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ASPECTS OF FORM AND STYLE
IN
Beethoven's String Quartets.

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Errata

- Page iv - for 'Trnasition' read 'Transition'.
Page 38 - for 'sub-domiant' read 'sub-dominant'.

Omissions

Page iv [Abbreviations] - add:

- P^v - Parallel five, i.e. the chord
on the third degree of the scale
which functions as a fifth degree
to the tonic parallel.

Page 120 [Bibliography] - add:

Altmann, Prof. Dr. Wilhelm - Introductory
notes to the Op.59 String Quartets in the
Eulenberg edition - April 1911 [June 1938].

P R E F A C E

Many books have been written which deal with the subject of form and style in Beethoven's works. Most writers, however, seem to be satisfied with superficial descriptions - in some cases merely programatic - which do not explain the underlying problems and treatment of form. Furthermore, no book exists, to my knowledge, which delves so deeply and with such detail as to deduce with almost certain accuracy the inner coherency of the form. It is the aim of this analysis to approach the problem in this way.

The edition used for this purpose is that one published by Ernst Eulenberg Ltd. London W1, which was edited from the autograph M.S. by Professor Dr. Wilhelm Altman. No comparisons are made with other editions, and possible printer's and other errors are not considered.

I chose the works to be studied here, the three quartets Op. 59, for two reasons:

- 1) the string quartet medium is one of the most suitable types of instrumental music for the study of form,
- 2) the Op. 59 quartets belong to a period in Beethoven's life when he was particularly intent upon experimentation in form and development of dimension.

The following is an explanation of the terms used throughout this thesis:

- Motive - a single rhythmical or melodic germ cell. ¹⁾
- Phrase - a short melody mostly built up from more than one motive.
- Sentence - a non-periodic double phrase, often unsymmetrical.
- Closed period - a symmetrical sentence beginning and ending on the tonic but with a half close on the dominant in the middle.
- Open period - a sentence which follows the symmetrical outline of the closed period but inverts the harmonic balance, modulating away from the tonic.
- Subject - thematic material comprising several similar or varied phrases.
- Section - in this thesis the term is used to signify a part of the movement consisting of one or more subjects being determined by the tonal outline only.

1) The word 'motivic' which means working with the motive, is a direct translation from the German language and has been used by Gustave Reese in his book Music in the Renaissance (see page 347). Because it describes accurately and simply techniques used by Beethoven, it has been adopted for this thesis.

- Extension - lengthening of a phrase or subject by repetitions of a motive, usually that of the last bar.
- Continuation - carrying on by means of development technique using either previous or new material.

The following abbreviations are used.

Accom.	- Accompaniment
cello.	- Violoncello
Ctp.	- Counterpoint
Cont.	- Continuation
Dev.	- Development
Dim.	- Diminished
D	- Dominant
D 7th	- Dominant 7th
Dp	- Dominant parallel
Ex.	- Example
Expos.	- Exposition
ff	- following ¹⁾
Incom.	- Incomplete
Inv.	- Inversion
Maj. or + ²⁾	- Major
Min. or -	- Minor

1) e.g. 'bars 10ff' means all the bars which follow bar 10.

2) The sign '+' is also used as a plus sign; distinction between the two meanings becomes obvious when seen in context.

Mod.	- Modulatory
Movt.	- Movement
Ped pt.	- Pedal-point
Recap.	- Recapitulation
Sect.	- Section
Sequen.	- Sequential
SD	- Sub-dominant
Subj.	- Subject
Subjs.	- Subjects
T	- Tonic
Tp	- Tonic parallel
T ^v	- Tonic five i.e. the fifth degree of the scale.
Trans. or tr	- Transition
Vln	Violin

In one diagram, viz. on page 83, it was necessary to indicate the beat of the bar as well as the bar number itself. For this purpose the following method was adopted:

e.g. bar 29⁴ = the fourth beat of bar 29, or
bar 34³ = the third beat of bar 34.

-1-

C H A P T E R 1

THE INTRODUCTION

The chief incentive for the composition of the Op.59 quartets "was provided by an order or request on the part of the art-loving Count Razumovsky", ¹⁾ Russian Ambassador in Vienna during the years 1792 to 1822 (except for the years 1799-1801). He was a keen quartet player himself, and "well practiced in the second violin parts of Haydn's quartets". ²⁾

There seems to have been no connection between him and Beethoven until the end of 1805 when he commissioned the composer to write some quartets with "Russian melodies, real or imitated". ²⁾

Beethoven began composing the quartets on May 26th, 1806, and offered the complete set to the publishers Breitkopf and Härtel, on 18th November, 1806.

After the first performance in Vienna, the critic of the 'Allgemeine Musikalische Zeitung' ³⁾ described them as "very long and difficult..... deep in thought and well worked out but not generally comprehensible". ⁴⁾ According to Gerald Abraham ⁴⁾ even the quartet players (the Schuppanzigh Quartet) "thought them jokes and mere nonsense". This is somewhat surprising as the Schuppanzigh players, being at Beethoven's disposal for rehearsing and for experimenting, must have been very familiar with the works.

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- 1) Prof. Altman's introductory notes to the Eulenberg edition of the Op.59 Quartets.
 - 2) Beethoven's Second-Period Quartets by Gerald Abraham, published by Oxford University Press in 1942 (see page 9).
 - 3) 27th February, 1807.
 - 4) Beethoven's Second-Period Quartets by Gerald Abraham, published by Oxford University Press in 1942 (see page 10).

The quartets were not published till January 1808. It remains doubtful as to which is the first edition; Professor Dr Wilhelm Altman writes: "In the opinion of Dugge these quartets were published in 1808 under the title:

'Trois Quatuors pour deux Violons, Alto e Violoncello Composés par Louis van Beethoven. Oeuvre 59^{m^e}. Livraison 1, 2 and 3 respectively, a Vienne au Magazin de J. Riedl, 582. Hohenmarkt.' (Plate numbers 580, 584, 585).

Nottebohm, however, quotes as the publishers

'Vienne au Bureau des arts et d'industrie a Pesth chez Schrey vogel & Comp.'

with the same plate numbers. Probably he is right. We know that the firm Johann Riedl in Vienna, which closed down in 1829, took over these quartets from the Bureau which was bankrupt in 1811." 1)

The third page of the Riedl edition is decorated with the Razumovsky crest, and underneath is the following dedication:

'Trois Quatuors Tres humblement Dediés à son Excellence Monsieur le Comte De Rasoumoffsky Conseiller privé actuel de Sa Majesté L'Empereur De Toutes Les Russies. Seneteur, Chevalier des ordres de Saint André, de Saint Alexandre-Newsky et Grand-Croix de celui de Saint Wladimir de la premiér Classe &c. &c. par Louis van Beethoven'.

1) Prof. Altman's introductory notes to the Eulenberg edition of the Op. 59 quartets.

C H A P T E R 2

THE ANALYSIS

STRING QUARTET IN F MAJOR
OP.59 NO.1

There are four movements:

- 1) Allegro: 4/4 F major.
- 2) Allegretto vivace e sempre scherzando:
3/8 B flat major.
- 3) Adagio molto e mesto: 2/4 F minor.
- 4) THEME Russe Allegro 2/4 F major.

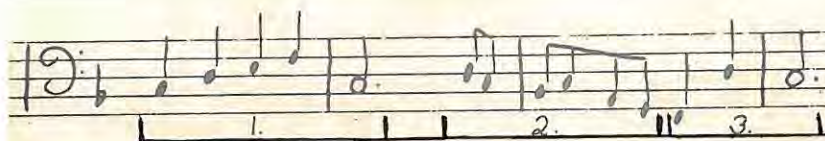
The First Movement is in sonata form:

Exposition	- bars 1 to 103,
Development	- bars 103 to 254,
Recapitulation	- bars 254 to 348,
Coda	- bars 348ff.

The first section of the exposition (bars 1-38) comprises three subjects : (a) bars 1-19,
(b) bars 20-30, and
(c) bars 30-38.

Subject (a) (bars 1-19), although of continuation type, is made up of five regular 4-bar phrases the last two of which overlap. The opening phrase with its three motives:

Ex 1.



Subject (c) is a double phrase the two parts of which are identical but for their range.

The harmonic outline of the first section is tripartite whereby the quasi-chromatic progressions of subject (b) contrast strongly with the pedal points used in subjects (a) and (c). The dominant pedal of the former in addition to the steadily climbing melodic phrase and the strong rhythmical lead of the perpetual quaver repetitions in the accompaniment result in the impulsive nature of subject (a). This is counter-balanced on the other hand by subject (c) with its tonic pedal note and a more static melody.

The transition (bars 38-60) not only modulates to the dominant but also forms a thematic link between the first and second sections. Its bipartite structure is determined by the perfect cadence in bar 48. The actual modulation takes place in the first part, whereas the second part transforms the tonic function of G into that of a dominant. This is brought about by a strong sub-dominantal turn (C minor in bar 53 and F major in bars 56 and 57) and the subsequent establishment of C as the new tonic.

The thematic material is based on development-like transformations of (a1) and a new triplet motive. The latter is introduced as a seemingly casual counterpoint in bars 42 and 43, but gains more significance in the opening bars of the second part (bars 48-50). Its rhythmical aspect returns as a chief element in subject (c) of the second section (bars 73ff).

The second section (bars 60-90) has three diametrically opposed subjects:

- (d) bars 60-73, quasi-polyphonic and lyrical
- (e) bars 73-85, of a rhythmical nature
- (f) bars 85-90, a purely harmonic subject.

Subject (d), which comprises two similar 4-bar phrases followed by a continuation, shows remarkable thematic density. The main portion is characterised by an ascending C major scale, which at its first appearance is counterbalanced by the descending lines of the viola and cello (bars 60ff). The two phrases are joined by a short link using a descending tetrachord, a motive which is of great significance. It appears for the first time at the upbeat before bar 60, is imitated by the viola in bar 60 and by the second violin in bar 64, and reappears in a different rhythmical pattern as the motive of the continuation group (bars 67ff). The tetrachord (in bars 59-60) is extended to a hexachord by a further descent in the first part of subject (d), (see bar 60). Likewise in the second phrase and consequently in the above-mentioned imitations.

See Ex 3 on page 9 -

Ex 3.

tetrachord
hexachord

limitation of hexachord

tetrachord

chord
chord

limitation of hexachord

tetrachord

tetrachord

etc

etc

Both these motives, tetrachord and hexachord alike, are essential elements of both subject (a) (motives 1 and 2 respectively) and subject (b), thereby creating an inner relationship between first and second sections.

Subject (e), constructed from short triplet motives, has development character. This is most obvious in bars 77 and 78, and in its arpeggio transformations in bars 79-85.

Subject (f), a group of alternating sustained chords, has link character.

Only subjects (e) and (f) are of importance in the development; subject (d) owing to its thematic concentration, does not appear at all. The tonality remains throughout in C major but the development character of (e) is enhanced by the use of an auxiliary dominant in bars 77-80, an idea which returns in subject (f).

The subject of the closing section is an obvious derivative of (a1), but the opening bar is rhythmically the same as that of (d). Furthermore, both tetrachord and hexachord are evident. The continuation, bars 98ff which has development character, is based on a rhythmical variation of (a1) introduced at bar 94. This motive appears twice again in the development; near the beginning as a link, and at some length later (bars 182ff) where it occurs as a countersubject in the quasi-fugal section. The C major tonality retained in the main portion of the closing section assumes T^V function with the introduction of a B flat at the beginning of the continuation in bar 98. This change together with the development-like character makes these bars a transition rather than a close.

The development (bars 103-254), which is very extended, comprises seven parts:

- 1) (bars 103-126) dealing with phrase 1 of subject (a),
- 2) (bars 126-144) using motive (a1),
- 3) (bars 144-151) an almost literal quotation of subject (c), and of obvious link character,
- 4) (bars 152-184) an extended group with a concerto-like treatment of the first violin based on various transformations of (a2) later combined with (a1),
- 5) (bars 185-218) a quasi-fugue based on a variation of (a1) and a new subject.
- 6) (bars 219-242) which presents a combination of (a1) and (c), and finally
- 7) (bars 242-254) a transitional group based on the slightly extended subject (b), which overlaps with the recapitulation.

The opening bars of part (1) (bars 103-126) are identical with those of the exposition. The presence of the tonic key shows the influence of rondo-sonata form which is somewhat unusual in a first movement. Three further statements of the same phrase follow after a short modulatory link using the variation of motive (a1) established in the closing group (bars 107-110). Though the subject phrase itself remains basically unchanged, development features exist in the modulatory outline and in occasional references to triplet arpeggio motives.

A noteworthy overlap between the tonic harmony of the phrase and the dominant harmony of the accompaniment occurs in bar 111 possibly due to a certain harmonic

ambiguity of the phrase.

Ex 4.

The image shows a handwritten musical score on aged paper. It consists of four staves: Violin I (Vn I), Violin II (Vn II), Viola, and Cello. The key signature has one flat (B-flat). The Violin I staff has a treble clef and contains a melodic line with several notes, some with accidentals (sharps and flats), and a fermata. The Violin II staff has a treble clef and contains a similar melodic line. The Viola and Cello staves have bass clefs and contain a lower melodic line, also with accidentals and a fermata. The score is divided into measures by vertical bar lines.

However, such dominant-tonic overlappings are a favourite device of Beethoven's and can also be found for example in the first movement of the 'Eroica' symphony (see bars 394-395) and the piano sonata Op. 81a (see bars 213-218). A fifth but incomplete statement of (a) entering in canonic imitations between the four instruments (see bar 102) and overlapping with the previous statement, prepares for part 2 which is based on motive (a2).

In part 2 (bars 126-144) motive development predominates and for the most part strict 4-bar phrasing is observed. This is determined by a 2-bar descent in the first violin and its imitation in the cello. The latter two bars are counterbalanced by an ascent in the upper parts using the upbeat motive to bar 126. These three phrases are followed by a 6-bar continuation also based on (a2). The harmonic scheme is not modulatory except for a sudden turn to E flat major in the last group. Until then, the G minor tonality of bar 120 is retained, but is supported at bar 130 by the minor dominant (D minor). Both G minor and D minor chords are stressed by their respective diminished sevenths. With the exception of one bar's

anticipation of the F sharp diminished harmony in bar 133, this harmonic scheme coincides with the 4-bar phrasing.

In part 3 (bars 144-151) subject (e) is introduced in a manner somewhat reminiscent to the exposition, i.e., with a sudden dynamic contrast, and after a broken-chord pattern. Its brevity and modulatory outline give it transitional character.

Most of the thematic activity in part 4 (bars 152-184) is confined to the first violin. In a false entry of phrase (a) its motive (a2) becomes transformed (see bars 156-157), and is used afterwards for continuation purposes. Although the part writing of the accompaniment seems to be purely harmonic, it shows a stepwise ascent of a sixth both in the cello and in the second violin, which is caused by an harmonic sequence of alternating root position and first inversion chords. The rhythmical distribution of these harmonies creates a gradual accelerando as shown in the following diagram:

C maj.		6 bars	152-157, E in bass
F min.	2 bars	}	4 bars 158-161, F in bass
D flat (1st inv)	2 bars		
G flat maj.	1½ bars	}	2 bars 162-163, G in bass
E flat (1st inv)	½ bar		
A flat maj.	1½ bars	}	2 bars 164-165, A in bass
F min. (1st inv)	½ bar		
B flat maj.		1 bar	166, B in bass
A flat maj.		continues differently,	C in bass

Extra impetus is gained by broken octaves in the second violin (see bars 162-167) which follows a similar rhythmical speeding up process. The ascent of the accompaniment is counterbalanced by the descending scales of the first violin. At bar 170 the modulation to D flat is complete, and the ensuing bars merely establish this tonality. Motive (a1) predominates in the three lower parts, and although the first violin continues with thematic dissection of motive (2) it now functions more as accompaniment until in bars 176-180 it likewise partakes in the elaboration of motive (a1).

A short modulatory link of six bars, (180-186), forms a thematic bridge between the fourth and fifth parts. It begins with a derivative of (a1) followed by a rhythmical variation introduced in the closing section (bar 94). Its continuation serves as a counter-part to the subject of the fugue in part 5 (bars 185-218). This subject, (g), can be regarded as essentially new but for some vague reminiscences of subject (b), i.e. skips of a fourth and sixth and some rhythmical similarity. The continuation nature of the counter-part, the delayed entry of subject (g), and the lack of chordal support in the perfect cadence at bar 150 results in a strong linear impression, which except for the last nine bars characterises the whole of part 5. The fugue writing is strict, there being four entries of the subject in E flat minor, B flat minor, E flat minor and B flat minor respectively. The fourth entry overlaps the last part of the third. An interesting feature is the presence of a countersubject in the first entry. Furthermore, in place of modulatory links between the entries Beethoven varies the closing bars of either the subject itself (see bar 192) or the

countersubject (see bars 198 and 199).

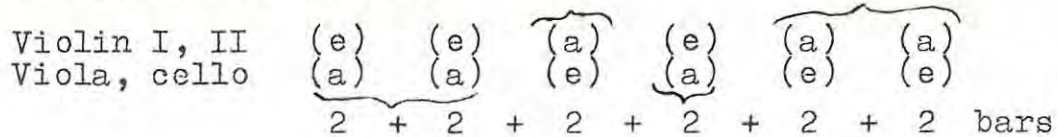
A fifth entry in F minor occurs at bar 203 but remains incomplete, continuation technique being applied.

Canonic imitations between the violins in octaves and the viola (canon at the second at one bar distance) characterise this group. It modulates to the B diminished chord (i.e. the C major tonality) after which the contrapuntal writing ceases. This point represents the climax of a gradual crescendo which is achieved not only by the intensification of contrapuntal texture inherent in any fugal exposition, but also by a further increase in the density of the part writing (stretto and canonic imitations) and a continuously rising pitch level (especially in the continuation group). A rapid descent (which is an elaboration of the B diminished chord) together with a diminuendo follows. Rhythmical relation to subject (b) exists in the use of syncopation and tied notes.

Parts 5 and 6 are linked by the cadential bars 218-222 and two modulatory bars 223 and 224. The former uses motive (a1) and its variation with a counterpoint of triplets, and the latter the main motive of subject (e).

Part 6 (bars 219-242) presents motive (e) and motive (a1) treated in dialogue manner between the two upper and the two lower parts. Motive (a1), slightly modified, occurs throughout in double thirds and motive (e) alternately between two instruments. There are six 2-bar phrases whereby the distribution of the thematic material between the instruments shows remarkable symmetry as shown in

the following diagram:



The modulatory scheme is sequential going from G minor via D, A and E (alternating between major and minor) to the dominant 7th of F major. The harmonies ~~coincide~~ coincide with the 2-bar phrasing, and the major-minor changes occur within each phrase.

A continuation follows which uses motive (a1) in different variations: augmentation and syncopation in the middle parts in bars 236-237, and triplet figuration in the upper part in bars 236-240. Interesting metrical changes occur in bars 234ff: the entrance of motive (e) is shifted from the second beat to the first, and motive (a1) is augmented and presented in syncopations (see bars 236 and 237) which are anticipated in bar 233. A chromatic three-note link in the first violin (bars 240-242) leads to part 7 which is a varied form of subject (b).

As in the exposition, (b) consists of a series of passing diminished chords but without modulation. In part 7 (bars 242-254), however, its rhythmical ~~shape~~ shape is somewhat changed, there being a tendency ~~towards~~ towards accelerando by phrase-shortening (see bar 259), rather than phrase-expansion. This tendency together with a constant ascent in pitch level in all four parts, and the increase in tension created by the diminished chords, results in a big crescendo which reaches its climax in bar 252. A rapid descent both in dynamics and in pitch follows, the latter in the form of a descending scale passage which shows rhythmical

relationship to motive (a2). In bars 272-278 of the recapitulation this relationship is clearly to be observed.

An interesting overlap between development and recapitulation occurs in bar 254. The descending line of the first violin ends one bar after the entry of subject (a). Thus the ascending character of motive (a1) (which is emphasised by an ascending scale approach one bar earlier), is counterbalanced by the descent in the first violin.

But for a few minor changes mainly in key and in instrumental setting, the recapitulation (bars 254-348) is regular. In place of subject (b), subject (a) is extended by motive repeats modulating to D flat major in which key subject (c) occurs. This change is formally necessary, since subject (b) occurred only 20 bars earlier at the end of the development. Subject (c) is also extended by motive repeats, these modulating to C major (as dominant of F major); this extension replaces the first half of the transition. Subject (d) is varied in its setting and a new counterpoint of triplets is added in the first violin. The closing section is slightly varied in its continuation but retains the same idea as in the exposition.

The coda (bars 348ff) is bipartite and has some developmental characteristics. The first part (bars 348-368) is based on phrase (a), and the second (bars 372ff) on motive (a1) and a triplet accompaniment.

But for their range the two statements of phrases (a) at the beginning of the coda are identical with those

at the beginning of the development. They differ, however, in the setting and in the accompaniment (full harmonies instead of quaver repetitions) and in the harmonisation of the second statement. Sforzati on the off-beat give rhythmical variety. Additional colour is obtained by changing the harmonic function of the second statement of phrase (a) from a dominant 7th of F major to an auxiliary dominant 7th of C major. There is no modulation as already in bar 354 a B flat is reintroduced, and F major is clearly established in the cadential bars 361-365. A short continuation group which follows the two phrases is based on motive (a2). This can be compared to the continuation that follows subject (a) in the recapitulation (see also the end of the development, bars 253-254). A link (bars 368-373), phrased in two parts and using a new triplet motive, leads to the second part of the coda (bars 373ff).

A certain relationship exists between this and part 6 of the development. Two-bar phrases of motive (a1), (in this case occurring alternately at one bar's distance between either cello or viola, or first and second violins and not in parallel thirds as in the development), are accompanied by triplet motives which alternate between the other two instruments. Two main phrases are discernible, their contours being determined by an exchange of parts between the instruments. The second of these shows an accelerando by phrase shortening (bars 382ff), and at the same time a crescendo aided by a continual sequential ascent within the repeats of motive (a1). Alternating tonic and dominant 7th harmonies constitute the entire harmonic layout.

After a sudden diminuendo the most important thematic ideas are once more stated, viz. motive (a1) (and its variation) in the second violin and a triplet motive in the cello. Motive (a2) is represented in its rhythmical form only in a descending scale in the first violin (compare this to the end of the development bars 253ff).

The cadential bars are purely harmonic and rendered somewhat unorthodox by the use of an unexpected chord of the 6th degree shortly before the final dominant-tonic harmonies.

The Second Movement shows relation to the scherzo only in speed and accentuated rhythm. In its outline, however, it is a sonata form of an unusually lengthy and complicated nature. A rather unusual feature is the placing of the fast movement second and the slow movement third, a succession to which Beethoven returns in the Ninth Symphony. The outline of the movement is as follows:

Exposition	- bars 1 to 155
Development	- bars 155 to 259
Recapitulation	- bars 239 to 394 (overlapping)
Coda	- bars 394ff

The exposition (bars 1-55) is regular but for the fact that the second section is in the minor dominant. ¹⁾

1) The Neapolitan dominant of the Pre-classical era.

The first section (bars 1-68) is bipartite, this structure being determined by the perfect cadence in bar 39.

The first group (bars 1-39), subject (a), presents three main phrases:

- (1) is of a purely rhythmical nature and on a constant pitch which, in its frequent recurrences in various forms and functions, provides a unifying element.

Its two motives:

Ex 5.



are often used separately.

- (2) is a melodic 4-bar phrase which is very important in the further continuation of the movement, and which in its use of staccato semiquavers is related to (a).
- (3) is a lyrical 6-bar phrase of little thematic importance but providing contrast.

A free ternary shape can be observed:

- (A) (bars 1-22) is in bar-form, the stanzas of which comprise phrase (1) followed by phrase (2), the second stanza, however, being pitched one tone lower than the first. The aftersong in C flat is a harmonised version of phrase (1) extended by one bar.
- (B) (bars 23-28) phrase (3) see above.
- (A) (bars 29-40) is derived from phrase (1) which is extended by bar repetitions. Its harmonisation differs from that of the aftersong in (A) above.

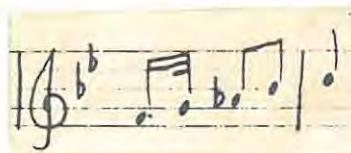
The second group (bars 40-68) is in D minor and its only subject (b), clearly a derivative of (a2), is of continuation type; motive (aii) provides the accompaniment. At bar 54 motive (ai) returns harmonized and in a syncopated variation. The complete phrase (a1) followed by a short melodic extension modulates to B flat.

The transition (bars 68-114) begins with a literal repeat of (a1), followed by the 8-bar phrase (c) which is yet another transformation of (a2). The single part writing is retained up to the 7th and 8th bars where modulation to A major takes place. Phrase (1) and the opening bars of (c) are repeated in A major, but their continuation is changed and leads to D minor. A short modulatory development follows using motives of (a1). Phrase (c) recurs in bars 101ff combined with motives of (a1), is extended by motive repeats and modulates to C major, the dominant of F minor.

The second section (bars 115-155) has one subject, (d), the basic material of which is presented in a 4-bar phrase (bars 115-119).

Its two main motives;

(i) an ascending line with a characteristic rhythm,
Ex 6.

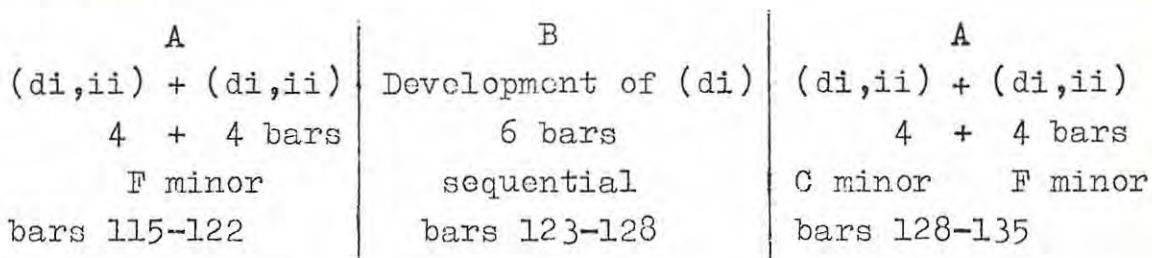


and

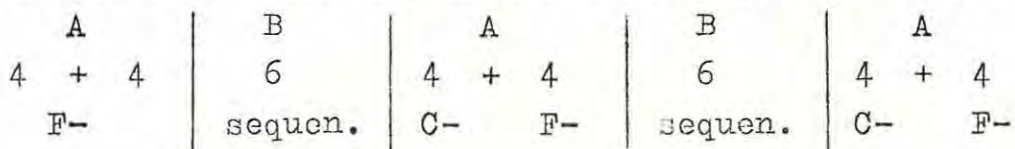
(ii) a descending scale passage,
Ex 7.



are used both thematically and as accompaniment. The shape of the subject shows a peculiar hybrid between ternary and rondo elements. Bars 115-135 are clearly ternary as indicated in the following diagram:



Parts A and B (bars 123-135) are repeated but varied in setting, resulting in the following rondo shape:



Such a construction would normally be expected in a main subject in a symphonic rondo or a theme followed by a set of variations. It is, however, most unusual in the second section of a sonata form.

The development (bars 155-259) comprises the following parts:

- 1) (bars 155-170) dealing with (a2),
- 2) (bars 171-177) a short link using (a3),
- 3) (bars 177-192) a lyrical transformation of (a1),
- 4) (bars 193-213) using phrase (a1) and an arpeggio figure,
- 5) (bars 213-238) dealing with phrase (c), and finally
- 6) (bars 239-259) an overlapping of development and recapitulation.

Exposition and development are joined closely together by a thematic overlap: a link (bars 151-154) modulating from F minor (the tonality of the second section) to D flat major reintroduces phrase (a1) in a harmonised and slightly varied version. After a perfect cadence in the new tonality (bar 155) phrase (a2) occurs. This phrase-succession corresponds to the opening bars of the movement where (a1) and (a2) make up the single stanzas of the bar-form mentioned above. The tonal layout, however, demands that the link containing (a) should still be considered part of the exposition, whereas the development proper opening with (a2) begins only with the completed modulation to the new tonality (i.e. D flat).

Part (1) (bars 155-170) uses chiefly the upbeat to phrase (a2) and a syncopated rhythm. The former occurs in ascending fragments passing from one instrument to the other,¹⁾ and the latter serves merely as accompaniment. In spite of the motivic texture the progressions are predominantly harmonic and culminate in an abrupt turn to F sharp which is stated in fortissimo octaves and in the rhythm of motive (a1).

Part (2) (bars 171-177) a literal return of (a3) in B major, lacks development treatment and therefore has a transitional character.

Part (3) (bars 177-192) comprises two similar statements of an 8-bar phrase which is but a lyrical

1) A similar technique can be seen at the end of the transition (bars 112ff) and at the close of the exposition (bars 148ff).

transformation of (a1). Of special interest is the Schubertian romanticism of the harmonic progressions.

Part (4) (bars 193-213) consists of four emphatic statements of phrase (a1) combined with an arpeggio figure derived from (a2), followed by an organic extension of five bars. Sequential treatment exists both in the thematic disposition and in the instrumental setting; phrase (a1) occurs successively on the notes C, G, D and A, and follows a strict instrumental succession as shown in the following diagram:

<u>1st statement</u> 4 bars		<u>2nd statement</u> 4 bars	
Vln I	arpeggio	Vln I	} accompaniment
Vln II	} accompaniment	Vln II	
Viola		<u>phrase (a1)</u>	Viola
cello	<u>phrase (a1)</u>	cello	<u>arpeggio</u>
<u>3rd statement</u> 4 bars		<u>4th statement</u> 4 bars + extention	
Vln I	accompaniment	Vln I	<u>phrase (a1)</u>
Vln II	<u>phrase (a1)</u>	Vln II	<u>arpeggio</u>
Viola	arpeggio	Viola	} accompaniment
cello	accompaniment	cello	

The arpeggio figures likewise follow a similar pattern but in their harmonic elaboration such a strict sequential writing is not observed. From bar 203 onwards the harmony diverges from the hitherto existing sequence introducing diminished chords first on G sharp and later D sharp resolving to A minor in bar 211.

This procedure justifies the extension and causes third and fourth statements to merge into one harmonic entity though retaining their thematic division.

The following diagram indicates this clearly:

1st statement C major - C minor bar 193 bar 195		2nd statement G major - G minor bar 197 bar 199
3rd statement D minor - G sharp dim. bar 201 bar 203		4th statement + extension D sharp dim.....A minor bar 205 bar 211

The link bars 211 and 212 resolve the A minor 6/4 in bar 211 to a root position in bar 213 thereby changing its function from a cadential to an inversion 6/4.

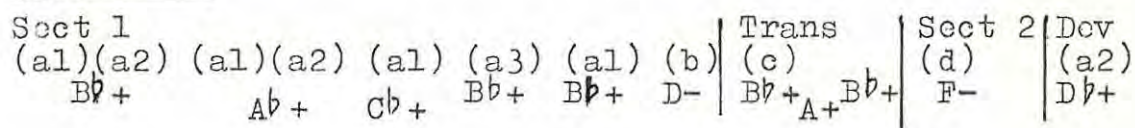
Part (5) (bars 213-238) comprises four bars of phrase (c) - combined as in the transition (bars 101-104) with (a1) - and a modulatory development. The latter ends with a sudden interruption by motive (a1) in fortissimo on a diminished chord (compare part (1) of the development, bar 169).

Part (6) (bars 239-259) of the development serves also as the beginning of the recapitulation. In its formal shape it corresponds almost exactly with the opening bars of the exposition but for shortening in the aftersong, overlapping of the stanzas, and a different harmonic scheme: The first stanza is in G flat, the second in D flat and the aftersong starts in A flat and modulates to B flat. Other developmental characteristics exist both in the slight figural variations of the thematic material, and in the use of additional counterpoints. One of these, (c), is used again in the coda. The entrance of phrase (a3) in B flat major marks the end of the development and at the same time the regular continuation of the recapitulation.

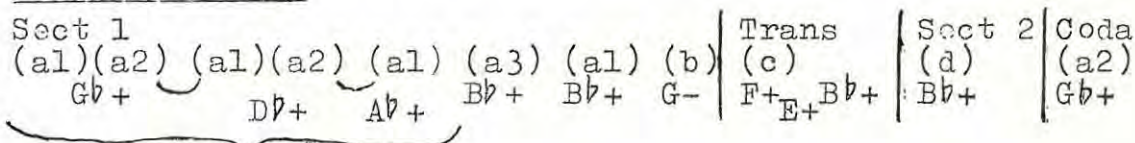
The subject matter of the recapitulation (bars 239-

394) is essentially regular the only alterations occurring in the transition: new counterpoints are added at the beginning (bars 304ff), and the extension to phrase (c) (bars 343ff) is lengthened by further motive repeats. The harmonic layout, however, differs considerably from the exposition as the following diagram reveals:

Exposition:



Recapitulation:



Part 6 of the dev (with overlaps shown by slurs)

The coda (bars 394ff) is rather extended and has developmental characteristics. It opens, like the development, with phrase (b) but in G flat major. After a modulation to the dominant of B flat an imitative part follows using a subject derived from (c). At bar 420 a quasi-recapitulation occurs infusing the movement with clear rondo elements. Of special interest is the fact that the quasi-recapitulation is, both in thematic disposition and in harmonic layout, more regular than the recapitulation proper. The following diagrams show the comparison between exposition and coda and between recapitulation and coda:

Exposition:

Sect 1.
(a1)(a2) (a1)(a2) (a1) (a3)
B^{b+} A^{b+} C^{b+} B^{b+}

Coda:

(a1)(a2) (a1)(a2) (a1) (a3)
B^{b+} A^{b+} C^{b+} B^{b+}

Recapitulation:

Sect 1.
(a1)(a2) (a1)(a2) (a1) (a3)
G^{b+} D^{b+} A^{b+} B^{b+}

Coda:

(a1)(a2) (a1)(a2) (a1) (a3)
B^{b+} A^{b+} C^{b+} B^{b+} 1)

This group is suddenly interrupted by motive (a1) (in fortissimo) at bar 446 followed by a bar's rest (see also bars 169 and 273). A slightly varied repetition of the same motive modulates to E minor in which key phrase (a3) is restated. A development-like group based on motive (a1) and phrase (a2) follows forming the closing part. The coda ends with yet another display of the hoquetus-like distribution of short motivic²⁾ elements between the different

1) This procedure is to be expected since no modulations are involved in the coda whereas the beginning of the recapitulation overlapped the end of the development.

2) See footnote 1) on page ii,

instruments. The ascending B flat major chord (bars 466-468) finds its counterpart in the descending statements of motive (ai), bars 470ff) which extend the closing cadence.

The Third Movement is in sonata form but of a much simpler design than either the first or second movements. The outline is as follows:

Exposition	- bars 1 to 45
Development	- bars 46 to 84
Recapitulation	- bars 84 to 114
Coda	- bars 114ff

The first section (bars 1-16) consists of a single subject (a), a 16-bar period with the customary half close on the dominant in the middle. Its two 8-bar phrases are identical in melody but vary in instrumental setting. Their construction is based on 2-bar phrases all of which differ but for their common use of the dotted rhythm. The most noteworthy feature is the treatment of the underlying harmonies. The lower parts are so significant (the cello part in bars 5 and 6 even anticipates the rhythm of subject (b), second section) and expressive that the texture becomes essentially polyphonic. This is even more obvious when the principal melody is taken up by the cello in the latter half of the period. By this "horizontalization" of the harmonies, a characteristic of Beethoven's mature style, the expressiveness of the melody is highly intensified.

The short transition (bars 17-24) which modulates to G major (dominant of C major) begins in a quasi-imitative style and leads to a demisemiquaver figure in the two violins echoed by second violin, viola and cello. A link of one bar anticipates the demisemiquaver accompaniment which prevails almost throughout the second section, the development and the recapitulation.

The second section (bars 24-45) comprises one subject (b) which has a free ternary outline. The first part (bars 24-31) consists of a double statement of a 2-bar phrase, (b1), and a short continuation. The phrase is based on a broken chord motive with a demisemiquaver accompaniment. The contrasting middle group (bars 31-41) is introduced by a sudden change of harmony (bar 31) and a return to a motive of subject (a)

Ex 8.



which almost predominates in this part. After a modulatory continuation it assumes the shape of a turn, (b2), without losing its typical "sighing" character. The quaver accompaniment anticipates the return of the first part (bar 41) which, however, is restricted to a single 2-bar phrase of (b1) in a free transformation followed by two free closing bars in a dotted rhythm. The cadential character of both (b2) and the incomplete (b1) creates the impression of an epilogue. A noteworthy feature of subject (b) is the continuous dialogue treatment between the first violin and the cello which is especially obvious in (b2).

A similar idea likewise prevailed in subject (a) where the principal melody appeared first in the violin and then in the cello. ¹⁾

The development (bars 46-84) comprises four parts:
(1) (bars 46-56) dealing with (b1),
(2) (bars 57-67) developing the opening motive of (a),
(3) (bars 67-71) a transition group based on (b2), and
(4) (bars 71-83) using a new subject (c).

An unusual feature is the incessant use of pizzicato in the accompanying demisemiquaver passages.

Part (1) (bars 46-56) opens with phrase (b1) in A flat major. Its repetition is varied in setting and extended by one bar modulating to D flat major where a further statement occurs. The shape of the phrase undergoes a slight change in the 4-bar modulatory continuation which follows.

A "linear" cadence in G minor (bar 57) marks the beginning of part (2) (bars 57-67). After two bars, which suggest a return of subject (a), its opening motive is used for a short imitative development in the three upper parts; incessant demisemiquavers in the cello provide the necessary accompaniment. A gradual rhythmic accelerando is achieved by overlapping the phrases and by shortening the note values. A modulation to C major leads to part (3) (bars 67-71).

Being very short and modulatory, and in its use of both the "turn" motive which recurs in the next

1) compare also part 4 of the development.

group and the pizzicato accompaniment of the previous part, it has a transitional character.

The new subject (c) (part (4), bars 71-83), in D flat major consists of two similar phrases, ¹⁾ each punctuated by the "turn" motive, (b2). The second phrase, a free transformation of the first with an additional counter-melody, is slightly extended by a motive vaguely resembling (b1). It modulates to C major, the dominant function of which is stressed by a bar of purely harmonic figuration (bar 83). The rhythm of the latter anticipates the combination of demisemiquavers and sextuplets found in both recapitulation and coda.

The form of the recapitulation (bars 84-114) is for the most part regular: the transition is shortened and the usual harmonic adjustments are instituted; the return to (b1) at the beginning of subject (b) is replaced by an entry of subject (a) which marks the beginning of the coda (bar 114). The most important change, however, takes place within subject (a) where the quasi-polyphonic setting of the exposition is abandoned in favour of the figured accompaniment. Its specific combination of sextuplets and demisemiquavers has only been introduced in the link-bar immediately preceding the recapitulation, but the general idea of a figured accompaniment originates already in the demisemiquavers of subject (b) in the exposition.

1) A noteworthy feature is the writing of the first phrase in the first violin and the second phrase in the cello; the same treatment was found in both subject (a) and parts of subject (b).

Such unification is further emphasised by the return of the pizzicato in the cello.

The coda begins at bar 114. Eight bars of subject (a), treated at first in imitations and accompanied by sextuplets and demisemiquavers, are followed by a slight extension using a motive in the rhythm of subject (b). Another motive related to (a) leads to the cadenza-like part which links this movement to the finale. The actual join is provided by the trill which continues in the first bars of the fourth movement. Such treatment shows how Beethoven utilises conventional means in a totally different manner. Although introduced as the traditional close to any cadenza, this trill turns out to provide the real counter part to the new subject and is also of some significance in the later course of the movement.

The Fourth Movement bears the title "THEME RUSSE". The Russian folk tune used for the first subject of this movement is called "Akh talan li moy, talan takoy" (Ah! my luck, such luck). ¹⁾ Beethoven copied it from Prach's "Collection of Russian Folk Songs" where it was marked 'molto andante', ²⁾ but turned it into a lively dance. The original slow speed is used only for some

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- 1) Beethoven's Second-Period Quartets by Gerald Abraham, Oxford University Press, 1942. (see page 27)
 - 2) Rimsky-korsakov, in his "Hundred Russian Folk Songs" Op. 24 marks it 'andante'.

bars in the coda (bars 443-351).

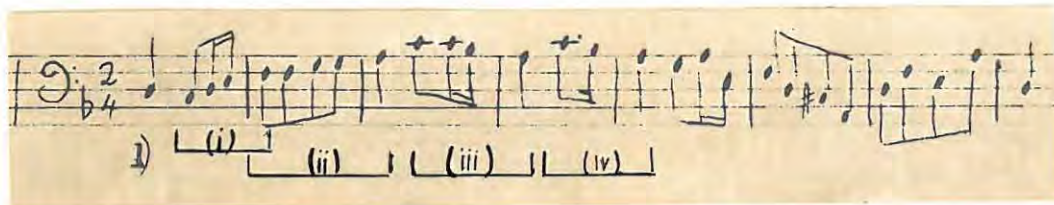
The movement is in sonata form of a less complicated nature than the first and second movements.

The outline of the movement is as follows:

Exposition	- bars 1 to 232
Development	- bars 233 to 312
Recapitulation	- bars 312 to 400
Coda	- bars 400ff

The first section (bars 1-168) comprises subject (a) and its continuation. The former, 8 bars in length, has unsymmetrical phrasing, and is stated twice. Although Beethoven's harmonisation of the subject suggests an oscillation between F major and D minor, the melody itself is modal (D aeolian). In the further course of the movement, Beethoven uses mainly the motives marked below:

Ex 9.



1) The omission of the first note is due to the tonal treatment of the subject.

Although motives (i) and (iii) are rhythmically identical they are distinguishable in their thematic capacity. Motive (ii) is used in the transition group and often associated with (i). Motive (iv) is a rhythmical variation of (iii) but in its rhythm also related to subject (c) of the second section. The motives of the last bars are not used to much extent in the further course of the movement and recur only with full statements of the subject.

The subject is introduced in the cello and combined with a counterpoint in the violin using almost exclusively trills in the afore-mentioned manner. In the repetition the two parts are interchanged, and a new syncopated accompaniment is added. The continuation begins with a quasi-polyphonic development of the opening bars of subject (a), but from bar 155 onwards all thematic relation to (a) is discarded except for the return to the syncopated accompaniment in bars 165-167. There is no modulation.

The transition begins at bar 168 and consists of a short modulatory development of motives (ai) and (aii). The thematic treatment is confined to the three lower instruments while the first violin provides a chord figuration. The latter is based on a slurred semiquaver figure which becomes adapted to a figured pedal point at the beginning of the second section.

The second section (bars 173-232) in C major, has two subjects, (b) and (c). Subject (b), strongly contrasted with subject (a) by its quiet rhythm, consists of two statements of an 8-bar phrase (the first in major and the second in minor) and a short

continuation. The first phrase, presented by the second violin, is accompanied by the already-mentioned figured pedal-point in the first violin and syncopations in the viola and cello similar to those of the first subject. These two ideas are combined in the second statement, and canonic treatment between the cello and first violin results in an extension of one bar. The continuation consists of short quotations of motives (ai) and (aii) followed by a cadential flourish of scales and chords in C major. A 2-bar 'ritenuto', with brief references to motive (ai) on a diminished chord, leads into subject (c) which in its cadential nature resembles a closing section. Written throughout in two complementary rhythmical parts it consists of three double phrases and a closing cadential group of 10 bars:

(1) 4+4 bars (2) 2+2 bars (3) 2+2 bars + 10 bars.

Each double phrase is different, but all have in common both rhythm and the alternation of tonic and dominant harmonies. The second half of each is always varied, either by exchange of parts or by rhythmical variation. The former is seen in phrase (1): cello and viola parts of bars 206-209 are taken over by the violins in bars 210-213, and in phrase (2): the violin parts of bars 214-215 are interchanged in bars 216-217. The latter is confined to the third phrase, and by this alteration in the obtrusive rhythm of the preceding bars it heralds the further rhythmic change in bars 222ff. The whole group from bars 206-222 is characterised by a persistent forward drive which relies foremost on the impulsive rhythm, but also on a dynamic progression from pianissimo to fortissimo,

phrase shortening, and, particularly in bars 214-222, on a rise in pitch. The climax is reached in the slurred octave scale passage in bars 222-225 which is followed by a diminuendo and a twisted descent, cello and viola parts now in contrary motion to the violins. Gradually reduced to a slow trill-like figure and finally a trill on C it either returns to the beginning of the exposition or leads directly on to the development.

The development (bars 233-312) has four main parts:

- (1) (bars 233-264) deals after a short reference to (a) mainly with the continuation of this subject,
- (2) (bars 264-274) a transition-like group,
- (3) (bars 274-298) developing motives of subject (c);
- (4) (bars 298-312) continuing the rhythm of (c).

The transition character of the opening bars is evident not only in the dominant function of the harmony but also in the perfect cadence in G minor in bar 239 where the development proper begins. Although subject (a) is represented only by a 7-bar development of motives (ai) and (aii), the relationship of these bars to the beginning of the exposition is obviated by the trill in the first violin.

The material of the continuation group of subject (a), itself characterised by development treatment, provides the main means of development in part (1). Bars 151-155 of the exposition occur twice, changed only in key and setting (bars 239-243 in G minor, and bars 247-251 in A flat major), and each is followed by a continuation derived from the corresponding part in the exposition. The entire group

modulates from G minor through A flat major to A major which becomes the dominant of D minor. The slurred figure of the continuation is gradually adapted to a kind of ostinato which is retained in the cello throughout the second part.

Thematic disposition, modulatory outline and brevity give part (2) (bars 264-274) a more transitional character. Motive (iii) and its rhythmical variation (aiv) are used in succession, the latter in its rhythmical capacity also serving as a link to subject (c) of the following section. The entire group is made up of two 4-bar phrases each containing in itself motive (aii) and (aiv), the second being extended by repeats of motive (aiv) and further modulation leading directly into the third part. The harmonic progressions coincide with the phrasing, the bass part ascending stepwise: all modulations, however, are purely passing, the dominant function of A major being restored in bar 274.

The entire third part (bars 274-298), obviously the climax of the development, is but a slightly varied statement of the subject group (c). It uses only phrases (1) and (3) the former being extended to six bars by motive repeats and an additional cadence. Besides the interchanging of parts, both phrases undergo certain harmonic adjustments: they are stated in the minor (with subsequent use of the Neapolitan chord instead of the former diatonic progression) and in phrase (1) the succession of the harmonies is reversed. The continuation following phrase (3), though shortened, is of a similar nature to the corresponding part in the exposition, also

ending on a trill as before.

The fourth part (bars 298-312) modulates sequentially from D minor through C minor to E flat major (sub-dominant of F major), its three phrases corresponding with this harmonic layout. The first two, identical but for key, are 4-bar phrases containing brief references to motives of subjects (c) and (a). The third phrase (on a subdominant pedal-point) consists of four bars resembling subject (c) and two bars with motives of subject (a), the latter anticipating the entry of the recapitulation (bar 312). There is no perfect cadence and the tonic key is fully established only two bars after the return of subject (a). Furthermore, development technique persists in the new setting of the folk tune, thus creating an overlap between development and recapitulation. The entry is further disguised by retaining the pianissimo which prevailed throughout the fourth part.

The recapitulation (bars 312-400) is, in its general outline, regular: the second statement of the folk tune is omitted and the necessary changes in the transition occur. The setting of subject (b) is varied in instrumentation and the extension group of subject (c) is replaced by a modulatory link-like part with arpeggio figures and pauses ending on a brief cadenza for the first violin.

The coda (bars 400ff), begins with a novel variation of subject (a) bringing the parts of the folk tune in a reversed order.

Ex 10.



After five canonic entries of the subject and further non-canonic imitations a pedal-point on C is established, lasting from Bar 413 to bar 430. A kind of "Mannheim crescendo" using a rhythmic chordal basis (resembling subject (c)), and a slurred semiquaver passage (resembling some previous passages) reaches its climax in a series of trills.¹⁾ The tonic resolution in bar 430 is followed by an emphatic development of motives (ai) and (aiii), interrupted, however, by a sudden stop on the sub-dominant and a decrease in dynamics from fortissimo to piano leading into the 'adagio, ma non troppo' (bar 442). Four bars of the folk tune stated in this tempo are continued by motive repeats which are finally reduced to more tonic and dominant harmonies; this dissolution of the thematic material is combined with a further diminuendo. A final statement of the rhythm of (ai) in 'Presto' and in fortissimo followed by the customary cadential chords brings the movement to a close.

1) Trills become one of the characteristics of Beethoven's mature style as can be seen for example in the string quartet Op 131, and the piano sonata Op. 111.

STRING QUARTET IN E MINOR,
OP.59 NO.2

There are four movements:

- 1) Allegro: 6/8 E minor.
- 2) Molto Adagio: 4/4 E major.
- 3) Allegretto: 3/4 E minor/E major.
- 4) Finale. Presto: 2/2 E minor.

The First Movement is in sonata form:

Exposition	- bars 1 to 71,
Development	- bars 72 to 141,
Recapitulation	- bars 141 to 210,
Coda	-- bars 212ff.

The first section (bars 1-20) comprises only one subject, (a), which is a bipartite structure, its two parts, (1) bars 3-12 and (2) bars 13-20, differing widely both in thematic construction and in harmonic treatment. Furthermore, the disjunct character and the strong dynamic contrasts of part (1) are counter-balanced by the smoother and more lyrical outline of part (2). The actual subject is preceded by two introductory chords and a bar's rest subsequently referred to as motive (x). In a sense it can be regarded as the nucleus of the entire subject, for not only does it return at the end of the group, but its two elements, viz. the ascending 5th and the bar's rest, prove to be an integral part of the bars following it.

The first part of subject (a), (bars 3-12), is in bar form; the stanzas, three bars in length,

contain two motives:

(i), a figural variation of (x) employing its characteristic ascending 5th interval,

Ex 11.



(ii), a seemingly unimportant semiquaver figure;

Ex 12.



the aftersong, four bars long, is based on a development of (i).

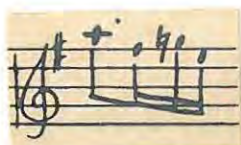
The second part (bars 13-20) consists of a triple subject (a2) and its continuation. The three melodic lines form an insoluble unity and though their position in the contrapuntal texture is, in the further course of the movement, sometimes interchanged they never occur singly. The even flow of the semiquaver rhythm is retained in the first part of the continuation. The quavers in bar 18, however, retard the motion thereby preparing the return of motive (x) in bar 19. The harmonic progressions are much quieter - mainly cadential and governed by pedal-points (real and latent) - and the melodic ideas are more lyrical than those of the first main part.

The transition (bars 21-35) starting in E minor,

begins with the triple subject (a2) with the parts interchanged. The continuation is slightly varied and, after a cadence in C minor, the semiquaver scales are replaced by sequentially modulating arpeggios. On reaching D major (the dominant of G) the further continuation (which is free) anticipates elements of the beginning of subject (b), viz.

(bi) the turn,

Ex 13.



(bii) the repeated quavers,

Ex 14.



(biii) the slow trill,

Ex 15.



which later provides a kind of ostinato accompaniment to the main portion of subject (b).

The second section (bars 35-70) in G major, comprises four subject groups:

subject (b) bars 35-48,

subject (c) bars 49-57,

subject (d) bars 58-64, and

subject (e) bars 65-70.

Subject (b) (bars 35-48) comprises two statements of a 2-bar phrase (b1) on the P^V followed by two statements of a more lyrical phrase (b2) with cadential harmonies, and a continuation which leads directly into subject (c) (bars 49-57).

This consists of two somewhat similar phrases each comprising two contrasting elements, (c1), a rhythmical figure related to (b1) with strong dynamic features, and (c2), a more lyrical and quieter phrase. The impulse caused by the diminished chords and the ascent of (c1) contrasts strongly with the quieter harmonies and the descent of (c2).

Subject (d) (bars 58-64) is chiefly characterised by a consistently syncopated rhythm in a series of purely harmonic progressions which prepare the eventual entry of G major in bar 65.

Subject (e) (bars 65-70), the epilogue, is based on alternating tonic and dominant arpeggios with strong dynamic accents.

This apparent diversity of thematic material does not, however, effect the unity of the entire section, since the various groups (with exception of (e)) are interrelated to such an extent that they might be regarded as transformations and derivations rather than entirely new and independent subjects. Such unity is achieved by means of (1) motivic, and (2) harmonic correlation:

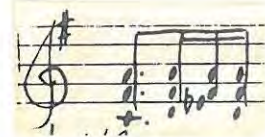
- (1) Phrase (c1) is not only rhythmically but - to some extent - also melodically related to the turn (bi);

Ex 16 .

(bi)
bar 36



(c1)
bar 49



(d) augments the rhythm of (bii),

Ex 17.

(bii)
bar 36



(d)
bar 60



and the 'slow trill' (biii) returns as a bass accompaniment to (e).

Ex 18.

(biii)
bars 38/39



(e)
bar 65



(2) The somewhat unusual $T^V - T$ outline of subject (b) returns in principle also in subjects (c) and (d) thereby serving as an important means of unification; the harmonic purpose of both (c) and (d) is to retain the T^V tension and to delay the resolution to the tonic until the entry of (e) in bar 65. This common harmonic direction enables the possibility of considerable expansion by use of a series of different subjects, and at the same time ensures unity. Motivic connection alone would be insufficient.

The repeat of the exposition is prepared by a sudden turn to E minor (bar 69) followed by motive (x) (bar 70). In the 'secunda volta' these bars are changed so as to modulate to E flat major, but the immediately following

Development (bars 72-141) begins in E flat minor. It has three main parts:

- 1) (bars 72-107) developing at first motives of (a) then subject (d),
- 2) (bars 107-114) combining motive (x) with semi-quaver passages, and
- 3) (bars 115-141) using transition material and ending with a series of trills.

Part (1) (bars 72-107) begins with the twice repeated motive (x) which links exposition and development proper. These bars have a double function: (1) to prepare the subsequent entry of material from subject (a), and (2) to modulate from E flat minor to B minor.

The latter deserves special attention for its harmonic progressions as well as for the musical 'orthography' employed. From bars 67 to 76 the harmonics proceed from G major to E flat major (bar 70), E flat minor (bar 72) and B minor (bars 76ff) thereby representing a segment from the 'circle of thirds'.¹⁾

1) The third relation has been used only once before in the Op.59, in the second movement of No.1 (bars 16 and 17) but in both these cases it is not as advanced as in the contemporary piano sonatas e.g. Op.53 and Op.31 No.1 where it is used in place of a structural dominant.

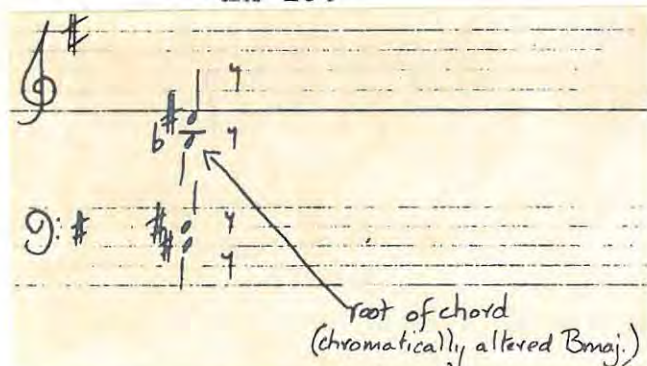
The two opening chords of bars 72 and 74 respectively,

(i)

and (ii)

Ex 19.

Ex 20.



are acoustically identical but differ in 'spelling'. The reason for the incomplete enharmonic change of (ii) lies in its functional difference: the shifting of the root from E flat to 'B' causes the root position of (i) to become a first inversion in (ii). In that way this chord serves as a kind of pivot between the two tonalities, E flat minor (bar 72) and B minor (bar 76).

Bars 76 to 82 merely transpose the stanzas of subject (a) into B minor and C major respectively. The A flat major tonality, achieved by an interrupted cadence at the end of the second stanza, is retained at first for the development of motives (ai) and (ii) that follows, but in bar 87 replaced by B flat minor. This development is interrupted in bar 91 by a syncopated passage related to (d) which modulates to B minor. Bars 97 to 107 are an obvious repeat of the preceding group (bars 89-97) except for the new tonality and a modulatory extension to (d).

Part (2) (bars 107-114) is in C major. There are four statements of motive (x) (two in C major and two in A minor) alternating between the two lower and the two upper parts each counterpointed by semiquaver runs in thirds and sixths. The forte which characterises the entire part is suddenly interrupted by a pianissimo in bar 115 where part (3) begins.

Subject (a2) is transposed into A minor and slightly varied. It is followed in bar 121 by a group somewhat related to the transition (bars 21-31): the thematic outline is largely retained but it differs in its modulations and is partly extended.

From bar 133 onwards, the hitherto insignificant trill upbeat to its arpeggios

Ex 21.

bar 130



gains some significance. It is incorporated into a 'unisono' passage which not only establishes the E minor tonality, but greatly emphasises the close of the development.

With the establishment of the tonic eight bars before the entry of the recapitulation, an harmonic merger is achieved.

In bars 139 and 140 a statement of motive (x) in the cello anticipates the entry of the recapitulation in bar 141. The accompanying semiquavers to both statements of (x) have a double function:

(1) they provide an organic link between the two sections, and

(2) by similarity of texture to other semiquaver passages, they unify the movement further.

The latter is of particular interest, as a textural relation can be seen to two different semiquaver passages: the combination with (x) makes them comparable to part (2) of the development, a fact which is further justified by the down-beat character of the semiquavers and the use of parallel sixths and thirds in bar 141. On the other hand, the almost predominantly single-line writing and the occasional hint at an upbeat motion (bar 140 - viola part, and bar 142 - cello part) shows resemblance to transition material.

The recapitulation (bars 141-212) is regular, subject (a), however, being shortened by omission of (a2), and subject (b) being slightly extended by motive repeats. The usual harmonic changes are instituted, and in parts the instrumental setting is varied. A modulation at the end of the actual recapitulation (from bar 208 onwards) enables a repeat of the development and recapitulation. Under the 'secunda volta' the modulation differs leading instead to C major where the coda begins. The repetition of the second part, though a common procedure in the early 18th century, is a rarity with Beethoven especially in the more extended works such as this quartet. There are only two other instances in the quartets, the first movements of the Op.18 Nos 5

and 6 respectively. 1)

The coda (bars 211ff) opens like the development²⁾ with the twice repeated motive (x) as a modulatory link. In the further course it uses chiefly three ideas:

- 1) motive (ai) in bars 215-227,
- 2) rhythm of (d) in bars 227-239, and
- 3) subject (a2) in bars 240ff

Due to the quietly moving outer parts the development of (ai) has more harmonic than melodic significance. The imitations between the second violin and the viola merely guarantee the continuity of the rhythm.

Subject (d) has mainly a dynamic function; its crescendo reaches a climax in bars 236-238, which is greatly stressed by the dissonant harmony (a minor dominant 9th), and by a deliberate metric *ritenuto*. A sudden *diminuendo* and a link bar with semiquavers (anticipating the following part) leads into subject (a2).

This, somewhat extended by motive repetitions builds up both in pitch and dynamics to an emphatic statement of stanza I of subject (a) in octaves. A *diminuendo* follows and repetitions of (aii) bring the movement to a close.

-
- 1) A further parallel can be seen in the finale of the 'Appassionata'.
 - 2) In the case of an extended coda this procedure is very common with Beethoven and is also to be seen e.g. in his symphonies.

The Second Movement is in sonata form:

Exposition	- bars 1 to 59	} overlapping
Development	- bars 52 to 85	
Recapitulation	- bars 85 to 145	} overlapping
Coda	- bars 138ff	

Section I of the exposition (bars 1-16) comprises two statements of an 8-bar chorale-like phrase (a), which is a regularly constructed closed period. In spite of the quasi-imitative entries of the single parts in 5th relation in bars 1-2 and 5-6, the setting of the first statement is essentially homophonic. The second statement retains the melody unaltered (carried now by the second violin and viola) but differs somewhat in harmony and setting. A new counterpoint is added in the upper part the rhythm of which is derived from the dotted figure in bar 3; the difference in notation seems to be exclusively a matter of phrasing, indicating a somewhat detached performance as opposed to the former legato. This finds further proof in bars 17-26 where the legato phrasing of the main melody is contrasted with yet another accompanying figure in the same dotted rhythm but marked 'sempre staccato'. The counter-melody to (a), then, represents a hybrid between these two extremes.

The transition (bars 17-27) is based on a new subject (b), which is treated in free imitation and accompanied by a broken chord figure in the above-mentioned staccato 'dotted rhythm'. It has rhythmical affinities to (a) and also retains its sustained character. From bar 23 onwards this subject is abandoned and the dotted rhythm becomes predominant. Such stressing in the final bars of the transition

prepares for yet another, and more emphatic, version of the hitherto ever-present rhythmical element, the double dotting in the following subject (c).

The second section (bars 27-52) comprises four subjects:

subject (c) bars 27-32,
subject (d) bars 33-37,
subject (e) bars 37-48, and
subject (f) bars 48-52.

Subject (c) (bars 27-32) is a double statement of a 3-bar phrase comprising two fanfare-like bars followed by one lyrical counter-bar. Both statements are almost identical in melody and harmony but differ in setting: the melody is taken at first by the two lower instruments with a counterpart of semiquaver runs in the first violin, then by the two upper instruments with free imitations in the accompaniment.

Subject (d) (bars 33-37), on a pedal-point on F sharp, makes use of both the dotted rhythm of previous subjects (see viola part) and triplet figures characteristic of later subjects (see cello and violin parts). In this combination of old and new elements, it serves as a link.

Subject (e) (bars 37-48), of continuation type, returns to the tranquil mood of the first section and the transition to which it is also rhythmically similar. However, an important triplet rhythm, which runs throughout in an unbroken stream is added as a counterpart.

Subject (f) (bars 48-52), the epilogue, is based on a chord figure in triplet rhythm accompanied by

repeated quaver triplets on B. This subject assumes great importance in the development that follows.

In the restatement of the almost completely unaltered subject (a) in bars 52-59, the end of the exposition and the beginning of the development overlap in a most unusual manner. The first half of (a), due to its preserved dominant tonality, seemingly belongs to the exposition, whereas the modulation in the second half causes it to be part of the development. A separation of the two main sections (viz. exposition and development) at the end of bar 55 would be possible for mere reasons of tonality, but with regard to the thematic unity of these bars, this seems unnatural. The only possible solution therefore can be found in regarding the double function of these bars as being an intention of the composer to form an insoluble link.

The development proper (bars 59-85) comprises three parts:

- 1) (bars 59-63) derived from (f),
- 2) (bars 63-79) developing first a motive from (a) then motives of (f),
- 3) (bars 79-85) a transition-like group using (d).

Part (1) (bars 59-63) consists of a varied statement of subject (f) which begins in D major and modulates (in bars 62 and 63) to B flat major.

Part (2) (bars 63-79) is the only group that shows true motivic development technique. The first six bars (bars 63-69) are based on the two opening notes of phrase (a). The actual motive (see the cello part) is combined with its triplet rhythmic transfor-

mation (see the first violin part), the latter also being used in inversion (e.g. in bar 63, viola and second violin parts). In bars 69-71 an arpeggio descent leads to a short development of motives of (f). The entire group modulates from B flat major through F sharp (bars 69-71) to B major. The tonic function of B, however, is changed to that of a dominant by the introduction of a 9th in bars 74ff. This harmony is twice interrupted by an auxiliary chord (a non-functional minor sub-dominant - bars 76 and 78), but in bars 79ff (the beginning of part 4) B major, as dominant of E major, is fully established and retained till the beginning of the recapitulation.

Part 3 (bars 79-85), based on subject (d), is transitional and the use of the dotted rhythm (in the cello especially) from bar 83 onwards, anticipates the return of section I in the recapitulation.

The recapitulation (bars 85-129) is regular but for some minor changes in the layout. The first half of the second section is omitted, and the transition is lengthened and modified so as to modulate back to E major. The setting is changed only in the first section and transition where in both cases the 'dotted' counterpart is taken by the cello instead of the first violin. Subject (f) is somewhat lengthened, and its turn to the sub-dominant harmonies is a noteworthy but not uncommon device in recapitulations and codas.

The end of the recapitulation and the beginning of the coda are merged in a similar manner as exposition and development, but great stress is placed on these bars by strong sforzati on the off-beat.

The coda proper (bars 145ff) on a pedal-point on E, consists of a short development of subject (f) followed by triplet scales (see subject (c)). The latter drop steadily from the first violin through the second violin and viola to the cello, and the movement ends in piano.

The Third Movement, though not indicated as such, shows strong resemblances to a scherzo and trio. It is the first instance so far in the Op.59 quartets of a movement not in sonata form. It follows the same 'rondo-like' pattern, A B A B A, as e.g. the scherzo movement of the Fourth Symphony written in the same year.

Part A, in E minor representing the scherzo, has regular ternary form (with the customary repeat marks), but is monomotivic.

The first section (bars 1-9) comprises a 9-bar sentence constructed out of repetitions of a bar-long motive (ai) which has a characteristic syncopated rhythm. The phrase in its entirety is unsymmetrical but shows a formal division into two 4-bar phrases. This division is caused by a difference in the harmonic progressions of each 4-bar phrase; whereas the first uses only tonic and dominant harmonies, the second turns to D major, the dominant of the relative major. Furthermore, the two phrases differ in their melodic direction, the one descending the other ascending.

The middle section (bars 10-36) consists of seven 4-bar phrases (some overlapping) all of which are constructed on motive (a). However, with exception of the second and third phrases, none show any melodic resemblance to phrase (a) of part thereof. There is no thematic dissection, but development features exist both in the modulatory harmonic progressions and in some rhythmical opposition between syncopated and non-syncopated patterns.

The first phrase has link character and modulates sequentially from G major to A minor.

The second, in A minor, and the third, in F major, are identical in their melodic shape, and are related to phrase (a).

The static harmonies of the fourth phrase are counter-balanced by the opposition of the syncopated rhythm in the lower instruments (motive (ai)), and the non-syncopated pattern in the upper parts.

The fifth phrase is cadential and together with the preceding one makes up a Neapolitan cadence in E minor.

Phrases six and seven merely repeat four and five.

The recapitulation of phrase (a) in E minor, begins in bar 36, but after four bars, an extension by motive repeats replaces the regular continuation assuring in its closing bars coda-like characteristics.

Part B, in E major, representing the trio, has an unusual form. It is cast in three sections; two fugue expositions and a canonic and stretta group. The subject, (b), taken from the Russian folk tune

'Slava Bogu na nebe, Slava!' (Glory to God in Heaven, Glory), ¹⁾ prevails unaltered throughout except for some slight modifications (to be discussed presently).

Both the first and second sections (bars 52-80 and 80-104 respectively) represent 4-part fugue expositions. With exception of a short extension to the fourth entry of the first exposition, the treatment of subject (b) is identical in both sections, the entries occurring respectively in viola, second violin, cello and first violin, alternately in E major and B major. The two sections differ, however, in their respective countersubjects.

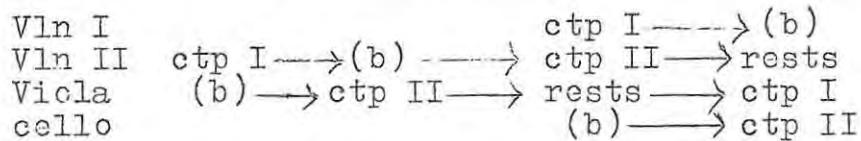
In the first exposition (bars 52-80), subject (b), from its first entry, is accompanied by a countersubject of triplets. In addition, in the second, third and fourth entries, a subsidiary counterpart is introduced. Both counterparts are of the same length as subject (b), but a noteworthy difference exists in the succession of subject and countersubject within the single parts; countersubject I always precedes the new subject entry, while countersubject II follows it. Thereby each single line shows the succession:

countersubj. I -- subject (b) -- countersubj. II.

Since the latter is followed by rests, the number of voices does not, on the whole, exceed three. The

1) Beethoven's Second-Period Quartets by Gerald Abraham, Oxford University Press, 1942. (see page 37).

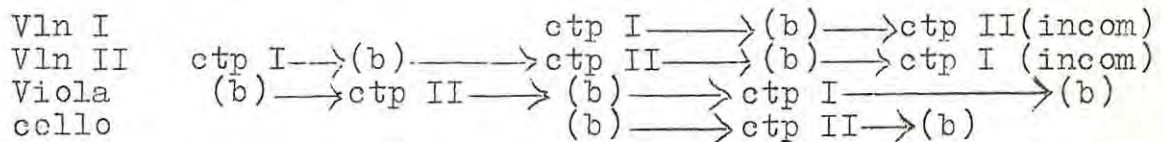
following diagram indicates this more clearly:



After the fourth entry of the subject, this strict construction is abandoned in favour of free continuation technique.

In the second exposition the countersubject material is new though there is some resemblance to countersubject I of the first exposition. The succession:

countersubject I -- subject (b) -- countersubject II in the single line (seen in the first exposition) is, in principle, also adhered to here as shown in the following diagram:

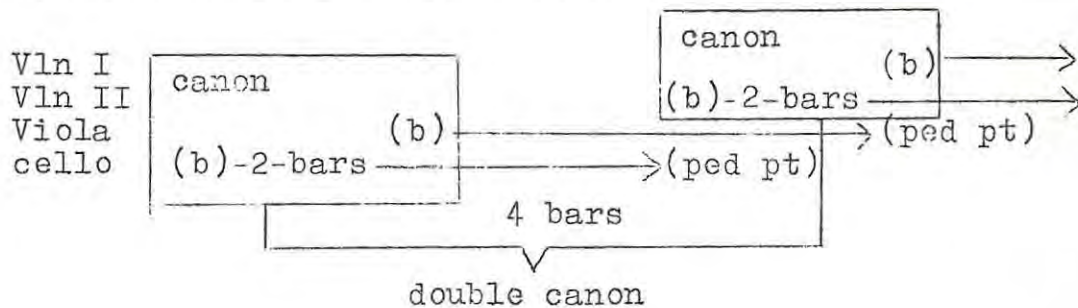


canonic entries of the 3rd sect.

This plan, however, differs from that of the first exposition by the omission of countersubject I before the third subject entry, and by the fact that countersubject II is followed by subject (b) instead of rests. This results in two-part writing in the first and second entries, and in four-part writing in the third and fourth entries. Moreover, the quasi-identity of the two countersubjects as well as their melodic inconsistency, gives rise to the impression that a two-part texture predominates throughout, regardless of the number of parts. In bars 87-92 this is stressed

by the omission of countersubject I before the third subject entry. In the third and fourth entries the countersubjects are both varied so as to run in parallel thirds and sixths like a 'thickened' single line, a setting which is also applied to subject (b). In addition the quasi-identity of the countersubjects gives rise to the impression of interchanging of the parts between the first and second entries, and between the third and fourth entries respectively.

The third section begins at bar 104 the first entry of the subject (in the cello) overlapping the end of the second exposition. The entries, occurring successively in the cello, the viola, the second violin and the first violin, result in a double canon at the octave at four bar's distance. (see diagram)



The rigid canonic writing is gradually relaxed in the stretta which begins at bar 116. Though the entries follow each other strictly at one bar's distance the complete subject is only stated once, viz. in the first violin, the other parts freely continuing the head motive. Further motive repeats of (b), their rhythmical transformation, and a change to E minor prepare the return of Part A

Though the contrapuntal texture of the trio seems to represent yet another example of the typical Classical dissolution of strict Baroque forms, it actually follows much older patterns. The 'free stretta' of the third section is an obvious descendant of the 'pervading imitation' characteristic of the later Netherlands period, an imitation restricted to the head motive only and free in its continuation. In its entire outline the trio resembles the variation ricercare of the Sweelink type, i.e. the subject remaining unaltered throughout, and the counter-material changing with the different sections. Such treatment is obvious in the first and second expositions but also prevails in the third section where the subject itself functions as its own countersubject.

The Fourth Movement is in rondo-sonata form the sections of which are clearly differentiated both by key-scheme and by thematic distribution. The recapitulation, however, is irregular (see later discussion).

The following shows the basic formal outline:

Exposition	- bars 1 to 146,	
Development	- bars 146 to 216,	} overlapping
Recapitulation	- bars 194 to 304,	
Coda	- bars 304ff.	

The more detailed diagram which follows, indicates the presence of the rondo elements:

Exposition:

Section A bars 1-56 C maj/E min.	Trans bars 56-70 mod.	Section B bars 70-107 B min.	Section A bars 107-146 C maj/E min.
----------------------------------------	-----------------------------	------------------------------------	-------------------------------------------

Development:

Section C + development of (a)
bars 146-216
modulatory

Recapitulation:

Trans bars 194-216 (part of dev)	Section B bars 216-275 E min.	Section A bars 275-304 C maj/E min.
----------------------------------------	-------------------------------------	-------------------------------------------

Coda:

Development of (a) bars 304-372 passing modulations	Section A bars 372ff C maj/E min.
-----------------------------------------------------------	-----------------------------------------

Section A (bars 1-56) comprises four almost identical statements of a single subject (a) which has a somewhat unusual shape: it is non-periodic, modulatory, and nine bars long. The subject contains four motives which are of utmost importance in the inner shaping of the movement. They are:

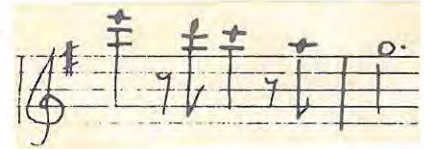
(1)

Ex 22.



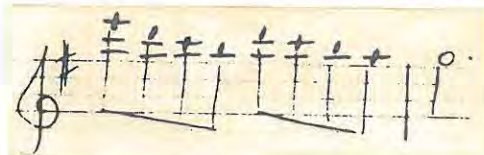
(2)

Ex 23.



(3)

Ex 24.



(4)

Ex 25.



Motive (1), in both its rhythmical and thematic capacity, can be regarded as one of the unifying factors since it appears constantly throughout the movement. Motive (2) provides a rhythmical contrast to (1) often being combined with it. Motive (3) is merely a rhythmical variation of (2), and motive (4) is derived from (1).

The most striking feature of the subject is its unusual harmonic outline. It begins in C major and, after six bars modulates to E minor. A diatonic link (bar 9) re-introduces C major and the second statement of the subject with its accompaniment transposed up an octave. Further changes occur in the final bars of this statement: the former link (bar 9) is replaced by a new closing bar which retains its E minor tonality, and the modulation back to C major is brought about by four additional bars (19-22). The third statement has the same outline but differs again in setting, the accompaniment being more emphasised and parts of the melody doubled in the second violin. The first seven bars of the fourth statement are regular but for slight changes in the setting (occasional imitation). For the rest, continuation technique is employed expanding the former E minor part from three bars to fifteen bars.

Though the C major is greatly stressed in the opening bars of each statement (the actual main thematic material being presented in this key), the two keys, C major and E minor, are well balanced over the whole section as the following diagram indicates:

1st statement:	6 bars in C+	3 bars in E-	
2nd statement:	6 bars in C+	3 bars in E-	4 mod. to C+
3rd statement:	6 bars in C+	3 bars in E-	4 mod. to C+
4th statement:	6 bars in C+	15 bars in E-	
i.e. altogether	24 bars in C+	24 bars in E-	8 mod. bars

The theoretical justification of the somewhat emphatic presence of C major in the key of E minor can be explained in two ways:

- (1) Tradition would regard C major as the sixth degree in E minor which comes to light only in the continuation. The resulting progression then is vi-ii-V-I. However, C major is heard at first as a tonic and in this guise can be seen from the point of the "Trugschluss" which freely translated means "deceived cadence". The English term "interrupted cadence" is in this case an inadequate expression, for it merely means a lengthening of the cadence by means of delaying the final tonic resolution. It does not hint at the special emotional effect. The "Trugschluss" on the other hand implies a kind of surprise. ¹⁾

1) The element of surprise in music is explained by Edward T Cone in his article on "The Uses of Convention: Stravinsky and His Models" in the Musical Quarterly of July, 1962 as being associated with the 'departure from accepted norms'. He says 'A composer may deliberately defeat the expectation aroused by the specific pattern followed; the resulting tension between the anticipated and the actual course of the music can be a source of aesthetic delight', and later, 'the composer is constantly arousing expectations based thereon (i.e. the conventions of the day) and defeating them - or fulfilling them in a novel way. He may even be poking fun at the pedantic insistence on regularity.'

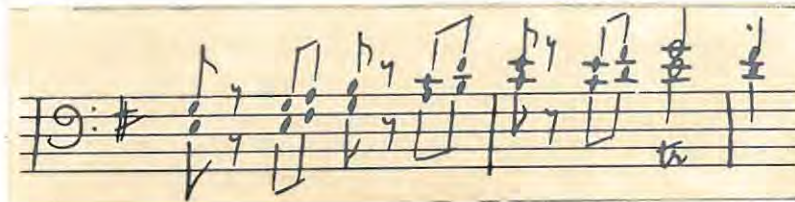
- (2) A further possible explanation of this harmonic feature can be realised when comparing this movement with the 'serenade' from Mozart's 'Seraglio'. Mozart aims at an Eastern (Turkish) flavour by the use of ambiguous quasi-modal progressions which oscillate between F sharp major and D major. Though the Beethoven movement is not modal, the quasi-ambiguity of the harmony together with the very powerful rhythmic element could suggest an attempt on the part of the composer to create a Russian flavour.¹⁾ This explanation is somewhat justified by a similar changing between two harmonies in the Russian folk tune in the finale of the first Op.59 quartet.

The rather frequent examples of the use of third-related harmonies (see also the piano sonatas of the same period) show these quartets to be at a stage where the third relation gradually replaces the predominance of the fifth relation.

The short transition (bars 56-69) which modulates to the dominant of B minor uses almost exclusively a 2-bar phrase made up of repetitions of motive (a1) and ending with a trill:

1) Such an attempt would follow the lines suggested in the commission to write Russian melodies 'real or imitated'

Ex 26.



This phrase alternates in dialogue manner between the lower and upper parts. In bar 64, after F sharp is reached, the 'trill phrase' (see ex 26) is renounced in favour of another 2-bar phrase still based on (a1) and characterised by sforzati. At the same time the first violin anticipates already, important elements of the second section (to be referred to presently).

Section B (bars 70-107) in B minor ¹⁾ comprises two statements of a new subject (b), a 4-bar cadential epilogue, and a long modulatory transition based on motive (a1).

Subject (b) contrasts, by its more lyrical nature, with the preceding section. It is an 8-bar period with the dominant tension being replaced by a Neapolitan chord. Such an outline is yet another and extremely interesting example of the disappearance of the actual dominant in favour of other degrees. The periodic construction of the melody, a horizontal aspect, finds a vertical opposition in the hemiolic expansion of the harmonic

1) Although the minor dominant is a traditional feature of the Italian Pre-classical school, its use here seems to be caused by the predominance of major in the first section rather than historical considerations

progressions, a vertical aspect:

melody	4 bars + 4 bars		4 bars + 4 bars
bars:	1 2 3 4 5 6 7 8		1 2 3 4 5 6 7 8
harm.	}		}
function			

The two statements of the subject, the first in the first violin, the second in the viola and cello, are followed by the epilogue which sustains the B minor harmony and at the same time reintroduces motive (al). This epilogue is clearly related to the closing bars of the transition (bars 64-68), as shown in ex 27.

Ex 27.

The image shows a handwritten musical score for Ex 27, consisting of four staves. The top staff is in treble clef with a key signature of one sharp (F#). It contains two phrases of music, each lasting 8 bars. The first phrase has notes G4, A4, B4, C5, B4, A4, G4, F#4. The second phrase has notes G4, A4, B4, C5, B4, A4, G4, F#4. The second staff is also in treble clef with a key signature of one sharp. It contains two phrases of music, each lasting 8 bars. The first phrase has notes G4, A4, B4, C5, B4, A4, G4, F#4. The second phrase has notes G4, A4, B4, C5, B4, A4, G4, F#4. The third staff is in alto clef with a key signature of one sharp. It contains two phrases of music, each lasting 8 bars. The first phrase has notes G4, A4, B4, C5, B4, A4, G4, F#4. The second phrase has notes G4, A4, B4, C5, B4, A4, G4, F#4. The fourth staff is in bass clef with a key signature of one sharp. It contains two phrases of music, each lasting 8 bars. The first phrase has notes G4, A4, B4, C5, B4, A4, G4, F#4. The second phrase has notes G4, A4, B4, C5, B4, A4, G4, F#4. There are dynamic markings such as 'sf' and 'p' throughout the score. A large bracket spans the first two staves, and another large bracket spans the last two staves, indicating the two statements of the subject.

A long modulatory link follows based on single repetitions of (a1) which pass constantly from one instrument to the other serving as a very extended up-beat to subject (a) which returns in bar 107.

After a perfect cadence in C major (bars 107) almost the entire section A is repeated. Except for a slight variation at the end of the third statement (see below) the first three statements of (a) are unchanged. The fourth statement is incomplete (only four bars long). The change at the end of the third statement concerns mainly the setting. The melody, (unchanged except for a slight adjustment in the last bar), is shifted to the second violin to remain there also in the fourth fragmentary statement. At the same time the first violin starts already to introduce development elements such as anticipation and free motive repeats. Thereby the actual main melodic line (second violin) is somewhat disguised becoming seemingly imitative and therefore subservient to the upper part. This re-balancing of the two main melodic lines adds still further emphasis to the development character especially of bars 142-146 in spite of the fact that the three lower parts belong essentially to the ritornello A. In this way an interlocking of exposition and development is achieved as shown in the following diagram:

Bar No.	137	138	development features		
			139	140	141
Vln I	(a)	same as Vln II of bar 139	same as Vln II of bar 138	motive repeats	
Vln II	accomp.	(a) cont. & unchanged	→	→	→
Viola	accomp.	accomp. unchanged	→	→	→
cello	accomp	accomp. unchanged	→	→	→

Bar No.	development features (first violin)				
	142	143	144	145	146
Vln I	anticipates Vln II by one bar				
Vln II	(a) fourth statement, fragment	→	→	→	→
Viola	→	→	→	→	(c)
cello	→	→	→	→	(c)

(dev. proper begins)

The development proper (bars 146-216) comprises four main parts:

- 1) (bars 146-170) dealing mainly with motive (a3) and a new theme (c) in long note values,
- 2) (bars 170-178) a short interlude based on (a2),
- 3) (bars 178-190) developing a transformation of (a2+1),
- 4) (bars 190-216) based mainly on transition material.

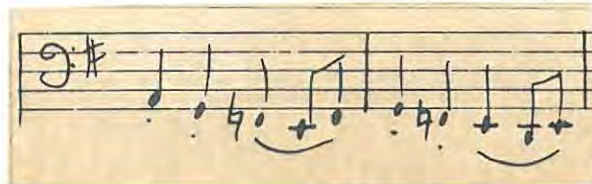
Part (1) (bars 146-170) begins with the entry of subject (c) in bar 146 (cello and viola parts). At the same time the first violin continues with motive (a3) providing a counterpart in the form of a 4-bar phrase. Subject (c), derived from the latter part of (a) (see e.g. the second violin in bars 140-141) is four bars long and occurs always in double lines (mainly double thirds) between the viola and cello or between the violins (in octaves) and the viola. There are four statements, two in C major, the third in A minor and the last beginning in the same key but being considerably extended so as to modulate sequentially to B flat major (bar 170). The counterpart, based on (a3), is of the same length as (c) but the motive itself is varied in the last bars of each statement and undergoes further change in the modulatory extension. Throughout, the various phrases are constantly exchanged between the upper and lower strings, and in the extension group this 'dialogue treatment' is carried still further when the counterpart is broken up into single bars and subjected to a similar alternation of parts.

Part (2) (bars 170-178), based mainly on motive (a2) plus its upbeat (a1), is predominantly homophonic, harmonically static (B flat pedal-point) and also lacks motivic work, thereby contrasting strongly with the

quick-changing harmonies and the motivic development of the preceding part. Since motivic treatment returns in part (3) (bar 178), part (2) assumes the character of an interlude.

Part (3) (bars 178-190) comprises three statements of a 5-bar phrase occurring respectively in the cello, first violin and viola.¹⁾ Each statement is partially imitated (sometimes in inversion) in two other parts, the fourth part sustaining a pedal-point (which is characterised by rhythmical octave leaps). The phrases are based on repetitions of a bar-long motive which combines a rhythmically transformed version of (a2) with (a1):

Ex 28.

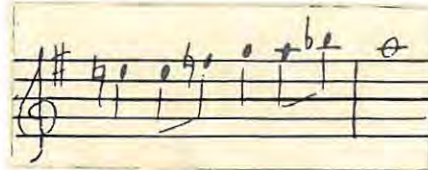


a combination which is already anticipated in bar 177 (the end of part (2)). The sequential modulatory progressions which pass through A major, D minor, and G major correspond with the three phrases.

Part (4) (bars 190-216) begins with a short link which modulates from C major (bar 190) to E minor (bar 194).

1) Fifth and first bars overlap.

The motive used,
Ex 29.



a melodic variant of (a4), arises quite naturally out of the preceding part and prepares at the same time, both the 'trill phrase' (ex 26) which is developed in bars 194ff, and its characteristic dialogic treatment. The harmonic progressions, which coincide with the phrasing, modulate sequentially by means of auxiliary dominant 7ths from E minor through C major and A minor to the dominant of E minor. In bar 206 the 'trill phrase' is renounced in favour of the trill figure alone. Bars 210ff correspond almost exactly with the end of the transition (bars 64ff) leading in the same manner to subject (b), the entry of which (bar 216) marks the beginning of the recapitulation proper.

A detailed comparison of bars 194-216 (the end of the development) with bars 56-70 (the transition), reveals a very close connection between them. Bars 194-202 (development) are melodically almost identical to bars 56-64 (transition) differing only in accidentals; bars 204-210 (development) are insertions, and bars 210-216 (development) correspond almost exactly with bars 64-70 (transition) - see ex 30.

Ex 30.

Exposition bars 56ff:

Development bars 194ff:

The most important differences lie in their respective harmonic progressions.

In the exposition the tonic, E minor, is weakened by the omission of accidentals. The mediant chord, G major, (bars 62-64) changes its function becoming a sub-mediant in B minor and leads to F sharp, T^V in B minor.

Bars	56-60	60-62	62-64	64-66	66-69	70ff
Chords	E-	B-	A-	G+	Fsharp	B-
Functions in E minor	T	T ^V	SD	iii		
Functions in B minor				vi	T ^V	T

In the closing bars of the development, the E minor tonality is retained by the use of E minor accidentals and by the stressing of the dominant and sub-dominant harmonies which fall within the inserted bars 202-209.

Bars	194-196	196-198	198-200	200-202	202-204
Chords	E-	D7th of C		D7th of A	
Tonality	E-	C+		A-	
Functions in E minor	T	vi		SD	

Bars	204-206	206	207	208	209	
Chords	E- 1st inv.	D7th of E-	E-	B+	E-	B+
Tonality	E-					B+
Functions in E minor	T alternating with D					T ^V
	inserted bars					

The above described reveals a most interesting joining of development and recapitulation by means of a large scale overlap. Subject (b) with which the recapitulation begins is preceded by transition material, an outline which corresponds with that of the exposition and is also common in any regularly constructed recapitulation. The harmonic adjustments which take place in bars 194-216 are, then, a typical recapitulation feature, necessitated by the changed tonal structure. One could therefore conclude that these bars fulfill a double function. Because of their textural similarity to the preceding part they still retain development character. On the other hand their thematic and tonal outline links them so closely with the entry of subject (b) that they can also be regarded as part of the recapitulation.

The recapitulation proper begins with the entry of subject (b) in E minor (bar 216). The subject is considerably lengthened by repetition of the two phrases in F major (the Neapolitan key) and by a slight extension to the modulatory link which follows.

In bar 174 subject (a) returns in C major but its second and third statements are omitted.

The very extended coda (bars 304ff) comprises a long development (bars 304-372), a shortened restatement of subject (a) (bars 372-384), and a closing cadential group (bars 384ff).

The first part represents a kind of 'recapitulation of the development' since it sums up all previous developmental appearances of subject (a). Its unification by tonality and by a gradual motive transformation

precludes the possibility of dividing it into distinct single parts. Nevertheless, the following, purely descriptive, grouping might be justified:

Bars 304-310 using only motive (a2),
Bars 310-314 based on a transformation of (a1+2) - see development - arising naturally from the continuation of motive (a2),
Bars 314-328 developing motive (a4),
bars 328-360 using mainly (a1+2), and
Bars 360-372 an harmonic cadential group.

The motive-group succession (a2)-(a1+2)-(a4), (bars 304-328) treated in a logical process of transformation shows relation to bars 171-194 of the development proper. However, the relation of each group to the other differs here, as shown in the following diagram:

Development proper:

bars 171-176 (a2) link- like		176-190 (a1+2) long dev.		190-194 (a4) short link
---------------------------------------	--	-----------------------------------	--	----------------------------------

Development recapitulation:

bars 304-310 (a2) cont.		310-314 (a1+2) link- like		314-328 (a4) long dev.
-------------------------------	--	------------------------------------	--	---------------------------------

Bars 328-360 develop at first only motive (a1+2) using also inversions of the rhythmically transformed motive (a2) in bars 336-339, (viola and second violin). In bar 344, however, motive (a4) is introduced, its legato rendering (which is emphasised by the long-held

notes in the accompaniment) contrasts strongly with the staccato and rhythmically disjunct character of (a1+2). After a momentary interruption by (a2) in bars 348-350, and a single return of (a4) in bar 352, motive development is abandoned in favour of purely cadential progressions.

The tonality remains within E minor the seemingly modulatory outline in bars 314-328 being merely passing. Bars 328ff are almost entirely on a T^V pedal-point, leaving it only twice for a Neopolitan super-tonic.

The abrupt juxtaposition of staccato and legato differs from the earlier gradual change in phrasing which coincides with the motive transformation.

e.g. (a2)
Ex 31. staccato and
disjunct



Ex 32. (a1+2)
staccato and
not disjunct



Ex 33. (a4)
legato



The sudden contrasts in the second part of the development (bars 328ff), coupled with the strong dynamic changes and two general pauses in bars 343 and 351, seem to counterbalance the quieter harmonic progressions and the loosening of the texture.

Subject (a), reduced to the fourth statement, re-enters in bar 372 its original extension being considerably varied. The tempo changes to 'piu presto' and continuous repeats of (a2) lead to a rhythmical and

and dynamic climax, the movement ending with cadential harmonies.

Gerald Abraham ¹⁾ explains the outline of this movement in the following way:

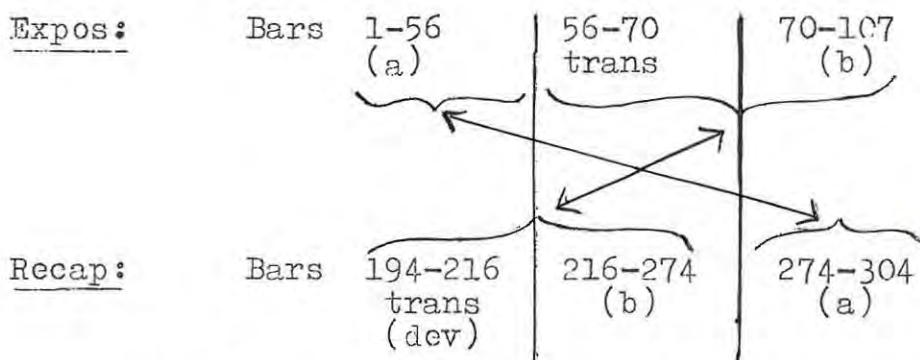
- First subject with transition,..... (i.e. entry I of subject (a))²⁾
- Second subject..... (i.e. subject (b))
- First subject, as before but curtailed. (i.e. entry II of subject (a).
- Episode..... (i.e. development)
- Second subject.....
- First subject, as before, but extended by a development..... (i.e. entry III)
- Coda (i.e. entry IV)

The back-reference in subject entry III with the words "as before" does not make it absolutely clear to which subject entry he refers. Since the succession subject (b) -- subject (a) -- development corresponds exactly with the exposition it would seem quite normal to regard the recapitulation as being regular except for the omission of subject (a) and the transition at the beginning. This can be seen in the following diagram:

Expos: bars	1-56 (a)	56-70 trans	70-107 (b)	107-146 (a)	146-216 dev
Recap:		bars 216-274 (b)	274-304 (a)	304-372 dev	372-409 (a)

1) Beethoven's Second-Period Quartets by Gerald Abraham, Oxford University Press, 1942. (pages 38-39).
2) The bracketed sentences are added by the writer of this thesis.

A detailed analysis, however, shows this to be rather superficial. In actual fact subject (a) is not omitted; entry III does not correspond with entry II as might be deduced from the diagram above, but rather with entry I. Furthermore, the transition and the closing bars of the development overlap as was discussed earlier. Thus the recapitulation can be regarded as a mirror image of the exposition:



This reversal in the subject succession and the consequent ending of the recapitulation with subject (a) instead of subject (b) necessitates a delay of entry IV which is achieved by an additional development. Gerald Abraham regards this as being part of the recapitulation which to my mind is incorrect, since such long developments are quite common in Beethoven's codas ¹⁾ but completely unusual in a recapitulation ²⁾.

The accuracy of the above mirror analysis reveals itself when considering the tonal outline of the subject

1) Compare e.g. the Eroica Symphony.
2) The respective functional lengths of the component parts adds further proof to the above as can be seen later.

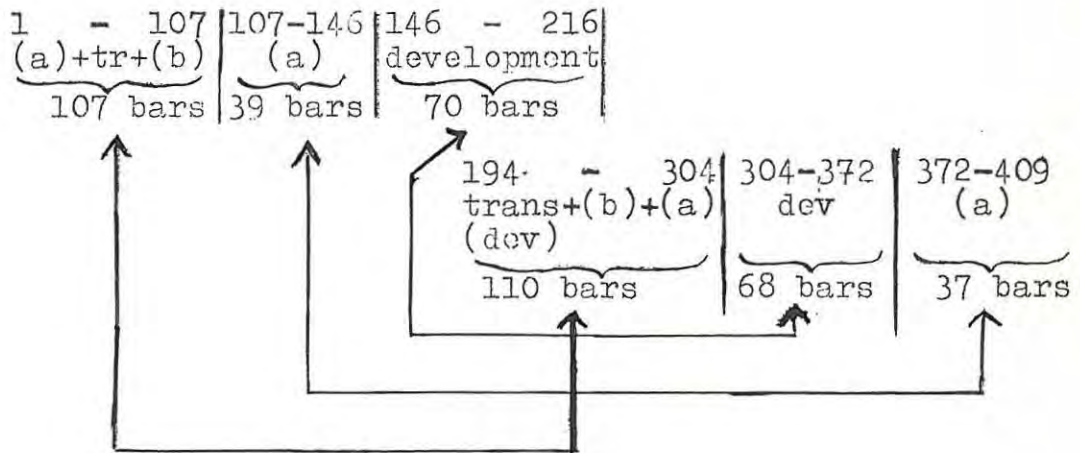
and the treatment of the four entries during the course of the movement. In the first entry the subject is stated four times and in each subsequent return the number is reduced:

Entry	Statements	1.	2.	3.	4.
I	4	bars 1-10	10-23	23-36	36-56
II	3 $\frac{1}{2}$	bars 107-116	116-129	129-142	142-146 (fragment)
III	2	bars 275-284	omitted	omitted	284-304
IV	1	omitted	omitted	omitted	372-384

Only statements 1 and 4 are of structural importance since they establish the tonal outline of the subject. The inner statements 2 and 3, are more repetitions of 1¹⁾. Only entry II departs from the closed outline of the subject, its fourth statement being fragmentary and leading straight into the development. It follows then, that entry III corresponds with entry I and not with entry II.

1) Their subsequent omission in entries III and IV is, however, not caused by mere mathematical considerations. The two repeats, statements 2 and 3, in the course of the exposition were mainly justified as an emphasising of the polarity, C major, E minor. Once the 'surprise' had been achieved their continuous repetition would have weakened the original effect.

A final proof of this interpretation can be seen in the balance in the functional lengths of the main parts as shown in the following diagram:



STRING QUARTET IN C MAJOR,
OP. 59 NO. 3

There are four movements:

- 1) Introduzione Andante con moto: 3/4
Allegro vivace: 4/4 C major.
- 2) Andante con moto quasi Allegretto: 6/8 A minor.
- 3) Menuetto grazioso: 3/4 C major.
- 4) Allegro molto alla breve C major.

The First Movement is in sonata form with an introduction:

Introduction:	- bars 1 to 30
Exposition:	- bars 30 to 111
Development:	- bars 111 to 177
Recapitulation:	- bars 177 to 252
Coda:	- bars 252ff

The introduction which prefixes the movement (bars 1-30) is of an exceptionally unusual type. It has a rare expressiveness comparable only to some of the late works of the composer. Several factors contribute to its romantic character:

- 1) absence of any definite melodic ideas,
- 2) utterly free rhythm using chiefly sustained notes,
- 3) lack of traditional tonal direction due mainly to the use of diminished chords and also to unusual resolutions of other 7th chords,
- 4) sharp dynamic contrasts in the first 10 bars,
- 5) widely spaced harmonies between the upper parts in bars 14ff.

The formal organisation of the entire introduction is based on the idea of continuous expansion from a closed harmony to a widely spaced one. To achieve this aim the two outer parts move almost exclusively in contrary motion.

The exposition proper begins in bar 30.

Section I (bars 30-63) contains three subjects:

- (a) bars 30-43,
- (b) bars 43-59, and
- (c) bars 59-63.

Subject (a) comprises two similarly constructed phrases and a short link. Each phrase consists of an introductory motive (ai)

Ex 34.



and a longer unaccompanied melodic line built out of a new rhythmical motive (aii),

Ex 35.



its variation,

Ex 36.



and motive (aiii), an equal quaver motion with a varying melodic line (see bars 32-33 or 37-39).

The recurrence of (ai) at the beginning of the short link (bar 41) seems to open another return of the subject phrase, but this momentary impression is discarded with the entry of the Dominant 7th and the

almost abrupt modulation to C major in bars 42-43.

Apart from their thematic importance, these bars (i.e. 30-43) have yet another function which comes to light only when considering their harmonic aspect. In their entirety the functional harmonic progressions form an extended cadence, viz.

I -- ii -- IV -- V -- I

as shown in detail in the following diagram:

	1st phrase	2nd phrase	link	
bars	29 ⁴ 30-34 ²	34 ³ 34 ⁴ 35-40 ²	40 ³ 40 ⁴ 41	42 43
	I I ^v 7th	I ii	ii ^v ii	IV ^v V I

The prominence of the V--I progression in the two respective phrases (see * above), however, causes each to resemble the second half of a closed period. Such a layout produces a certain instability only to be resolved with the entry of the essentially stable subject (b) (bar 43) which consequently assumes almost the character of a first subject. If (b) were stated immediately after the harmonically vague introduction the contrast would have been too sudden. Subject (a) therefore serves as an harmonic transition from the 'freeness' and uncertainty of the introduction to the highly cadential and rhythmically robust subject (b).

This interpretation of subject (a) is verified in the recapitulation where it is completely transformed, the new rhapsodic and cadenza-like nature emphasising its true function.

Subject (b)(bars 43-59), of continuation type, is an extended elaboration of cadential harmonies in C major. The first phrase, a double statement of a fanfare-like theme on a C pedal-point, is based on

two motives:

(bi)

Ex 37.



and (bii)

Ex 38.



The further continuation comprises mainly repetitions of these motives but also employs scale passages and other typical cadential formulae as for example the varied repetition of bars 49ff in bars 53ff. The closing cadence of the entire subject re-introduces motive (ai) in bar 57 showing its ultimate connection to subject (a).

Subject (c) (bars 59-63), made up of two identical 2-bar phrases, is also cadential, but its very transparent texture contrasts with the more robust and 'tutti-like' setting of subject (b).

The transition (bars 63-77) contains two elements, viz. a 2-bar cadential phrase using the up-beat rhythm of (ai), and a combination of motive (bi) (in the two violins) and motive (ai) (in the viola and cello). After a 2-bar link, which arises out of subject (c), these elements occur in succession, the former in bars 65-70, and the latter in bars 71-76. The modulation to the dominant key following the scheme

C major I -- vi
G major ii -- V -- I

is confined to bars 65-71, the rest (bars 72-76) remaining on a T^V pedal-point.

Section II (bars 77-111) comprises subject (d) (bars 77-91), its continuation (bars 91-99), and the epilogue, subject (e) (bars 100-109).

Subject (d) (bars 77-91) is a sentence comprising

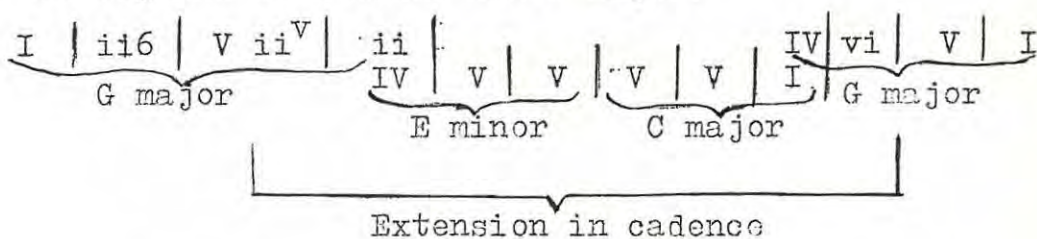
two similar phrases. The first (bars 77-81), made up of repetitions of
Ex 39.



is a closed 4-bar structure with the harmonic outline

I -- ii6 -- V -- I.

The second (bars 81-91) is considerably lengthened by an extension in its cadential progressions touching the regions of E minor and C major.



The continuation (bars 91-99) begins with a short reference to the beginning of the transition, and for the rest, consists of entirely scales and arpeggios used in a cadential manner.

Subject (e) (bars 100-111), the epilogue, re-establishes the G major key. A short phrase with two distinct motives,

Ex 40



is treated at first in quasi-canonic imitations, the third entry being extended by repetitions of (eii). Thereafter, only (ei) is used (see first violin), its accompaniment (which is essentially homophonic)

showing some relation to motive (ai). The big ascent in the former group is counterbalanced by the descent in the latter. In bar 106 the tonic function of G is changed to that of a dominant, and a short anticipatory link using (ai) returns to the beginning of the Allegro vivace. Under the 'secunda volta' this link is slightly varied leading to an entry of subject (a) in E flat major, which marks the beginning of the development.

The development (bars 111-177) comprises four parts:

- 1) bars 111-135, developing motives of subject (a),
- 2) bars 135-144, a restatement of subject (c) and the beginning of the transition,
- 3) bars 144-150, combining motive (ai) with arpeggios,
- 4) bars 150-177, dealing exclusively with motive (ai).

Part (1) (bars 111-135) begins with a slightly extended statement of phrase (a), and after a short link - using motive (ai) - (bars 117-120), motive (aii) is considerably developed. With the exception of some canonic imitations in bar 123, the motive treatment involves the isolation of one part (either the first violin e.g. in bars 118-122, or the cello e.g. in bars 124-132) from the three others. ¹⁾

From bar 125 to 127 the motivic work is confined to the cello, the other parts being reduced to mere

1) This principle is one of the characteristics of subject (a) where an harmonic progression is followed by a single-line melody.

harmonies with a quietly moving rhythm. Two bars later, the cello part loses its thematic connection to subject (a) becoming a monotone pedal-point, and from bars 133 onwards the other parts are replaced by tremolos and semiquaver runs which lead directly into part (2). The entire first part modulates from E flat major to F major, the progression being interrupted by a momentary E minor colouring in bars 128-132.

Part (2) (bars 135-144) consists of a varied restatement of subject (c) in F major and the opening bars of the transition (compare with bars 59-68 of the exposition).

Part (3) (bars 144-150) combines motive (ai) with arpeggios, the former alternating between the viola and cello, and the latter between the first and second violins, the respective parts being interchanged in bars 148-149. The group modulates sequentially from D minor to C minor, the entry of which coincides with the beginning of part (4), (bar 150).

Part (4) (bars 150-177), proceeding predominantly in double thirds, deals exclusively with the rhythm of (ai) which is greatly emphasised by a rhythmical displacement between the upper and the lower parts. 1) The resulting somewhat uniform pattern finds relief

1) Such writing seems to be a favourite device of Beethoven's - compare e.g. the finale of the Op 59 No 1, bars 206-221; the first movement of the piano sonata Op 81a, bars 46-50; Leonora Overture No 3, bars 360ff.

in the halving of the note values in bars 167-172, and the pause-like stops in bars 173-177. Further variety is provided by a dynamic curve over the entire group from fortissimo to pianissimo and back again. The harmonics proceed from C minor to G major, the latter assuming T^V function thereby preparing C major and the entry of the recapitulation (bar 177).

With exception of the omission of subject (c), the recapitulation (bars 177-252) is regular in outline but differs in some details.

Subject (a) (bars 177-191) undergoes a very unusual transformation. The underlying construction is largely retained but the hitherto brisk rhythm becomes rhapsodic and almost cadenza-like. Motive (a_{ii}) loses its rhythmical definition not only by the legato phrasing but also by its imitative rather than homophonic setting. A similar treatment is applied to motives (a_{ii}) and (a_{iii}), semiquavers and triplets replacing their originally distinct rhythm.

Subject (b) (bars 191-204) is slightly varied by figural changes in the melody.

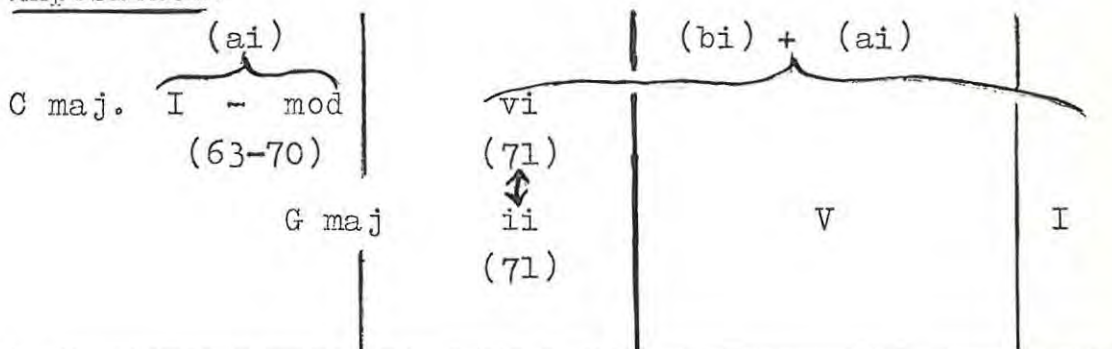
The transition (bars 205-223) is somewhat lengthened and two new elements are included in bars 212-215 and bars 216-220 (the latter being similar to part (4) of the development). The general shape is retained i.e. a passing modulation followed by a T^V pedal-point, and the harmonic scheme is similar viz.

I -- ii -- V -- I.

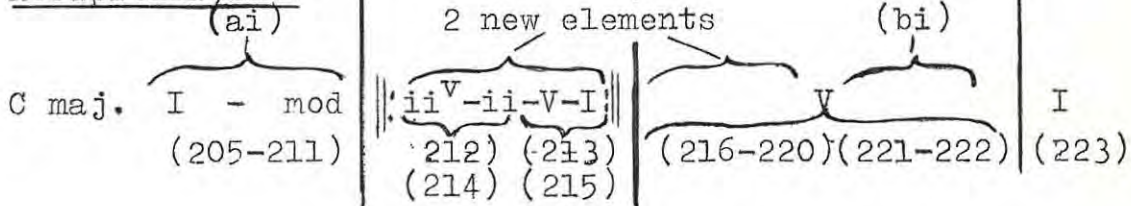
The tonality, however, remains in C major. The following two diagrams show the transition of the

exposition compared to that of the recapitulation:

Exposition:



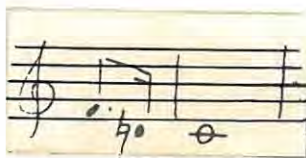
Recapitulation:



The rest of the recapitulation is regular.

The coda (bars 252ff), short and merely cadential, is based mainly on repetitions of motive (ai) and a dotted motive:

Ex 41.



The seemingly final tonic-dominant resolutions in the first part of the coda (bars 252-259) heighten the T^v tension of the long pedal-point in the second part (bars 260ff) which, together with the expansion of motive (ai) over a chromatic octave and the 'stringendo il tempo' indication, causes the closing bars to be greatly emphasised.

The Second Movement has a rather unusual form, its outline, A - B - C - B - A, resembling a sonata form with a mirrored recapitulation. It is strongly unified by an almost unbroken flow of quavers, and a texture which is retained almost throughout.

The outline is as follows:

Section A	- bars 1 to 42
Section B	- bars 42 to 60
Section C	- bars 60 to 102
Section B	- bars 102 to 135
Section A	- bars 136ff

Section A comprises one subject (a), which has three distinct parts, the first two of which are literally repeated.

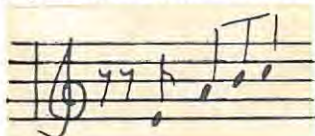
The first (bars 1-6), a 6 $\frac{1}{4}$ -bar sentence, not only states the main thematic ideas of the movement, but also sets the mood which prevails throughout by introducing certain characteristic elements as e.g. pizzicato in the cello, an augmented second in the melody, ¹⁾ and an even quaver motion. The construction of (a) is somewhat irregular; bars 2-5 form a 4-bar phrase which is preceded by an up-beat (bar 1) and followed by a link (bars 5 and 6, which modulates to C major under the 'secunda volta'). Moreover, the harmonic balance of the subject is upset by the relegation of the tonic to bar 5, the preceding bars having T^V function, alternating between a cadential 6/4

1) resulting from the use of the harmonic minor scale.

and a dominant 7th. The melody itself is built on two closely related motives:

(ai)

Ex 42.



and (aii)

Ex 43.



both featuring prominently throughout the movement in different combinations and variations.

But for a short quotation from part 1 (i.e. bars 10-11), the second part (bars 7-20) treats the previously established subject material in free continuation technique and introduces a new motive (aiii):

Ex 44.



which only later ¹⁾ assumes equal importance to motives (ai) and (aii).

The third part (bars 20-25), an epilogue, merely confirms the A minor tonality. Its main motive, (aiv), repeated in a varied manner recurs later in subject (b) of Section B (see bar 42). The semiquavers of this part together with the sforzati of the previous group are the only major deviations from the otherwise calm rhythmic and dynamic progressions. Both elements recur in the further course of the movement, the sforzati especially assuming unifying significance.

Bars 25-42 serve as a modulatory transition the thematic material of which is derived from subject (a).

1) See the development.

Its most interesting features are the octave doubling in bars 28-35, and the figurations of the modulating chords applying expressive suspensions and other auxiliary notes:

e.g. bars 27-28

Ex 45.

Handwritten musical score for Ex 45, showing staves for Vln I, Vln II, Viola, and Cello. The score includes dynamic markings like *sfz* and *sf*, and articulation marks like accents and slurs. The Cello part features a series of vertical lines, likely representing a pedal point.

Section B in C major comprises one subject (b), which, although quite new, employs motives and other elements of subject (a), viz. (aii) and (aiv) and a free transformation of (ai):

Ex 46.

Handwritten musical score for Ex 46, showing staves for Vln I and Viola/cello. The score includes labels (ai), (aii), and (aiv) indicating specific motives. The Viola and Cello parts are written on a single staff.

as well as sforzati and pizzicati.

The subject itself is in bar-form, the stanzas differing in setting. The aftersong, on a pedal-point in the cello, consists mainly of phrase repetitions.

Section C, representing the development, begins

with a group similar to bars 26-36 of the transition, which modulates from C major to E flat minor (bar 69). A long development, based primarily on transformations of (aiii), follows, comprising eight phrases which are determined mainly by sequential harmonic progressions passing from E flat minor to A minor.

Phrases 1 and 2 (bars 69-75 and 75-81) in E flat minor and B flat minor respectively, are similarly constructed, the motives being presented in contrary motion.

Phrases 3 and 4 (bars 81-83 and 83-85), another pair, in F minor and G minor respectively, restrict the motivic quaver motion to one part only as opposed to the former more-part texture; sforzati described above, reappear in the accompaniment.

Phrase 5 (bars 85-89) in G minor, is a varied and shortened version of phrase 1.

Phrases 6 and 7 (bars 89-91 and 91-93) in G minor and D minor respectively form a third pair and re-introduce the contrary motion of the first and second phrases.

Phrase 8 (bars 93-102) in A minor (ending on the T^V), vaguely resembles the end of the transition (bars 36-40), leading into subject (c).

The **recapitulation** (bars 102ff) is irregular, Section B occurring before Section A. Consequently the transition had to be changed, material from subject (b) replacing the original.

Section B (bars 102-115) is unchanged but for its transposition into A major.

The transition begins with a short modulatory link followed by a partial repeat of subject (b) (four bars) in E flat major and a free motivic continuation (using (aiii) and semiquavers).

The return to subject (a) is prepared especially in the cello part with its pizzicato and a descending line reminiscent of similar ones in the actual subject e.g.

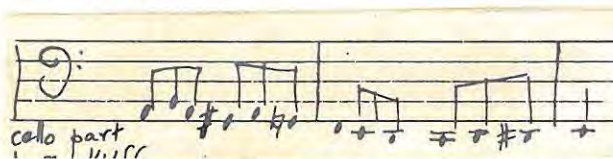
cello part
bars 127ff
Ex 47.



subject (a)
bar 138f
Ex 48.



cello part
bar 141
Ex 49.



Subject (a) (bars 136ff) in A minor, is unchanged but for setting.

The coda (bars 181ff) in A minor, opens, like the development, with material similar to that of the transition, but from bar 190, part 3 of subject (a) recurs. The closing bars are derived from bars 127-135 of the recapitulation, the upper parts sustaining the A minor harmony with a moving pizzicato cello part bringing the movement to a pianissimo ending.

The Third Movement is a conventional Minuet and Trio but for the addition of an extended coda which leads without a break into the finale.

The Menuetto is in regular ternary form with a repeat mark affecting the second main part.

Subject (a) (bars 1-16) is a closed 8-bar period its repetition being transposed an octave down. Its main motive:

(ai)
Ex 50.



is of prime importance both in the middle section and in the coda, but a second motive:

(aii)
Ex 51.



though seemingly unimportant is of some significance later in the minuet as well as in the trio.

The middle section (bars 17-23) on the T^v uses predominantly (ai). Its somewhat impulsive drive is caused by a rhythmic accelerando, and its brevity is counterbalanced by the extended development-like recapitulation of subject (a).

In bar 23 subject (a), slightly varied, enters in the cello and is imitated in the accompanying parts. In the second half of the phrase the melody returns to its original place in the first violin, and an interrupted cadence in bar 30 results in a three-bar extension with motive repeats of (aii). Motive (ai) and its free continuation underly the closing bars (33ff).

The Trio is bipartite each part being repeated. The two parts are very similar in outline and in thematic material, both resembling an inverted bar-form, i.e. A - B - B.

Part A, a modulatory sentence (extended in the second main part), comprises an 'up-and-down' arpeggio in the first violin followed by repetitions of a motive in the rhythm of (aii) of the Menuetto.

Part B has semiquaver runs in the middle parts combined with a syncopated arpeggio chord in the upper part. Its repeat is extended by two bars (with sforzati on the off-beat), and the syncopated chord figure is rhythmically varied.

The only major difference between the two parts lies in their tonal structure, part 1 modulating from F major to C major and part 2 from A major back to F major. The above mentioned extension of A in the second part is caused by the difference in the harmonic succession.

A short modulatory link of three bars leads to the repetition of the Menuetto.

The coda, in C minor, is development-like and based almost exclusively on motive (ai), its transformations and variations.

After a momentary pause on the dominant 7th of C, it leads directly into the finale.

The subject entries occur in the order viola, second violin, cello and first violin, respectively on the tonic, dominant, tonic and tonic. The countersubject retains at first the quaver movement of the subject, but changes after four bars to crotchets. The subsidiary countersubjects run, for the most part, in parallel lines either to the countersubject (see entries three and four, viola part), or to the subject itself (see entry four, second violin part). In the fourth entry the octave doubling of both subject and countersubject results in two-part writing.

The closing bars of the subject in each entry are varied in order to avoid modulatory episodes. The subject in the fourth entry is lengthened by continuation technique (using motive (aii)), and at the same time the countersubject undergoes rhythmic augmentation, syncopations being introduced in the accompaniment from bar 43 onwards. ¹⁾

The transition (bars 47-64) uses chiefly a motive, the repeated notes of which resemble those of motive (aii):

(bi)

Ex 54.



1) The many irregularities in the fugue exposition add further proof to the statements in footnote 1) on page 96.

The harmonic progressions build up at first to two similar 4-bar groups, the modulation to the dominant beginning in the second phrase with the introduction of a diminished 7th on C sharp. In the continuation, which treats (bi) in a development-like manner, this chord leads to D minor and later to the dominant 7th of G major (bars 59-60). From bar 60 onwards, motive (bi) is renounced in favour of free continuation on the dominant 7th, which acts as a link.

The second section (bars 64-91), comprises two subject groups:

(c) bars 64-78, and

(d) bars 78-91.

Subject (c) (bars 64-78) is of continuation type with motive (ci) as its main element.

(ci)

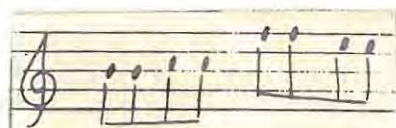
Ex 55.



Thematically the subject can be divided into two 4-bar phrases (bars 64-67 and 68-71), and a continuation (bars 72-78); the two phrases are identical both comprising four repetitions of (ci) (two in the first violin, one in the cello and one in the viola) with partial imitations in the other parts. The continuation develops the motive sequentially.

Subject (d) (bars 78-91) merely makes use of another transformation of the tone repeats in motive (aii).

Ex 56.



Though the second section stands in G major, the actual tonic is not established for any length. The dominant 7th predominates both 4-bar phrases of (c), and its momentary resolution in bars 66-67 and 70-71 falls on to the weak beat of the bar. The same holds true for the short turn to the G major chord in bar 73 of the continuation. Only the first part of subject (d) definitely confirms the tonic, but its second part modulates to E flat major. Such a modulatory turn at the end of the exposition is rather unusual unless these bars are regarded as the customary link between the exposition and the development proper. The resulting overlap, then, would guarantee an especially close connection between the exposition and the development. 1)

Although these bars occupy a seemingly unimportant position in the course of the movement, they nevertheless reveal one of the most interesting tendencies in Beethoven's formal treatment. The frequently encountered overlappings between various sections, subjects or groups, not only results in close connections of the respective parts, but also ensures an unbroken continuity. The combination of such continuations with modulatory harmonies definitely points to the typical Romantic conception of the 'endless melody' which represents the last culmination of a development, the beginnings of which can be found

1) For a similar example of such double functions, see also the second movement of Op.59 No.2, bars 52ff (see page 52).

The third phrase (bars 108-112) changing from D flat major to C sharp minor, presents motive (ai) in double thirds and in quasi-imitations.

Part (2) (bars 112-144) comprises four phrases, alternatively nine and eight bars in length. The first and third (bars 112-120 and 129-136) are similar in thematic material, using (bi), but differ in setting and harmony. The second and fourth phrases (bars 120-129 and 129-136), using freely transformed elements of subject (a):

Ex 58.



are similar in construction (each comprising two symmetrical 4-bar phrases) but differ largely in melody and in presentation of the subject matter. Phrase 2 is homophonic, phrase 4, quasi-polyphonic introducing a new countersubject.

The following diagram shows the shape of this part:

Phrase 1	Phrase 2	Phrase 3	Phrase 4
taken from (bi)	using (a)	taken from (bi)	using (a)
C sharp min.	C sharp min.	C sharp-mod.	D min.

Part (3) (bars 144-176) comprises four similar phrases using exclusively motive (aii). Since three of the four quavers contained in (aii) are on the same note, the constant repetition of the unchanged motive on different pitch levels results in the establishment of a melodic line:

Ex 59.



To this a dynamic curve is added. The resulting 9-bar phrase is given out in turn in the first violin, the second violin, the viola and the cello. ¹⁾ All the phrases are modulatory and differ slightly in their closing bars. The accompaniment is purely harmonic, the rhythmic outline resembling the syncopations and breves of the transition (see bars 57-60 for the former, and bars 49-50 and 53-54 for the latter).

Part 4 (bars 176-210), developing motive (ai), begins with three 4-bar phrases which are determined by harmonic and melodic sequential writing. Like the former group the melody appears in one part only, and the accompaniment is homophonic. The third phrase is lengthened by a continuation (bars 188-191 - resembling the hitherto omitted bars 4ff of subject (a) -), its repetition (bars 192-195) and a further development of motive (ai) (bars 196-200) which leads to cadential

1) The specification for the performance of each phrase on one of the lower strings of each instrument, ('sul G' for the first violin, 'sul D' for the second violin etc), points towards the typical Romantic striving for instrumental tone colour.

quaver passages. The harmonic scheme is modulatory, the three opening phrases passing sequentially from D major to F minor, and the ensuing bars leading to, and establishing, C minor; the closing cadential quavers end on the T^V.

Development and recapitulation are clearly separated.

The recapitulation (bars 210ff) is regular but for slight changes in the fugue exposition. The original countersubject is renounced in favour of a new one:

Ex 60



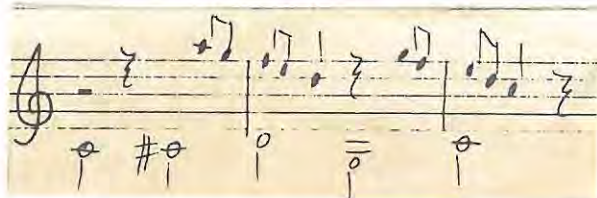
The coda (bars 305ff), very extended and development-like, comprises three parts:

- 1) bars 305-329,
- 2) bars 329-388, and
- 3) bars 388ff.

Part (1) (bars 305-329) modulating from A flat major to the T^V of C major, begins like part (1) of the development (compare bars 305-309 with bars 92-96). The further continuation, however, is considerably shorter, the motivic work culminating in quaver passages similar to the end of the development.

Parts (1) and (2) are linked by six bars (323-328) containing two chords separated by general pauses, and a trill in the first violin.

Part (2) (bars 329-388), throughout in C major, comprises eight repetitions of a 2-bar phrase, Ex 61.



in different instrumental combinations, followed by a long continuation dealing exclusively with motive (a_{ii}) and a free accompaniment. The latter retains the minims of the preceding bars but transforms them melodically and rhythmically gaining thereby, a more lyrical quality. The gradual ascent in pitch level from bar 371 onwards (counterbalanced by descending lines in the viola and cello - bars 381ff) reaches a culmination in bar 385. The expected closing cadential chords, however, are replaced by a sudden turn to

D minor (bars 386-388). 1)

Part (3) (bars 389ff), merely re-establishing the C major tonality, serves as a kind of 'coda to the coda'. The subject material is similar to that in part (2) consisting of motive (aii) and a lyrical counterpart (second violin) which is subjected to gradual rhythmic diminution. The resulting accelerando, combined with a long crescendo and climb in pitch-level, reaches a grand climax in the 'unisono' writing in bars 423ff and in the closing chords.

1) Such an unexpected interruption shortly before the final group is a favourite device of Beethoven's (see e.g. the finale of the second symphony) and also of Haydn's (see e.g. the finales of the symphonies No 97 in C major (1792) and No 82 (L'ours) in C major (1786)).

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C H A P T E R 3

THE SUMMARY

In order to present the facts in a systematic way, the following summary is divided into the main aspects of composition, viz. the form, the style, and the harmony. I wish to make it clear, though, that I am fully aware of the artificiality of this approach since these three are interdependent and overlap continuously. After they have been discussed separately, a synthesis will therefore be attempted.

THE FORMAL ASPECT.

(A) The Cyclic Outline.

All three quartets have in common the cyclic outline of four movements the last two of which are joined.¹⁾ The succession, the tonal schemes, and the forms vary, however, as shown in the following tables:

-
- 1) In the case of the second quartet this link is obtained by harmonic rather than by organic means; the ending of the third movement on a unison E instead of a full chord creates a certain harmonic ambiguity resulting in two things:
- (i) the end of the third movement loses its finality, and
 - (ii) the E represents not only the tonic note of the Allegretto, but also the third of the C major chord which opens the finale.

Quartet No 1 Movt I Allegro F major
Movt II Allegretto vivace
e sempre scherzando B flat major
Movt III Adagio molto F minor
Movt IV THEME RUSSE, Allegro F major
Movements I to IV : sonata form
Key scheme : traditional
Special features ; rearrangement of the
two middle movements.

Quartet No 2 Movt I Allegro E minor
Movt II Molto Adagio E major
Movt III Allegretto E minor
Movt IV Finale Presto E minor
Movements I and II : sonata form
Movement III ; scherzo and trio
Movement IV : rondo-sonata form
Key scheme : suite tonality
Special features : none.

Quartet No 3 Movt I Andante con moto
Allegro vivace C major
Movt II Andante con moto A minor
Movt III Menuetto grazioso C major
Movt IV Allegro molto C major
Movements I, II, IV : somewhat unusual in the
the use of the Tp in
the second movement,
otherwise regular.
Special features : none.

(B) Form Used In The Single Movements.

Although the majority of the movements are in sonata form, only two adhere to the clear-cut outline characteristic of the earlier Classical composers (especially Haydn), viz. the first movement of Op.59/2 and the first movement of Op.59/3. ¹⁾

1) The latter even includes Haydn's favourite device, the slow introduction.

The most common departures from the regular outline are in the order of importance:

- (1) the developmental extensions to the codas, 1)
- (2) hybrid forms between sonata and rondo with either
 - (i) a predominant sonata outline with rondo elements, 2) or
 - (ii) a predominantly rondo outline but with a sonata development as the middle episode (rondo-sonata form). 3)
- (3) the mirror recapitulation. 4)

Forms other than sonata are ternary, 5) binary, 6) and variation ricercare. 7)

(C) Presentation and Development of the Subject Material.

(1) The Exposition.

In all but one 8) of the movements in sonata form, the subject material is presented in the exposition, which shows a tendency to become more expanded.

-
- 1) viz. Op.59/1, movts I to IV; Op.59/2, movts I, II and IV; Op.59/3, movt IV.
 - 2) viz. Op.59/1, movts I and II.
 - 3) viz. Op.59/2, movt IV.
 - 4) viz. Op.59/3, movt II; Op.59/2, movt IV; also used in connection with rondo-sonata form.
 - 5) viz. Op.59/2, movt III; Op.59/3, movt III.
 - 6) viz. Op.59/3, movt III.
 - 7) viz. Op.59/2, movt III.
 - 8) viz. Op.59/1, movt III.

This results partly from the use of more than one subject in each section, 1) and partly from other methods of expansion, viz. continuation technique, 2) repeating the same subject several times, 3) or treating the subject fugally. 4) The first-mentioned method is the most common one within the Op.59, and shows the late Classical invasion of the smaller sections by the principle of contrast. The latter method is restricted to exceptional cases.

Beethoven shapes his subjects into a variety of forms which can be generalised as either 'closed' or 'open'. The first group includes periodic subjects, 5) non-periodic or unsymmetrical sentences, 6) double phrases, 7) subjects with two contrasting parts, 8) bipartite, 9) tripartite, 10) ternary 11) and bar-form structures, 12) and a hybrid between ternary and rondo. 13)

-
- 1) e.g. Op.59/1, movts I and II; Op.59/2, movt I.
 - 2) e.g. Op.59/1, movt IV.
 - 3) e.g. Op.59/2, movt IV.
 - 4) e.g. Op.59/3, movt IV.
 - 5) e.g. Op.59/1, movt III, subj (a); Op.59/2, movt II, subj (a); Op.59/3, movt III, subj (a).
 - 6) e.g. Op.59/1, movt IV, subj (a); Op.59/2, movt III, subjs (a) and (b).
 - 7) e.g. Op.59/1, movt I, subj (c); Op.59/2, movt II, subj (c); Op.59/3, movt I, subj (c).
 - 8) e.g. Op.59/2, movt I, subj (c).
 - 9) e.g. Op.59/2, movt I, subj (a).
 - 10) e.g. Op.59/3, movt II, subj (a).
 - 11) e.g. Op.59/1, movt II, subj (a); Op.59/1, movt III, subj (b).
 - 12) e.g. Op.59/2, movt I, first part of subj (a);
Op.59/3, movt II, subj (b).
 - 13) viz. Op.59/1, movt II, subj (f).

All continuation types, 1) development types, 2) links, 3) and modulatory sentences, 4) on the other hand, are 'open' subjects. The choice of the subject type is free and completely independent of either position of function.

The first subject proves to be of prime importance in the course of the movement; it predominates the development and sometimes even occurs on other parts of the exposition. 5) The other subjects, for the most part, undergo no development, 6) their recurrences usually being restricted to mere quotations. 7)

This functional difference influences the inner construction of the subjects. All first subjects, regardless of their outline, are based on one or more motives with a characteristic rhythmic or melodic shape (or both), and consequently strong developmental capabilities. 8)

-
- 1) e.g. Op.59/1, movt I, subj (a); Op.59/1, movt II, subj (b); Op.59/2, movt I, subj (e); Op.59/3, movt IV, subjs (a) and (c).
 - 2) e.g. Op.59/1, movt I, subj (e).
 - 3) e.g. Op.59/1, movt I, subj (f); Op.59/2, movt II, subj (d).
 - 4) e.g. Op.59/3, movt IV, subjs (a) and (d).
 - 5) e.g. Op.59/1, movt I; Op.59/3, movt I.
 - 6) e.g. Op.59/1, movt II, subj (e); Op.59/2, movt II, subj (f).
 - 7) e.g. Op.59/1, movt I, subj (f); Op.59/1, movt IV, subj (e); Op.59/2, movt I, subj (d); Op.59/2, movt II, subj (d).
 - 8) e.g. Op.59/1, movt I, subj (a); Op.59/1, movt IV, subj (a); Op.59/2, movt IV, subj (a).

They are always presented in a clear and simple setting. The second subjects, on the other hand, are generally more lyrical (especially in the fast movements), and either employ less characteristic motives, or lack developmental capabilities. 1)

Those forms without a contrasting section, viz. ternary 2) and binary, all employ typical first subject types (described above). In the rarer case the presentation of the subject is of secondary importance, the counter subject providing the main developmental ideas.

(2) The Development.

The development sections are divided into several parts (varying in number from three to seven) each presenting one main aspect of the subject. Most noticeable is the excessive length of some of these sections. 3) The subject material presented in the exposition is developed mainly in the following ways:

- (1) the complete phrase is repeated and subjected to sequential modulations or canonic devices, 4)
- (2) a single motive cell is worked out with transformations, variations, inversion, augmentation, diminution etc. etc. 5)

1) e.g. Op.59/1, movt I, subj (d).

2) those movements in ternary form, viz. Op.59/2 movt III, and Op.59/3, movt III, have, in place of a contrasting section, a short development of the main subject.

3) e.g. Op.59/1, movt I.

4) e.g. Op.59/1, movt I, part 1 of the development.

5) e.g. Op.59/1, movt I, part 2 of the development;
Op.59/3, movt I, all parts of the development.

- (3) a new phrase is formed out of repetitions of one or two motives, and is treated as a whole, ¹⁾
- (4) the motive generates a free continuation, ²⁾
- (5) the motive is combined with other material, new ³⁾ or old, ⁴⁾
- (6) the motive provides melodic interest in a predominantly harmonic group. ⁵⁾

(3) The Recapitulation.

In subject matter and outline, the recapitulations are for the most part regular, the only irregularities being the mirror recapitulation, ⁶⁾ the omission of one of the subjects, ⁷⁾ and harmonic changes in parts other than the transition. ⁸⁾

(4) The Coda.

The codas, with exception of one, ⁹⁾ are very extended and assume almost independent status, thereby transforming the original three-part structure to one in four parts. Since developmental treatment predominates they can be regarded as a counterpart to the development proper, so that exposition and recapitulation

-
- 1) e.g. Op.59/1, movt II, part 3 of the dev; Op.59/2 movt IV, part 3 of the dev; Op.59/3, movt IV part 3 of the dev.
 - 2) e.g. Op.59/1, movt I, part 4 of the dev, and movt 4, part 1 of the dev.
 - 3) e.g. Op.59/2, movt I, part 3 of the dev, and movt 4, part 1 of the dev.
 - 4) e.g. Op.59/1, movt I, part 6 of the dev.
 - 5) e.g. Op.59/2, movt IV, part 2 of the dev; Op.59/3, movt IV, part 3 of the dev.
 - 6) e.g. Op.59/2, movt IV; Op.59/3, movt II.
 - 7) e.g. Op.59/1, movt I, subj (b) omitted.
 - 8) e.g. Op.59/1, movt I, subj (a), and movt II, subj (a).
 - 9) e.g. Op.59/2, movt I.

Imitative writing can be seen in:

- (1) canonic sections (strict ¹⁾ or otherwise ²⁾),
- (2) fugal sections ³⁾
- (3) passages in double thirds. ⁴⁾

The instruments are treated equally with regard to technique and melodic importance, though traces of the traditional predominance of the first violin are noticeable. A relatively advanced standard of technique is demanded. On the whole Beethoven does not exploit instrumental effects ⁵⁾ but at times uses pizzicato not only to contrast the bowing style, but also to achieve textural unity. ⁶⁾

-
- 1) e.g. Op.59/1, movt IV, coda.
 - 2) e.g. Op.59/1, movt I, bars 121-123; Op.59/3, movt I, subj (e); Op.59/2, movt III, part 3 of ricercare.
 - 3) e.g. Op.59/1, movt I, part 5 of the dev; Op.59/2, movt III, parts 1 and 2 of ricercare; Op.59/3, movt IV, subj (a).
 - 4) e.g. Op.59/1, movt IV, subj (c); Op.59/2, movt I, part 4 of the dev.
 - 5) the only exception can be seen in Op.59/3, movt IV, part 3 of the development.
 - 6) e.g. Op.59/1, movt III; Op.59/3, movt II.

THE HARMONIC ASPECT.

The harmonic idiom is predominantly diatonic with only very occasional uses of chromaticism.¹⁾ The most important innovations are in the field of form. Though Beethoven retains the traditional Tonic-Dominant polarity in the exposition,²⁾ he shows a progressive tendency in his use of third-related keys at the beginning of the development and the coda,³⁾ or between the two sections of a binary form.⁴⁾

Within the development sections, modulations pass through very distant keys, but the codas are generally cadential.

THE FINAL SYNTHESIS.

The preceding analysis reveals Beethoven's pre-occupation, during this period, with formal problems. It is in this field that the most important innovations occur, and where a consistent application of certain principles can be observed.

-
- 1) e.g. Op.59/1, movt II, part 3 of the dev.
 - 2) using sometimes the minor dominant e.g. in Op.59/1, movt II, and Op.59/2, movt IV.
 - 3) e.g. Op.59/1, movt II and movt IV; Op.59/3, movt I and IV.
 - 4) e.g. Op.59/3, movt III, trio.

The main task seems to lie in the balancing of contrasting and unifying elements.

Contrast is provided chiefly by a variety of subject material in the exposition, and to a lesser extent by stylistic differences. Compared with this conventional method of introducing contrast, the careful choice of the most suitable means of unification is indeed striking. Similarity in harmonic construction or foundation, proves to be the strongest medium for such unification, ¹⁾ though it may be the least obvious. Almost equally important, and even more frequently applied, are motivic and rhythmic connections ²⁾ between various sections or parts. The predominance of the first subject in the development of sonata forms, is another external and typically Classical means. Continuity of progressions and close connections of the single parts and sections is achieved by overlappings which are produced in a variety of ways; viz:

- (1) the closing subject of the exposition (or recapitulation) becomes a modulatory link, ³⁾
- (2) development features enter in one part while the others complete the exposition, ⁴⁾ - or - the recapitulation enters in one part whereas the development continues in the others. ⁵⁾

1) e.g. Op.59/2, movt I, section II.
2) e.g. Op.59/1, movts I and II; Op.59/2, movt I;
Op.59/3, movts, II and IV.
3) e.g. Op.59/1, movt I.
4) e.g. Op.59/2, movt IV.
5) e.g. Op.59/1, movt I.

- (3) by a thematic overlap. 1)
- (4) the closing part of the development corresponds with the opening of the recapitulation. 2)
- (5) the entry of the recapitulation is anticipated in the closing bars of the development. 3)
- (6) the single phrase gains a double function forming, forming thereby, an insoluble link. 4)
- (7) development features exist in the setting of the otherwise regular opening subject of the recapitulation. 5)

Overlappings of the smaller sections are also to be found, these being generally harmonic; the resolution of the F^V at the beginning of the second section is delayed. 6)

It follows from the above that it is Beethoven's aim to achieve an equilibrium of the two diametrically opposed factors, viz. diversity and unity. Whereas diversity provides interest, unity ensures form.

1) e.g. Op.59/1, movt II.
2) e.g. Op.59/1, movt II; Op.59/2 movt IV.
3) e.g. Op.59/2, movt I.
4) e.g. Op.59/2, movt II.
5) e.g. Op.59/1, movt IV.
6) e.g. Op.59/3, movt IV.

THE EPILOGUE

"The essence of music is sound in motion". 1)

Throughout the ages composers endeavoured to unite the inherent diversities of such moving sounds into forms of art. Different periods favoured different solutions to this basic problem of all music. The Classical era, in its fundamentally dramatic approach, aimed at a perfect balance of contrast and unity. This high ideal found its fulfillment in the works of two composers, viz. in the operas of Mozart, and in Beethoven's instrumental music.

The essential features of Classical form and style find their sublime realisation in the string quartet. It is the hub of Classical composition. Beethoven's last quartets, ascend, like the great Thomas Cantor's last works, to regions which are inaccessible to all but a few. They represent the peak of his work. The Razumovsky quartets show, on a more modest level, a similar tendency within the works of that period.

1) The Beautiful in Music by Eduard Hanslick (published by The Library of Liberal Arts, edited by Oskar Piest) (see page 48).

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