythmic ratio appears in measure 42. Two-part counterpoint with pedal point persists through measure 51, but the style becomes merely arpeggiated at measure 50, and remains so until the main theme reappears in measures 66-74. Here the 3:1 ratio resumes contrapuntal quality.

Sonata 16, Example 5. Measures 82-97. Second species, canonic treatment, exchange of voices, and sequence.--The main theme appears in a minor mode in measures 82-86 against third species counterpoint. The last note overlaps with a partial theme in the bass at measure 86. Canonic treatment of the theme at the octave and at one-measure time interval begins in measure 86. In measures 91-98 the soprano becomes the leading voice and the canon is complete and extended in length.

Sonata 16, Example 6. Measures 98-114. Sequence, contrary motion, and stretto.--Measures 98-114 reveal developmental techniques that have origins in counterpoint. The first eight measures (98-106) is partially sequenced for the second (106-114), and each of the eight-measure sequences contain two-measure sequences in measures 102-104/

104-106 and 110-112/112-114. There are implications of stretto in the continuous descending figures in the lower voices that combine with the melody in measures 102-105 and 110-113.

Sonata in D Minor, Op. 31, No. 2

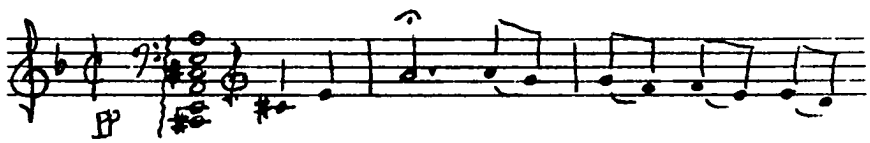
Thematic Index

Largo

Allegro

D minor

Sonata-allegro form



Adagio

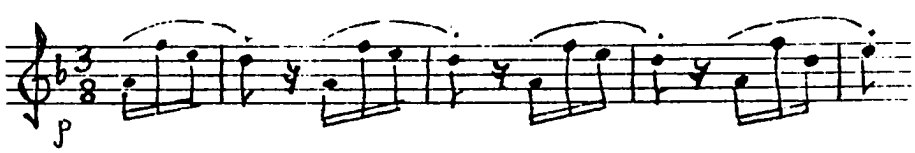
B-flat major

Sonata-allegro without Development

Allegretto

D minor

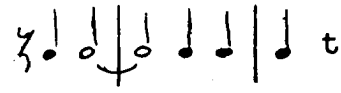
Sonata-allegro form



Discussion of Contrapuntal Materials

This Sonata in D Minor is not designed to exhibit contrapuntal features and the composition is better classified as an example of stylistic, even virtuosic, piano music. Only a few techniques that come under the heading of contrapuntal materials are employed in its organization.

Largo-Allegro

Sonata 17, Example 1. Measures 55-63, 75-84. Repetition, dialogue, contrary motion, invertible counterpoint, third species, and second species.--Within the homophonic area of measures 55-63 a single melodic motive  that appears in measures 55-57 is found in an octave higher register for its first repetition in measures 57-59, and in a two-octave higher register for its second partial repetition. At measure 63 the motive appears in the bass for three restatements in the same register. This forms a conjunct single-voice melody that is in dialogue with disjunct treatment of motives of harmonic thirds and sixths in the upper register. At measure 69 the lower voice becomes florid and assumes a direction that generally is in contrary motion to the upper voice sub-motives. Measure 75 contains four bars of double counterpoint including contrary motion. The syncopated variation of these measures in measures 81-84 changes the ratio from 4:1 to 2:1 and the style continues through measure 86.

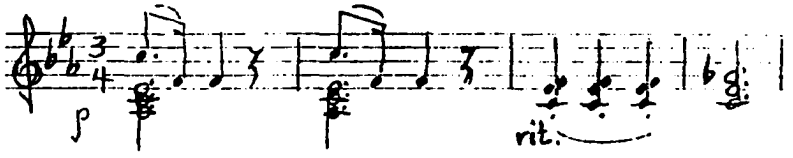
Sonata in E Flat Major, Op. 31, No. 3

Thematic Index

Allegro

E-flat major

Sonata-allegro form

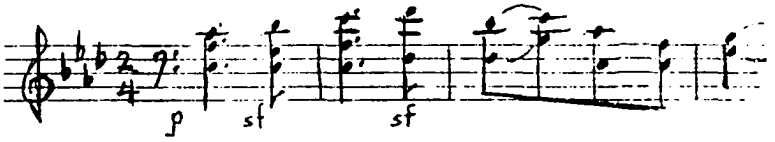


Scherzo

Allegro vivace

A-flat major

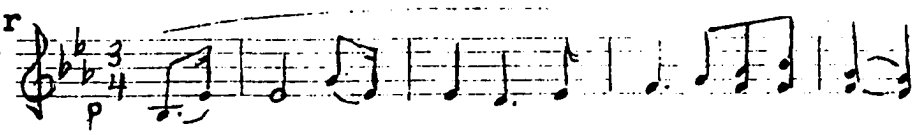
Sonata-allegro form



Menuetto

Moderato e grazioso

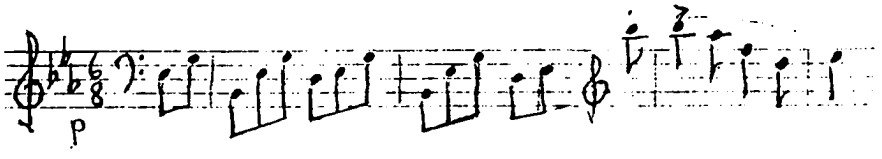
E-flat major with Trio



Presto con fuoco

E-flat major

Sonata-allegro form



Discussion of Contrapuntal Materials

Scherzo

Sonata 18, Example 1. Measures 1-8. Two-part counterpoint and contrasting lines.--In the first eight measures the upper melody is given vertical harmonic support that gives it homophonic character. The contrasting and independent melody in the bass is given distinction by its staccato and horizontal character. Each time this rondo-like theme reappears the upper and lower parts maintain their individuality.

Sonata 18, Example 2. Measures 124-132. Two-part counterpoint.--The homophonic upper "voice" of Theme I appears in measures 124-132 in a variation that suggests added polyphonic activity because of independence of the middle voice. However, the original soprano melody has been embellished so that the outer voices have become less independent because of their now more similar rhythms.

The usual slow second movement has been replaced in this sonata by this lively Scherzo in sonata-allegro form. The tempo marking is the only instance in his sonatas that Beethoven employed $\frac{2}{4}$ time for a movement labeled "Scherzo".

Presto con fuoco

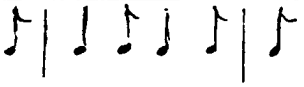
Despite the melodic accompaniment of the introduction, the voices generally cannot be described as independent. Justification for the inclusion of the following examples is

based primarily on the two-voice texture that occasionally incorporates contrapuntal techniques.

Sonata 18, Example 3. Measures 20-34, 42-45, 50-53. Sequence and contrary motion.--Six arpeggiated and opening wedges of contrary motion appear in measures 20-34. Telescoping of the wedge idea into scale-line patterns and a shorter time span is found in measures 42-45 and 50-53, and sequence is present.

Sonata 18, Example 4. Measures 130-143. Imitation.--Imitation in measures 130-143 includes voice exchanging and simulates double counterpoint for each restatement. However, the first restatement is modified, causing it to be tonal in nature. When harmonic progressions are checked it is observed that the inversions could have been strict without disturbing the harmonic goal.

Measure 131:	$e^{o}7^{o}$	$E^{b}7$	$a^{o}7^{o}$	F 7	F 9	F 9
Measure 135:	$a^{o}7^{o}$	$A^{b}7$	$d^{o}7^{o}$	($B^{b}7$)	($B^{b}9$)	($B^{b}9$)
Measure 139:	$d^{o}7^{o}$	$D^{b}7$	$g^{o}7^{o}$	$E^{b}7$	$E^{b}9$	$E^{b}9$

Sonata 18, Example 5. Measures 280-298, 309-310, 318-320. Dialogue, repetition, sequence, stretto, and imitation.--The dialogue motives  of measures 280-284 are repeated in measures 286-290, and measures 286-290 are sequenced at measures 290 and 294. In measures 299-300 the rest values are deleted, eliminating the time interval

between motives. The motive itself is reduced to mere repetition and returns to the characteristic chase figure with its inverted accompaniment at measure 303.

There is an instance of similar descending motives in stretto in measures 309-310. Another pair of descending motives in stretto appears in the ritardando in measures 318-120. The upper voice from this stretto is repeated once at the octave in measures 320-322.

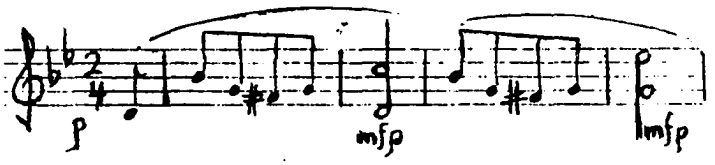
Sonata in G Minor, Op. 49, No. 1

Thematic Index

Andante

G minor

Sonata-allegro form



Rondo

G major

Special rondo form

Sonata in G Major, Op. 49, No. 2

Thematic Index

Allegro ma non troppo

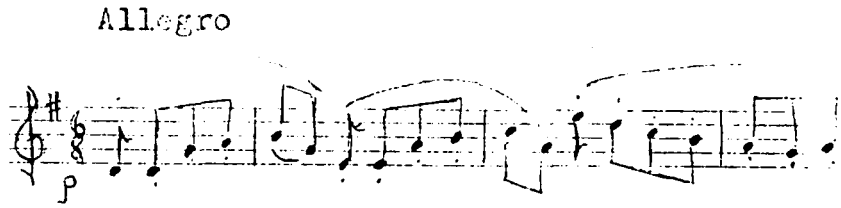
G major

Sonata-allegro form

Tempo di Menuetto

G major

Rondo



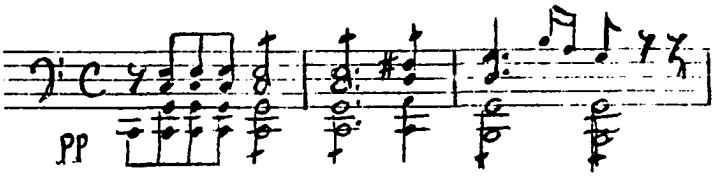
Sonata in C Major, Op. 53

Thematic Index

Allegro con brio

C major

Sonata-allegro form

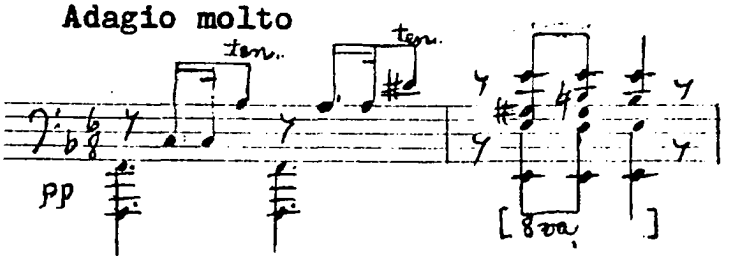


Introduzione

Adagio molto

F major

Ternery form

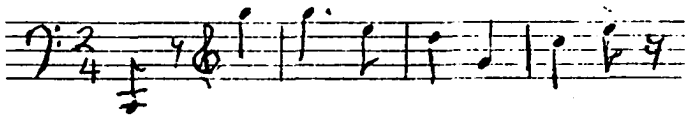


Rondo

Allegretto moderato

C major

Sonata-allegro with Prestissimo Coda



Discussion of Contrapuntal Materials

Allegro con brio

Sonata 21, Example 1. Measures 35-49, 50-53, 54-73. Second species, contrasting voices, invertible counterpoint, and contrary motion.--The melody from the chordal section of measures 35-41 is embellished with second species counterpoint in measures 43-49. At times it is difficult to determine just where contrapuntal devices leave off and where arpeggiation, figuration, and other idiomatic techniques begin. Often this is true when Beethoven uses 3:1 and 4:1 rhythmic relationships, and it is particularly true of his writing in this period.

Measures 50-51 are invertible and appear as such in measures 52-53. A 3:1 ratio is extended in meaning here to include a melody made up of broken triads heard against a single syncopated tone on the pitch B natural. Strict counterpoint would not be written with repeated notes, but the technical ideas of species ratio and syncopation are present.

The pattern of triads continues through measures 54-57, and the mind that is listening for contrapuntal effects is aware of the contrary motion between motivic figurations in the two voices. The triplet figurations are accelerated to quadruplet figurations in measures 58-65 and the voices continue through measure 73 as protractions of harmony rather than melody (measures 58-61).

Sonata 21, Example 2. Measures 74-78, 82-85. Two-part counterpoint, contrasting voices, repetition, imitation, sequence, and three-part counterpoint.--Polyphony returns in measure 74 between the tenor and the upper voice, and the entire passage of measures 74-78 is reproduced an octave lower. The soprano voice from measures 80-82 is imitated and sequenced in measures 82-83 and 84-85 above lower voices that suddenly create three-part counterpoint.

Sonata 21, Example 3. Measures 112-123, 142-155. Imitation, sequence, and contrary motion.--At measure 112 a four-measure idea initiates an interlocking sequence for measures 116-119 and 120-123. This sequence progresses by way of secondary dominants from C to F, B-flat, and E-flat tonics. The bass line of the first measure of each sequence is imitated in the soprano, forming six wedges of contrary motion.

The sounds that are set into motion in measures 142-155 contain a ground bass that is at first antiphonal and then is left entirely to the bass through measure 154. The upper voice, beginning in a low register at measure 142, gradually works its way toward upper registers. This is accomplished through the use of ascending figures derived from the preceding material. When the upper voice reaches its height in measure 152 it joins with the lower voice to dissolve into one bold wedge of contrary motion.

Contrary motion is anticipated from measure 142

with alternating dialogue, intermittent small wedges, and two measures of continuous wedges in measures 153-154 preceding the wedge of two-octave dimensions in measure 155. Though brief, this contrary motion is both expedient and dramatic in its climactic and transitional functions. Its occurrence is recalled and enlarged upon for the final measures of the movement (measures 298-300).

Sonata 21, Example 4. Measures 192-195. Imitation.--Measures 192-195 are imitative, using two voices in stretto at the octave, at the half-measure, and in broken octave figuration. The voices exchange leadership at midpoint (measure 194).

Introduzione

Sonata 21, Example 5. Measures 11-13, 17-28. Stretto and dialogue.--Two occurrences of stretto give contrapuntal character to measures 11 and 13 in the lyrical section of this three-part form. Dialogue develops in measures 17-28 between two contrasting motives. There is contrary motion between the outer voices in measures 20-24.

Rondo

Sonata 21, Example 6. Measures 55-62. Two-part counterpoint.--If ambiguities between polyphonic techniques and idiomatic figurations were apparent in the Allegro movement of this sonata, they become even more difficult to differentiate in the Rondo movement. For example, only a 4:1

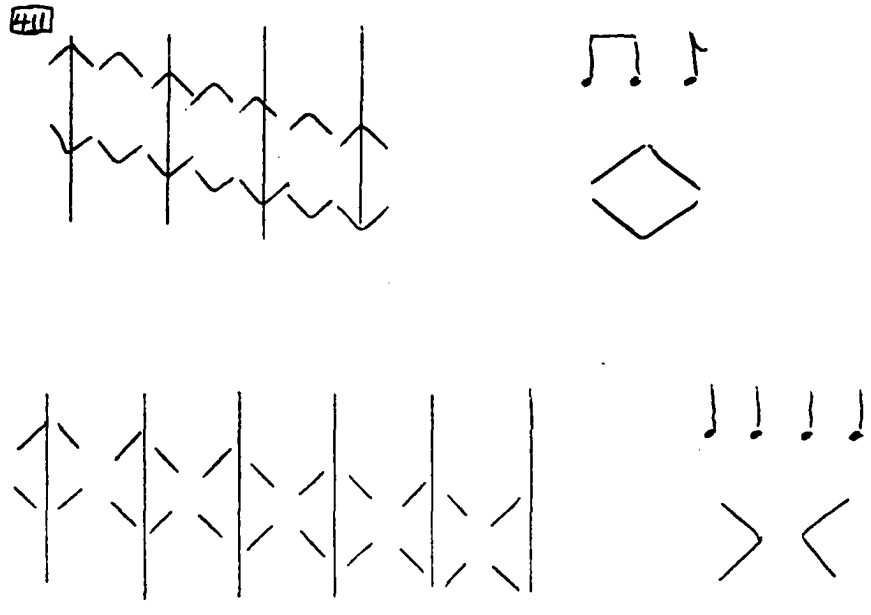
ratio is within the rhythmic context of the material preceding measure 55, yet at measure 55 decidedly there are two melodic lines of contrasting style.

Sonata 21. Example 7. Measures 183-216. Two-part counterpoint, second species, invertible counterpoint, and repetition.--Measure 183 begins a contrapuntal section of 3:1 ratio that extends through measure 216. There are three statements of the theme in measures 183-191, 191-199, and 199-207. The second and third statements are in strict invertible counterpoint at the octave (measures 191-199 and 199-207). The last four measures of the third statement are inverted in measures 207-211. Two repetitions of the last half of this inversion are used to extend the phrase in measures 211-215. The florid 3:1 upper voice continues for two measures against a declamatory bass cadence (measures 215-216).

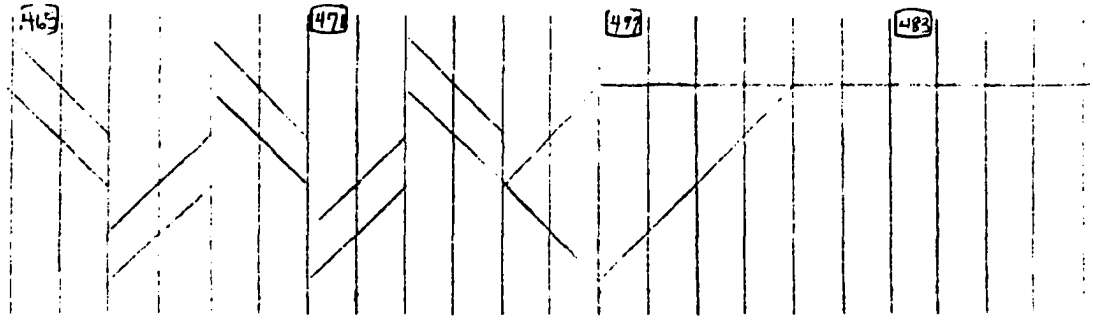
Sonata 21, Example 8. Measures 403-529. Diminution, thematic variation, inversion, augmentation, contrary motion, and imitation.--The melodic theme of the Rondo is found in diminution in measures 403-406, followed immediately in measures 407-410 with ornamented variation.

The use of scale lines and wedges or parts of wedges contribute to the character of the Prestissimo. Figurations on a descending C major scale appear in measures 411-415 and the voices are inverted in measures 415-419. Augmentation of note values for a similar figuration occurs

in measures 434-441, again built on the descending C major scale. In the first instance the figurations form three-note wedges and in the second, two-note wedges.



Inversion and contrary motion of the voices are delineated in the following diagram for measures 465-484.



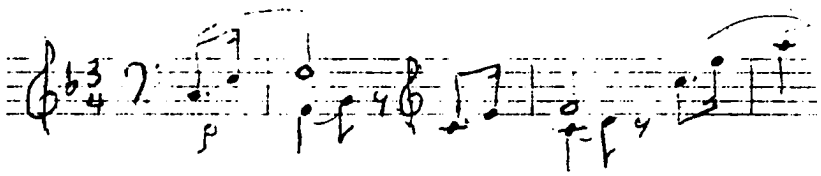
The same diminution and variation of measures 403-410 (cf. above) is found in measures 515-523 with alternating pitch locations (imitation) and different accompaniment.

Sonata in F Major, Op. 54

Thematic Index

In tempo d'un Menuetto

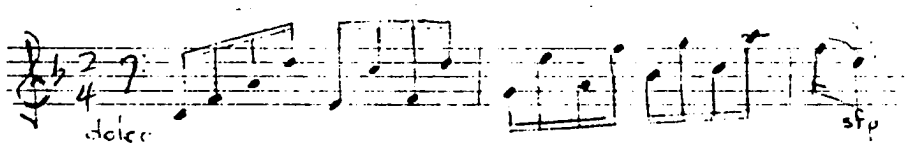
F major



Minuet with
modulating Trio
and
progressive variations

Allegretto

F major



Toccata,
perpetuum mobile
with melodic
Exposition,
Development and
Coda

Discussion of Contrapuntal Materials

In tempo d'un Menuetto

> "The first movement seems quite unhappy with a main theme that cannot get through four bars without a [cadence] and prefers to sit down after two. The finale, on the other hand, cannot stop at all, though its initial range of sentence is only two bars..."[1]

Sonata 22, Example 1. Measures 24-58, 58-62. Imitation, first species counterpoint, contrary motion, and sequence.--In the trio section beginning at measure 24, imitation of the triplet melody is found in measures 25-28 and results in 1:1 counterpoint. At measure 29 the idea is transposed to another pitch and imitation is abandoned in favor of consecutive sixths in contrary motion to the bass (measures 30-33). It is interesting that Beethoven never used more than three consecutive harmonic sixths in this passage without changing direction, which is in compliance with the practices of traditional counterpoint. Measures 38-47 transpose measures 24-38 and are extended internally by one two-measure sequence (measures 47-48). The motivic interplay of contrary motion is continuous and extended to larger dimensions in measures 52-58.

The motives appearing in measures 58-62 might be described to anticipate the melodic figurations introducing the return of the main theme at measure 69ff.

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[1]Donald Francis Tovey, A Companion to Beethoven's Pianoforte Sonatas (London: The Associated Board of the Royal Schools of Music, 1931), p. 161.

Allegretto

> "[The second movement] does not seem to have heard of any other texture than two-part writing..., nor of internal rhythm beyond perpetual motion; nor... does it seem to have heard of counterpoint beyond note against note, or rather arpeggio against arpeggio, with an occasional syncopated figure in monotone."[1]

Sonata 22, Example 2. Measures 1-20, 45-50, 115-118, 121-122, 130-145. Imitation, dialogue, contrary motion, pedal point, and sequence.--The texture of this Allegretto is two-part, and the motives that are established in the first measures of exposition are perpetuated through the development and to the end of the movement. In measures 1-8 imitative four-measure phrases overlap at two-measure intervals and resemble dialogue, since one voice becomes inactive at the point of overlap. Following these exchanges, a second feature of note is the figuration of continuous wedges in measures 9-12. Dialogue of contrasting rhythms continues to measure 17 where contrary motion provides ongoing activity.

A dominant pedal point is added to the motivic theme in measures 45-50. Imitative treatment in measures 105-109 derives its motives from the theme and forms overlapping dialogue. A broken octave tonic pedal point enters with the theme at measure 115, changing to dominant at measure 118. Measures 121-122 contain an opening wedge of

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[1]Ibid., p. 161.

contrary motion where only an ascending or descending line has appeared previously. Sequential progression of reused figurations in measures 123-126 is followed by four measures of imitated material in fluctuating tonality. Approach to the new but temporary tonic involves subtle contrary motion between outer voices in measures 130-133. Measures 134-137 are sequenced in measures 138-141 and 142-145, using temporary tonics on pitches C, B-flat, and A-flat respectively.

Sonata 22, Example 3. Measures 161-188. Contrary motion and pedal point.--In the Più Allegro measures 161-188 bring to the attention alternating oblique and contrary motion. The pedal point appears and disappears, according to the motion, and the final measures contain a double pedal point on the tonic and dominant.

Continuous motion, in alternating or combined voices and in sixteenth-note values, is maintained throughout the movement. This feature is relevant to ongoing motion that is characteristic of contrapuntal style.

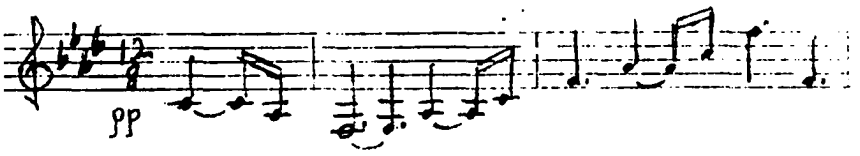
Sonata in F Minor, Op. 57

Thematic Index

Allegro assai

F minor

Sonata-allegro form



Andante con moto

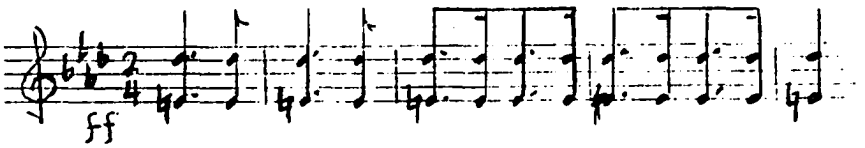
D-flat major

Theme with variations

Allegro ma non troppo

F minor

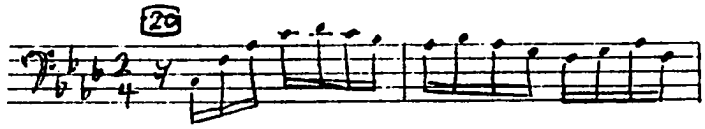
Sonata-allegro form



Discussion of Contrapuntal Materials

Allegro ma non troppo

Sonata 23, Example 1. Measures 96-97, 100-101, 122-125, 158-167. Imitation, repetition, and stretto.--An imitated motive whose source is from the main theme in



measures 20-21, appears in measures 96-97 and is repeated an octave higher in measures 100-101. Similar motives are used in measures 122-125 with imitation, repetition, and stretto.

Sonata 23, Example 2. Measures 220-227. Two-part counterpoint, second species, and augmentation.--The melodic motive from measure 20-21 (cf. Example 1) is used in a short contrapuntal area in measures 220-227. The soprano counterpoint appears as rhythmic and melodic augmentation of the last half-measure of the bass melody in measures 220, 221, and 223.

Sonata in F Sharp Major, Op. 78

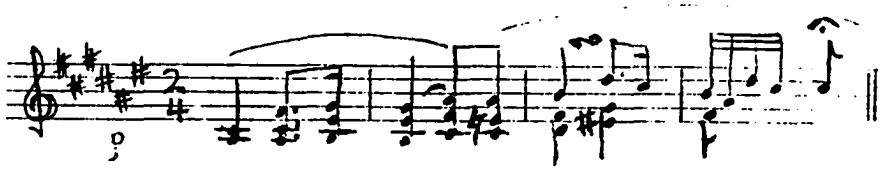
Thematic Index

Introduction

Adagio cantabile

F-sharp major

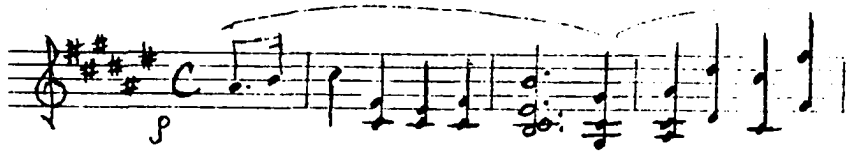
Phrase



Allegro ma non troppo

F-sharp major

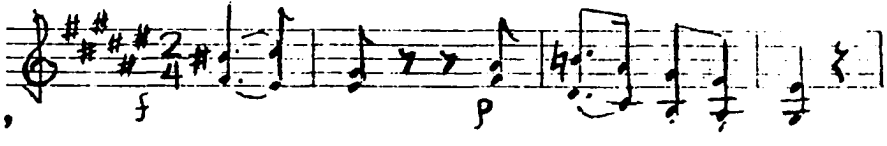
Sonata-allegro form



Allegro vivace

F-sharp major

A B A B A in keys F-sharp, D-sharp, B, F-sharp, and F-sharp, respectively



Discussion of Contrapuntal Materials

The contrast in style of this sonata to the two previous ones is quite evident. Idiomatic and dramatic styles of the virtuoso are supplanted by styles of lyricism and simplicity. The very nature of the sonata makes it difficult to isolate contrapuntal devices, and the effort to do so is considered by Tovey[1] to be a waste of time and effort. A few items will be considered for the purpose of pointing out this difficulty.

Allegro vivace

Sonata 24, Example 1. Measures 1-31. Contrary motion and two-part counterpoint.--The chord of the augmented sixth opens the second movement and plays an important unifying role. It appears in measures 1, 32, 89, and 150. The regular resolution of the augmented sixth chord forms the smallest possible opening wedge of a half-step. Several wedges of varying measure lengths and interval dimensions are to be found in the first section, measures 1-31. Two contrapuntal melodies that generally move in contrary motion can be traced in inner and lower voices in measures 12-22.

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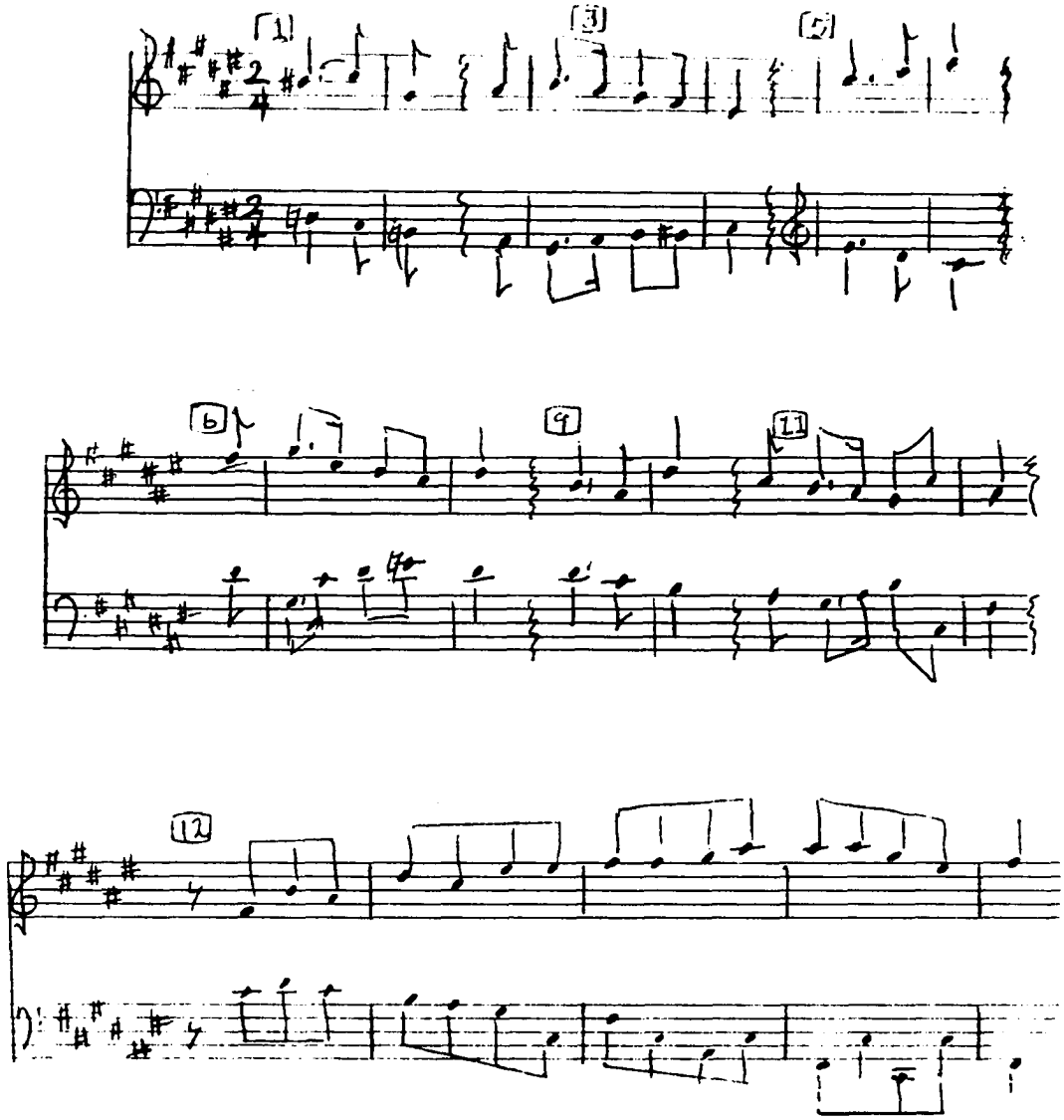
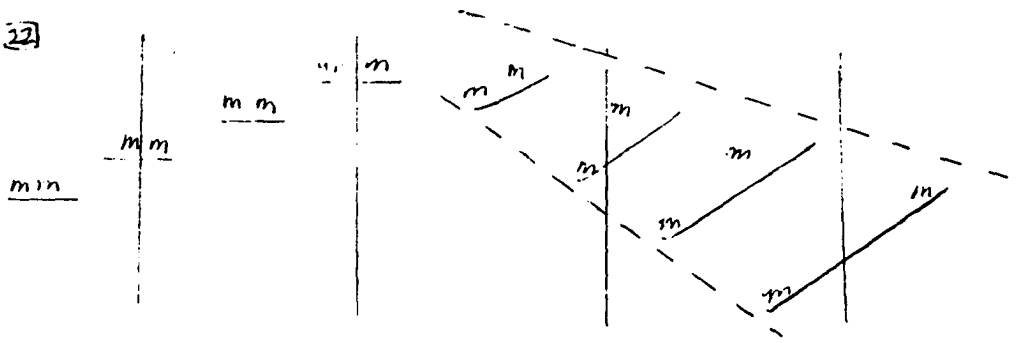
[1]Ibib., p. 178.



Measures 22-31 lead into the augmented sixth chord at measure 32 in an unusual fashion. Exact repetition of two-note motives in a single tone line gradually move apart, expanding the interval and creating an opening wedge. The ascending two-note motives that outline the wedge are in similar motion that is contrary to the descending and also similar motion of the lines of the wedge.


22
m m
m m
m m
m m
m
m
m
m
m
m
m
m

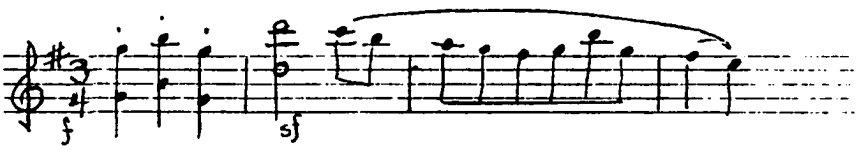
Sonata in G Major, Op. 79

Thematic Index

Presto alla tedesca

G major

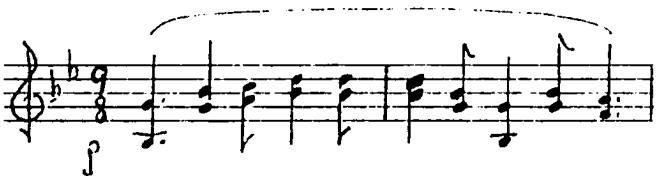
Sonata-allegro form



Andante

G minor

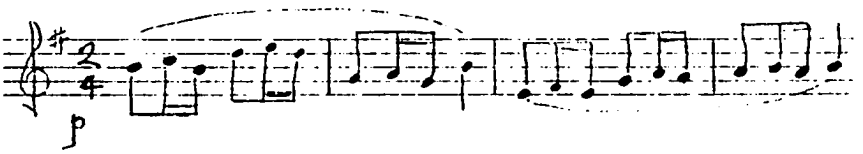
Ternary form, A B A with B in E-flat major



Vivace

G major

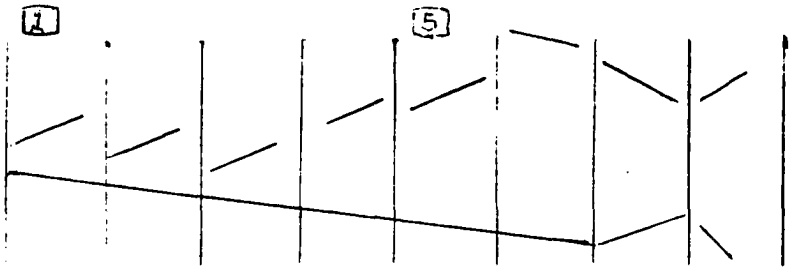
Rondo



Discussion of Contrapuntal Materials

Vivace

Sonata 25, Example 1. Measures 1-8, 24-34, 35-42, 72-79, 80-87. Two-part counterpoint, contrary motion, second species, first species, imitation, dialogue, and thematic variation.--The third movement opens with contrapuntal melodies in the outer voices, using contrary motion in 3:1 ratio (measures 108).

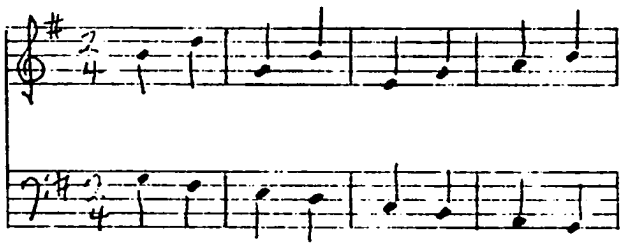


The repeated use of the neighboring tone for each melodic figure provides melodic identity for the upper voice.

Measure 24 introduces a dialogue that is easy to distinguish at first. Diminution of the connecting time interval and reduction of the melodic interval between the imitated motives causes the patterns to merge and the dialogue to become monophonic (measures 24-34).

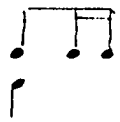
Material from measures 1-8 is reduced to a two-part texture in the rhythmic variation of measures 35-42, and the descending and complete G major scale appears on the principal beats in the lower part. Another variation is created in measures 72-79 when the eighth-note accompaniment

is reduced to sixteenth notes that continue to the end of the movement. A third variation appears in measures 80-87 in first species counterpoint, in contrast to the theme and the first two variations that appeared in second species. All three variations contain the contrary motion and follow the descending scale line pattern.

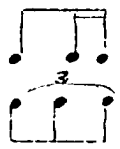


Summary of Rhythmic Variants Used in Sonata in G, Op. 79 (Vivace)

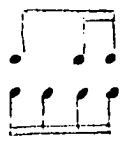
Measures 1-8



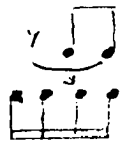
Measures 35-42



Measures 72-117



Measures 80-87, and 92-94



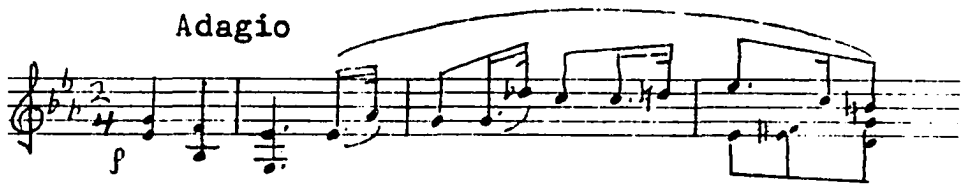
Sonata in E Flat Major, Op. 81a

Thematic Index

Das Lebewohl (Les Adieux, Departure)

Introduction

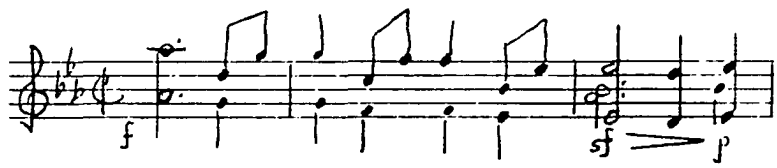
E-flat major



Allegro

E-flat major

Sonata-allegro form

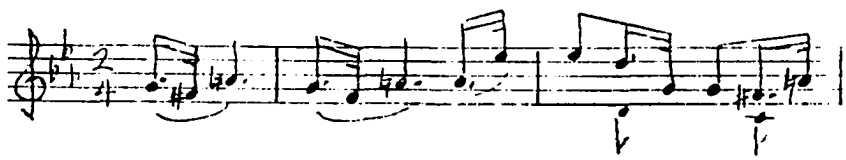


Die Abwesenheit (L'Absence, Absence)

Andante espressivo

C minor

Intermezzo

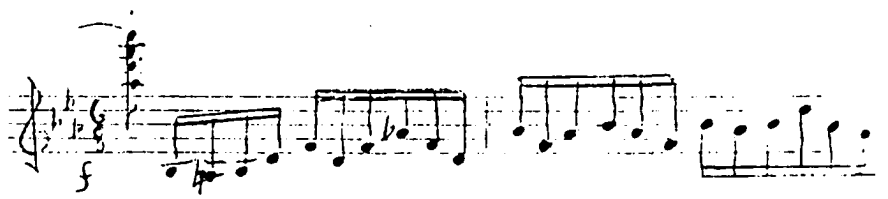


Das Wiedersehen (Le Retour, Return)

Vivacissimamente

E-flat major

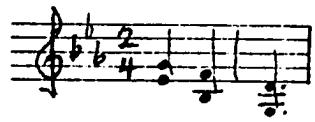
Sonata-allegro form

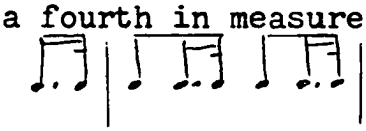


Discussion of Contrapuntal Materials

Introduction

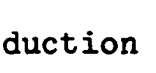
Sonata 26, Example 1. Measures 1-16. Contrary motion and sequence.--Each measure of the Introduction is invloved in a wedge of contrary motion. The Lebewohl motive



in the first measure forms an opening wedge of two voices in similar motion. This motive, combined with characteristic intervallic leaps upward of at least a fourth in measure 2, and with dotted-note rhythmic sequence  of measures 2-5, are all within the first three measures of the Introduction and are to be of particular importance to the contrapuntal development in the Allegro movement. When the sonata is viewed as a whole it is clear that organic unity is purposefully provided in the three movements by relating the elements within them to each other. The cadence phrase, measures 13-16, uses the melodic line of the Lebewohl motive, and its free inversion, with diminution and contrary motion.

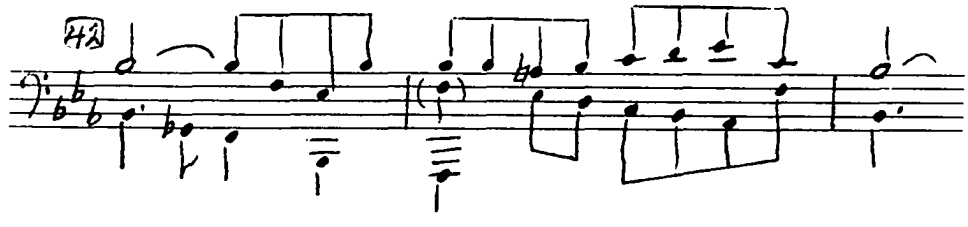
Allegro

Sonata 26, Example 2. Measures 1-3, 13-18, 19-22, 30-33, 42-45, 46-50. Sequence, contrary motion, augmentation, two-part counterpoint, repetition, and canon.--Measures 1-3 contain a sequence that uses in altered form

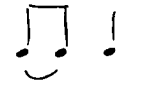
the intervallic leap, the rhythmic sequence, and the contrary motion from the Introduction. The rhythmic motive  from the Introduction is associated with  in the Allegro as visual augmentation and aural diminution because of divergent tempos.

Contrary motion in the outer voices is continuous in measures 13-18, and one measure of two-note wedges appear in measure 16. Measures 19-22 are reflective of both the Lebewohl motive and of the cadence phrase of the Introduction. These four measures claim independence for three of the voices and a brief change of mode for the motive. Contrary motion is present in the outer voices of these measures as it is in the repeated motives of measures 30-33.

A contrapuntal area with a two-measure repetition appears in measures 42-45 where essentially two-voice counterpoint is heard.



A two-voice canon at the octave and at one beat time interval develops in measures 46-50.

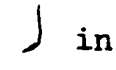
Sonata 26, Example 3. Measures 59-82ff. Sequence, dialogue, and augmentation.--The leap upward of a diminished fifth in measure 59 is sequenced within that measure and the next. The motive  forms dialogue with the Lebewohl

motive that has been rhythmically augmented and melodically modified. Measure 63 expands the melodic interval to a perfect fifth, and measure 67 further extends it to a sixth. Ultimately the interval of this motive is expanded to the octave in measure 82 where, with several repetitions, a transformation is effected and a return to the sequence of measures 1-2 is accomplished (measures 94-96).

Sonata 26, Example 4. Measures 165-180, 181-192. Augmentation, imitation, two-part counterpoint, exchange of voices, invertible counterpoint, and repetition.--Measures 165-179 contain augmentation and overlapping of the upper voice of the Lebewohl motive. This motive is retained in the upper voice and extended to phrase length for new melodic significance. If the Lebewohl theme is considered as one "voice" it can be said that contrapuntal interest is added in the lower voice in measures 181-184 (two-part counterpoint). At measure 185 the contrapuntal activity is taken over by the upper voice while a remnant of the augmented Lebewohl motive is reflected in the lower one (measures 185-190). Only measures 181 and 185 of the passage are used as invertible counterpoint. The remaining three measures contain new contrapuntal material. The florid line of measures 185-186 is repeated two times in successively ascending octaves in measures 186-190. Measures 181-192 are repeated and extended for measures 192-206.

Sonata 26, Example 5. Measures 207ff. Augmentation, imitation, dialogue, diminution, and stretto.--A motive using the lower notes of the Lebewohl is augmented and overlapped in measure 207ff. The lower voice motive rejoins the upper voice of the motive in measures 211-222 and appears antiphonally six times. The point of overlap has been advanced to stretto in measure 214-218. In measure 219 the same motive appears as dialogue and changes form at measure 223. Six measures of contrary motion, measures 227-232, are extended by partial repetition in measures 233-237.

Andante espressivo

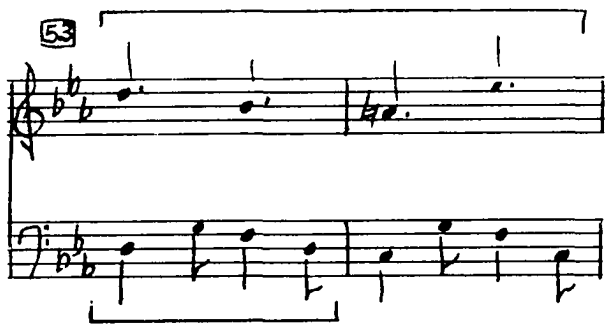
Sonata 26, Example 6. Measures 8-12. Two-part counterpoint, thematic variation, and contrary motion.--The motive  in the first measure is derived from the second and third measures of the Introduction to the Allegro. It is expanded and utilized to melodic advantage for the first theme of this intermezzo. The outer voices in measures 8-12 contain independent melodies of contrasting textures and rhythms and contrary motion is present.

Vivacissimamente

Sonata 26, Example 7. Measures 11-17, 17-22, 23-38. Imitation, two-part counterpoint, and contrary motion.--The melody from the six measure theme in measures 11-17 is imitated in the bass in measures 17-22. Contrapuntal figuration in the top voice replaces the homophonic accompaniment

of the preceding presentation. In measures 23-28 the repeated bass theme appears with a contrasting melody in broken octaves, and each measure contains an opening and closing wedge of contrary motion.

Sonata 26, Example 8. Measures 53-56, 61-64, 94-107. Two-part counterpoint, mirror, augmentation, exchange of voices, invertible counterpoint, sequence, stretto, and contrary motion.--Measures 53-56 introduce a two-measure melodic motive that is in counterpoint against a repeated motive in the tenor voice. The soprano motive is an augmented inversion of the tenor motive.



The four-measure passage is repeated an octave higher in measures 61-64. Triple counterpoint based on the original two-measure motivic interplay of measures 53-56 appears in measures 94-97. Measures 104-107 that follow contain sequence, stretto, and contrary motion.

Sonata 26, Example 9. Measures 176-196. Sequence, contrary motion, and mirror.--The Coda, beginning in measure 176, is consistent with the reflective character of the sonata. The theme is treated with sequence in measures 178-

180, ornamentation in measures 185-188, and vertical mirror in measures 187-190. Vertical mirroring forms four angular wedges of contrary motion in measures 183-184. The motives in measure 185 are sequenced in measure 186 and treated with both sequence and vertical mirror in measure 187-188. Syncopated vertical mirroring of the characteristic descending three-note motive is found in measure 189-190. The various closing wedges of contrary motion that have appeared in measures 183-184, 187-188, and 189 deplete the energy preceding the final six measures of the movement.

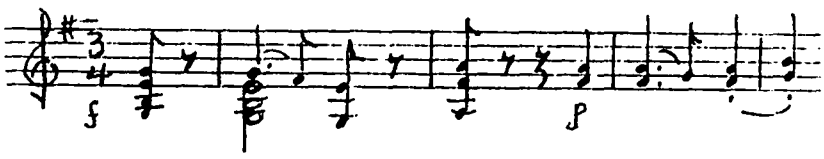
Sonata in E Minor, Op. 90

Thematic Index

Mit Lebhaftigkeit und durchaus mit Empfindung und Ausdruck
(With animation, and always with feeling and expression)

E minor

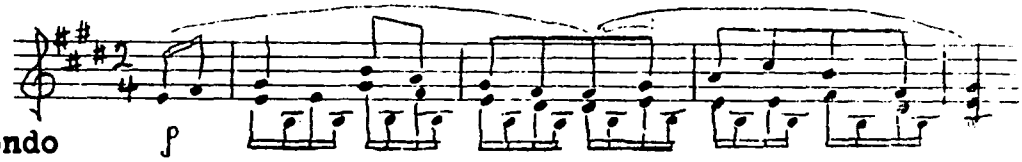
Sonata-allegro form



Nicht zu geschwind und sehr singbar vorzutragen
(Not too fast, and with very vocal style of playing)

E major

Sonata-rondo form



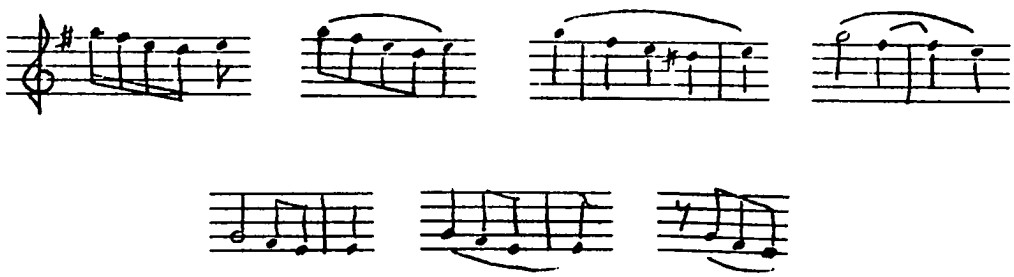
Discussion of Contrapuntal Materials

Mit Lebhaftigheit und durchaus mit Empfindung und Ausdruck

Sonata 27, Example 1. Measures 100-108. Pedal point and contrary motion.--The oblique motion above the pedal point in measures 100-103 changes to a closing wedge of chromatic contrary motion in measures 103-108.

Sonata 27, Example 2. Measures 110-123. Two-part counterpoint, first species, imitation, exchange of voices, and sequence.--Measures 110-113 contain 1:1 species in two-part counterpoint. The parts of the phrase are imitated and relocated in the tenor and bass for a second phrase in measures 13-17. An accompaniment figure in 4:1 rhythmic ratio has been added in the soprano, and the imitated phrase is incomplete in the bass. For a third restatement the melody is imitated in the lowest voice in measures 117-120 and appears alone with the accompaniment figure. The three phrases are heard as sequence.

Sonata 27, Example 3. Measures 132-143. Stretto and augmentation.--Overlapping motives and stretto are found in measures 132-143. The passage includes augmentation by progressively lengthened note values. In the last half of the passage the motive is transformed as notes are deleted from the original motive and note values return to shorter forms.



Nicht zu geschwind und sehn singbar vorzutragen

Developmental techniques that are used for this movement provide a balance of homophonic and polyphonic textures, making it difficult to classify the style of the composition as one or the other. Specific contrapuntal areas to be mentioned are either interspersed or alternated with homophonic areas, and particularly need to be related to both the thematic development and the formal organization of the composition in order to make the analysis meaningful.

Sonata 27, Example 4. Measures 41-44, 49-54, 60-66. Mirror and contrary motion.--Again it is necessary to expand the limiting definition of independent, single-tone melody lines. The single-line melodic significance of the series of thirds or sixths in measures 41-44 is heard in the contrary motion that is present. In measures 49-54 thirds are mirrored against thirds and the static inner part appears as a mirrored trill for four measures (48-51). The true bass line continues in contrary motion to the soprano melody in measures 60-66.

Sonata 27, Example 5. Measures 212-216, 221-228, 262-275, 283-285. Imitation, contrary motion, sequence, dialogue, mirror, and stretto.--Imitative melodic motives appear in measures 212-216, and in measures 221-228 overlapping motives form repetitive patterns of motion.

After three measures of contrary motion between the "voices" in measures 262-264, an overlapping of motives in a descending sequence of dialogue occurs in measures 265-271. At measure 271 mirror and stretto are added to the single-line texture of the motives and sequence continues through measure 273.

Measures 283-285 contain three imitative entries of a derived motive that release the fleeting and final phrase of the second movement.

Sonata in A Major, Op. 101

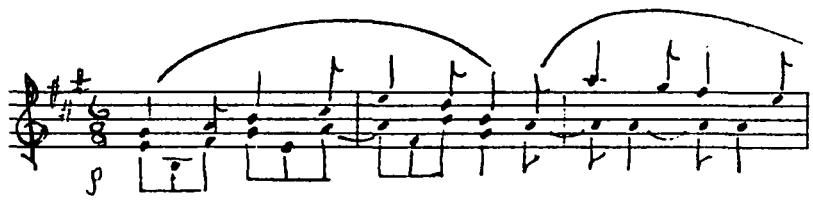
Thematic Index

Etwas lebhaft, und mit der innigsten Empfindung
(A little lively, and with deepest feeling)

Allegretto ma non troppo

A major

Sonata-allegro form



Lebhaft. Marschmassig
(Lively)

Vivace alla Marcia

F major

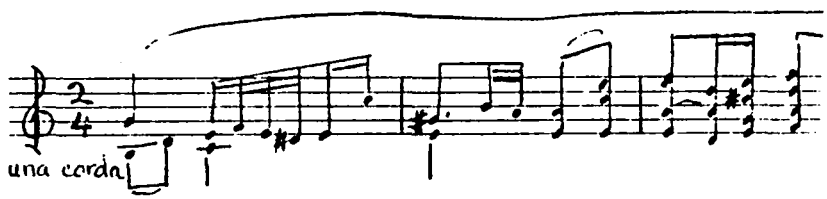
Binary form with Trio in B-flat major

Langsam und sehnsuchtsvoll
(Slow and full of longing)

Adagio ma non troppo, con affetto

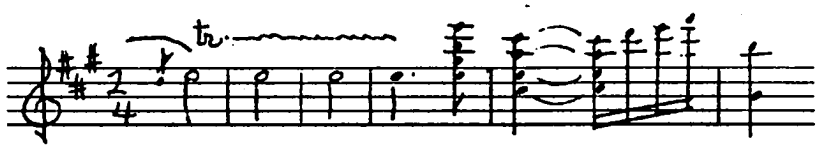
A minor

Introduction with cadenza and finale



Geschwind, doch nicht zu sehr; und mit Entschlossenheit
(Fast, but not so very fast, and with determination)

Allegro



A major

Sonata-allegro form

(The development section of this sonata-allegro form, which begins in measure 85, contains a fugue, measures 95-203.)

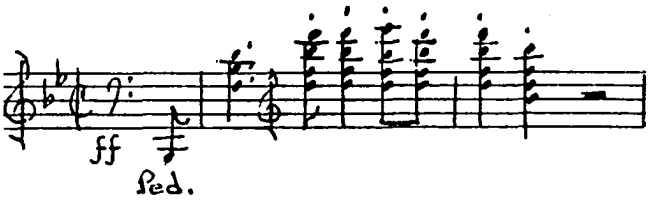
Sonata in B Flat Major, Op. 106

Thematic Index

Allegro

B-flat major

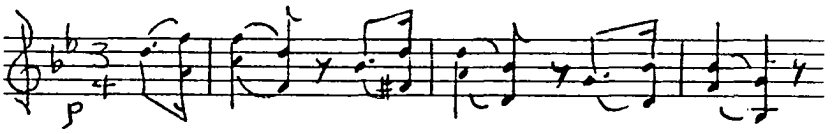
Sonata-allegro form



Scherzo

Assai vivace

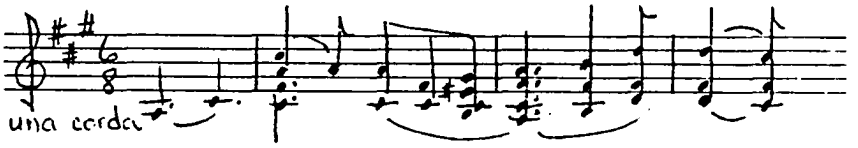
B-flat major with Trio in B-flat minor



Adagio sostenuto

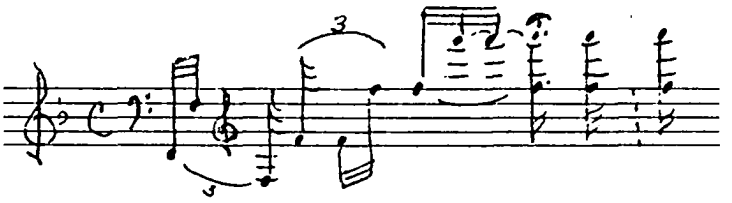
F-sharp minor

Sonata-allegro form



Largo

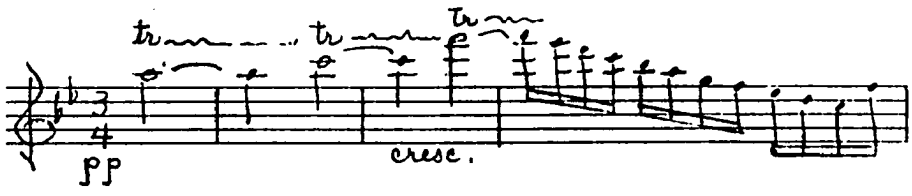
Introduction



Allegro risoluto

B-flat major

Fugue for
three voices



Sonata in E Major, Op. 109

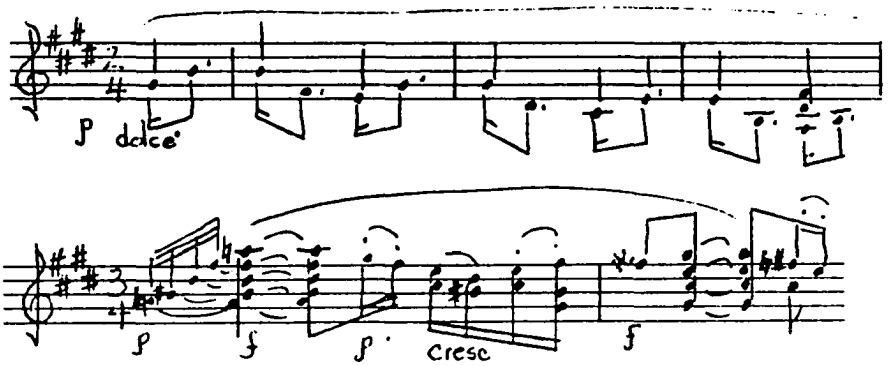
Thematic Index

Vivace ma non troppo, alternating with

Adagio espressivo

E major

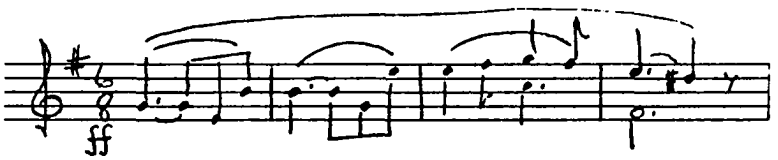
Sonata-allegro form



Prestissimo

E minor

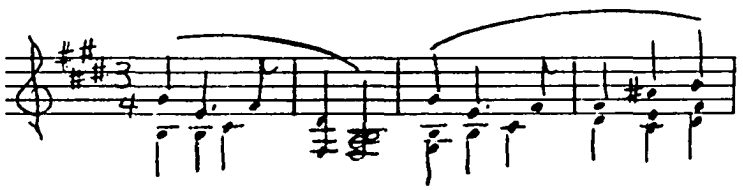
Sonata-allegro form



Andante molto cantabile ed espressivo

E major

Binary theme with six variations



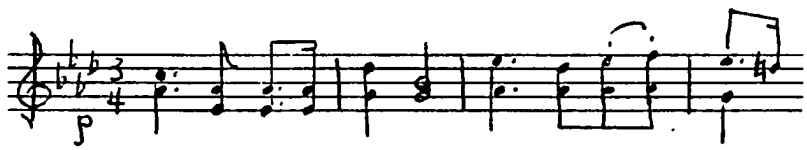
Sonata in A Flat Major, Op. 110

Thematic Index

Moderato cantabile molto espressivo

A-flat major

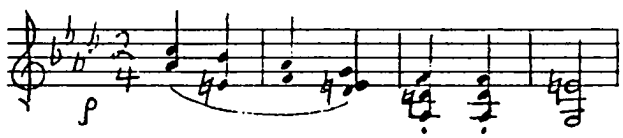
Sonata-allegro form



Allegro molto

F minor

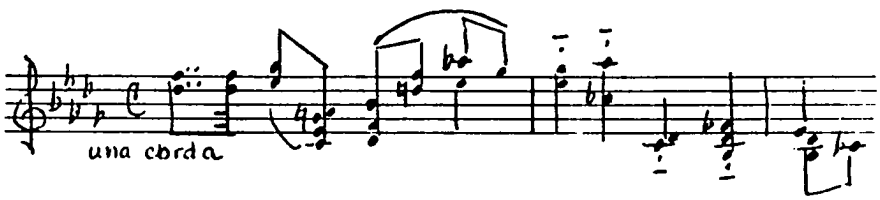
Scherzo with Trio in D-flat major



Adagio ma non troppo

B-flat minor

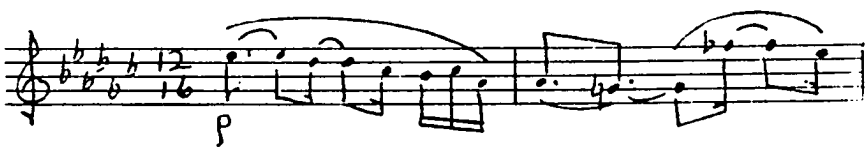
Introduction with Recitative

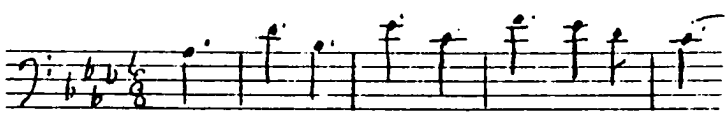


Arioso dolente, alternating with

Fuga

A-flat minor and A-flat major, respectively





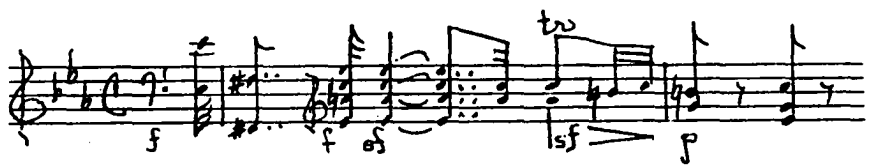
Sonata in C Minor, Op. 111

Thematic Index

Maestoso

C minor

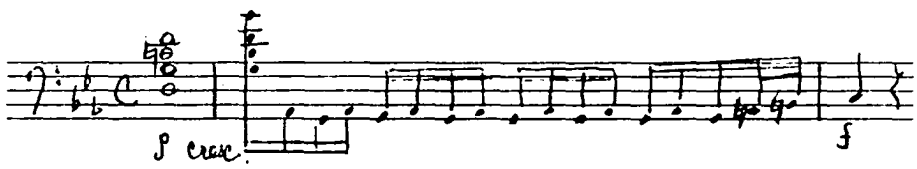
Introduction



Allegro con brio ed appassionato

C minor

Sonata-allegro form

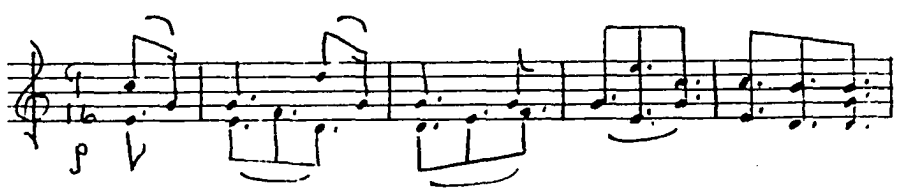


Arietta

Adagio molto semplice e cantabile

C major

Theme with four variations, Coda, Da Capo, and Epilogue



CONCLUSION

There seems to be some significance in the formal location of contrapuntal techniques used in the Beethoven sonatas, and this location undoubtedly has something to do with the relative tempo of a movement. In three-movement sonatas contrapuntal passages are found most frequently in the third movement, and exceptionally in forms other than sonata-allegro and rondo. Four-movement sonatas contain proportionally more contrapuntal materials than three-movement sonatas. Second movements of the four-movement sonatas, found in either sonata-allegro form or song form, less often contain contrapuntal materials than first, third, and movements. The first movements usually are in sonata-allegro form, all but two third movements are song forms with trio, and fourth movements are in rondo form except for one sonata-rondo (cf. Appendix C).

Since by definition counterpoint is a combination of two or more melodies, two-part counterpoint, especially in the outer voices, is the most commonly used device for the sonata excerpts. This may or may not involve imitation which would run a close second place. There are so many examples of contrary motion, both in large and small dimension and in varying compositional forms, that a summarizing

statement would not be particularly revealing. One recurring idea for establishing a usually static sound is a repetitive pattern of opening and closing wedges. As a means of embellishing a melody the use of the various species of counterpoint is important for several sonata movements, either for theme and variations, or for recurrent themes in rondo and song forms. Exchange of voices usually causes invertible counterpoint, and when this occurs the material treated is a short, two- or three-measure fragment. The melodies involved in the invertible passages are often scale-like in character.

Other devices, such as augmentation, diminution, stretto, canon, and retrograde, occur in comparatively fewer instances in this style of writing than they did in the Baroque writing. One can speculate that it is the greater difficulty of handling these techniques that accounts for the scarcity. Augmentation and diminution require new harmonizations, stretto and canon both restrict the variety of harmonic choice, and retrograde probably reverses the harmonic implications of a passage.

Certain of the sonatas present particular examples of contrapuntal techniques as unifying devices. Opus 13/i, for example, uses contrary motion as a structural device for the entire first movement, including the introduction. Large wedges of contrary motion that enclose smaller wedges of sequence establish the character of the sonata. Smaller wedges

of contrary motion are combined with other contrapuntal techniques for variation in the Rondo of the same sonata. Opus 14/ii is based almost entirely on the idea of rhythmic and melodic dialogue, both in antiphonal setting and in two-part species counterpoint. The Allegro of Opus 26 is a rondo form that uses a scale line to form opening and closing wedges of contrary motion, and the scale notes themselves are the bases for figurations of two-note wedges. The movement is replete with contrary motion. Sonata in E-flat, Opus 27/i, incorporates polyphony and homophony in an unusual dialogue of the two textures. Contrary motion and dialogue are combined in a characterizing theme for the Allegro in Opus 27, and the activity develops into an effect of canon for the final restatement. The development of a single motive as a unifying device is reserved for Opus 81a in Das Lebewohl, Adagio and Allegro.

The purpose of this study has been to provide for teachers of piano and theory at the college level information concerning the use of contrapuntal techniques as they appear in the Beethoven sonatas, and to show the growth and change of Beethoven's style with reference to his use of contrapuntal techniques. The music of the sonatas is common and favorite repertoire, and the examples from them serve to illustrate numerous ways of using particular techniques. Materials that have been included help to bridge the study of four-voice part-writing and the study of independent treat-

ment of melodies, i. e., the study of harmony and the study of counterpoint. Not only does analysis of the use of contrapuntal techniques supplement the study of the art of counterpoint, but an understanding of the relationship of polyphonic and homophonic textures can enhance a musician's ability for both listening and performing in various media.

The usability of the material included will depend on the level of analytical competence of the students. For inexperienced students the examples will simply demonstrate ways of using the various techniques. It can be pointed out that contrapuntal passages, when isolated and recognized as such, are much easier to learn and to memorize. Often passages contain challenging drill material for use in developing technique. For more advanced students the examples serve as summaries of the contrapuntal character and content of the sonatas.

The sonata excerpts generally illustrate contrapuntal techniques that can be located in the appendices. For practical reasons one is able to refer to these summaries, but one is misled to believe that it is possible to grasp the full meaning of the analyses by quick reference study. This would defeat the purposes outlined. Rather, the information that is to be gleaned should come from the experiences of internalizing the music itself as a result of research and analysis. Contrapuntal techniques in Beethoven are fascinating when isolated, but in context the genius of composition is awesome.

The importance of knowing the style of a period or the style of a composer has been mentioned. Such study brings to students a realization of the stylistic transformations that take place within one composer's works. Efforts to relate the applied study of piano literature to the compositional techniques that form the literature are to be commended. Such efforts could provide for students an awareness of the continued use of contrapuntal techniques in the nineteenth century, and could help him to grasp the eventual significance given to polyphonic writing by composers on the contemporary scene.

It can be observed that certain musical effects are accomplished within contrapuntal textures that are not accomplished in homophony. The outstanding feature of combining two or more independent melodies at once places a contrapuntal restriction on lyrical expression. A second feature of the horizontal aspect accounts for the unceasing melodic line which results in a generally conjunct melody. Even dialogue, in its disjunct effect, derives its motives from conjunct melodies. The most common device producing a static condition in homophony is repetition of a note, a motive, or harmonies. In polyphony, invertible passages that have been mentioned above are comparatively short in time span and produce a static condition in the overall forward motion of music. Pedal point in polyphony is strongly tonal. In homophony pedal point may be either static or

tensional, according to the vertical harmonic structure combined with it.

Beethoven succeeded in combining, alternating, and contrasting the elements of polyphony and homophony. For example, he wove together, in the same voice, a contrapuntal melodic line with the homophonic sound of arpeggiation. He sometimes substituted for the restriction of independent single-line melodies the use of contrasting textures of homophony and monophony.

Questions about the musical effects of polyphonic areas when contrasted with the musical effects of homophonic areas suggest ideas for further study. Attention could be given to the tensional and static qualities of contrapuntal techniques and polyphonic content. One could study the kinds of melodies involved in the use of contrapuntal writing. The evolution of the pedal point in polyphony versus the pedal point in homophony could be traced. Finally, one can speculate on the results and conclusions that might be drawn from comparable studies of other composers' styles and how they may have contributed to the contrapuntal style of the twentieth century.

APPENDIX A

GLOSSARY OF TERMS

APPENDIX A

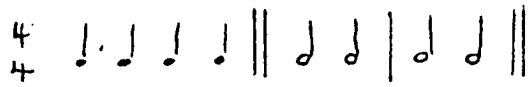
GLOSSARY OF TERMS

ANACRUSIS

An unaccented note or group of notes appearing at the beginning of a phrase or motive.

AUGMENTATION

A contrapuntal device that lengthens by multiples the note values of a motive or theme. The time interval is taken into account as well as the note value. There are instances of double, triple, and quadruple augmentation. Augmentation can be used simultaneously with diminution (cf. motivic variation and diminution).



BINARY

A structural form of two symmetrical subdivisions, unified by a particular pattern, yet each having marked individuality.

Where "A" and "B" represent subdivisions, or "parts" of a song form:

||: A :|| B || ||: A :|| : B :||

|| A ||: B :|| ||: A :|| B || (barform)

CANON

A contrapuntal device whereby an extended melody stated in one part is imitated strictly and for its entire length in one or more other parts. Imitation is continuously present since any motive heard in a leading voice will appear in an imitating voice or voices.

Canon is the strictest form of imitative counterpoint. An example of strict canon is the round, which is perpetual. Elements to be examined in the analysis of a canon are (a) number of voices, (b) interval of imitation, (c) time interval between entries, and (d) contrapuntal devices used. Canonic treatment is employed usually in brief passages of the sonata for purposes of development. Canonic treatment is not to be confused with a single imitation of a motive that is used in stretto.

CANTUS FIRMUS

A given melody against which counterpoint is written either above or below. Consecutive restatements of the melody provide opportunities for the application of various contrapuntal techniques and compositional variations. A cantus firmus is usually in long note values, and may be a portion of a chant, an entire chorale tune, a popular melody, or an original melody. From the origin of organum and for centuries thereafter, the liturgical plainchant served as the cantus firmus. It functioned as a fixed melody and served as skeletal structure around which composers could elaborate.

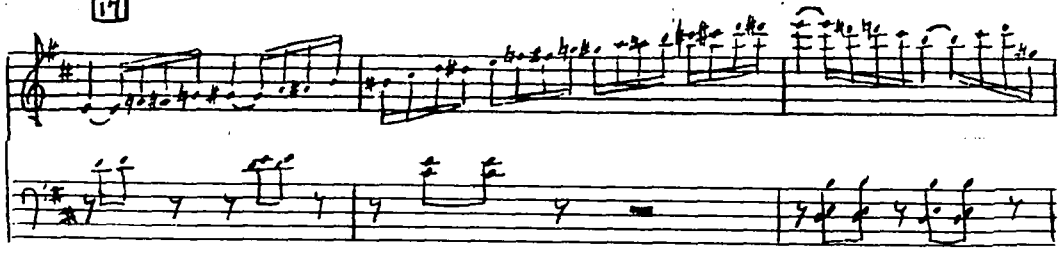
CHANGE OF MODE

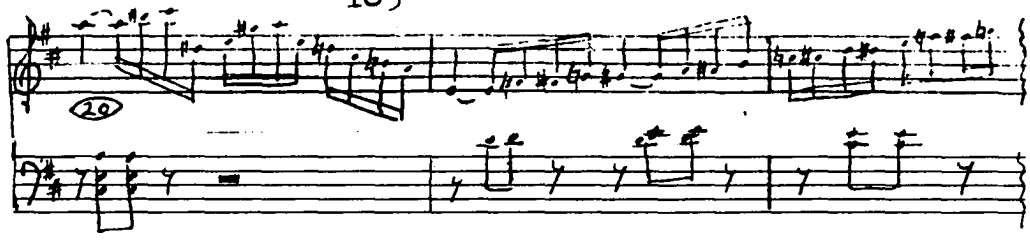
The recurrence of a major motive, phrase, or theme in minor, or vice versa, for the purpose of variation or development.

CHROMATICISM

A descriptive term concerning the use of alterations of a heptatonic scale. The increased usage of these altered tones during the nineteenth century led to the breakdown of the tonal system, and ultimately, through the melodic consequences of free harmonic progressions, to an expanded conception of key relationships and atonal music.

Sonata in D, Op. 10, No. 3, Rondo





COUNTERPOINT

The controlled procedure of combining two or melodic lines into unified musical presentations. It is the basis of polyphonic texture.

Harmony	Counterpoint
Basis for homophony	Basis for polyphony
One melody usually predominates	All parts are of equal interest
A single idea is conveyed	Each part is distinct, and several ideas may be conveyed

DIALOGUE

The alternation of the same, similar, or different motives between registers or voices. The procedure may include devices used for the development of melodic lines, viz., repetition, imitation, and change of register (cf. imitation).

DIMINUTION

A contrapuntal device that shortens by rhythmic divisions the note values of a motive or theme. There are instances of double, triple, and quadruple diminution (cf. augmentation).

DOUBLE COUNTERPOINT

(Cf. invertible counterpoint)

EPISODE

A term, generally reserved for the polyphonic form, that designates a digressive passage leading from one theme to another. An episode is an integral

part of a section and performs two functions--(a) modulatory, and (b) connective (cf. transition).

FANTASIA

A term that suggests a freer form as applied to certain Beethoven sonatas (Op. 27, No. 1 and Op. 27, No. 2). Several sections with different tempos and textures are generally combined to form a composition of apparent improvisatory character.

FUGATO

A passage within a larger non-fugal composition written in contrapuntal style with imitative entries.

FUGHETTA

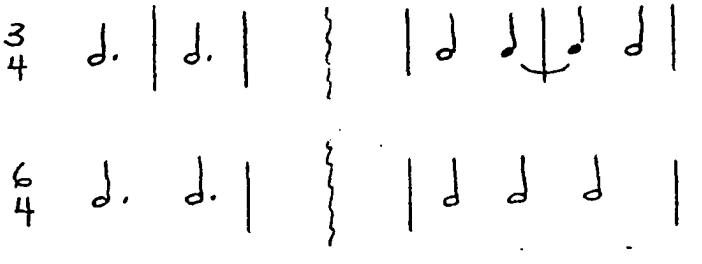
A short fugue (cf. fugue).

FUGUE

The fugue is not one of the strictest of imitative musical forms. It is questioned whether it is a form at all, and has been appropriately described as a procedure. The beginning section, the exposition, is the only section that follows a set order. When the theme has been stated alone in one voice, and restated in succession by each of three to five additional voices, the end of the exposition has been reached. The remainder of the composition can vary in great degree, though the character and style remain contrapuntal (cf. invention). Beethoven sonatas Opus 101 through Opus 111 contain contrapuntalism in the form of canon and fugato.

HEMIOLA

Any contradiction of the basic division of a measure. This is often accomplished by an arrangement of note values, such as the following, that replaces the combined duration of two notes of equal values to that of three notes of equal values.



HOMOPHONY

A musical texture and style that is best defined as a predominating melody with accompanying harmonic structure (cf. counterpoint and polyphony).

IMITATION

The immediate restatement of a motive, subject, or theme in another voice, with modification (free) or without modification (strict), and at any interval. Imitation can be effected by (a) differing registers, (b) differing timbres and same registers, and (c) differing dynamics (number of instruments assigned to a part) with possible same registers and timbres. Imitation by two voices with the same register and timbre will sound like repetition unless dissimilar registers are used (cf. dialogue).

INVENTION

Studies in imitative counterpoint written by Bach c. 1723. There are fifteen two-part inventions, and fifteen three-part inventions, originally entitled Inventions and Sinfoniae.

Invention--contrasted to--Fugue[1]

Motive	Subject, announced alone
Motive answered with or without accompanying voice	Subject answered with accompanying counter subject
Answer at any interval	Answer at the fifth
Instrumental form only	Vocal and instrumental form
Small form	Larger form than an invention
Includes use of a portion of the motive, extension of the motive by sequential repetition, stretto, and, occasionally, diminution, augmentation, and contrary motion.	Includes imitation, sequence, double counterpoint, stretto, pedal point, diminution, augmentation, and occasional combinations.

[1]Leon Stein, Structure and Style (Evanston, Illinois: Summy-Birchard, 1962), p. 61.

INVERSION

(Cf. mirror)

INVERTIBLE COUNTERPOINT

Melodies may be written so that a passage can be restated with the voices exchanged and the harmonies remain acceptable. An exchange is accomplished when the upper voice is transposed downward (below the lower voice), or the lower voice upward (above the upper voice) by the interval chosen for inversion. It is to a composer's advantage when this technique can be applied to a musical idea because the possibilities for development are increased.[1]

Intervals of transposition of parts may be at the octave, tenth, twelfth, or fifteenth. Both parts of two-part counterpoint may be moved, and to determine the interval of transposition, add together the intervals by which each voice is moved. The resulting sum is a numeral one greater than the numeral symbolizing the interval of inversion.

When two parts are invertible the texture is described as double counterpoint, three parts as triple counterpoint, and four parts as quadruple counterpoint.

MINUET

A ternary dance form in triple meter, moderate tempo, three beats to the measure. The term is often used to designate the first song form of a song form with trio (cf. song form with trio). Beethoven often replaced the third movement minuet of a four-movement sonata with a scherzo (cf. scherzo).

MIRROR

Inversion or retrograde of a motive or fugue subject (cf. motivic variation).

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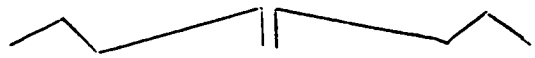
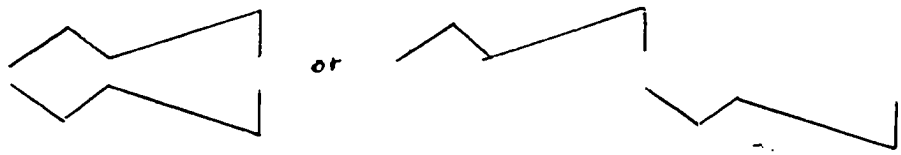
[1]H. Owen Reed and Paul Harder, Basic Contrapuntal Technique (New York: Mills Music, Inc., 1964), p. 86.

Horizontal mirror (retrograde) -- a reversal of the melodic direction of the successive tones of a motive or subject.



Vertical mirror (inversion) -- a specific type of contrary motion that retains the exact intervals of a motive inverted against itself.

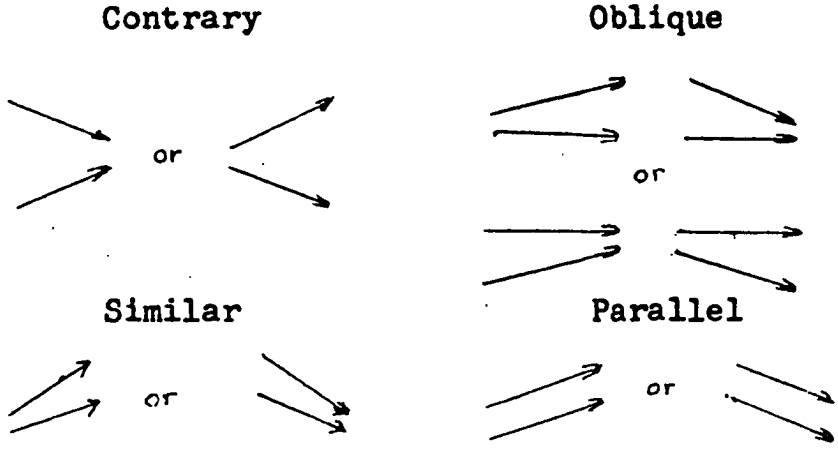


MONOPHONY

A single melodic line sounded alone. This is the oldest type of music, and the best example is the Gregorian chant. This Roman Catholic church music is sung to a Latin text, in flexible rhythm, in church modes, by unaccompanied men's voices. It has been the official music for the liturgy of the Roman Catholic church for about 900 years. We can also observe that present day music of the orient is primarily monophonic. The subtleties and refinements of pitch and rhythm in oriental music provide further expression of the oriental musical intent.

MOTION, RELATIVE

One of the means of achieving independence between two melodic lines. There are four types:



Contrary motion is peculiarly contrapuntal because of the enhanced, though not insured, independence of the melodic lines.

MOTIVE

Melodic -- A fragment of a theme in a melodic phrase that is likely to be used in the "working out" of development and variation. It is often used with repetition and sequence.

Submotive -- Fragments of the motive or its variants as used in the development of thematic material.

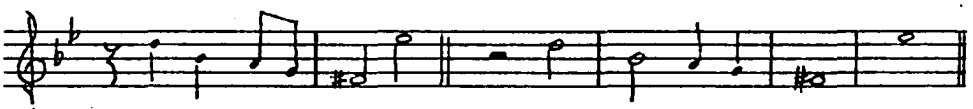
Figure -- The smallest melodic unit, more generally applied to accompaniment patterns, and not necessarily related to thematic material.

Rhythmic motives are established rhythmic patterns with recognizable characteristics.

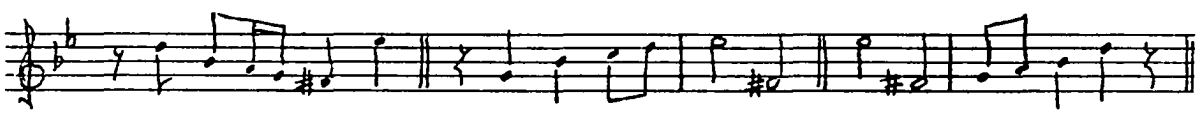
MOTIVIC VARIATION

Special devices applied to the manipulation of a motive for the purpose of variation and development.

Examples of development through special devices:[1]



Original form Augmentation



Diminution Contrary motion Retrograde

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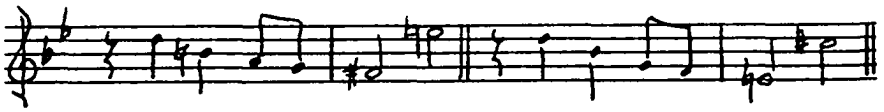
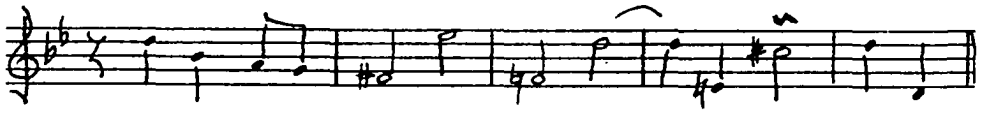
[1]Kent Kennan, Counterpoint (Englewood Cliffs, N. J.: Prentice-Hall Inc., 1959), pp. 62, 63.



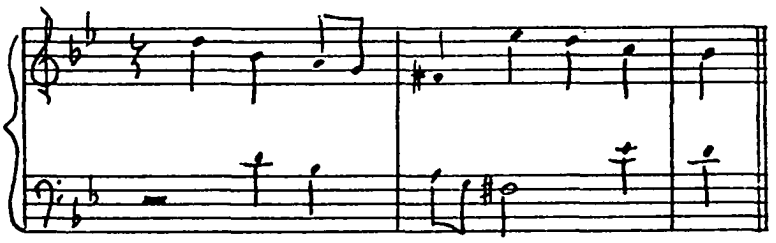
Change of mode Change of interval

Addition of notes

Use of portion of motive



Extension using latter portion

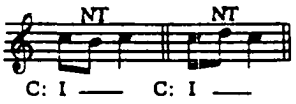
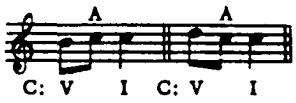
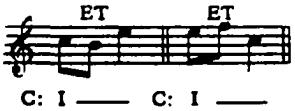
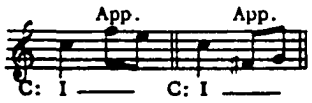
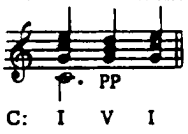
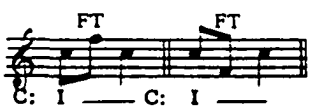


Stretto

NON-HARMONIC TONES

Tones that are added for melodic interest that are foreign to the momentary harmony.[1]

NONHARMONIC TONE CLASSIFICATION

Classification of NHT	Abbrev. of NHT	Example	Approach to NHT	Departure from NHT	Direction from NHT
Passing Tone	PT		Scalewise	Scalewise	Continues in same direction
Suspension	S		Preparation	Scalewise	Usually downward
Neighboring Tone	NT		Scalewise	Scalewise	Returns to same tone
Anticipation	A		Usually Scalewise	Retained	Same tone repeated
Escape Tone	ET		Scalewise	By leap	Usually opposite to approach
Appoggiatura	App.		By leap	Scalewise	Usually opposite to approach
Pedal Point	PP		Preparation	Retained	Retained
Free Tone	FT		By leap	By leap	Usually opposite to approach

[1] H. Owen Reed, Basic Music (New York: Mills Music, Inc., 1954), pp. 56, 57. Reprinted by permission from the copyright owner.

ORNAMENTATION

Enhanced melodic, harmonic, or rhythmic interest through the use of adornments to the melodic line, such as trills, mordents, and turns.

OSTINATO

A persistently repeated melodic phrase usually in the same voice at the same pitches. A ground motive is only a measure or two in length and does not determine the structure of a composition. The ground bass, or basso ostinato is a phrase in length and often determines the structure of a composition. The passacaglia and the chaconne are examples of structure-types.

PEDAL POINT

A sustained tone, often the tonic or dominant scale degree, against which changing harmonies may sound, creating tension. For example, this may be effected with piano trills, or organ pedal. Double pedal point is sustained by two voices of different pitches, usually a fifth apart. Inverted pedal point and internal pedal point simply refer to a pedal point in an inner voice, or a voice other than the bass.

PERIOD

A structural unit consisting of two phrases, the antecedent and the consequent. The usual cadence relationship for the antecedent and consequent phrases is half-cadence and authentic cadence, respectively (cf. phrase).

PHRASE

The shortest structural unit terminated by a cadence, and generally associated with one or more other phrases. It is the structural basis for homophonic forms (cf. theme). Polyphonic forms generally are divided into sections (cf. section).

POLYPHONY

A musical texture and style for which the best example is the fugue. The word literally means "many-voiced", and each part is likely to be of

equal melodic interest. Polyphonic texture is based on counterpoint, and, therefore, is not synonymous with it. Polyphony is a descriptive term for a musical texture--counterpoint is a procedure (cf. counterpoint).

REPETITION

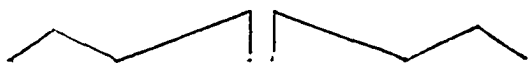
The immediate restatement of a motive, subject, or theme at the same pitches.

RESTATEMENT

A term reserved for the non-consecutive restatement of a motive, subject, or theme.

RETROGRADE (Cancrizans)

Beginning with the last note of a motive, melody, or theme and ending with the first. Retrograde-inversion combines horizontal mirror with vertical mirror (cf. mirror).



RHYTHMIC VARIATION

Transformation of an established rhythmic pattern.

RONDO

A compositional form in ternary pattern (cf. ternary).

Where "I", "II", and "III" represent themes and the square, triangle, and circle represent respective keys:

First rondo form --

Second rondo form --

Third rondo form --

SCHERZO

A ternary dance form with trio, in triple meter, rapid tempo, one beat to the measure. For the third movement of his sonatas, Beethoven innovated the use of the scherzo, often replacing the more stately minuet (cf. ternary, and minuet). Variants of the scherzo form include scherzos without trios and scherzos in 2/4 time (cf. Sonata No. 18, Scherzo).

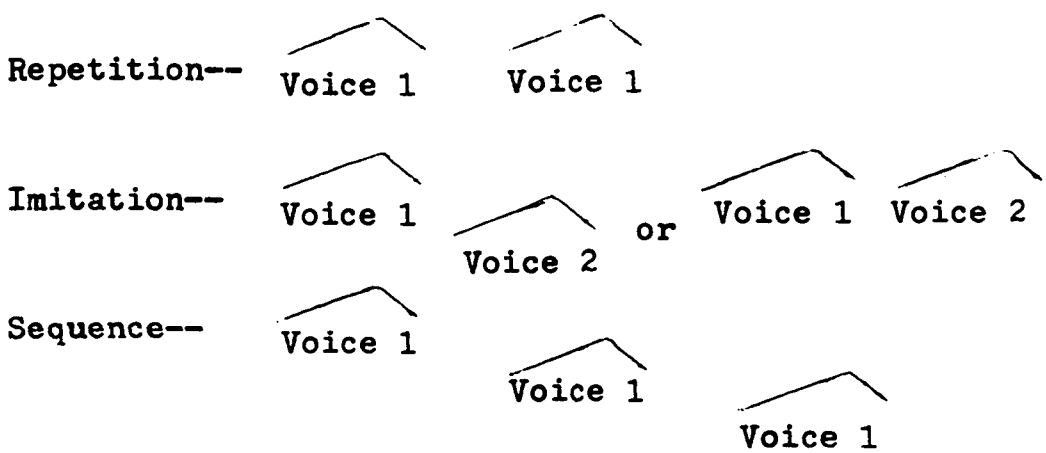
SECTION

The structural basis for polyphonic and imitative forms, as opposed to divisions by phrases and themes in homophonic music (cf. phrase and theme).

SEQUENCE

An imitative technique used for the immediate restatement of rhythmic, melodic, and harmonic patterns on successively different degrees of the scale. Sequence is a device used frequently in transitional passages, and in closing sections, for the purpose of "working out" developmental intentions.

Repetition and imitation compared to sequence:



The harmonic sequence includes, and can scarcely be separated from, its musical elements of melody, rhythm, and harmony. Initial patterns, intervallic progression, length of pattern and length of sequence, degree of transposition and elements of modulation are considered in the analysis of sequential material.

SONATA

A framework for compositional form of instrumental music. The basic scheme for the Beethoven sonatas is the Classical sonata:

Three movements: Allegro, Adagio, Allegro
(fast) (slow) (fast)

I Sonata-allegro form

II Sonata-allegro form
Ternary form
Theme and variations, or
Rondo form

III Sonata-allegro form, or
Rondo form

Four movements: Allegro, Adagio, Minuet (or Scherzo), Allegro

I Sonata-allegro form

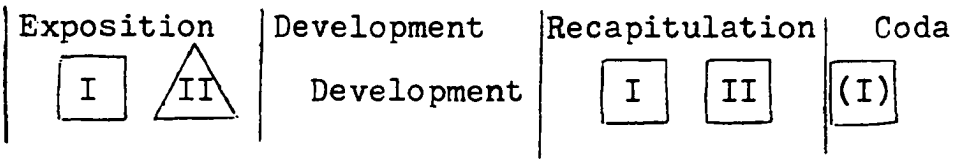
II Sonata-allegro form,
Ternary form,
Theme and variations, or
Rondo form

III Song form with trio

IV Sonata-allegro form, or
Rondo form

SONATA-ALLEGRO FORM

Where "I" and "II" represent themes and the square and triangle represent respective keys:

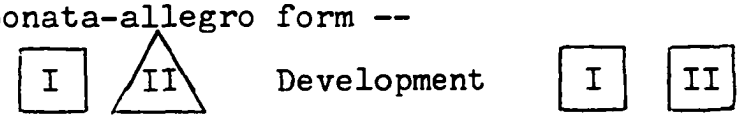


SONATA-RONDO

A combination of the sonata-allegro form with the rondo form, wherein the third theme of the rondo form is replaced by a development section.

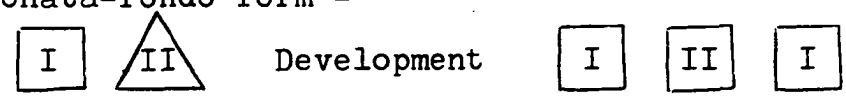
Where "I", "II", and "III" represent themes and the square, triangle, and circle represent respective keys:

Sonata-allegro form --



Third rondo form --

Sonata-rondo form --



SONATINA

A short sonata-allegro form. Sonatinas as multi-movement forms, from the early Romantic period, were usually easy to play, and intended for instructional material.

SONG FORM WITH TRIO

A composite structure of two song forms, often used as the third movement of a four movement sonata. The following outline of song form with trio is usual for either the minuet or scherzo. Commonly part B is derived from part A, and part D is derived from part C.

Minuet (Song form I)

‖: A :‖: B-A :‖

Trio (Song form II, subordinate)

‖: C :‖: D-C :‖

Minuet (Song form I)

‖ A ‖ B-A ‖

SPECIES

Various designations of rhythmic relationships in counterpoint.

First species, 1:1
Second species, 2:1 and 3:1
Third species, 4:1 and 6:1
Fourth species, Syncopation
Fifth species, Florid

STRETTO

The overlap of more than one note of motives within an imitative passage. When stretto is employed near the conclusion of a climactic section or movement the overlap often occurs at a closer time interval and helps to create density and intensity.

SUBJECT

The structural basis for contrapuntal imitative forms such as the invention, fugue, or motet (cf. theme).

TERNARY

A structural form characterized by statement, departure, and restatement of distinctive parts. Ternary form may vary in size from a three-part period to three-part song forms, rondo forms, and sonata-allegro form. (Cf. song form with trio, rondo, and sonata-allegro.)

TEXTURE

Horizontal and vertical relationships of music of which there are three kinds--monophonic, homophonic, and polyphonic. Polyphonic textures may be combined with homophonic textures either alternately or simultaneously.

Texture also refers to the number and kind of voices employed, the spacing, the rhythmic grouping, and the melodic-rhythmic relationships between voices. In homophonic music, changes of texture often coincide with formal divisions.[1]

---

[1]Leon Stein, Structure and Style (Evanston, Illinois: Summy-Birchard, 1962), p. 61.

THEME

The structural basis for homophonic forms (cf. subject). The theme, as a unit, usually is composed of one or more parts based on progressions implicit in tonal harmony (cf. binary and ternary).

As related to the sonata-allegro form, themes are designated as principal and subordinate, and relate to the two or more melodic subjects of the exposition. The principal theme is in the tonic key, can be from a phrase to a three-part song form in length, and may be followed by a codetta(s), or a transition of one or more sections.

The subordinate theme is contrasted with the principal theme in key, character, and melody. The key of the subordinate theme is traditionally in the dominant if the principal theme is in major, and in relative major if the theme is in minor. Beethoven introduced numerous exceptions to this rule.

Sonata	Main Theme	Subordinate Theme
Op. 2, No. 2	A major	E minor
Op. 2, No. 3	C major	G minor
Op. 31, No. 2	G major	B major

When related to rondo forms, themes are designated by number in the order of their appearance, and are outlined by their restatements and enclosures (cf. rondo).

THEME AND VARIATIONS

A self-contained melody (theme) of two or more parts subjected to a progressive series of modifications (variations). Each variation has features in common with the theme, and each variation deviates from the theme. The following is a list of standard procedures used for variation:

(a) ornamentation
(b) contrapuntal treatment
(c) figuration
(d) canonic treatment
(e) modified melody
(f) modified harmony
(g) change of meter
(h) change of tempo
(i) change of mode

For this study the term "thematic variation" is reserved for discussions of materials that are within a contrapuntal context.

TIMBRE

The particular quality of a tone resulting from the number, vibration rate, and relative intensity of its harmonic overtones. Timbre can also be affected by amplitude and by numbers of instruments on a part.

TRANSITION

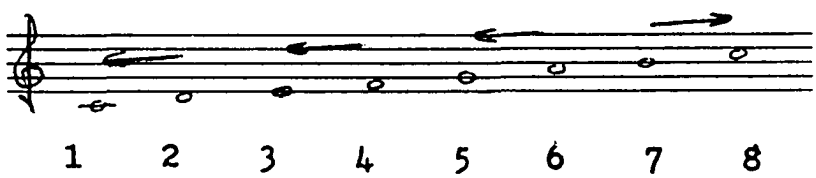
In homophonic music, a digressive passage, sometimes sectional, leading from one theme or part to another. A transition has two functions--it is (a) modulatory, and (b) connective. The term episode, which accomplishes the same purposes, is generally reserved for polyphonic forms where it is an integral part of a section (cf. episode).

TRANSPOSITION

The restatement of a motive, subject, phrase, or theme in a key different from the original or preceding key.

VOICE LEADING

Contrapuntal principles that govern the progression of various voice parts. The principles are based on the natural tendencies of "active" scale steps.



APPENDIX B

SUMMARY OF CONTRAPUNTAL DEVICES

APPENDIX B

SUMMARY OF CONTRAPUNTAL DEVICES

Sonata	1		2			3			4		5
Movement	i	iii	i	iii	iv	i	iii	iv	i	iii	iii
Device											
Augmentation	*										
Canonic Treatment						*					
Change of Register			***								
Contrary Motion	**			*			*		*	**	
Contrasting Lines					*			*	*		
Dialogue	***				*						*
Diminution											
Exchange of Voices											
Four-part Ctpt.									*	*	
Imitation	** **		***		**	**	*	*		*	**
Inversion											
Invertible Ctpt.			*			*		*	*		
Mirror	*	*									*
Ostinato						*					
Pedal Point	*					*					
Repetition	***		**							*	
Retrograde											
Sequence	***					**			***		
Species, First	*										
Second		**	*		*						
Third			*								
Fourth						*					
Fifth											
Stretto		*	*		*	**	*			*	*
Thematic Variation					*				*		
Three-part Ctpt.					*						
Two-part Ctpt.	*	*	*		**			*			

Sonata	6		7			8				9	
Movement	ii	iii	i	iii	iv	i	ii	iii	iv	i	iii
Device											
Augmentation				*							
Canonic Treatment											
Change of Register											
Contrary Motion		*	*		*	**					*
Contrasting Lines	*				*						
Dialogue	*	*			*						
Diminution					*						
Exchange of Voices	*	*	*		*						
Four-part Ctpt.											
Imitation	**	*	*		*	*			*	*	
Inversion		*									
Invertible Ctpt.		*	*						*		
Mirror			*		**				*		
Ostinato					*						
Pedal Point		*	*		*		*				
Repetition			*		*	*				*	
Retrograde											
Sequence	**				*	*	*	*	*	*	
Specics, First								*	*		*
Second									**		
Third									**		
Fourth									*		
Fifth											
Stretto	*								*		
Thematic Variation											
Three-part Ctpt.									*		
Two-part Ctpt.	*	*			**			*	*	*	*

Sonata	10			11				12		
Movement	i	ii	iii	i	ii	iii	iv	i	ii	iv
Device										
Augmentation										
Canonic Treatment										
Change of Register										
Contrary Motion	*	*		**			**	*		*
Contrasting Lines						*				
Dialogue	***		*					*		
Diminution	*			*		*				
Exchange of Voices		*		*			*	*	*	*
Four-part Ctpt.							*			
Imitation	*		*	**	*	*	**			*
Inversion										
Invertible Ctpt.									*	*
Mirror				*						
Ostinato										
Pedal Point		*			*		*			*
Repetition	*		*	**		*	*		*	
Retrograde										
Sequence	**	*		*		*	*		*	*
Species, First										
Second			*						*	
Third							**			
Fourth										
Fifth						*				
Stretto				**	*		*			
Thematic Variation							*			
Three-part Ctpt.									*	
Two-part Ctpt.	**	*					*			

Sonata	13			14	15			16	17	18	
Movement	i	ii	iv	iii	i	iii	iv	iii	i	ii	iv
Device											
Augmentation											
Canonic Treatment							*	*			
Change of Register								*			
Contrary Motion	*	*	**	*	*		*	**	*		*
Contrasting Lines	*									*	
Dialogue	*	*	*				*		*		*
Diminution	*				*						
Exchange of Voices					*		*	**			
Four-part Ctpt.											
Imitation			*		**		**				**
Inversion											
Invertible Ctpt.	*		**		*			*	*		
Mirror	**				*						
Ostinato											
Pedal Point					**		**	***			
Repetition		*			**		*		*		*
Retrograde											
Sequence			*		**		*	***			**
Species, First											
Second							*	*	*		
Third					**		*	***	*		
Fourth											
Fifth							*				
Stretto	*		*					**			*
Thematic Variation							**				
Three-part Ctpt.					*			*			
Two-part Ctpt.			**			*	**	***		**	

Sonata	21			22		23	24	25	26		
Movement	i	ii	iii	i	ii	iii	iii	iii	i	ii	iii
Device											
Augmentation						*			** **		*
Canonic Treatment									*		
Change of Register											
Contrary Motion	**		*	*	**		*	*	**	*	***
Contrasting Lines	**				*						
Dialogue		*						*	**		
Diminution			*						*		
Exchange of Voices									*		*
Four-part Ctpt.											
Imitation	*		*	*	*	*		*	**		*
Inversion			*								
Invertible Ctpt.	***		*						*		*
Mirror											
Ostinato											
Pedal Point					**						
Repetition	*		*			*					
Retrograde	**										
Sequence				*	*				***		**
Species, First				*				*			
Second	*		*			*		*			
Third											
Fourth											
Fifth											
Stretto		*				*				*	
Thematic Variation			*					*			*
Three-part Ctpt.	*										
Two-part Ctpt.	*		**			*	*	*	**	*	**

Sonata	27	
Movement	i	ii
Device		
Augmentation	*	
Canonic Treatment		
Change of Register		
Contrary Motion	*	**
Contrasting Lines		
Dialogue		*
Diminution		
Exchange of Voices	*	
Four-part Ctpt.		
Imitation	*	*
Inversion		
Invertible Ctpt.		
Mirror		**
Ostinato		
Pedal Point	*	
Repetition		
Retrograde		
Sequence	*	*
Species, First Second Third Fourth Fifth	*	
Stretto	*	*
Thematic Variation		
Three-part Ctpt.		
Two-part Ctpt.	*	

APPENDIX C

SUMMARY OF THE DISCUSSIONS

APPENDIX C

SUMMARY OF THE DISCUSSIONS

No.	Opus	Mov't	Form	Summary
1	2/1	i	SA	Augmentation, Contrary Motion, Dialogue, Imitation, Mirror, Pedal Point, Repetition, Sequence, First Species, Two-part Counterpoint
		iii	SF	Mirror, Second Species, Stretto, Two-part Counterpoint
2	2/2	i	SA	Change of Register, Imitation, Invertible Counterpoint, Repetition, Second Species, Third Species, Stretto, Two-part Counterpoint
		iii	SF	Contrary Motion
		iv	R	Contrasting Lines, Dialogue, Imitation, Second Species, Stretto, Thematic Variation, Three-part Counterpoint, Two-part Counterpoint
3	2/3	i	SA	Canonic Treatment, Imitation, Invertible Counterpoint, Ostinato, Pedal Point, Sequence, Fourth Species, Stretto
		iii	SF	Contrary Motion, Imitation, Stretto
		iv	R	Contrasting Lines, Imitation, Invertible Counterpoint, Two-part Counterpoint
4	7	i	SA	Contrary Motion, Contrasting Lines, Four-part Counterpoint, Invertible Counterpoint, Sequence, Thematic Variation
		iii	SF	Contrary Motion, Four-part Counterpoint, Imitation, Repetition, Stretto

No.	Opus	Mov't	Form	Summary
5	10/1	iii	SA	Contrary Motion, Dialogue, Imitation, Mirror, Stretto
6	10/2	ii	SF	Contrasting Lines, Dialogue, Exchange of Voices, Imitation, Sequence, Fourth Species, Stretto, Two-part Counterpoint
		iii	SA	Contrary Motion, Dialogue, Exchange of Voices, Imitation, Inversion, Invertible Counterpoint, Two-part Counterpoint
7	10/3	i	SA	Contrary Motion, Exchange of Voices, Imitation, Invertible Counterpoint, Mirror, Pedal Point, Repetition
		iii	SF	Canonic Treatment, Sequence
		iv	R	Contrary Motion, Contrasting Lines, Dialogue, Diminution, Exchange of Voices, Imitation, Mirror, Ostinato, Pedal Point, Repetition, Sequence, Two-part Counterpoint
8	13	i		Contrary Motion, Imitation, Repetition, Sequence
		ii	SA	Pedal Point, Sequence
		iii	R	First Species, Two-part Counterpoint
		iv	R	Imitation, Invertible Counterpoint, Mirror, Sequence, First Species, Second Species, Third Species, Fourth Species, Stretto, Three-part Counterpoint, Two-part Counterpoint
9	14/1	i	SA	Imitation, Repetition, Sequence, Two-part Counterpoint
		iii	R	Contrary Motion, First Species, Fourth Species, Two-part Counterpoint

No.	Opus	Mov't	Form	Summary
10	14/2	i	SA	Contrary Motion, Dialogue, Diminution, Imitation, Repetition, Sequence, Two-part Counterpoint
		ii	Var	Contrary Motion, Exchange of Voices, Pedal Point, Sequence, Two-part Counterpoint
		iii	R	Dialogue, Imitation, Repetition, First Species
11	22	i	SA	Contrary Motion, Diminution, Exchange of Voices, Imitation, Mirror, Repetition, Sequence, Stretto
		ii	SA	Imitation, Pedal Point, Stretto
		iii	SF	Contrasting Lines, Diminution, Imitation, Repetition, Sequence, Fifth Species
		iv	R	Contrary Motion, Exchange of Voices, Four-part Counterpoint, Imitation, Pedal Point, Repetition, Sequence, Third Species, Stretto, Thematic Variation, Two-part Counterpoint
12	26	i	Var	Contrary Motion, Dialogue, Exchange of Voices
		ii	SF	Exchange of Voices, Invertible Counterpoint, Repetition, Sequence, Second Species, Three-part Counterpoint
		iv	R	Contrary Motion, Exchange of Voices, Imitation, Invertible Counterpoint, Pedal Point, Sequence.

No.	Opus	Mov't	Form	Summary
13	27/1	i	Sect	Contrary Motion, Contrasting Lines, Dialogue, Diminution, Invertible Counterpoint, Mirror, Stretto
		ii	SF	Contrary Motion, Dialogue, Repetition
		iv	SR	Contrary Motion, Dialogue, Imitation, Invertible Counterpoint, Sequence, Stretto, Two-part Counterpoint
14	27/2	iii	SA	Contrary Motion
15	28	i	SA	Contrary Motion, Diminution, Exchange of Voices, Imitation, Invertible Counterpoint
		iii	SF	Two-part Counterpoint
		iv	R	Canonic Treatment, Contrary Motion, Dialogue, Exchange of Voices, Imitation, Pedal Point, Repetition, Sequence, Second Species, Third Species, Fifth Species, Thematic Variation, Two-part Counterpoint
16	31/1	iii	R	Canonic Treatment, Change of Register, Contrary Motion, Exchange of Voices, Invertible Counterpoint, Pedal Point, Sequence, Second Species, Third Species, Stretto, Three-part Counterpoint, Two-part Counterpoint
17	31/2	i	SA	Contrary Motion, Dialogue, Invertible Counterpoint, Repetition, Second Species, Third Species
18	31/3	ii	SA	Contrasting Lines, Two-part Counterpoint
		iv	SA	Contrary Motion, Dialogue, Imitation, Repetition, Sequence, Stretto

No.	Opus	Mov't	Form	Summary
21	53	i	SA	Contrary Motion, Contrasting Lines, Imitation, Invertible Counterpoint, Repetition, Retrograde, Second Species, Three-part Counterpoint, Two-part Counterpoint
		ii	ABA	Dialogue, Stretto
		iii	R	Contrary Motion, Diminution, Imitation, Inversion, Invertible Counterpoint, Repetition, Second Species, Thematic Variation, Two-part Counterpoint
22	54	i	SF Var	Contrary Motion, Imitation, Sequence, First Species
		ii	Toc	Contrary Motion, Contrasting Lines, Imitation, Pedal Point, Sequence
23	57	iii	CA	Augmentation, Imitation, Repetition, Second Species, Stretto, Two-part Counterpoint
24	78	iii	ABABA	Contrary Motion, Two-part Counterpoint
25	79	iii	R	Contrary Motion, Dialogue, Imitation, First Species, Second Species, Thematic Variation, Two-part Counterpoint
26	81a	i	SA	Augmentation, Canonic Treatment, Contrary Motion, Dialogue, Diminution, Exchange of Voices, Imitation, Invertible Counterpoint, Sequence, Two-part Counterpoint
		ii		Contrary Motion, Stretto, Two-part Counterpoint
		iii	SA	Augmentation, Contrary Motion, Exchange of Voices, Imitation, Invertible Counterpoint, Mirror, Sequence, Thematic Variation, Two-part Counterpoint

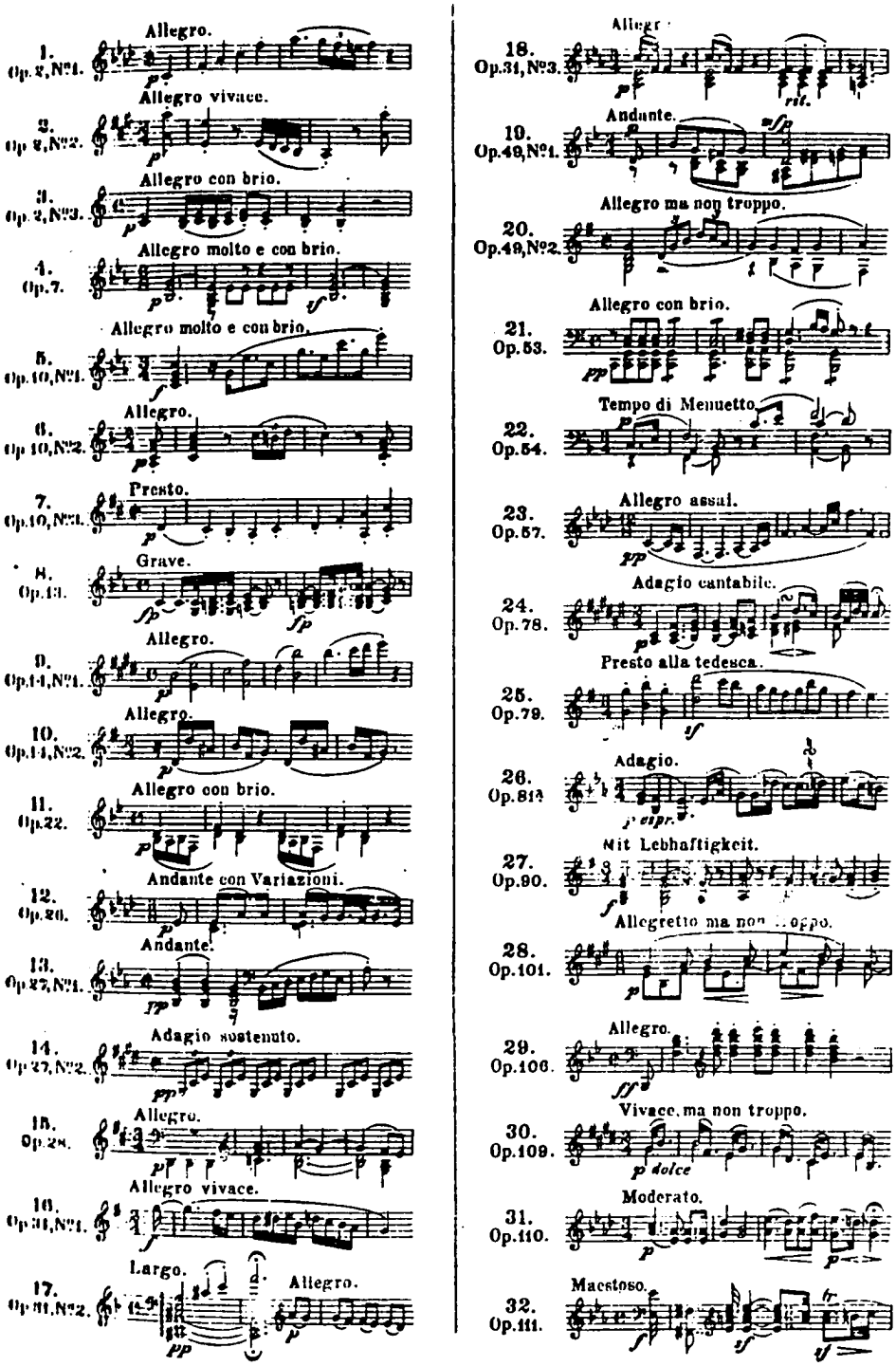
No.	Opus	Mov't	Form	Summary
27	90	i	SA	Augmentation, Contrary Motion, Exchange of Voices, Imitation, Pedal Point, Sequence, First Species, Stretto, Two-part Counterpoint
		ii	SR	Contrary Motion, Dialogue, Imitation, Mirror, Sequence, Stretto

APPENDIX D

THEMATIC INDEX TO FIRST MOVEMENTS

APPENDIX D

THEMATIC INDEX TO FIRST MOVEMENTS[1]



Reprinted from the G. Schirmer edition of the Beethoven sonatas.

APPENDIX E

CHRONOLOGY OF COMPOSITION DATES

APPENDIX E

CHRONOLOGY OF COMPOSITION DATES

Beethoven's Piano Sonatas[1]

	Op. no. (or WoO)	Key	Original (or acquired) name	Composition date (*at latest)	First publication	Dedicatee
I	(47)	E♭	("Kurfürsten")	1782-83	Speyer: Bender, 1783	Max. Friedrich
	"	f	"	"	"	"
	"	D	"	"	"	"
	(50)	F		ca. 1788-90	(Berlin, 1903)	
	(51)	C	("Eleonore")	1791-92	(Frankfurt/M, 1830)	E. von Breuning
II	2/1	f		*1795	Vienna: Artaria, 1795	Joseph Haydn
	2/2	A		"	"	"
	2/3	C		"	"	"
	49/1	g		1795-98	Vienna: Bureau, 1805	
	49/2	G		"	"	
	7	E♭	("Die Verliebte")	1796-97?	Vienna: Artaria, 1797	A. L. B. von Keglevics
	10/-	c	("Little Pathétique")	1796-98	Vienna: Eder, 1798	A. M. von Browne
	10/2	F		"	"	"
	10/3	D		"	"	"
	13	c	"Sonata pathétique"	1798-99	Vienna: Eder, 1799	Carl Lichnowsky
	14/1	E		*1798-99	Vienna: Mollo, 1799	Josefine von Braun
	14/2	G		"	"	"
	22	B♭		1799-1800	Vienna: Hoffmeister, 1802	Johann von Browne
III	26	A♭		*1800-01	Vienna: Cappi, 1802	Carl Lichnowsky
	27/1	E♭	"Sonata quasi una Fantasia"	1800-01	Vienna: Cappi, 1802	J. S. von Liechtenstein
	27/2	c♯	"Sonata quasi una Fantasia" ("Moonlight")	1801	"	Giulietta Guicciardi
	28	D	("Pastorale")	1801	Vienna: Bureau, 1802	Joseph von Sonnenfels
	31/1	G		1801-02	Zürich: Nägeli, 1803	A. M. von Browne?
	31/2	d	("Tempest")	"	"	"
	31/3	E♭	("La Chasse")	"	Zürich: Nägeli, 1804	"
	53	C	("Waldstein")	1803-04	Vienna: Bureau, 1805	Ferdinand von Waldstein
	54	F		1804	Vienna: Bureau, 1806	
	57	f	("Appassionata")	1804-05	Vienna: Bureau, 1807	Franz von Brunsvik
IV	78	F♯	("Therese")	1809	London: Clementi, 1810	Therese von Brunsvik
	79	G	("Cuckoo")	1809	London: Clementi, 1810	
	81a	E♭	"Lebewohl"	1809-10	London: Clementi, 1811	Archduke Rudolph
	90	e		1814	Vienna: Steiner, 1815	Moritz Lichnowsky
V	101	A	("Sensitive")	*1816	Vienna: Steiner, 1817	Dorothea Ertmann
	106	B♭	("Hammerklavier")	1817-18	Vienna: Artaria, 1819	Archduke Rudolph
	109	E		1820	Berlin: Schlesinger, 1821	Max'e Brentano
	110	A♭		ca. 1821	Paris: Schlesinger, 1822	
	111	c		1821-22	Paris: Schlesinger, 1822?	Archduke Rudolph?

[1]William S. Newman, The Sonata in the Classic Era (Chapel Hill, N. C.: University of North Carolina Press, 1963), p. 509. Reprinted by permission from the copyright owner.

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