

TONAL CHARACTERISTICS IN BEETHOVEN'S MUSIC AND
THEIR INFLUENCE ON THEMATIC STRUCTURE

Sandra E. Preston, B.A.

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SUMMARY

The contention of the thesis is that the adoption of a new analytical premise with respect to the rôle of tonality in Beethoven's music is necessary to the true appraisal of this aspect of the music. The main focus of the material presented is a detailed examination of the initial thematic treatment in relation to four major keys and comprises four tonal-thematic analyses (Part II. The Supplementary Volume comprises the Thematic Indexes. relevant to the Part II examination and reference to that Volume is integral to the tonal-thematic analyses.) Part II thus treats a defined area within the music. Prior to this examination the subject as a whole - tonality, and the rôle of tonality in Beethoven's music - is discussed in the Introduction (Part I, Section I), and material basic to the entire investigation is presented (Part I, Section II). Part III consists of the Conclusion to the thesis enquiry. The two Appendices treat two topics which although not within the scope of the main thesis investigation, are nonetheless relevant to the subject as a whole; these are the tonal relationship B \flat /G in the music, and the "Second Group" key in minor mode usage.

PREFACE

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Note

Throughout the thesis, major keys are indicated by capital letters, minor keys by small letters. Some musical examples are included in the text, but the Supplementary Volume comprises the various Thematic Indexes relevant to the thesis examination, and cross-reference to that Volume is made throughout. (The nature of the Supplementary Volume is more fully discussed in the Preface to that Volume.)

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PART I

SECTION I - INTRODUCTION

I TOWARDS DEFINITION

The twentieth century has witnessed a conscious reaction in music to that structural force underlying the music of the previous two centuries - Tonality.

Tonality, and the diatonic system, evolved in Western Music from the modal system over a considerably longer period than tonality in fact retained the position of a fundamental structural factor, presupposed as basic in music. Its long development, and the considerable importance of tonality in the music which has until only very recently been almost the sole musical influence, have created a situation in which new "tonal" vocabulary cannot be readily assimilated, due to the unaccustomed and unlearned psychological responses which it necessitates.¹ Thus the present century is witnessing an attempt fundamentally to restructure the means and technique of musical composition, and notably, to reject the hitherto accepted system of diatonicism.

1 This aspect has been thoroughly investigated by Leonard B. Meyer in "Emotion and Meaning in Music" (The University of Chicago Press 1956). His "Music, the Arts and Ideas" develops this psychological assessment in a broader context. (University of Chicago 1967).

Despite the strong reaction in the musical consciousness of composers against tonality, this factor in musical structure remains an elusive quality. Music is essentially an art which exists in time, and depends upon aural experience and response. It is a truism to state that what is written is not "the music"; it is debatable whether what an individual is able to hear mentally, with no external aural stimulus, but on reading a score, is truly music, in that it is largely a function of memory and is not the same experience as that of the live art. But the fact that music is unique in this respect does not invalidate analysis of the written score, to gain understanding of those technical factors which contribute to the overall experience of performed music. However, it is a contested point among musicians concerning of what precisely the musical experience consists. The two main factors involved are "form" and "content"; the latter is somewhat sceptically viewed by many musicians, as are the attempts to probe this aspect of music, and the response to music.¹

For Beethoven, music was clearly very much more than form, and tonality in his music, while a structural force of great importance and cogency, is also the vehicle of the most powerful musical climaxes in his compositions; that is to say that tonality is fundamental to the "content", the expressive significance, of his music.

That music is indeed very much more than the construction of aural experience in particular formal outlines is also the approach adopted throughout the thesis. However, technical analysis evidently must precede any attempt to assess what are essentially matters of psychology concerning "the musical response" and the "content" of music.

¹ Deryck Cooke opens such a discussion in "The Language of Music" (Oxford University Press, London, 1959), P.197 et. seq. and P.272 et. seq. While his thoughts are a valuable contribution, his treatment of tonality does not identify the specific nature of its functioning in Beethoven's music, as will be discussed below.

Tonality then, while unquestionably functioning as the diatonic basis of Western Music for over two centuries, has not been fully defined. This it would seem is because music is not a solely technical process. So much of the musical response depends upon psychological¹ factors, themselves not fully definable, that even such a basic aspect, technically very much in evidence, cannot be defined completely. It is possible to state how it functions, technically, (although that this has not been done, completely and accurately, certainly with regard to Beethoven's music, is the contention of the thesis) but no definition can take account of the supra-musical factors involved.

Tonality has been variously defined (at least in its technical aspect). Schönberg considered that tonality is:

"the art of combining tones in such successions and such harmonies or successions of harmonies, that the relation of all events to a fundamental tone is made possible"²

Following a Schenkerian approach, Adele Katz states that tonality is:

"the expression of a single key through the prolongation of a primordial framework instead of the expression of various keys through the techniques of modulation."³

This is not to contradict Schönberg's basic definition, but Schönberg admits modulation into his analysis; this is a clear example of a different interpretation in the analysis of purely technical factors.

Philip Barford states;

"the principle of tonality means that musical functions are always experienced in relation to a central point;"⁴

and in an investigation into the emergence of tonality, E. E. Lowinsky says that "consolidation" of a tonic is the first factor in establishing tonality.⁵

1 and I believe spiritual

2 Schönberg-edited by Merle Armitage (G. Schirmer. 1937), P.280 (As quoted by Adele Katz; op.cit. - Footnote 3 below - P.38).

3 "Challenge to Musical Tradition - A New Concept of Tonality"- Adele Katz (London, Putnam, 1947) Chapter I, P.

4 Music review, volume 24 (1963)- "Tonality" Philip Barford Pp. 195 - 200

5 "Tonality and Atonality in Sixteenth Century Music" Chapt.I.

H. K. Andrews defines tonality as;

"the result of the process of relating a series of notes or chords to a focal point which is called the tonal centre or tonic of the key in musical composition".¹

There is then a consensus of opinion here, that tonality is a process whereby musical procedures are related to a basic generating tonic, which is melodically and harmonically fundamental and central, as the starting-point and the final point of rest. The Schenker/Katz approach seeks to establish a particularly rigorous position concerning the extent to which one basic tonic exerts the only expressive force, tonally. This is a point of view technically tenable, but aurally debatable.

The fundamental importance of the existence of a recognised, established tonic-centre is not in question in the thesis. While no attempt is to be made to define that part of the functioning of tonality which is the vehicle of content rather than of form, that the technical functioning of tonality in Beethoven's music has itself been misinterpreted is the main point at issue.

This is of crucial importance to the whole analytical appreciation of Beethoven's music. As H. K. Andrews states in conclusion to the article previously quoted,

"the true interest in the subject (Tonality) lies in the part it plays in the growth of music as a language and its close relationship with almost all the other technical problems of that language."

Beethoven's music is tonal, and this means that tonality is the main factor underpinning the whole structure. Clearly rhythm (especially in Beethoven) melody, base-procedures, developmental treatment, climax, resolution, are all factors which ultimately depend upon tonal coherence. Tonality may be said to be the "sine qua non" of his music, perhaps more than any other of these factors. Evidently, it is not meaningful to separate them out, as they are necessarily and inextricably interdependent, but it is true to say that tonality is the underlying structural factor upon which all else is built in every composition. This is necessarily

¹ "Tonality" - Grove's Dictionary of Music and Musicians (5th Edition, 1954. Volume VIII).

presupposed in any analysis of the other factors (although the misunderstanding of the function of tonality in Beethoven's music has led commentators to misinterpret other factors by presupposing the primary function of tonality unconsciously and wrongly). But since all other structural factors do depend upon, and relate to the underlying tonal structure, it is of paramount importance fully to understand the nature of the functioning of tonality in Beethoven's music if we are fully to understand the technical aspects of his artistic achievement; and evidently such an understanding, in detail, must precede further investigation of the psychological factors involved.

II TONALITY - THE CONVENTIONAL ANALYTICAL APPROACH

Although the thesis is concerned to indicate the need for a change in the basic analytical assumptions made with regard to tonality in the examination of Beethoven's music, it is true to say that the analytical approach to all tonal music centres upon the basic triads on the tonic, the dominant and the subdominant (I; V: IV). Subordinate to these are the "secondary" triads. Many theories of key-relationship have been expounded, but all presupposing this starting-point of harmonic analysis. The present investigation does not seek to question the fundamental importance of the primary (and other) triads in the definition and expression of key, but it does depart from the it seems hitherto unquestioned premise that this basic tonal (or harmonic) vocabulary is capable of uniform transposition. The conventional analytical approach adopted is analogous to the English use of tonic-sol-fa. Whether the key is C or f#, the tonic is "doh", and the entire system is transposed accordingly. Of course, this is not to suggest that the primary and secondary triads are not in evidence structurally in different keys, but the thesis seeks to show that with regard to Beethoven's music there are distinct "tonal complexes" functioning in relation to specific tonic-centres, with features which are peculiar to the particular key involved, not directly identifiable - using conventional harmonic analysis-in other keys, in the same way. Such harmonic analysis can of course indicate

the differences of usage between keys but in fact it has also served to obscure the consistency of usage which there is, in relation to specific keys, in Beethoven's music. The tonic has been regarded as a uniformly functioning factor in relation to all the other triads, irrespective of the key centre in use. In Beethoven's music, to adopt such an analytical position does not result in representing the full situation concerning his use of tonality. In his music there is notable consistency of tonal usage in relation to each key, with distinct tendencies not directly paralleled in other keys. Some examples illustrating the conventional analytical approach will indicate how basic a consideration this initial differentiation is; and in fact how far the need to make it has been overlooked.

In his unfinished book, "Beethoven",¹ Tovey sets out two tables of the "extended key-relationships", which he considered Beethoven "extended and rationalised". But although he several times brings together instances of usage which show remarkable tonal consistency relating to specific keys, he nowhere comments on this as being the case and so his tables stand as uniformly applicable, irrespective of the key-centre. Such an interpretation is clearly of use, but it does not in fact elucidate the details of Beethoven's tonal vocabulary and its peculiar use of the basic harmonic framework.

Similarly, in his "Structural Functions of Harmony",² Schönberg quite early sets out a "Chart of the Regions"; that is, a chart of the key-relationships from the tonic. Again, while this is a useful summary of the harmonic framework of diatonicism, it does not in any way allow for the possibility that accessibility of key may be a relative matter, depending on the particular key in question. To relate such an interpretation specifically to Beethoven's music, it should ultimately be possible to compile a "Chart of the Tonal Regions", or a "Chart of Accessibility of Key" similar to Schönberg's, but

¹ "Beethoven" - Tovey (London - Oxford University Press, 1944). See - The Three Dimensions of Music, and Pp. 12 - 13 for the tables.

² See P. 20 et. seq.

for each key in Beethoven's usage, thereby indicating the change in tonal vocabulary which clearly exists in his music, from one key to another. Some of the keys would be quite similar, but in others, distinct and unparalleled tonal tendencies would be in evidence. There has then to be an extension in Schönberg's interpretation of the key-relationships, in order fully to take account of Beethoven's tonal usage. The premise underlying such a Chart of the Regions has to be changed. The thesis sets out to show, on a very basic level concerning opening tonal treatment in works or movements, the ways in which harmonic and other usage does vary, from key to key, in Beethoven's music.¹

Two further examples of analytical approaches concerning tonality may be adduced; once again, one is adopted as the basis of a general consideration of music, the other with specific reference to Beethoven's music.

H. K. Andrews, in the quotation above² refers to music as "a language", and reference has already been made to a particular aspect discussed in Deryck Cooke's book "The Language of Music".³ The second chapter of this book is "The Elements of Musical Expression", of which clearly tonality is one. In fact, Cooke himself says, under the heading "Tonal Tensions": "this section brings us to the heart of the problem of musical language", and refers to "the persistent neglect to tackle" this. He speaks of "the expressive qualities inherent in the tonal relationships between the different notes of the scale". He then sets about investigating precisely this. Again, while he adduces a great deal

¹ Sections VI and VII of the Introduction below discuss the approach adopted in the thesis.

² Page 5.

³ See Page 3 footnote 1.

of material, from all periods of music, he nonetheless sets out from a point of view which does not admit of the differing tonal functions, from key to key, depending on the specific "location" and identity of the basic key in question; which the thesis seeks to indicate is the only true premise upon which a representative estimation of the rôle of tonality in Beethoven's music can be built.

The second example is the approach underlying the whole of a thesis entitled "Tonality and Tonal Factors in the Piano Sonatas of Beethoven" by Howard Randolph Chase.¹ He rightly states that "a consideration of tonality and constituent tonal factors has been largely neglected" concerning stylistic features in Beethoven's music. However, he then shows that he too is adopting the conventional analytical approach when he refers to how tonality "becomes concerned with style determinants and characteristics"; the body of his thesis goes on to illustrate how he has compared the Sonatas only in terms of parallel degree-relationships between keys, and so has not recognised the consistency of usage within key-categories as distinct from one another. His failure to identify this factor probably results from a consideration of the Piano Sonatas alone. The present thesis is founded upon examination of the whole of Beethoven's oeuvre, the Werke ohne Opuszahl largely excluded. While an attempt to encompass the whole oeuvre cannot focus fully on all aspects of the subject, a truer picture emerges from close study of the wider corpus than from detailed analysis of a comparatively small section of Beethoven's works.

Analysts of Beethoven's music have then, adopted the conventional approach with regard to the function of tonality in his music. This presumes a uniform system of relationships, capable of transposition without significant modification. The thesis seeks to illustrate that the accurate analytical approach to Beethoven's music recognises the significance of

¹ An unpublished dissertation, submitted as part of the requirements for the degree of Ph.D- University of Michigan, 1952.

specific key-locations, and the consequently relative, non-paralleled functioning of tonal relationships within each key.

Evidently such an approach opens up the possibility that particular figuration may be tonally related, although this is by no means a new suggestion. Or certain tempi or metres may characterise particular keys and contexts;¹ bass-progressions of particular kinds may be found to be related to tonal contexts. Should it prove to be the case that such factors are directly related to tonal location, then we have overlooked a very important aspect of the whole of Beethoven's music and of his compositional procedure. We have underestimated the extent to which tonality relates to and characterises the treatment of the musical structure on other levels.

¹ An example of this, and also a further indication of the dangers of misinterpretation by considering too small a section of Beethoven's works is typified by an observation made recently by one student of Beethoven, that the $\frac{3}{4}$ metre of the first movement of the Piano Sonata Op. 101, is unusual for a first movement. Taking the works without reference to tonal location this is so, but examination of the works in A reveals the following situation concerning the metre of first movements:

Op.	2/2	(Piano Sonata)	C
..	12/2	(Sonata for Violin and Piano)	$\frac{6}{8}$
..	18/5	(String Quartet)	$\frac{3}{4}$
..	30/1	(Sonata for Violin and Piano)	$\frac{3}{4}$
..	69	(Sonata for 'Cello and Piano)	C
..	92	(Symphony No. 7)	$\frac{3}{4}$
..	101	(Piano Sonata)	$\frac{3}{4}$
..	128	(Song - "Der Kuss")	$\frac{3}{4}$
..	119	No. 4 (Bagatelles)	C
		No.10	$\frac{2}{4}$

Thus, in the works with ensuing movements (the first seven listed above) four out of the seven have the metre of $\frac{3}{4}$. Also, it is interesting to note that the major key finales of the Violin Sonatas Opp.23 and 47, and of the String Quartet, Op. 132 (all works in A) all have a $\frac{3}{4}$ metre. Clearly there is a tonal situation of significance and consistency apparent. There are also similarities of thematic structure between movements in other metres.

III TONALITY AS A STYLISTIC DETERMINANT IN BEETHOVEN'S MUSIC

In the previous section, a quotation from the Chase thesis referred to "style determinants". Although Chase does not come to view tonality as itself a stylistic determinant in Beethoven's usage, the term is particularly applicable to the nature of tonal functioning in Beethoven's music. In his extremely valuable study, "Beethoven's Sketches - An Analysis of his style based on a study of his sketch-books",¹ Paul Mies adopts this term as the title of the first part of his book. He investigates recurrent characteristics in melodic treatment, and identifies these as "stylistic determinants", common denominators as it were, characterising Beethoven's melodic style throughout his oeuvre.²

The preceding section set out to indicate the changes needed in order to identify the nature of tonal functioning in Beethoven's music. The present section seeks to define this, the nature of tonal functioning, in more specific terms. As has been stated above, tonality is of fundamental structural importance in Beethoven's music. This has never been questioned; however it has emerged in the course of this discussion that the extent to which tonality is influential throughout the levels of the musical structure has not been realised. Thus, the definition of tonality in Beethoven's usage as a "stylistic determinant" means that, depending on the particular tonal location in question, its functioning extends from the basic identity and definition of the "home" key, to the detailed matters of harmonic structuring, melodic shape, and rhythmic treatment, all of which contribute to the initial definition of key; as well as to the overall musical progress and structure.

¹ Oxford University Press, and London: Humphrey Milford, 1929-translated by Doris L. Mackinnon.

² Discussion of Mies's study as relating to the present approach to tonality in Beethoven's music is taken up at various stages in the thesis.

Such an approach implies that the choice of key predetermines to some extent, other structural characteristics.

The thesis seeks to illustrate the functioning of tonality as such a stylistic determinant, in four major keys. This is only a preliminary stage in the examination of the full extent of the rôle of tonality as a stylistic determinant of far-reaching importance in Beethoven's music; but a basic and necessary first step in attempting to re-appraise Beethoven's use of tonality.

IV THE LEVELS OF TONAL FUNCTIONING IN BEETHOVEN'S MUSIC

Tonality in Beethoven's music is inextricably bound up with the other structural elements of the musical expression, as has been stated above. While the ways in which the key-location characterises such factors as the thematic shape and the harmonic treatment can be shown, the sense of the music depends upon the indissoluble combination of tonality with these other elements. Without however attempting to separate them, but accepting such an interpretation as the basis upon which a work is constructed, it is possible to enlarge the scope of these introductory considerations to take account of larger-scale matters which are of course also shaped by the basic "tonal impulse" structuring the music. The thesis does not seek to examine these larger-scale and more complex matters, but in order fully to understand the nature of tonality in Beethoven's music, such examination will be necessary.

If it is the case that there are distinct "tonal complexes" functioning in Beethoven's music, the nature of each complex must be "delimited". The question of inter-relationships very soon becomes relevant; for instance, to take a work in C; the thesis examines what appear to be the peculiar tonal features characterising opening themes in C, but (to ignore the transition treatment, itself a subject needing such examination) we may arrive at a second group key-area of G, or perhaps E. The fact of the choice of key here is significant, too, but to pass over that, it is necessary to establish how far the key of G (or E) when standing "in apposition to" C as the key of contrasting thematic material, exhibits features

which characterise the use of the key (G or E) when it is itself the basic tonality. How far does a key have similar tonal tendencies when it is itself the basic key, and when it is a secondary key? The thesis at times touches on such considerations but does not attempt to reach any conclusions concerning this. Such matters may appear abstruse, but they need to be elucidated in order to achieve an accurate understanding of the extent and nature of tonal functioning in Beethoven's music.

It is definitely the case in his music that particular tonal relationships, irrespective of thematic and formal context, do recur; again, how far these keys exhibit, in these particular relationships, the same characteristics as are identifiable when each key is the home tonic of a work, is a question which can only be mentioned here; although it is another avenue of investigation which must be examined in the light of the new premise suggested. One such relationship is that of B^b /G, where G occurs in notable tonal juxtaposition with B^b , in a wide variety of formal contexts.¹

Considerations of tonal structure are relevant throughout each work, irrespective of form. The fact of recurrent tonal tendencies, occurring in a variety of formal contexts, indicates the constant force which the tonal location generates in Beethoven's music. Comparison of Sonata Form structures does indeed yield interesting and significant formal factors, but close tonal examination often reveals a differing, and distinctly tonally-related structure, concerning this aspect. Often commentators will interpret a particular instance only within the context of a particular work, whereas cross reference with other works in the same key indicates a persisting tonal complex, with notable consistency in usage. This leads to errors of judgement such as the one cited above where what is true of the case viewed formally misrepresents the true situation of remarkable consistency tonally, which emerges when the starting-point is one of definition of the particular tonality in question, per se.

¹ A survey of such instances is given as Appendix I, Pp319-339

Formally tonal tendencies are evident in relation to certain keys. For example, in a Sonata Form movement in D, the development frequently begins with emphasis of the tonic minor; this is not the case in Sonata Form movements in other keys. (E^b movements generally move through c early in the development, whereas b is more the "goal" of D developments than the starting-off point). Comparison of this kind can indicate where tonalities differ with regard to "preferred" keys, in certain formal contexts; but characteristic tonal relationships are evident in differing contexts in all formal structures, and can in fact throw light on such differences of structure which, when not related to the overall use of particular tonalities, can appear to be idiosyncratic or arbitrary.

The example quoted above of the high incidence of a $\frac{6}{8}$ metre in movements in A (particularly the first movements) suggests that the tonal location may also give rise to particular rhythmic structure. Choice of metre and tempo indications can be readily correlated, but this has not been done; there has not been a ready awareness of Beethoven's consistency in tonal usage, so that such an obvious functioning of it has been overlooked. There are other factors to be examined also; it is probably to be expected that tonally remote areas should give rise to episodic material thematically. This is the case with Beethoven's music - three notable examples occur in the development of the first movements of the Piano Sonata, Op. 7 (E^b ; episodic treatment begins in a); the Third Symphony (E^b ; episodic treatment begins in e); and the Fourth Piano Concerto (G; episodic treatment begins in c^{#1}). Sometimes linked with such treatment is the structuring of musical climax in a movement; here rhythm, dynamics, tonality, sequence-contraction, are all factors of importance. An additional factor, particularly significant in Beethoven's music is the structure of the bass. Beethoven frequently constructs large portions of a movement over a

¹ c[#] is also the "goal" of the development in the first movement of the Sonata for Violin and Piano, Op. 30/3, (also in G).

regular bass-progression; this may be variously handled, moving in diatonic or chromatic steps, or structured over a longer-range repeating pattern.¹ How far such procedures are tonally or only formally related is a further consideration relevant to the levels of tonal functioning.²

The factors so far mentioned are essentially considerations of "internal" structure. Much has been written concerning the thematic inter-relationships within each composition. If the change in the initial premise is accepted as the true basis of an approach to analysis of Beethoven's use of tonality, then there will certainly be recurrent thematic features relating to each key. The question of the inter-relationships thematically between movements is not examined in the thesis. Such investigation seems so far to have led to an extensive degree of "interpretation" and manipulation. This aspect of the structure of an entire work cannot, it is felt, be adequately undertaken without a fuller understanding of the nature and functioning of tonality in Beethoven's music. This must be built upon the compiling of "indexes" to the various tonal complexes on the basic level before more complex inter-relationships can be assessed.

A full examination of the levels of tonal functioning in Beethoven's music would have to take account of the various factors mentioned here. The thesis considers only the first step in this process of re-appraisal of the rôle of tonality in Beethoven's music, and examines only four tonal categories, on a very basic level. Clearly however, the adopting of a different basic premise from the accepted conventional approach also inherently acknowledges the need for the exhaustive examination of all levels of tonal functioning in order to establish

¹ such as occurs in the Gloria of the Mass in C, Op.86 (bars 314-320); and in the finale of Symphony No. 8 (bars 298-330). In each, the bass 'cell' is the compass of a major seventh.

² In the examination of C tonal-thematic characteristics, the strong tendency to sequential supertonic usage will be treated. However, preceding this in at least three C works, there is notable descending chromatic bass treatment, moving onto the dominant; in Op. 53 (i); Op.36- the Credo Opening; and Op. 59/3 (i)- the Introduction. (see page 60 of the

the nature and extent of the functioning of tonally-related features in Beethoven's music.

V SOME UNEXPLAINED OBSERVATIONS

Throughout the Beethoven literature, whether analytical or biographical, many observations of recurrent tonal tendencies have been made, although they have not been defined as such. No one could dispute A.E.F. Dickinson's statement:

"it is impossible to ignore¹ the significance that Beethoven attached to key",¹

But there seems to have been no attempt to identify the nature of this "significance". Indeed, Dickinson views this aspect perhaps more seriously and as more fundamental than do most commentators. Continuing to quote from this section of his book, he advises us:

"to observe carefully the keys of Beethoven works and if possible memorise the chief themes in those keys, with a firm hold of the key-note in each case, and then to register as carefully the comparative melodic impressions of fresh works (we) encounter (i) in the same keys (ii) in different keys. With practice the significant reverberations of key will make themselves felt".

Clearly Dickinson had noticed a degree of significant tonal consistency in Beethoven's music; although he nowhere defines what he means by "significant reverberations of key". Having noted similar tendencies, Paul Kies says that it is

"probable that for Beethoven the various keys had definite emotional values that caused him to prefer certain of them to illustrate certain states of mind".²

He goes on to state:

"I think there is justice in Hennig's observation that 'In my personal experience, the character of a key is brought out only when there are suitable harmonies, i.e. harmonies belonging to the key and sufficiently rich to sustain its effect'."

Dickinson, Kies and Hennig are all aware of recurrent tonal

cent). thesis, below). This chromatic bass progression also underlies the c Variations for Piano (WoO 80), composed at the time of Op. 59/3.

1 "Beethoven" - A.E.F. Dickinson (Thomas Nelson & Sons Ltd.; 1944) P.41.

2 Op. cit; Pp. 151 - 2.

features relating to particular key-location. However Hennig's reference to "suitable harmonies.....sufficiently rich" relating to keys, is to beg the question of the nature of these recurring features. Mies considers "The Character of the Keys" from the generally accepted point of view of the keys as exerting emotional significance for Beethoven; but without moving onto the plane of these essentially psychological considerations, the recurrence of tonal tendencies on the level of technical, structural features, may be examined from the point of view of consistency relating to key-relation.

To broaden the scope of observation, Einstein, discussing tonality says:

"Every sensitive musician has no doubt observed that in the works of these men (Mozart, Bach, Haydn and Beethoven) particular types of melody and figuration are associated with particular keys". He gives some instances which he says are: "examples of a kind of idiosyncrasy that brings about with the choice of certain keys, the exclusion of certain types of melody and the preference for others"!

Concerning Beethoven, as has been suggested above, the key-location may well affect more factors than melody and "figuration". Whether idiosyncratic or evidence of a type of perception of which we have been unaware, tonality in Beethoven's music is of far-reaching importance, its significance possibly hitherto unplumbed.²

1 "Mozart: his character - his work" - Alfred Einstein (Cassell and Co.Ltd. 1946), translated by Arthur Mendel and Nathan Broder.

2 Concerning musical perception, reference may be made here to a recent study of one of the more vexed aspects. In his doctoral thesis, Doctor Jonathan Baggaley examined the relationship between musical response and colour association. (Colour and Musical Pitch thesis submitted for the degree of PhD in the University of Sheff. 1972). The overlap between Dr. Baggaley's research and my own led to various joint enterprises. It is our belief that only close association and co-operation between the musicologist and psychologist can facilitate a full understanding of the nature and significance of the perceptual aspect of music. An important factor which emerged in Dr. Baggaley's research is the drawing-up of a non-transposing "brightness curve" relating to musical key-location. However, how far there is a relationship between this psychological phenomenon and the specific significance of key-location in Beethoven's music awaits considerable further research in both fields. While the psychological aspects are of great interest, analysis of the music on the level of technical, structural considerations must precede any informed approach to them. Chapter V, Section 5.4 of Dr. Baggaley's thesis treats some aspects of the common ground between the two areas of research (Pp. 194-197 of the thesis).

More recently, William S. Newman has referred to "Beethoven's evident association of particular moods or styles with particular keys", again suggesting the existence of some hierarchy of tonal tendencies relating to key-location.¹ There are several examples of more specific instances, referring to cases in point, which have arrested the attention of commentators, throughout the recent Beethoven Companion.² In Chapter III (The Piano Music - I) Harold Truscott states:

"E^b is obviously the right key for the theme which forms the foundation of Op.35: It is in this key in each of its appearances in four different works" and "this awkwardness in writing results from the key used; the key is right and Beethoven is right in not sacrificing that key".

He is clearly convinced of the "rightness" of E^b, but he fails to attempt to account for this - the remark that E^b is the key of all four appearances of the theme is a lame evasion of the true question. A great deal of inaccuracy has affected comment upon the use of E^b in Beethoven's music; a particularly obvious failure to assess the true facts of the matter is given in the Introduction to the tonal-thematic analysis of E^b in the thesis below.⁴ To move from the Beethoven Companion, Martin Cooper, in commenting on the slow movement of the Ninth Symphony, noting the appearance of the opening theme in E^b, says:

"This variation suggests that the theme of E^b for wind music has as purely technical, practical an explanation as the choice of D or A for violin music".

¹ The Sonata in the Classic Era - William S. Newman (The Second Volume of A History of the Sonata Idea; The University of North Carolina Press, 1963). Chapter VI - Style and Form, P. 130.

² The Beethoven Companion - edited by Denis Arnold & Nigel Fortune (Faber & Faber 1971).

³ The "Prometheus" theme Variations, for Piano.

⁴ See P.239 et seq. of the thesis.

⁵ "Beethoven - The Last Decade 1817 - 1827" - Martin Cooper.
(cont.)

This statement does not take full account of the context of the occurrence of E^b in this movement, and makes no comparative reference to other contexts. The turn to E^b follows the restatement of the second theme in G, following a previous D statement, - all factors of note tonally, in a movement in B^b.¹ To pass over these, the tonal juxtaposition of G/E^b has been ignored. Also the subsequent return to the tonic, B^b (via E^b (e^b) C^b - B^b) is a characteristic tonal move; (the same sequence occurs in the Sixth Symphony slow movement, in B^b; and a similar move underpins the entire development of the first movement of the Fifth Piano Concerto, which begins in G, climaxes on C^b and returns to B^b as dominant). The tonal procedure in the Ninth Symphony is not explained by "purely technical and practical" requirements. The particularly strong subdominant tendency in B^b is also ignored in such an assessment.

Turning to other keys, and comments made in the Beethoven Companion, Leslie Orrey refers to the "sunny key of A" in the setting of Goethe's "Kennst du das Land" (1809), noting that this is also the key of Beethoven's Seventh Symphony (and of Mendelssohn's Italian Symphony).² He draws no conclusions; but one page later he comments on another parallel. Referring to the setting of Reissig's "Sehnsucht" (1815 - 16) he says a

"subtler comparison suggests itself, for in mood, key, tempo and rhythm, and to some extent in the curve of the vocal line, it so closely anticipates the last movement of the Piano Sonata Op.109 that one might almost imagine it to be a first draft for that theme."

There is an inherent implication in this statement, that the key-location affects the entire structure, rhythmically and melodically.

cont.)
 (London - Oxford University Press 1970). P.312, Footnote 2. For "theme of E^b" in the quotation given, presumably this is a misprint for "key of E^b", or else indicates the "practice of using E^b".

¹ Concerning the second theme, the thesis correlates this with other D treatment. (See page 200 of the thesis, and the discussion there).

² Section V·II - The Songs, Pp. 431 - 2.

Through out his contribution in the Companion¹ Nigel Fortune makes many allusions to matters relating to tonal tendencies; among them is the reference:

"the admittedly superficial resemblances between the G music just discussed² do seem to hint that one or two keys may have suggested to Beethoven at different times ideas linked by common characteristics".

This is a very guarded suggestion, but again he is aware of unexplained tonal consistency in Beethoven's music.³ In his preceding examination of the Piano Trio Op.97, he refers to the second group key of G in the first movement (the tonic is B \flat) as:

"a type of modulation which Beethoven increasingly prefers now to sharper, more 'black - and - white' dominant and subdominant relationships".

In thus making his comparisons along formal lines alone, he overlooks the number of instances of B \flat /G tonal juxtaposition in Beethoven's music, throughout his oeuvre, from very early works.⁴ Later,⁵ he refers to recurrent features characterising Opp. 14/1, 90 and 109, and says:

"So far I have been able to think of no easy explanation of this".

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- 1 Section III. 5 - The Chamber Music with Piano, Pp.197 - 241.
 - 2 The Fourth Piano Concerto (Op.58); the Archduke Trio (Op.97) and the last Sonata for Violin and Piano (Op.96).
 - 3 The question "or did the ideas prompt the keys?" is one which soon comes to mind in pondering on such recurrences. However, this is in the realm of psychological considerations, and in fact cannot be meaningful until the nature and the extent of tonal consistency in Beethoven's music have been established in terms of the technical analysis of the musical structure. Such correlation as there might be between the "ideas" and the keys, which results in technical and structural similarities in the music, originates as a psychological phenomenon and must be evaluated in psychological terms.
 - 4 Reference may again be made to the correlation of these instances as Appendix I, Pp.319-339.
 - 5 P. 256.

A change in the basic premise upon which we approach the analysis of tonal functioning in Beethoven's music opens the way to explanation of these factors, which are not explicable in conventional terms.

Similar remarks concerning the key of B^b have also been made. Robert Simpson, in his examination of the Op.18 Quartets, refers in considering No.6, to the suggestion that "it may instinctively be foreshadowing the enormous variety of Op. 130", - this "instinctive foreshadowing" is too speculative and imprecise for him to venture any explanation of just what this means, it seems! - but adds to this, "Op. 130 which oddly enough is in the same key". He seems vaguely baffled, but not unduly curious about this; Denis Matthews however, in discussing the cadenza to the first movement of the Second Piano Concerto (in B^b) states the matter somewhat more plainly:

"Had he any inkling at this time, as an acutely key-conscious composer, that B^b would be the venue of his two greatest fugal adventures.... ?" (He refers here to Op. 106 and Op. 133)¹

As these examples from different areas of Beethoven Studies show, many observations have been made, more or less indirectly, concerning recurrent tonal tendencies in his music. Generally, commentators have fought shy of tendering any explanation; the instances are cited, but left as "interesting", or "odd", or are couched in suitably defensive terms. Musicians, particularly musicologists are extremely reluctant at present to broach any aspect of music which threatens to involve speculative matters. Tonality in Beethoven's music has not been fully explored because, it seems likely, of this fear. Of course, it does lead directly to psychological considerations, but as this Introduction set out to show, the technical aspects of tonality can and indeed must be discovered before any attempt to deal with the other implications can possibly be made. The failure to realise that examination of tonal functioning is not immediately bound up with psychological factors, probably stems from the ingrained conventional approach to harmonic

¹ Musical Times, December 1970; Page 1206.

analysis. It has been tacitly assumed that we understand what is going on, technically, and so must inevitably become embroiled in speculation if we consider tonality further. The thesis seeks to show that this is not the true approach to the situation, but that our assessment of the technical processes apparent in the musical structure has been made on the basis of an erroneous conception of the nature of tonal functioning in Beethoven's music.

VI THE SCOPE OF THE THESIS

The preceding sections in this Introduction have considered various aspects of the functioning of tonality, particularly in Beethoven's music. As stated in the course of these considerations, tonality is a basic constituent, and affects musical structure and expression on many levels. This has never been denied, but the present approach suggests that a true understanding of the nature of this functioning must be founded on a change in the basic analytical premise adopted. Sections II - IV examined the approach generally adopted, and probed the scope of such a re-appraisal of the rôle of tonality in Beethoven's music.

Clearly, an exhaustive investigation of this must extend to analysis on all levels, and must also examine the more complicated matters of interrelationships and changes evident depending on whether a specific tonality is the basic key, or stands in some other contextual relationship with a different basic tonic, if indeed there are such changes.¹ The full examination of Beethoven's music adopting such an approach is of considerable proportions and complexity. Section VII below outlines the emergence of the approach adopted in this present, initial stage in the process of re-appraisal. The scope in the thesis is not primarily wide-ranging, and

¹ Some aspects of this "tonal interlinking" are treated in the course of the examination of the B^b/G relationship, Appendix I (Pp. 319-339).

is limited to examination of four major-key categories.¹ These are not however, treated in their entirety; that is to say, whole works or movements are nowhere fully analysed in the thesis. The four key-categories are C; G; D; E^b. E^b, D and C are the three keys most used in Beethoven's oeuvre, in a basic context (as overall key or key of a movement or number, including Bagatelles and Songs). The thesis examines each category in turn. In each main analytical section, the material examined is the opening theme of each movement in the relevant key, grouped according to context, as explained in section VII below. The aim of such an examination is to compile a "tonal - thematic complex" for each key, as evinced by the treatment evident on this basic level. An analysis of this kind must precede any meaningful assessment and comparison on the larger, structural levels. While this is the main concern of each tonal - thematic analysis, consideration does extend where relevant to factors not immediately involved in the opening thematic statement. The Introduction has indicated that tonality influences every level of Beethoven's music, and such expansion of the treatment within a tonal - thematic analysis will, it is hoped, contribute to the awareness of the far-reaching nature of particular tonal tendencies relating to specific keys, as identifiable on the basic level of the treatment of the opening "theme" or thematic paragraph, and as characterising tonal usage in each key, in distinct ways.

¹ Appendix II investigates one aspect of minor mode treatment - The "Second Group" Key in Movements in the Minor Mode. (Pp. 340-361).

VII THE PROCEDURE ADOPTED IN THE THESIS

The thesis approach has developed from close study of the main corpus of Beethoven's oeuvre. (The Werke ohne Opuszahl have not been examined except in a very few instances.) Denis Matthews has referred to Beethoven as an "acutely key-conscious composer", as mentioned above.¹ Beethoven's mastery in the handling of tonal relationships and structuring is unquestioned, but the detailed factors which bear out this sometimes intuited fact have remained largely unexplored. The thesis grew from such an intuition.

The intended scope of investigation was originally considerably less and the hope was to assess Beethoven's "musico-historical context" with respect to the rôle of tonality in his music. It soon became apparent however that the nature of tonal functioning in Beethoven's music could not be presumed and consequently that detailed examination of his music as a whole, as opposed to consideration of a particular genre of his oeuvre was prerequisite to such an assessment. Examination of Beethoven's music thus became the primary focus of investigation. It subsequently became necessary to reduce the immense scope which the examination of the rôle of tonality in Beethoven's music entails and to treat only a very small area in detail and on a basic level. The initial thematic treatment relating to the four major key-categories, C, G, D and E^b was taken as the most useful area to examine. The initial establishing of a tonality is of the utmost importance in Beethoven's music and examination of the opening thematic treatment reveals that it is structured by distinctive characteristics relative to the specific key-location, which differentiate the tonality and which are differentiable from the tonal-thematic characteristics relating to other keys. The opening thematic treatment is the main focus of the tonal-thematic analyses which comprise Part II of the thesis.

¹ See P. 21 above. The similar comments made by Newman, Dickinson and Einstein which are included in the Introduction are also indicative of the undoubted truth of this observation. Beethoven's sensitivity to key and to tonal structuring is widely and tacitly accepted as a basic fact, one of the constant factors in his compositional approach.

Even on this level some separation has to be made according to context. The themes in each key have been grouped according to whether the key is (a) the basic key of a work or (b) the key of a movement or number within a work in a different overall basic key. Where an instance might be included in either (a) or (b) it is included in one or other, for varying reasons. Thus this distinction is not rigid in every case. The reason for making it is to establish how far a consistent tonal-thematic complex is evident in relation to the key, when used in its most basic capacity. This can more readily be done by treating similar contexts together. The Group (b) examinations give evidence of a change in emphasis concerning the presence of factors making up the basic tonal-thematic complex, but not in kind. Different aspects of a recognisably consistent tonal-thematic complex are present in both the Group (a) and (b) contexts. These differences themselves vary from key to key, but a definite tonal-thematic complex of tendencies does emerge, despite the differing contextual requirements.

While this differentiation is of use within the present examination, it is essentially preparatory to more detailed and larger-scale examination of Beethoven's use of tonality.

Each key-category is treated similarly; an introduction dealing with the sectional relationships tabulated in Section II of Part I of the thesis precedes the Group (a) analysis. This is then summarised and followed by the Group (b) examination. A summary of the emerging tonal-thematic complex is in the case of C, D and E \flat followed by additional material. This correlates tendencies which characterise both the Group (a) and the Group (b) contexts in each key, demonstrating notable consistency with respect to tonal usage throughout Beethoven's composing life.

The thesis deals only with a very small although a basic aspect of the entire subject. The main concern is by demonstrating the functioning of tonally-related features in Beethoven's music, primarily in the area of the initial thematic treatment, to establish the relevance of the change in the premise governing the analysis of tonal procedures in the music which is advocated in this Introduction.

Section II, which comprises the remainder of Part I of the thesis, includes a list of the works which have been studied, and discusses aspects of the subject which are not dealt with in detail in the present enquiry but which are basic to the examination of the rôle of tonality in Beethoven's music.

SECTION II - SOME PRELIMINARY BASIC CONSIDERATIONS

Note on the material treated in Section II

List I, The Chronological List of Works Studied, follows the Kinsky-Halm catalogue¹. However, only those opus numbers which have been studied are included in the present catalogue of one hundred and twenty works. The text of the thesis occasionally refers to works not included in the following list, where it is wished to draw attention to particular tonal features. The Werke ohne Opuszahle are largely excluded.

The material following the catalogue (List I) becomes slightly selective again, investigating preferred tonal relationships on the larger structural level of sectional contrasts. Such a comparison evidently omits works such as overtures, but the resulting tables summarise the main tonal relationships on this sectional level, and enable comparison between the key-categories. (Only major-keys are considered). Discussion of this aspect of the subject follows the tabular material, prior to the main tonal-thematic examination of four major-key categories which comprises Part II of the thesis.

¹ Das Werk Beethovens : Thematisch-bibliographisches Verzeichnis. Munich 1955. - Georg Kinsky and Hans Halm.

LIST I - CHRONOLOGICAL LIST OF WORKS STUDIED

Pre-opus Piano Quartets	E \flat
	D
	C
Op. 3 String Trio	E \flat
Op. 103 Wind Octet	E \flat
WoO 25 Wind Sextet - Rondino	E \flat
Op. 1/1 Piano Trios	E \flat
1/2	G
1/3	c
Op. 87 Trio for 2 Oboes and Cor anglais	C
Op. 2/1 Piano Sonatas	f
2/2	A
2/3	C
Op. 19 Piano Concerto No. 2	B \flat
Op. 4 Op. 103 reworked for String Quintet	E \flat
Op. 25 Serenade for Flute, Violin and Viola	D
Op. 71 Wind Sextet	E \flat
Op. 16 Quintet for Piano and Wind (also Piano Quartet)	E \flat
Op. 5/1 Sonatas for 'Cello and Piano	F
5/2	g/G
Op. 49/2 One of Two "Leichte Sonaten" for Piano	G
Op. 7 Piano Sonata	E \flat
Op. 8 String Trio	D
Op. 9/1 String Trios	G
9/2	D
9/3	c
Op. 10/1 Piano Sonatas	c

Op.10/2	(Piano Sonatas)	F
10/3		D
Op.12/1	Sonatas for Violin and Piano	D
12/2		A
12/3		E ^b
Op. 15	Piano Concerto No. I	C
Op. 11	Trio for Clarinet, 'Cello and Piano	B ^b
Op.49/1	The second of two "Leichte Sonaten" for Piano	G/G
Op. 13	Piano Sonata	c
Op.14/1	Piano Sonatas	G
14/2		E
Op.18/1	String Quartets	F
18/2		G
18/3		D
18/4		c
18/5		A
18/6		B ^b
Op. 21	Symphony No. I	C
Op. 20	Septet	E ^b
Op. 22	Piano Sonata	B ^b
Op. 17	Sonata for Horn and Piano	F
Op. 37	Piano Concerto No. 3	c
Op. 43	Overture to the Ballet "Die Geschöpfe des Prometheus"	C
Op. 23	Sonata for Violin and Piano	a
Op. 24	" " "	F
Op. 26	Piano Sonata	A ^b
Op.27/1	" "	E ^b
Op. 29	String Quintet	C

Op.27/2	Piano Sonata	c [♯]
Op. 23	" "	D
Op.3I/I	Piano Sonatas	G
3I/2		d
3I/3		E [♭]
Op. 36	Symphony No. 2	D
Op.30/I	Sonatas for Violin and Piano	A
30/2		c
30/3		G
Op. 47	Sonata for Violin and Piano	A
Op. 55	Symphony No. 3	E [♭]
Op. 56	Triple Concerto	C
Op. 53	Piano Sonata	C
Op. 54	" "	F
Op. 57	" "	f
Op. 72b	Opera "Fidelio" ¹	
Op. 58	Piano Concerto No. 4	G
Op. 72a	Overture "Leonora" No. 3	C
Op. 60	Symphony No. 4	B [♭]
Op. 6I	Violin Concerto	D
Op.59/I	String Quartets	F
59/2		e
59/3		C
Op. 62	Overture to "Coriolan"	c

¹ The final version was completed in 1814

Op. 36	Mass in C	C
Op. 67	Symphony No. 5	c
Op. 68	Symphony No. 6	F
Op. 69	Sonata for 'Cello and Piano	A
Op. 70/I	Piano Trios	D
70/2		E ^b
Op. 73	Piano Concerto No. 5	E ^b
Op. 74	String Quartet	E ^b
Op. 78	Piano Sonata	F [#]
Op. 79	" "	G
Op. 81a	" "	E ^b
Op. 84	Overture to "Egmont"	f
Op. 95	String Quartet	f
Op. 83	Three Goethe Songs	E
		b
		F
Op. 97	Piano Trio	B ^b
Op. II3	Overture to "The Ruins of Athens"	G
Op. II7	Overture to "King Stephen"	E ^b
Op. 92	Symphony No. 7	A
Op. 93	Symphony No. 8	F
Op. 96	Sonata for Violin and Piano	G
Op. 90	Piano Sonata	e/E
Op. II5	Overture "Namensfeier"	C
Op. I02/I	Sonatas for 'Cello and Piano	C
I02/2		D
Op. 98	Song - cycle "An die ferne Geliebte"	E ^b
Op. I0I	Piano Sonata	A

Op. 106	Piano Sonata	B \flat
Op. 123	Missa Solemnis	D
Op. 109	Piano Sonata	E
Op. 119	Eleven Bagatelles	
Op. 110	Piano Sonata	A \flat
Op. 111	" "	c
Op. 127	String Quartet	E \flat
Op. 124	Overture "The Consecration of the House	C
Op. 125	Symphony No. 9	d
Op. 126	Six Bagatelles	
Op. 132	String Quartet	a
Op. {130	String Quartet ¹	B \flat
133	Grosse Fuge	B \flat
Op. 131	String Quartet	c
Op. 135	" "	F

¹ The second finale was composed after Op. 135

LIST II - WORKS LISTED IN TONAL CATEGORIES, WITH THEIR SUBSIDIARY

KEYS

Works in C

I Pre-Op. Piano Quartet	(i) C (ii) F (iii) C
2 Op. 2/3 Piano Sonata	(i) C (ii) E (iii) C:a (iv) C
3 Op. 15 Piano Concerto No.I	(i) C (ii) A ^b (iii) C
4 Op. 87 Trio (2 Oboes & Cor anglais)	(i) C (ii) F (iii) C:C (iv) C
5 Op. 21 Symphony No.I	(i) C (ii) F (iii) C:C (iv) C
6 Op.II9 Bagatelles	No.2 No.7 No.8
7 Op. 29 String Quartet	(i) C (ii) F (iii) C:F (iv) C
8 Op. 53 Piano Sonata	(i) C (ii) F→(iii) C
9 Op. 56 Triple Concerto	(i) C (ii) A ^b →(iii) C
10 Op. 59/3 String Quartet	(i) C (ii) a (iii) C:F→(iv) C
11 Op. 72a Overture Leonora No.3	
12 Op. 86 Mass in C	Kyrie C:E:C Gloria C Credo C Sanctus A Benedictus F:A - (Osanna II) Agnus Dei c:C
13 Op.II5 Overture "Namensfeier"	
14 Op.I02/I 'Cello/Piano Sonata	(i)(C):a (ii)→(V): C
15 Op.II4 Overture "Consecration of the House"	
16 Op. 72b Finale to "Fidelio"	C : A : F : C

Works in c

I Op. I/3 Piano Trio	(i) c (ii) E ^b (iii)c:C (iv) c
2 Op. 9/3 String Trio	(i) c (ii) C (iii)c:G (iv) c
3 Op. 10/I Piano Sonata	(i) c (ii) A ^b (iii)c
4 Op. 13 " "	(i) c (ii) A ^b (iii)c
5 Op. 18/4 String Quartet	(i) c (ii) C (iii)c:A ^b (iv) c
6 Op. 37 Piano Concerto No.3	(i) c (ii) E (iii)c
7 Op.II9 Bagatelles	No.5

8 Op. 30/2	Violin/Piano Sonata	(i) c (ii) A ^b (iii)C:C (iv) c
9 Op. 62	Overture to "Coriolan"	
10 Op. 67	Symphony No.5	(i) c (ii) A ^b (iii)c:C: (iv) C
11 Op. 80	Choral fantasy	c : C
12 Op.111	Piano Sonata	(i) c (ii) C
13 Op. 72b	No.2	c : C

Works in G

1 Op. I/2	Piano Trio	(i) G (ii) E (iii)G:b (iv) G
2 Op. 49/2	Piano Sonata	(i) G (ii) G
3 Op. 9/I	String Trio	(i) G (ii) E (iii)G:C (iv) G
4 Op. 14/2	Piano Sonata	(i) G (ii) C (iii)G
5 Op. 18/2	String Quartet	(i) G (ii) C:F:C (iii)G:C (iv) G
6 Op.119	Bagatelles	No.6
7 Op. 30/3	Violin/Piano Sonata	(i) G (ii) E ^b (iii) G
8 Op. 31/I	Piano Sonata	(i) G (ii) C (iii) G
9 Op. 58	Piano Concerto No.4	(i) G (ii) e (iii) G
10 Op. 79	Piano Sonata	(i) G (ii) g (iii) G
11 Op.113	Overture "The Ruins of Athens"	
12 Op. 96	Violin/Piano Sonata	(i) G (ii) E ^b (iii)g:E ^b (iv) G
13 Op.126	Bagatelles	No.1 No.5

Works in g

1 Op. 5/2	'Cello/Piano Sonata	(i) g (ii) G
2 Op. 49/I	Piano Sonata	(i) g (ii) G
3 Op.119	Bagatelles	No.1
4 Op.126	"	No.2

Works in D

I Pre-Op.	Piano Quartet	(i) D (ii) f [#] (iii) D
2 Op.	8 Serenade-String Trio	(i) D (ii) D (iii) D:G (iv)d/D (v) F (vi) D (vii) D
3 Op.	25 Serenade-Flute, Viola and Violin Trio	(i) D (ii)DDG (iii) d (iv) G (v) D (vi)→V:D
4 Op.	9/2String Trio	(i) D (ii) d (iii)D:b (iv) D
5 Op.	I2/IIViolin/Piano Sonata	(i) D (ii) A (iii) D
6 Op.	I0/3Piano Sonata	(i) D (ii) d (iii)D:G (iv) D
7 Op.	I8/3String Quartet	(i) D (ii) B ^b (iii)D:d (iv) D
8 Op.	II9 Bagatelles	No.3
9 Op.	23 Piano Sonata	(i) D (ii) d (iii)D:b (iv) D
10 Op.	36 Symphony No.2	(i) D (ii) A (iii)D:D (iv) D
11 Op.	6I Violin Concerto	(i) D (ii) G (iii) D
12 Op.	70/II Piano Trio	(i) D (ii) d (iii) D
13 Op.	76 Piano Variations	
14 Op.	I02/2'Cello/Piano Sonata	(i) D (ii) d:D:d:→V → (iii) D
15 Op.	I23 Missa Solemnis	Kyrie D : Gloria D : Credo B ^b : Sanctus D : Benedictus G : Agnus Dei b-D
16 Op.	72 b Fidelio	No.7 : d/D No.I4 D

Works in d

I Op.	3I/2 Piano Sonata	(i) d (ii) B ^b (iii) d
2 Op.	72b Fidelio	No.7 - d/D
3 Op.	I25 Symphony No.9	(i) d (ii)d:D (iii)B ^b (iv)(d)→D

Works in A

I Op. 2/2 Piano Sonata	(i) A (ii) D (iii)A:a (iv) A
2 Op. I2/2 Violin/Piano Sonata	(i) A (ii) a (iii) A
3 Op. I8/5 String Quartet	(i) A (ii)A:A (iii) D (iv) A
4 Op.II9 Bagatelles	No.4 No.I0
5 Op. 30/I Violin/Piano Sonata	(i) A (ii) D (iii) A
6 Op. 47 " " "	(i) A a (ii) F (iii) A
7 Op. 69 'Cello/Piano Sonata	(i) A (ii)a:A (iii)E→A
8 Op. 92 Symphony No.7	(i) A (ii) a (iii)F:D (iv) A
9 Op. 72b Fidelio	No.I No.8 No.I3

Works in a

I Op. 23 Violin/Piano Sonata	(i) a (ii) A (iii) a
2 Op.II9 Bagatelles	No.9
3 Op.I32 String Quartet	(i) a (ii)A:A (iii)F Lydian/D (iv) a

Works in E

I Op. I4/I Piano Sonata	(i) E (ii)e:C (iii) E
2 Op.I09 " "	(i) E (ii) e (iii) E
3 Op. 72b Overture to "Fidelio"	

Works in e

I Op. 59/2 String Quartet	(i) e (ii) E (iii)e:E (iv)(C)e
2 Op. 90 Piano Sonata	(i) e (ii) E

Works in b

I Op.I26 Bagatelles	No.4 b/B
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Works in F[#]

I Op. 78 Piano Sonata	(i) F [#] (ii) F [#]
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Works in c[#]

I Op. 27/2 Piano Sonata

(i) c[#] (ii) D^b/C[#] (iii) c[#]

2 Op. I3I String Quartet

(i) c[#] (ii) D (iii) → b - (f) → VA
(iv) A (v) E (vi) g[#] (vii) c[#]

Works in A^b

I Op. 26 Piano Sonata

(i) A^b (ii) A^b/D^b (iii) a^b (iv) A^b

2 Op. II0 " "

(i) A^b (ii) f/D^b → Vb^b → (iii) a^b → (iv) A^b

Works in E^b

I Pre-Op. Piano Quartet

(i) E^b (ii) E^b

2 Op. 8Ib Wind Sextet

(i) E^b (ii) A^b (iii) E^b

3 Op. I03 Wind Octet

(i) E^b (ii) B^b (iii) E^b:E^b (iv) E^b

3a Op. 4 String Quintet after Op. I03

4 Op. I/I Piano Trio

(i) E^b (ii) A^b (iii) E^b:A^b (iv) E^b

5 Op. 3 String Trio

(i) E^b (ii) B^b (iii) E^b:A^b (iv) A^b
(v) E^b/c (vi) E^b

6 Op. 7 Piano Sonata

(i) E^b (ii) C (iii) E^b:e^b (iv) E^b

7 Op. I6 { Quintet for Piano and wind

(i) E^b (ii) B^b (iii) E^b

{ Piano Quartet

8 Op. 7I Wind Sextet

(i) E^b (ii) B^b (iii) E^b:E^b (iv) E^b

9 Op. I2/3 Violin/Piano Sonata

(i) E^b (ii) C (iii) E^b

10 Op. 20 Septet

(i) E^b (ii) A^b (iii) E^b:E^b (iv) B^b
(v) E^b:E^b (vi) E^b

11 Op. 27/I Piano Sonata

E^b · C · E^b → c → G: A^b → E^b

12 Op. 3I/3 " "

(i) E^b (ii) A^b (iii) E^b:E^b (iv) E^b

13 Op. 55 Symphony No. 3

(i) E^b (ii) c (iii) E^b:E^b (iv) E^b

14 Op. 70/2 Piano Trio

(i) E^b (ii) C:c (iii) A^b (iv) E^b

15 Op. 73 Piano Concerto No. 5

(i) E^b (ii) C^b (iii) E^b

16 Op. 74 String Quartet

(i) E^b (ii) A^b (iii) c:C (iv) E^b

17 Op. 8Ia Piano Sonata

(i) E^b (ii) c : (f) → (iii) E^b

18 Op. 98	Song-cycle "An die ferne Geliebte"	No.1: E ^b No.2: G No.3: A ^b : a ^b No.4: A ^b No.5: C No.6: E ^b
19 Op.II7	Overture to "King Stephen"	
20 Op.I26	Bagatelles	No.3 No.6
21 Op.I27	String Quartet	(i) E ^b (ii) A ^b (iii)E ^b :e ^b (iv) E ^b

Works in B^b

1 Op. 19	Piano Concerto No.2	(i) B ^b (ii) E ^b (iii) B ^b
2 Op. 11	Trio for Piano/Clarinet 'Cello	(i) B ^b (ii) E ^b (iii) B ^b
3 Op. 18/6	String Quartet	(i) B ^b (ii) E ^b (iii) B ^b :B ^b (iv) B ^b
4 Op. 22	Piano Sonata	(i) B ^b (ii) E ^b (iii) B ^b :g (iv) B ^b
5 Op. 60	Symphony No.4	(i) B ^b (ii) E ^b (iii) B ^b :B ^b (iv) B ^b
6 Op. 97	Piano Trio	(i) B ^b (ii)B ^b :b ^b (iii) D (iv)(E ^b)B ^b
7 Op.I06	Piano Sonata	(i) B ^b (ii) f [#] (iii) B ^b :b ^b (iv) B ^b
8 Op.II9	Bagatelles	No.II
9 Op.I30	String Quartet	(i) B ^b (ii)b ^b :B ^b (iii) D ^b (iv) G (v) E ^b (vi)Op.I33- Grosse Fuge B ^b 2nd finale - B ^b
10 Op. 72b	Fidelio	No.4 No.6 No.I0

Works in F

1 Op. 5/I	'Cello/Piano Sonata	(i) F (ii) F
2 Op. 10/2	Piano Sonata	(i) F (ii)f:D ^b (iii) F
3 Op. 18/I	String Quartet	(i) F (ii) d (iii)F :F (iv) F
4 Op. 17	Horn/Piano Sonata	(i) F (ii) f→(iii) F
5 Op. 24	Violin/Piano Sonata	(i) F (ii) B ^b (iii)F :F (iv) F
6 Op. 54	Piano Sonata	(i) F (ii) F
7 Op. 59/I	String Quartet	(i) F (ii) B ^b (iii) f (iv) F
8 Op. 68	Symphony No. 6	(i) F (ii) B ^b (iii) F (iv) f→ (v) F
9 Op. 93	Symphony No.8	(i) F (ii) B ^b (iii)F :F (iv) F
10 Op.I35	String Quartet	(i) F (ii)F(GA(iii) D ^b (iv)(f)F

MISSING

PRINT

II Op. 72b Fidelio

No.5 No.II f/F

Works in f

I Op. 2/I Piano Sonata

(i) f (ii) F (iii) A^b:F (iv) f

2 Op. 57 " "

(i) f (ii) D^b→(iii)f

3 Op. 95 String Quartet

(i) f (ii) D (iii)f (G^b/D
(iv)f/

4 Op. 84 Overture to "Egmont"

5 Op. 72b Fidelio

No.II f/F

LIST III - CUMULATIVE LIST OF SECTIONAL RELATIONSHIPS IN
TONAL CATEGORIES¹

Works in C

- I I : IV : I
- 2 I : III : I/vi : I
- 3 I : ^bVI : I
- 4 I : IV : I/I : I
- 5 I : IV : I/I : I
- 7 I : IV : I/IV : I
- 8 I : IV → : I
- 9 I : ^bVI : I
- I0 I : vi : I/IV → : I
- I2 I/III/I : I : I : VI : IV/VI : i/I
- I4 I/vi : I
- I6 I/VI/IV/I

Works in c

- I i : III : i/I : i
- 2 i : I : i/I : i
- 3 i : ^bVI : i
- 4 i : ^bVI : i
- 5 i : I : i/^bVI : i
- 6 i : ^bIII : i
- 8 i : ^bVI : I/I : i
- I0 i : ^bVI : i/I/^b : I
- I2 i : I
- I3 i/I

¹ This list omits such works as Overtures, Bagatelles, and Songs. The numbers refer to each work as numbered in list II.

Works in G

1 I : VI : I/iii : I
 2 I : I
 3 I : VI : I/IV : I
 4 I : IV : I
 5 I : IV/bVII/IV : I/IV : I
 7 I : bVI : I
 8 I : IV : I
 9 I : vi : I
 I0 I : i : I
 I2 I : bVI : i/bVI : I

Works in g

1 i : I
 2 i : I

Works in D

1 I : iii : I
 2 I : I : I/IV : i/I : bIII : I : I
 3 I : I/I/IV : i : IV : I : I
 4 I : i : I/vi : I
 5 I : V : I
 6 I : i : I/IV : I
 7 I : bVI : I/i : I
 9 I : i : I/vi : I
 I0 I : V : I/I : I
 II I : IV : I
 I2 I : i : I
 I4 I : i/I/i : I
 I5 I : I : bVI : I : IV : vi/I

Works in d

1 i : bVI : i
 3 i : i/I : bVI : (i)->/I

Works in A

1 I : IV : I/i : i
 2 I : i : I
 3 I : I/I : IV : I
 5 I : IV : I
 6 (I)i : bVI : I
 7 I : i/I : V->I
 8 I : i : bVI/IV : I

Works in a

1 i : I : i
 3 i : I/I : (bVI)/IV : i

Works in E

1 I : i/bVI : I
 2 I : i : I

Works in e

1 i : I : i/I : (bVI)/i
 2 i : I

Works in c#

1 i : I : i
 2 i : bII : ->bvii->(iv)->bVI :
 III: v : i

Works in Ab

1 I : I/IV : i : I
 2 I : vi/IV->i(V)-> : i : I
 (- ii(V)=the dominant of b)

Works in E \flat

- 1 I : I
- 2 I : IV : I
- 3 I : V : I/I : I
- 4 I : IV : I/IV : I
- 5 I : V : I/IV : IV : I/vi : I
- 6 I : VI : I/i : I
- 7 I : V : I
- 8 I : V : I/I : I
- 9 I : VI : I
- 10 I : IV : I/I : V : I/I : I
- 11 I/VI/I \rightarrow vi \rightarrow IV \rightarrow I
- 12 I : IV : I/I : I
- 13 I : vi : I/I : I
- 14 I : VI/vi : IV : I
- 15 I : \flat VI : I
- 16 I : IV : vi/VI : I
- 18 I : III : IV : iv : IV : VI : I
- 20 I : IV : I/i : I

Works in B \flat

- 1 I : IV : I
- 2 I : IV : I
- 3 I : IV : I/I : I
- 4 I : IV : I/vi : I
- 5 I : IV : I/I : I
- 6 I : I/i : III : (IV)I
- 7 I : ~~f~~v : I/i : I
- 9 I : i/i : \flat III : VI : IV : I

Works in F

- 1 I : I
- 2 I : i/ \flat VI : I
- 3 I : vi : I/I : I
- 4 I : i \rightarrow I
- 5 I : IV : I/I : I
- 6 I : I
- 7 I : IV : i : I
- 8 I : IV : I : i \rightarrow : I
- 9 I : IV : I/I : I
- 10 I : I(II)III : \flat VI : (i)I

Works in f

- 1 i : I : III/I : i
- 2 i : \flat VI : i
- 3 i : \flat VI : i (\flat II/ \flat VI) : i/I

LIST IV ← INCIDENCE OF PARTICULAR DEGREE-RELATIONSHIPS FOR EACH MAJOR KEY (the works are grouped in this list by reference to the numbering as in List III)

<u>KEY</u>	<u>INCIDENCE OF</u>	<u>TOTAL</u>	<u>KEY</u>	<u>INCIDENCE OF</u>	<u>TOTAL</u>
	i			v	
C	I2	I	C	/	/
G	I0:I2	2	G	/	/
D	2:3:4:6:7:9:I2:I4x2 ¹	9	D	5:I0	2
A	I:2:6:7:8	5	A	7	I
E	I:2	2	E	/	/
A ^b	I:2	2	A ^b	/	/
E ^b	I:6	2	E ^b	3:5:7:8:I0	5
B ^b	7:9x2	3	B ^b	/	/
F	2:7:8:I0	4	F	/	/
	IV			vi	
C	I:4:5:7:8:I0:I2:I6	8	C	2:I0:I4	3
G	3:4:5x2:8	5	G	9	I
D	2:3x2:6:II:I5	6	D	4:9:I5	3
A	I:3:5:8	4	A	/	/
E	/	/	E	/	/
A ^b	I:2	2	A ^b	2	I
E ^b	2:4x2:5x2:I0:II:I2: I4:I6:I8x2:20	I3	E ^b	5:II:I3:I4:I6:I7	6
B ^b	I:2:3:4:5:9	6	B ^b	4	I
F	5:7:8:9	4	F	3	I
	VI			vi	
C	3:9	2	C	I2x2:I6	3
G	9:I2x2	3	G	I:3	2
D	7:I5	2	D	/	/
A	6:8	2	A	/	/
E	I	I	E	/	/
A ^b	/	/	A ^b	/	/
E ^b	I5	I	E ^b	6:9:II:I4:I6:I8:	6
B ^b	/	/	B ^b	I	I
F	2:I0	2	F	/	/

¹ Where there is more than one incidence of the same sectional key in a work, the number of occurrences is given as here (I4x2) and the total adjusted accordingly.

<u>KEY</u>	<u>INCIDENCE OF</u>	<u>TOTAL</u>	<u>KEY</u>	<u>INCIDENCE OF</u>	<u>TOTAL</u>
	III			III	
C	2:12	2	C	/	/
G	/	/	G	/	/
D	/	/	D	2	I
A	/	/	A	/	/
E	/	/	E	/	/
A _b	/	/	A _b	/	/
E _b	18	I	E _b	/	/
B _b	6	I	B _b	9	I
F	10	I	F	/	/

TABLE I - LIST IV EXPRESSED IN TABULAR FORM

Two additional factors are also included:

- (i) The number of sections in each tonal category in List III
 - (ii) The number of sections in the tonic key (I) in each category.
- (Not all sectional relationships are accounted for by this compilation, although the majority of sections do come within the relationships tabulated here. This leads to some missing numbers in the sum totals given both here and in Table II.)

KEY	No. OF SECTIONS IN LIST III	INCIDENCE OF								
		I	i	V	IV	vi	bVI	VI	III	bIII
C	54	34	I	/	8	3	2	3	2	/
G	39	23	2	/	5	I	3	2	/	/
D	66	4I	9	2	6	3	2	/	/	I
A	28	I7	5	I	4	/	2	/	/	/
E	7	4	2	/	/	/	I	/	/	/
A ^b	II	5	2	/	2	I	/	/	/	/
E ^b	90	55	2	5	I3	6	I	6	I	/
B ^b	38	23	3	/	6	I	/	I	I	I
F	4I	28	4	/	4	I	2	/	I	/

TABLE II - TABLE I EXPRESSED IN APPROXIMATE % TERMS

In this table, approximations are inevitable, but percentage values afford ready comparison despite the difficulties of accuracy.

KEY	No. OF SECTIONS IN LIST III	INCIDENCE OF								
		I	i	V	IV	vi	bVI	VI	III	bIII
C	54	66%	2%	/	15%	5.5%	3%	5.5%	3%	/
G	39	61%	5%	/	12%	2.5%	8%	5%	/	/
D	66	66%	13.6%	3%	9%	4.5%	3%	/	/	1.5%
A	28	60.6%	18%	3.5%	14%	/	7%	/	/	/
E	7	57%	28.5%	/	/	/	14%	/	/	/
A ^b	II	45.5%	18%	/	18%	9%	/	/	/	/
E ^b	90	61%	2%	5.5%	14.5%	6.6%	1%	6.6%	1%	/
B ^b	38	60.5%	8%	/	16%	2.6%	/	2.6%	2.6%	2.6%
F	4I	70%	10%	/	10%	2.5%	5%	/	/	/

Prior to Table III some relevant overall statistics are given under (a) - (c).

(a) Number of works in the main catalogue. (This does not include the individual numbers from works such as Bagatelles.)

KEY

C	I5
G	II + 2 works with 2 movements, g/G (Op. 49/I and Op.5/2)
D	I3
A	8
E	2 + I work with 2 movements, e/E (Op. 90)
A \flat	2
E \flat	I9 (omitting Op.4 and the Op.I6 Piano Quartet)
B \flat	8 (+ Op.I33)
F	I0

(b) Number of works included in List III = Number of Sections

KEY

C	I2	54
G	I0	39
D	I3	66
A	7	28
E	2	7
A \flat	2	II
E \flat	I9	90
B \flat	8	38
F	I0	4I

(c) Tonal categories given in order of volume of sections in List III. This material relates to the occurrence of each key as the basic tonality of a work. It in no way seeks to investigate the overall volume of the incidence of any particular key, irrespective of the basic tonality in question.

KEY Number of Sections

E \flat	90
D	66
C	54
F	4I
G	39
B \flat	38
A	28
A \flat	II
E	7

TABLE III - TABLE II RE-EXPRESSED IN ORDER OF THE VOLUME OF SECTIONS RELEVANT TO THIS ANALYSIS

<u>KEY</u>	<u>No. OF SECTIONS</u>	<u>INCIDENCE OF</u>								
		I	i	V	IV	vi	bVI	VI	III	bIII
E ^b	90	61%	2%	5.5%	14.5%	6.6%	1%	6.6%	1%	/
D	66	66%	13.6%	3%	9%	4.5%	3%	/	/	1.5%
C	54	66%	2%	/	15%	5.5%	3%	5.5%	3%	/
F	41	70%	10%	/	10%	2.5%	5%	/	/	/
G	39	61%	5%	/	12%	2.5%	8%	5%	/	/
B ^b	38	60.5%	8%	/	16%	2.6%	/	2.6%	2.6%	2.6%
A	28	60.6%	18%	3.5%	14%	/	7%	/	/	/
A ^b	11	45.5%	18%	/	18%	9%	/	/	/	/
E	7	57%	28.5%	/	/	/	14%	/	/	/

THE BASIC KEY CATEGORIES
MAJOR KEYS

The examination of the rôle of tonality in music involves considerations on various levels, reflecting the far-reaching influence which tonality exerts. This influence is as was discussed in the Introduction of a particular kind in Beethoven's music, and relates to specific key-location rather than to relationships viewed solely in terms of conventional harmonic analysis, which does not differentiate between keys other than by comparing degree-relationships.¹

At the height of the "Sonata Conflict" era, which Beethoven brought to its zenith, tonality functions on a large-scale level as a structural element, basic to the overall musical 'argument'; tonality is also a vehicle of contrast and is the foundation of the resolution of the 'Sonata Conflict', the basis upon which thematic resolution is structured.² On the larger plane of an entire work, tonality bridges the different movements, again contributing to contrast of a particular kind, and finally binding the whole. Tonality underpins the musical progression of ideas; it characterises particular areas, both in terms of the establishing of a prevailing 'key-area', and of nuance within that key-area.

Tonality, while it is fundamental to music of the "Classic Era" in particular is not in Beethoven's music a stereotyped process in its handling. Although several writers have commented

1 Sections II - IV of the Introduction, Pp.6 - 16 deal more fully with this basic difference in approach.

2 "Thematic resolution" concerns factors such as the tonally resolved and complete statement of thematic material, often heard for the first time in a Coda in Beethoven's music. It is however also evident in recapitulation treatment, where fragments from different group contexts are brought into relationship. Such treatment, often not consciously identified by the listener, is part of the overall resolution of the 'Sonata Conflict'; in the Coda area, thematic combinations are more easily recognised. Thematic resolution is built upon tonality, but affords fascinating study in itself.

on surprising recurrences relating to certain keys in Beethoven's music, as was indicated in the Introduction,¹ the conception of a tonal category as an entity with peculiarities not characterising other categories has not been advocated.

Before proceeding to consideration of four specific key-categories (C; G; D; E^b), some observations relating to several key-categories, may be made.

In the preceding lists, List I compiles chronologically, all the works included in this study. List II separates out the works from List I into the basic key-categories, the major-and minor-key works of each tonality listed successively. In the tabular material following the lists, only the major keys (the nine most used) are considered. Evidently, the volume of works in the minor tonality is considerably smaller than that of works in the major tonality. The one considerable category of works in the minor is that of c. Beethoven's "c minor" is extremely familiar, but the fact of the particular key-category, in comparison with the incidence of other minor tonality works in Beethoven's music has not, it seems, caused particular comment.

List III is based on the preceding list, and comprises those works which are in more than one movement, from each category, for purposes of comparison of the key-contrasts used between movements; or between sections, as with scherzo/trio movements. For the purposes of this compilation, each segment of the works which can be considered as an area of potential key-contrast is referred to as a "section". Thus a whole sonata form movement becomes, for the purposes of general comparison here, a "section"; and the trio section of a minuet and trio movement is equally regarded as a "section". List III then, as stated in parenthesis in its heading, omits works such as overtures, bagatelles, and other one-sectioned items. The aim of the tabular compilation is to compare sectional relationships, from a basic tonic, and so works such as variations are not relevant to this consideration. Thus, while the tables do not deal in any exhaustive way with the entire music, it is possible to make some observations concerning

¹ Section V - Some unexplained observations; P. 16 et seq.

the basic choice of key, and the preferred sectional relationships apparent.

List IV and Table I adduce information from List III and are preparatory to Table II, the sectional key-relationships, expressed in percentage terms. Table III includes additional statistical information, and re-expresses Table II in order, according to the volume of sections relevant to the present considerations. This largely reflects the incidence of the various keys used as basic tonic, throughout Beethoven's oeuvre.¹

The key of E \flat is the key category of the largest volume of compositions. It has been commented by Marion Scott, in considering the early music of Beethoven and its preponderance of E \flat that "E \flat was by far the best key in which to draw together his disparate teams of wind instruments".² However, this does not take account of the works which do not include any wind; of the twenty-one works in List II, fourteen include no wind whatsoever.³ The choice of E \flat must be significant in itself, irrespective of wind requirements. Account must be taken of the basic choice of key in examining Beethoven's use of tonality. Thus, list (a) is significant. Table II also demonstrates some of the basic differences which relate to the key-category, once selected, in the context of the overall sectional key-relationships characterising a work.

The percentage calculations are inevitably not precise, but nonetheless are indicative of deviations which exist on this basic, general level, between the different key-categories. Where there is only a low number of sections under consideration, the percentage of relationships inevitably increases, in such a compilation of material as this. Similarly a category such as E \flat , with 90

¹ Compare lists (a) and (c) preceding Table III P. 45.

² Marion M. Scott - "Beethoven" (The Master Musicians Series; Editor Sir Jack Westrup.) J. M. Dent & Sons Ltd., 1934 (Reprinted 1960) This is discussed in greater detail in the E \flat tonal-thematic examination, P. 239 below.

³ In addition to these fourteen, Op.4 (No.3a in List II) and the Piano Quartet version of Op.16 also include no wind.

sections offers considerably greater scope for sectional key-contrast than does E, with 7 sections. However, the fact of the selection of the basic key-category must be stressed again. Accepting that this selection is itself significant, the tonal distribution of key-contrasting sections reveals interesting differences.

The first vertical column of Table III is the % incidence of the tonic key (major). It will readily be seen that the majority of categories have a ratio in the region of two-thirds of the sections in the tonic (major) key. F is noticeably higher in instances of the tonic key, G is lower. While E and A^b cannot be regarded as statistically very significant owing to the low number of works composed in these keys, the keys G and F have a significant number of sections; thus the tendency to sectional use of the tonic seems stronger in F than in most of the key-categories, and slightly weaker in G, where a two-thirds occurrence is the norm. Even such a general and surface comparison already yields evidence of a particular feature, and of apparent deviations tonally.

A further interesting observation which emerges in connection with Table III relates to the column listing incidence of the dominant as a sectional key. Although the percentage is nowhere high, there is no dominant sectional relationship pertaining to C, F, or B^b (to ignore E and A^b for the present). E^b has the highest incidence. This is significant as it is not solely the result of the high proportion of works in E^b. This is shown by comparison with D, also a key-category much used by Beethoven; however, the proportion of its dominant preference in sectional relationships is comparable with that in A, a key used considerably less as basic tonic. In volume of works, D is closer to E^b than to A, but the dominant preference in D is similar to that in A. This suggests that key-location is of significance, irrespective of the frequency with which a particular key is selected as tonic.

The subdominant (column II) is generally between 12% and 16%; however, D and F are notably lower. The case of D is possibly the more striking in view of its large section-count. Both E^b and C have a considerably higher %. One counterbalancing fact is evident however; F and D both have a notably higher incidence of the tonic minor as a sectionally-contrasting key, than E^b, C and G. In the lower section-counts, the tonic minor figures largely;

this is most significant in A, where the proportions of tonic and subdominant are average for the table. Again, a distinct tonal tendency emerges, on the level of basic key-selection.

The relative minor as a sectional key-contrast is not strong; E^b has the highest incidence again (ignoring A^b), whose percentage represents one section in a total of eleven). One relationship which occurs in only four categories is that of the major submediant; the keys in which this relationship occurs are E^b, C, G and B^b. The section-counts are not high but nonetheless, there is no parallel in the remaining five keys. D, which is second in order to E^b, has no instance of the major submediant, sectionally. However, a key which in other contexts is characterised by this relationship is F. It is cited here both to indicate the existence of different planes of tonal functioning, and also to demonstrate how conventional analysis fails to identify such particular relationships. Examination of F as a tonal category indicates a distinctive relationship between F and D; (this juxtaposition is not confined to F contexts however). An instance in a work in F is the Piano Sonata Op.10/2, where the recapitulation of the first movement begins in D. (The motivic recapitulation is referred to here; the tonal reorientation is delayed). The last movement of the same sonata also focuses notably in D, prior to moving to the dominant preparation.

Conventional analysis has failed to highlight this relationship (F/D) in the present table. One of the works included in the list of works in A, is the Seventh Symphony. The third movement of this work is in F, the key of the flattened sixth. The trio section is in D, giving rise to a direct F/D juxtaposition. Examination of the proportions of basic key-selection and of sectional key-relationships, as compiled in Table III, demonstrates that particular references, apparently relating to certain tonal categories, are functioning in Beethoven's music. This is only the first stage in a full appreciation of the tonal peculiarities of Beethoven's style, but a necessary preliminary consideration, whose significance - the relevance and importance of an initial basic choice of key, and of sectional key-contrast - is too often overlooked.

Within the sections, a differing tonal "hierarchy" is in operation. This will be more closely considered in examination of the separate key-categories in relation to E^b, C, G and D.

Certain relationships, which may not figure on the level of sectional contrasts are nonetheless more characteristic of certain keys than of others; for instance F as a basic key-category does not have a notably strong incidence of its relative minor (d) sectionally. However, an F/d "proximity" is everywhere evident in Beethoven's music, more prominently than the parallel C/a, G/e, B^b/g, D/b relationships. There is a particular D/b tendency, but it is not the same as its conventional parallels, in its tonal usage. Similarly C^b in E^b is a far stronger tonal tendency within that key than is the case in other keys. There is a strong tendency to C and F (III and VI) in a basic A, which is not paralleled in other keys. C, E^b and B^b all evince a tendency to emphasis of the major submediant, but its usage in B^b is particular and is a notably developing relationship, in its contextual uses, where C and E^b are more limited.¹ However, many of these particular and notable relationships in Beethoven's music are beyond the scope of the present examination. In making these preliminary observations concerning the large-scale, sectional relationships, there are two basic factors of importance of which account must be taken, and the significance of which has largely been overlooked. These are in the first instance, the basic choice of key; the incidence of each key used as basic tonic evidently varies. Although this is a fundamental consideration, the fact of preference, on the basic level of the key of compositions, is generally accepted, without questioning the fact that there are such distinct differences. The second factor is the preference within the basic key-context, for certain sectional relationships.

Part II of the thesis does not investigate these aspects in detail; in each analysis, the large-scale relationships are reviewed, and each (b) section includes comment relating to the tonal contexts in which the various movements and other items comprising the subsidiary (b) group in each analysis, occur.

¹ This particular relationship is examined in greater detail as Appendix I, Pp. 319-339.

PART II

FOUR TONAL - THEMATIC ANALYSES

SECTION I - C MAJOR

GROUP (a)

Works in C included in this study

Pre-opus	Piano Quartet
Op. 2/3	Piano Sonata
Op. 15	Piano Concerto No. I
Op. 87	Trio for 2 Oboes & Cor anglais
Op. 21	Symphony No. I
Op. 119	Bagatelles Nos. 2, 7, 8
Op. 29	String Quintet
Op. 53	Piano Sonata
Op. 56	Triple Concerto
Op. 59/3	String Quartet
Op. 72a	Overture - Leonora No. 3
Op. 86	Mass in C
Op. 115	Overture - Namensfeier
Op. 102/I	Sonata for 'Cello and Piano
Op. 114	Overture - The Consecration of the House
Op. 72b	Fidelio - Act 2 Finale

GROUP (b)

Movements or sections in C, in a basically different tonality included in this study

				KEY OF WORK	RELATIVE KEY OF ITEM
Op. 1/3	(iii) c:C	Piano Trio		c	I
Op. 7	(ii) C	Piano Sonata		E♭	VI
Op. 9/I	(iii) G:C	String Trio		G	IV
Op. 9/3	(ii) C	String Trio		c	I
	(iii) c:C			c	I
Op. 12/3	(ii) C	Violin/Piano Sonata		E♭	VI
Op. 14/I	(ii) e:C	Piano Sonata		E	♭VI
Op. 14/2	(ii) C	Piano Sonata		G	IV
Op. 18/2	(ii) C:F:C	String Quartet		G	IV
	(iii) G:C			G	IV
Op. 18/4	(ii) C	String Quartet		c	I
Op. 27/I	(i) ¹ E♭.C.E♭	Piano Sonata		E♭	VI
Op. 30/2	(iii) C:C	Violin/Piano Sonata		c	I
Op. 31/I	(ii) C	Piano Sonata		G	IV
Op. 67	(iii) c:C:c	Symphony No. 5		c	I
	(iv) C			c	I
Op. 70/2	(ii) C:c	Piano Trio		E♭	VI
Op. 74	(iii) c:C	String Quartet		E♭	VI
Op. 75	No. 2	Song "Neue Liebe, neues Leben"	(Cycle begins and ends in A)		♭III

¹ (i) here denotes Bars I-36 of Op. 27/I

The large-scale, sectional key-relationships present in the works in C were in part discussed in the preceding treatment of The Basic Key-Categories. In summary, there is a marked subdominant preference; an average incidence of tonic sections; a low incidence of the tonic minor; and two notable sharp (#) instances - the major submediant, and the mediant (major) key. These two relationships also occur in other areas of key-contrast in a basic C tonality.

The movements listed under Group (b) disclose some interesting sectional relationships, mentioned generally in the preceding discussion. The most frequent relationship which occurs in the Group (b) works was not considered, as it is that from the basic tonic minor, of c.

The other two frequently occurring relationships in Group (b) are that of C as submediant (from a basic E^b); and C as subdominant (to G). These two particular sectional relationships will recur in detailed examination in the respective tonal categories. However it is notable that there exists a particular relationship in each of these cases; the E^b/C relationship occurs on the level of a sectional contrast, between sections as so far defined, but also within movements, as points of sectional importance. Thus, C is frequently a notable key-area in a development section of a sonata-form movement in E^b (such as the first movement of the Third Symphony; and in the first movements of the String Quartets Opp. 74 and 127) as well as being the key of a movement in E flat works, as here. The G/C relationship is of a different kind. This too will emerge in greater detail in consideration of G as a basic key-category; the relationship in this instance is often characterised by a very strong subdominant thematic emphasis in G themes. This is often very pronounced, and is not paralleled in type or extent in other keys. It even sometimes has the structural effect of giving rise to a whole section-modification in recapitulation material, which swings strongly to the subdominant, in a way not characteristic of other keys. There is a subdominant tendency in C, but not of the same kind. Two clear examples of the G treatment occur in the finale of Op. 1/2 (Piano Trio); the recapitulation evinces distinct C treatment of the thematic emphasis; and in the Op. 9/I finale (a String Trio), where a C section

interposes in the early recapitulation. Thus the E^b/C relationship which yields the five instances of C to be discussed, is on the structural, larger level of contrast; there is a feeling of contrasting planes of tonality, differences in tonal 'level'; whereas the G/C relationship has a strong melodic bent which gives rise to structural modifications in treatment,

In the present treatment of the entire C material, the procedure will be first to consider the melodic structure characterising C movements in the Group (a) works, followed by a similar examination of the Group (b) instances. Further comparison and correlation will be included, between the groups, to develop certain points in the examination of the C tonal-thematic complex, following the main analyses.

THEMATIC FEATURES IN A C CONTEXT

In his analysis of Beethoven's melodic style, based on a study of the sketchbooks¹, Mies includes a penetrating chapter, "The Melodic Form" (Chapter II), in which he examines the factors which characterise Beethoven's melodic style. He discerns developments in Beethoven's treatment of caesurae, and in his preference for certain types of melodic structure, a feature which Beethoven modifies and blends in the course of time. While Mies' treatment is extremely illuminating, it is not tonally related. Mies does later in his book, consider tonality from the point of view of "key-character", but he does not adopt an approach to Beethoven's compositional procedure which takes account of particular tonally-related, rather than general, features. Such an approach is adopted in the ensuing discussion. The importance of the features which Mies identifies as contributing to Beethoven's peculiar melodic style, is recognised; however, within Mies' general line of approach and analysis, further differentiation of style-determinance is possible, on the basis of an analysis which seeks to relate thematic material to tonal category. Such recurrent tendencies have been commented on in Beethoven Studies, as was discussed in the Introduction, but that tonality might be a style determinant, which up to a point predetermines and characterises the nature of the thematic treatment has not been suggested.

¹ See P.II Footnote I. 56

A further stylistic characteristic has been treated in some detail by Ernest Newman. He discerns a tendency in Beethoven's slow movements which, he considers:

"shows him to be obsessed by a certain little figure from his earliest days to his latest - a figure of three ascending notes in conjunct motion"¹

This certainly is a "Beethoven fingerprint", which Newman relates to the emotional significance of its occurrence in particular contexts, structurally, within the overall melodic line. It will be pertinent to establish how far such factors are recurrent, as general stylistic features, and how far they are absorbed into Beethoven's general style, but subordinate to the key-location and the peculiarities of tonal treatment evinced in relation to specific tonal categories.

The sixteen works in C included in this study cover a wide range of movement-types; Newman comments that the ascending conjunct-motion figure is rarely found in fast movements². However, there are tonal-thematic features which do recur in all types of movement. These occurrences strongly suggest that, for example in the present instance, C, for Beethoven, (as the basic key), brought into action particular methods of procedure. Mies, while commenting that C is "the key of joy", does not investigate specific C properties further.

One of the most notable recurrent features which characterise Beethoven's thematic treatment in C, is his use of the supertonic. The degree of harmonic emphasis of the supertonic varies, but a sequential step onto the second degree is a strong melodic tendency. It also occurs in the reverse order, usually cadentially, but sometimes initially. This feature was noticed by Tovey, but in a general way, and not as a tonally related characteristic. In a discussion of key-relations, Tovey comments that:

"the supertonic is not often established as a related key on a large scale, but modulations to it in the course of melody are quite common"³.

1 The Unconscious Beethoven - Ernest Newman (Parsons, London, 1927) P. 80.

2 *ibid*, P. 90.

3 Beethoven - Tovey (O.U.P. 1944, Paperback 1971) in the section "The Three Dimensions"; See P.23 in the latter edition.

Notwithstanding, he states two paragraphs further on that:

"The best illustrations of openings that display the supertonic do not happen to come in Beethoven's Piano-forte Sonatas, but in the Allegro of the First Symphony; and much more tersely within a single broad phrase of a majestically quiet melody at the opening of the C major String Quintet, Op.29."

Tovey is of the opinion that these examples are the "best" of their kind but he fails to comment on their common tonality of C. He also misinterprets the move onto the dominant from the supertonic; this is not via the subdominant, as Tovey suggests, but is via $\begin{smallmatrix} 7 \\ 5 \end{smallmatrix}$ on the supertonic, a pivot chord which, (with $\begin{smallmatrix} 5 \\ 4 \end{smallmatrix}$ or $\begin{smallmatrix} 4 \\ 5 \end{smallmatrix}$) often $\begin{smallmatrix} 3 \end{smallmatrix}$ effects the move onto the dominant. The supertonic tendency in C is the first category of tonal-thematic characteristics examined in the C Group (a) works.

GROUP (a) THEMATIC FEATURES IN C

I SUPERTONIC EMPHASIS

1. used sequentially, initially; rising.

2. used sequentially, falling:

(i) initially in the thematic treatment

(ii) as notable intermediary emphasis

I Supertonic emphasis used sequentially, initially; rising.

Nearly every C work included here has at least one instance of this occurrence in an opening tonic theme. Two notable examples were given above; these are included in the C thematic examples.¹

It will be readily apparent from these examples that, as stated above, the harmonic emphasis of the supertonic melodic degree varies. The supertonic is sometimes used with the supertonic triadic harmony (but without modulation) as is the case in Examples 3 (stronger harmonic emphasis occurs at the cadence at bar 10) 6, 10, & 11. The supertonic is also used in conjunction with dominant harmony at this initial stage in the theme; (this, evidently, is a common cadential occurrence, generally). Examples of the dominant harmonic support of melodic supertonic degree-emphasis are Nos. 1, 2 & 9; example No. 7, "horizontalises" the dominant pull; that is to say bars 5 & 6 in the example are underpinned by a tonic bass, giving rise to the $\begin{smallmatrix} 7 \\ 5 \\ 3 \end{smallmatrix}$ chord, mentioned above.

¹ The thematic examples are given in the Supplementary Volume.. They are referred to in the text by their number in that index, within each tonal category. 58

on the supertonic (though not here in root position), and in bar 7 this resolves onto a $\begin{smallmatrix} 6 \\ 3 \end{smallmatrix}$ dominant chord. The third type of harmonic usage characterising the melodic degree-emphasis of the supertonic in these examples, is modulation to the supertonic. This occurs in examples 3,4, (both from the same work) 5,8 and 13. Example 16 includes a modulatory move into the supertonic, prior to moving onto the dominant. However, it calls for special comment, as it is an intensification of the basically triadic, C treatment of the theme. This triadic-type C theme will be discussed below. Ex. 12 cannot strictly be said to fall into any of the three categories, as only this line occurs initially, with no harmonic elaboration; nonetheless, the supertonic emphasis is pronounced, as the inflection of bar 3 of the example clearly shows. Interestingly, only notes of the supertonic triad sound, from the end of bar 4, until the $\text{C}\sharp$ ending bar 6; bars 7-9 feel strongly dominant; thus there is a more than skeletal feel of a supertonic emphasis, subsequently moving to the dominant via supertonic $\begin{smallmatrix} 7 \\ 5 \\ 3 \end{smallmatrix}$, with no need to posit any "implied harmony"!

Examples 14 and 15, both from the Mass in C, evince a strong supertonic emphasis; the example from the Kyrie occurs in the second statement, after the first tonic cadence. Although, unusually, the sequence continues after the supertonic degree statement, the fact that the supertonic was the degree chosen to follow bars 1-2 of the example is significant, in the light of the C tendencies already outlined. Example 15, also a statement occurring after the opening of the Gloria, is interesting in its drop of a fifth onto the supertonic degree; this quickly moves to a tonic cadence, via the subdominant. Subdominant cadential emphasis is also used in examples 8 and 13. Example 10, from the finale of The String Quintet, uses the supertonic $\begin{smallmatrix} 7 \\ 5 \\ 3 \end{smallmatrix}$ chord very strongly, in the continuation and cadence, not included in the example (bars 25 -6; 28 -9). The subdominant chord tends flatwards in its emphasis; there are three instances in the thematic examples which tend to the sharp side tonally, following the supertonic emphasis. These are the exx. 10, 11, 14. Ex. 10, from the finale of the String Quintet Op. 29, repeats the opening 3-bar period sequentially on the supertonic. This takes the tonality onto the dominant of d (the supertonic); the ensuing (home) subdominant reorientates the tonality firmly to C (with the

supertonic ⁷/₃ emphasis mentioned above).

Example II begins at bar 14 of the Waldstein Piano Sonata. The previous material as far as bar 9, while using what emerges as important thematic material, is not tonally significant as focusing on the "subdominant of the subdominant" (or key of \flat VII-B \flat) as Tovey interprets¹ (His phrase is "merely the enhanced subdominant"). What is in question in these opening bars of Op.53, is a characteristic feature of Beethoven's general compositional style. That is, a progressively descending bass. Only one writer, and that very recently, has in fact noticed and commented on this, to the present writer's knowledge.² The progress of the bass as a structural feature is of immense importance in Beethoven's music; often the progressions are far-flung and their structure not immediately perceived.

An interesting correspondence with the Waldstein example, dating from 1807, occurs in the opening of the Credo, from the Mass in C, Op.86. Both examples are given on the following page. (The Introduction of the Quartet, Op.59/3 (i) in C also uses dramatic descent onto the dominant). In the Waldstein example the treatment beginning at bar 14 evinces supertonic emphasis sequentially, a tendency now emerging as characteristic of C themes. This thematic treatment is significant in this context, affirming the C tonality after the essentially introductory preceding bars. The treatment is comparable with that in ex.10, where the C material is repeated on the supertonic, and moves to the dominant (minor) of the supertonic. This pre-sages a move to the sharp side, tonally, in contrast to the

1 ibid. (P.49).

2 Harold Truscott in the Beethoven Companion. See The Piano Music I, P.II9. It is also interesting to note that Tovey (in his book "Beethoven") openly states that Beethoven "was mystical enough, but his use of the gradually rising or falling bass is neither decorative nor mysterious. Its purpose is to give the most solid dramatic reasons for modulations which would otherwise be mere accidents". However, Tovey does not comment on the use of parallel progressions, such as in the present examples, relating to tonal location.

return to C in the previous example. A further comparison emerges with the Credo of the Mass in C; there is a very unexpected sharp turn at the words "et in unum dominum Jesum Christum" (bars 34 - 38). The third example in the C themes which moves to the sharp side, also occurs in the Mass in C. This is example 14, from the Kyrie. As was stated, this instance occurs after the first tonic cadence; the tonality very quickly moves through supertonic emphasis onto the dominant of a. Further comparisons between the Piano Sonata and the Kyrie, with regard to subsequent treatment, are relevant to the larger levels concerning the structure of C movements.

Thus, on the level of the thematic features characteristic of C works which have supertonic sequential emphasis early in the thematic statement, there is a variety of continuations tonally; most often there is straightforward tonic resolution; there are, however, 'open-ended' examples, which move to the sharp side tonally.

Op. 53 (i) Bars I - 9

Allegro con brio

Allegro con brio Op. 36 - Credo Bars I - 9

2 Supertonic emphasis used sequentially, falling:

- (i) initially in the thematic treatment
- (ii) as notable intermediary emphasis

(i) This type of 'inverted' emphasis is not as common as the previous sequential treatment, which moves from the tonic upwards. However, it is in evidence as a tendency, and is worthy of note in view of the importance which this 'inverse relation' attains in Beethoven's oeuvre, in various tonal and formal contexts. Five examples may be cited in the present context. They are exx. I7 - 2I.



Although the main melodic step achieved in example I7 is that from supertonic to tonic degree; the dominant emphasis is strong. Ex. I8, on the other hand, opens far less definitively; the second, forte statement, beginning at bar 8, is strengthened by a tonic pedal in the second oboe. The first phrase "builds down" from the sixth degree (A) through supertonic triadic usage, to the fourth bar. Ex. I9 is, as with ex. I2, a single line. As in the previous instance from the finale of the Oboe Trio, the opening note is the dominant, but in the String Quartet, it is on an accented beat. The supertonic - tonic shift is outlined in the first three bars; the fifth from A down to D is emphasised (the quaver rest is significant) and this fall is sequentially repeated, from the dominant down to the tonic, C. That this is significant is amply proved by the later treatment in the movement. At this juncture, reference to the recapitulation treatment confirms the characteristic C emphasis;

Op.59/3 (iv) Bars 210 - 214

(Allegro molto)

Violin

Viola

Examples 20 and 21 share three common features, the rhythm , the rising direction of this rhythm, and the fall from A to D (bars 3-4 in 20; bar 2 in 21); however the example from the Overture pursues the  motif, for a further sequence (an instance of Mies' "three-fold" repetition in Beethoven's melodic structure). Both however emphasise the move down from A, including the A to D perfect fifth leap. In both cases this immediately rises to the dominant, but it is an incidence to be noted.

One further comment remains to be made concerning these instances; they are not as arresting as those considered above, but it is notable that they all, except the last which is from an overture, and therefore excluded from this possibility, they are all the openings of finale movements. All the works except Op.102/I¹ have instances of rising supertonic emphasis in at least one earlier movement. Of course, there are more finales without this particular inflection than with it, in C; however, that Beethoven considered using this relationship in both rising and falling sequence is a point worthy of note.

- (ii) Examples 22 - 26 include instances of notable intermediary supertonic emphasis in C themes. Again an interesting comment emerges concerning their non-appearance in any previous categories of supertonic emphasis (excluding ex. 25, which is cited here for a reason concerning a later phase in the treatment than was previously commented on). Thus, although supertonic emphasis has not appeared in the initial stages of the theme, it nonetheless does occur in the course of these four examples. The first, in ex. 22, states the supertonic triad as part of the thematic outline. Ex. 23 includes an instance built over dominant harmony (bars 8-14). Bars 14-15 do not state dominant harmony, thus pointing to the importance of the supertonic basis here. The apoggiatura D to C in bar 14 is also emphatically echoed at the final cadence in bar 19. Ex. 24, like the previous example, moves to the dominant; but in this instance the move from the dominant to the tonic employs a far more emphatic supertonic emphasis. This is twice stated, in different orchestral registers,

¹ The first Allegro movement of Op.102/I is in a; the slow introduction is mainly dominant treatment (in C).

and is a strong falling sequential progression. The context of ex. 25 is not strictly parallel. The passage in question here is the opening paragraph of the scherzo of the C String Quintet, Op.29. However, the structure is similar; the tonality has modulated to the dominant by the double-bar; immediately after this, there is a sequential swing back to the tonic, modulating through the supertonic (via a supertonic cadence) prior to moving back into C.¹ Exx. 24 and 25 are noteworthy in this respect; this relationship, as has been stated above, occurs in widely differing contexts and rôles, and its evidence in the present investigation is the most basic use of it, occurring in the "home" C context. Ex. 26 does not have such a definitive supertonic emphasis; however the supertonic ⁷/₃ chord does underpin bar 10 of the example, and so creates a sequential fall comparable with those occurring in the previous two examples. In passing, the modulation to e, in bars 6-8 is notable; again there is an instance of an apparent sharp turn in the tonality; however, of more note is the immediate restoration of C. This e/C relationship is one which is frequently in evidence in various contexts.

Two other points concerning Beethoven's thematic treatment in C have emerged indirectly in the course of the preceding discussion of supertonic emphasis. These are the use of triadic C themes; that is, themes which emphasise the tonic triad strongly. This aspect of "Beethoven's C major" is probably more familiar generally than the supertonic features, although the latter are perhaps more peculiar to C usage. The obvious example of tonic-triadic emphasis to spring to mind is the finale of the Fifth Symphony (this movement is grouped with the (b) C themes). The other feature is the emphasis of the sixth of the scale, the note A; this has been touched on in relation to supertonic emphasis, but merits attention in its own right.

¹ This kind of focusing on the supertonic emerges as more notable in E^b tonal-thematic treatment. P.242 below sets out the main differences in usage. Pp.242 - 254 examine the rôle of the supertonic in the E^b (Group (a)) themes.

II TONIC-TRIADIC EMPHASIS IN THE C (GROUP (a)) THEMES

The tonic-triadic emphasis which occurs in the C works falls into three types of usage:

- (i) descending, with subsequent dominant emphasis.
- (ii) as part of a non-triadic thematic opening, or with non-triadic consequent.
- (iii) rising.

These characteristics are not isolated with the claim that they are peculiar to C usage; the chances of tonic-triadic emphasis in an opening thematic statement, which seeks to establish a particular tonality, cannot be remote. However, before any comparative treatment is possible, an "index" of usage must be compiled for individual keys, to identify usage which seems to characterise each tonality, as indicated by recurrent instances. The tonic-triadic emphasis in C merits attention as a recurring feature.

- (1) Tonic-triadic emphasis, descending, with subsequent dominant emphasis.

Of the four examples, nos. 23, 24, 27 and 28, two have already been discussed in connection with the intermediary super-tonic emphasis treated above. They are exx. 23 and 24. As was previously stated, there is no initial supertonic emphasis in the thematic treatment. The other two examples, nos. 27 and 28 are from the finale of the Piano Sonata Op.53 (the "Waldstein") and from the finale of the Triple Concerto, Op.56. Thus, an interesting fact already emerges in noting these examples; all four are finale opening themes. Also, all four appear in earlier considerations of supertonic emphasis in connection with their first movements (and also the third, in the case of the First Symphony).

In all four examples, the interval of mediant to tonic is strongly emphasised; exx. 24 and 27 both fall triadically from the dominant. (Exx. 24 and 28 both use an ascending "curtain" to use Mies' term, to create a melodic apex; in each case an emphasised triadic figure follows). The dominant emphasis is strongest in exx. 23, 24 and 28; the last is over a tonic pedal; the first two are more dominant-based, the Symphony modulating.

In passing, it is interesting to note the formal differences in the continuation of the thematic treatment. The first two, each from a relatively early work, go on to form a tonic-cadencing paragraph; the last two, middle-period works, are "open-ended"; the Triple Concerto does in fact reach a tonic cadence before long, but not without touching on sharp key-areas; (this is a factor harking back to the first movement, and relevant to large-scale structural analysis of the tonal procedures in the C works).

- (ii) Tonic-Triadic emphasis as part of a non-triadic thematic opening, or with non-triadic consequent

Three of the four examples of this more incidental triadic usage have already appeared, again in connection with the supertonic emphasis they evince. In all four examples, the triadic usage occurs in both the opening statement, and in the supertonic sequential repeat of this. Thus, while the overall sequential step to the supertonic was observed previously, the structure of the antecedent material on the more detailed level was not commented on.

Example 3 contains the triadic emphasis with non-triadic consequent referred to in the heading of this section. While Ex. 5 "horizontalises" the emphasis of C in the first three bars, its essential momentum is focused in the rising arpeggio (the leading-note emphasis strengthens the tonal feeling of C as tonic; and indeed is the emphatic "resolution" of the opening bars). The supertonic sequential repeat is exact (as far as the $\downarrow 5^7$, that is!) Ex. 6, from the same work, is similar. The essence of the string swirl is to outline the tonic triad, and, sequentially, the supertonic triad. The final instance, ex. 29 (with 29a) is from the Finale of Act II of Fidelio. There is a rise to the supertonic degree melodically, but the harmony is a strong tonic - dominant alternation. However, the triadic tonic emphasis is everywhere apparent, throughout the C sections of this jubilant finale. (Ex. 16b is a further instance, within the supertonic sequential framework.) Notice the treatment throughout the orchestra in this respect, in the Fidelio Finale to Act II.

(iii) Rising tonic-triadic emphasis

The line between the examples under (ii), and those cited here is not a clear one; some examples could appear under both headings. However, those which are included under the present heading, all feature rising tonic-triadic emphasis at the very beginning of the thematic statement. None of the examples in this group has been previously discussed in connection with either the triadic emphasis, or any supertonic emphasis. They are exx. 30 - 34.

The first example, from the third of the early Pre-Opus Piano Quartets, could hardly spell out the tonic triad more explicitly! It is not one of Beethoven's most impelling openings, but even so it does include a three-fold repetition within the statement, which is a Beethoven fingerprint. The second example, No. 31, is also from an early work (almost shocking in its major transposition of the Fifth Symphony Scherzo opening!) Example 32 could well have been included under (i), with its triadic, prior to dominant, emphasis. It opens with a strong rising tonic arpeggio, but this is more than a 'curtain'. Structurally it stands as antecedent to the more lyrical descending phrase which follows.

The next example, from the sister Overture Leonora No. 3 (ex. 33) is obviously closely related to ex. 32; more compressed, it focuses more tersely on the tonic triad. The two extraneous notes are the supertonic, and the submediant; obviously complementary, in view of their respective relationships to tonic and dominant.

Example 34 follows in the wake of exx. 29 and 29a, from the finale to Act II of Fidelio. The triadic rise (and fall!) is very emphatic. Thus, three of these five examples are linked with Fidelio; all three, sooner or later, are forcefully expressed, dynamically; the rising motif must be linked with a significant emotional idea. However, whatever the final conclusion regarding such an interpretation, the tendency to such a triadic emphasis, as a rising progression, is in evidence.

Of all the main C themes from the C works considered in this study, only three have not so far been treated as exhibiting any of the features discussed above. Two of these are scherzo movements (from Op 2/3 and Op. 21; thus, the early C Piano Sonata, and the First Symphony); the third is the Allegro theme from the Overture "Namensfeier". The scherzo movements do share interesting tonal features on the larger structural level; Op. 2/3 (iii) and the Namensfeier Overture feature the one remaining thematic characteristic to be discussed here; that is, A (the submediant degree) as a melodic apex.

III THE SUBMEDIANT AS MELODIC APEX IN THE C (GROUP (a)) THEMES

Again, Mies has made some revealing points concerning this aspect of Beethoven's style. In his discussion of the melodic apex,¹ he demonstrates its importance in Beethoven's compositions; his opinion is:

"that unquestionably we have to do with characteristic features of Beethoven's style; for they (viz. the melodic apices) must have had vital influence on the expressive force and the effective distribution of stress".

Mies recognises the relevance of examining the characteristics of other composers in this respect, in order clearly to establish how far such treatment is peculiar to Beethoven, in the way he treats the melodic apex; but in the present investigation into his use of tonality, this general feature of the importance of the melodic apex will be the starting-point for examination of the peculiarities relating to such treatment which may emerge, as tonally-related features, characterising the thematic treatment, within Beethoven's own usage.

The submediant degree as a melodic apex, does seem to vary in importance, between tonal categories. Mies rightly comments on the effect in terms of the "expressive force" and "effective distribution of stress" which the placing of the melodic apex has; but he does not consider in terms of intervallic relationship, what are the preferred melodic apices.

¹ Op. cit. Pp. 16 - 35.

In discussing the compositions in a tonality such as C, chronologically, a considerable cross-section of Beethoven's works is involved. Thus, general developments in his style are not highlighted, and this suggests that significance may well attach to tonal location, if thematic features persist, throughout such developments, as indeed seems to be the case with the supertonic emphasis. In considering the rôle of the submediant degree as melodic apex, it is important to bear in mind the particular emphasis of the supertonic. This yields A as its fifth (of the supertonic triad). Such sequential treatment as has been discussed will give rise to a type of melodic apex (as with exx. 3, 4, 10, 11, 12 and 13). This then, is clearly tonally related, resulting from a particular melodic tendency. As such, it is an offshoot of, and therefore subsidiary to, the supertonic tonal emphasis. It is arguable that the remaining examples of emphasis of A as a melodic apex are linked to this tendency. It is not as strong in C as it is for instance, in A^b, where the submediant is frequently the focus of an entire melodic line.¹

However, the rôle of the submediant degree as melodic apex may be considered in three main categories:

- (i) submediant degree falling to tonic: A initially
B cadentially
- (ii) submediant rising to tonic
- (iii) submediant as focus of the melodic line

These three categories are enumerated in order of their frequency and importance.

- (i) Submediant degree falling to tonic
A initially

Generally, an opening melodic apex is not characteristic of Beethoven's style;² If there is an early apex, it is most often preceded by a rising "curtain" (see exx. (17), 24, 28, 30 and 32). There are two examples in the C themes included here

¹ A^b is not examined in the thesis; however the submediant emerges as a particularly significant apex in E^b. See P. 269 et seq. below, and P. 297-8.

² Mies, op. cit., see P. 56 above.

which in fact open with a melodic apex other than the submediant. These are exx. 23 and 27. In both cases, the apex is tonic-triadic (see Pp. 65 - 67).

Submediant apices occur initially in exx. 18, 19 and 35; exx. 20, 21 and 22 merit attention in this respect.

Exx. 18 and 19 were discussed previously in connection with initial supertonic emphasis. Thus, already the link between supertonic emphasis and submediant melodic apex immediately emerges,¹ for in both cases there is a melodic apex on A, stronger in the first case, but nonetheless present in both openings. Both "build down" to the tonic, the String Quartet example more forcefully. (This presents an interesting comparison; there are the same melodic features, but the Quartet is far more compelling than the Oboe Trio. Both are finale openings. The first dates from 1797, the Quartet from 1806. Thus, C characteristics would seem to persist despite a change in the "technique" of melodic structure).¹

Ex. 35 is also from an earlier work, the C Piano Sonata of Op. 2 (No.3). Again, the up-beat is on the dominant, the melodic apex is the submediant degree; this theme grows beyond its initial tonic fall, to rise again, leading to the imperfect cadence at bar 8; in this respect it is comparable with the continuation of the String Quartet movement's opening; the latter however builds back to the tonic cadence, whereas the Piano Sonata is moving to a sectional close in the dominant, subsequently.

Ex. 21 is the most straightforward of the remaining three. Again, the dominant precedes the emphasis of the submediant degree, which has strong supertonic connections (see above, P.63); and again the melodic line builds downwards, then re-ascends. The opening heightens the importance of the submediant, as the descending melodic line (occurring at the sf marks to ensure their importance!) is A - G - F - E.

Ex. 20 and 22 are directly comparable, perhaps surprisingly, in view of their wide separation, chronologically (the Pre-Opus Piano Quartet - 1785; the Cello Sonata - 1815). They differ in

¹ This is investigated in relation to three C themes, following the Group (b) examination Pp. 94 - 99 below.

mood and metre, but are substantially similar. Each opens with a high tonic; the most important notes in the subsequent descents are the dominant, submediant and supertonic. In each, the submediant is emphatic but particularly so in ex. 22. The consequents differ, one cadencing in the tonic (the Piano Quartet), the other moving to an imperfect cadence. Their openings are given here for ease of comparison;

Ex. 20 

Ex. 22 

Melodically, A is structurally important in all of these three examples (20, 21 and 22), although in the last two quoted it is not the highest note heard initially.

In all six examples, there emerges another aspect of the submediant melodic apex. This is connected with its position in the scale as the note immediately above the dominant, diatonically; its function of dominant enhancement is doubtless a corollary of this fact, as much as its relationship to the supertonic; however neither of these more basic factors alters its melodic identity. It is not a strong melodic constituent in C, but that it nonetheless occurs frequently in various melodic contexts (in C) is a factor of note. It may well be that the supertonic tendency in C is such that the submediant plays a particular rôle, springing from this particular emphasis.

B cadentially

This occurrence of the submediant degree, at the other end of the "melodic scale", may be divided into two types of usage, in which the harmonic relationships to which the submediant may be linked, again figure. These types are (a) melodic cadential usage; (b) the submediant as part of the harmonic reinforcement of the cadence.

(a) melodic cadential usage

Example I could be considered under both categories in this section; however, its usage here is melodic rather than harmonic in emphasis (bar 7 of the example). It is the fifth of the supertonic $\overset{2}{5}$ mentioned previously, which moves onto the dominant. The submediant degree is here doubly-related, then. (Melodically, the submediant does not fall onto the tonic).

Examples 3 and 38 include the submediant cadentially, as part of another general characteristic of Beethoven's style, sequence-contraction. In bars 13 et seq. of ex. 3, there is one phrase which is repeated more emphatically. The submediant apex is stronger in the first statement; the repetition subordinates it to the higher tonic. Conversely, in ex. 38, the second phrase is a simplification of the first, resulting in a contraction of the descent from the apex to the tonic, and thus focusing it very strongly cadentially (bars 7 - 8 of the example).

Example 7, the Prometheus Overture theme features the submediant as a cadential apex at bars 4 and II - 13; it is stronger in the first instance, and in both instances its dominant-relation is apparent.

(b) harmonic cadential reinforcement

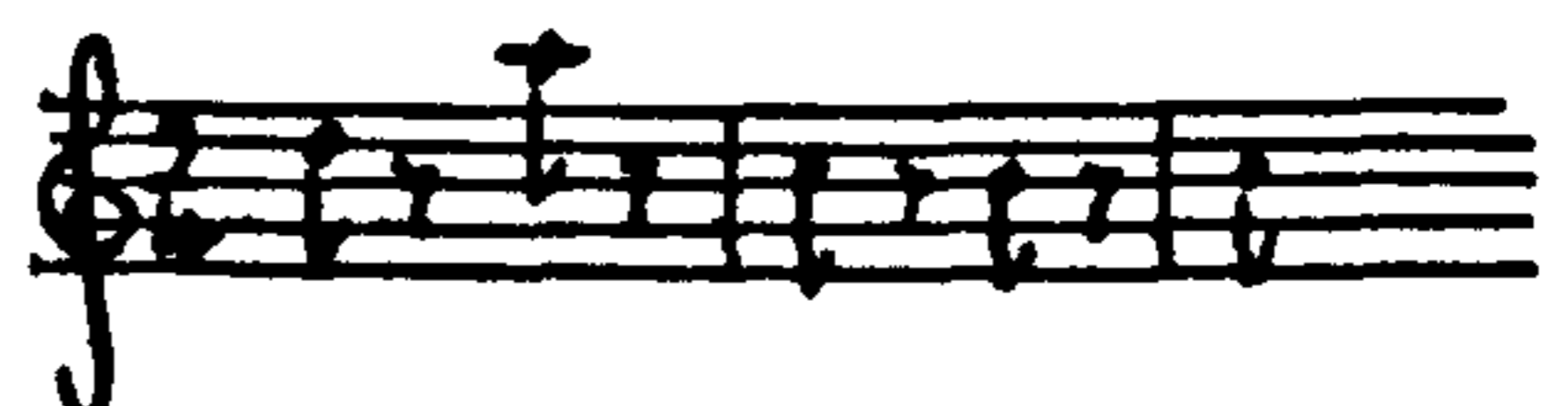
The two instances of this usage, exx. 5 and 24, interestingly both occur in the First Symphony, in the first and last movements respectively. The second instance is the more notable,

In the first movement, the rôle of the submediant as third degree in the subdominant triad creates the emphatic harmonic cadential inflection; the submediant is the melodic apex, again falling onto the dominant (Ex. 5).

In Ex. 24 the submediant is once more harmonically treated as the fifth in the supertonic $\overset{2}{5}$; at bar 13, the melodic line where this progression occurs, is:



There is a repeat of the preceding material with a change of orchestral treatment, but at bar 20 of the example, the melodic line is :



(ii) Submediant degree rising to tonic

Two examples, nos. 3 and I8 have already been discussed; they are from the same work, the Oboe trio Op. 87. In each case, the importance of A as a melodic apex has occurred earlier in the melody, and the incidence of submediant rising to tonic, though occurring, is not strong, particularly in example 3. Here it is part of the intensification of a phrase, where the submediant is in fact subordinate to the dominant, as part of the rise to the higher tonic (bar I5 of the example). The last beat of this bar however, re-emphasises the submediant degree. In ex. I8, bars I3 - I4 include a similar rise, here it echoes bars 5 - 6, but the submediant is apex-like within this rise, as the overall context of bars 8 - I6 is a fall from the submediant to the tonic melodically, followed by a subsequent rising return. The submediant is then, the highest point in the melodic line thus far, and the ensuing rise to the tonic is generated from the submediant degree. Neither of these examples is a forceful one, but each yields interesting points of detail in the melodic structure.

There are four further examples of the submediant degree as melodic apex rising to the tonic, exx. 2,39,I9 and 26, of which the first two may be taken together.

Example 2 occurs subsequent to a preceding full tonic-close; Ex. 39 is the opening of the C Mass (Op. 86). Bar 9 of ex. 2 is a clear melodic apex; the rise to C is a leap, followed by a stepwise fall. A is a subsidiary apex, prior to the tonic. This is also the case in ex. 39 where the submediant is emphasised by its longer duration in a stepwise ascent. Again, it rises to the tonic (stepwise), followed, as in ex. 2 by a fall in the phrase.

Example 26 is comparable with ex. 2 in that the A apex appears in the second part of an overall C paragraph; but it collates with ex. 39 in terms of the rise through the submediant to the tonic.

At bar 6 in ex. I9, the melodic line has returned to A, the highest note heard so far (indeed, the opening apex-note); bars 6 and 8 comprise an emphatic A - B - C rising cadential

move to the tonic. In ex. 26, bar 5 begins a rise to the tonic from the dominant, but this ~~veers~~ tonally to an e cadence. Bar 9 recovers the dominant and bars 9 - 12 include an interesting and characteristic form of sequence-contraction in the melodic line. The supertonic ²/₃ treatment here has already been commented on (page 64); the A apex in bar 9 is clearly important; in bar 11, the grace-notes ending the trill should be noted (these are part of the sequence-contraction treatment); again, the A apex is in evidence. It is hardly surprising then, that bar 13 sees an emphatic reiteration of the submediant, now commanding the final rise to the tonic, before the cadence. This Overture is not noted for its greatness; to refer to it as "ceremonial and dull"¹ reflects its general impression, but as is often the case, neglected or little-known works are nonetheless worthy of scrutiny for the added evidence of tonal tendencies which they provide.

(iii) Submediant degree as focus of the melodic line

In the remaining examples of submediant degree-emphasis, the submediant is used in very close association with the dominant, which occurs either as a degree in the tonic chord, or harmonically. The first example, No. 15, emphasises the submediant more forcefully in the ensuing bars (15 - 16 of the Gloria, not given in the example) as mediant of the subdominant, resolving onto the dominant degree, in a plagal (tonic) cadence.

Example 22 has already been discussed in connection with the submediant function as melodic apex (page 70 - 71). In ex. 22, the submediant is an 'interim' apex, subsequently moving onto the dominant; it is stated over dominant harmony. Similarly, ex. 23 has a submediant melodic emphasis, over dominant harmony; here A is the highest point in the melodic line until the last codetta-type six bars, and as such, lasting for four bars, is a particularly emphatic focus.

¹ Basil Deane in *The Beethoven Companion*, Page 313.

Ex. 26 was discussed in connection with the rise to the tonic which follows the forceful return to the submediant (bar 13 of the example). The nature of the submediant 'focus' prior to cadential treatment, occurs in a strong restatement of the tonic, after the e cadence. This is effected over strong dominant harmony (in bar II), following the important usage of a melodic apex on A, enhancing the dominant and generating the fall to the tonic, melodically.

Examples 32 and 33 are comparable in their usage. Each A apex is preceded by a tonic-triadic "curtain". The emphasis in ex. 33 is protracted, before falling onto the dominant; Ex 32 is emphatic by virtue of its anachrusic occurrence, and the subsequent delayed move onto the dominant. As was pointed out above, these two themes are indeed closely related. The A is stressed by repetition in ex. 32 and by its duration in ex. 33, in which the dominant 'pull' is echoed in the supertonic degree in answer to this opening (bar 6). Again, the double-relationship of the submediant is evident. (Melodically, A as apex is not often supported by subdominant harmony; the example from the Mass in C is the only notable occurrence in this respect).

The remaining two examples, nos. 37 and 38, each use a submediant main melodic apex also falling onto the dominant subsequently. There is a further parallel, in that each theme also stresses the subdominant degree in the approach to the main, submediant apex.

GROUP (b) THEMATIC FEATURES IN C

In the analysis of melodic features in the main C themes of C works, three factors which recur irrespective of movement-type, have been considered; supertonic emphasis, tonic-triadic emphasis, and the submediant degree as melodic apex. These three main types of melodic emphasis are now to be considered in relation to the items comprising Group (b), where movements in C occur in works in a basically different key. There are twenty such instances in the works included in this study.¹ The sectional E^b/C relationship occurring in the Piano Sonata Op.27/I is comparable with the trio section of Op.9/3 (iii) harmonically, in that it opens with a tonic (C) phrase moving to an imperfect cadence. The Piano Sonata however, does not develop any melodic idea; the first Allegro is notable as effecting the basic tonal contrast of C after the opening E^b of the Sonata. This is a very clear example of the nature of the E^b/C contrast referred to above,² and is significant in this respect as the predominant tonal factor involved here. The C treatment does not evince characteristic melodic traits, but establishes a C 'tonal plateau' in the flanking E^b.

The examples listed in Group (b) will be considered as to their melodic emphasis in the same sequence of treatment as was adopted in examining the C themes in C works, with an additional category peculiar to Group (b), and included in the examination of tonic-triadic emphasis.³

1 The Group (b) works are listed on P. 54 above.

2 P. 55.

3 It concerns tonal-linking between movements.

I SUPERTONIC EMPHASIS IN THE C (GROUP (b)) THEMES

I used sequentially, initially, rising

This usage emerged as characteristic of the Group (a) themes. Three types of emphasis were discussed.¹ In the Group (b) themes, six examples of supertonic melodic emphasis must be considered; they are exx. 1 - 6 in the C Group (b) themes.² Within these six examples, the three types of supertonic emphasis are evident.

(i) supertonic triadic emphasis without modulation (rising)

There is only one example of this type in the six themes, ex. 2; bars 2 - 3 of the example answer the opening tonic to dominant progression in the first Violin, which resolves onto a supertonic $\frac{5}{3}$, with a rising supertonic triad (in the Viola), moving to a perfect cadence in bar 4. This inflection is reinforced in what emerges as a notable characteristic in the Group (b) themes, the later supertonic emphasis in the theme, or in the reprise of the theme's opening, in the closing, cadential stages. Example 2a illustrates the particular enhancement of the initial supertonic emphasis in example 2; in the treatment at this stage of the trio section, there is in effect a modulation to the supertonic.

(ii) supertonic degree-emphasis, over dominant harmony

Examples 3, 5 and 6 show rising sequential supertonic emphasis, the first two with stronger dominant emphasis. Exx 3 and 5 are directly comparable in this respect; ex. 6 is less emphatic - its "semplice" marking is relevant here; however, the same treatment is nonetheless in evidence. Ex. 3 is notable for the more concealed sequential use of the supertonic degree.

1 Page 58 et seq.

2 Supplementary Volume, Pp.7-8 .

Bar 5 corresponds structurally with bar 2; thus the rise from tonic to supertonic is 'internal', but nonetheless notable. Bars 3 and 4 are over dominant harmony until the last two quavers of bar 4, when a relative minor inflection enhances the strong supertonic harmony of the first two beats of bar 5.

With ex. 5, the harmonic emphasis is on the dominant in bars 3 and 4, beneath the sequential step to the supertonic. In this instance the feature cited above, which Newman identifies as characteristic of Beethoven's slow movements generally, is evident. This is the stepwise, ascending conjunct motion;¹ Newman discusses the importance of the rise across three notes; ex. 5 in fact extends the supertonic rise to a move onto the mediant at bar 5, with a subsequent intensified rise through bar 5. Thus, a general characteristic is in evidence, as well as a particular C - theme tonal nuance. The height of the intensified rise, in bar 6, is also notable in that it is the submediant; again a C feature receives emphatic treatment. The harmonic underlay of bar 6 is also notable for its strong supertonic emphasis:



Example 6, from the last Piano Sonata, is more compressed in its treatment of the rise to the supertonic, coupled with dominant harmony. However, the outline of the theme is strikingly similar to that of the previous example.²

(iii) supertonic emphasis, with modulation to the supertonic

Example I is the most striking incidence of this type of emphasis. The last beat of bar 4 includes a G in the 'Cello, which reinforces the feeling of modulation to the supertonic.

1 See page 57, Footnote 1.

2 These two themes are analysed, with a third theme below, Pp. 94 - 99.

Bars 4 - 8 repeat the opening four bars, in the supertonic. The ensuing return to the tonic is via a further sequential statement, moving through the subdominant. (Note this clear instance of threefold-repetition, a feature particularly characteristic of Beethoven's early work).

There are two further instances of modulatory emphasis, but these do not occur in the opening thematic statements. Example 2a has been discussed above, (P.77); the other example is given as no.4a, where there is an intensification in the first Violin, at the end of its "statement" in the fugato opening of the second movement of the String Quartet in c, Op.18/4.

(Example 2a will also be mentioned in connection with a category of supertonic emphasis which emerges more strongly in the Group (b) than in the Group (a) works).

2 Supertonic emphasis in the C (Group (b)) themes, falling:

- (i) initially
- (ii) as notable intermediary emphasis

(i) initially

It was stated in connection with the Group (a) works that this inverted emphasis was not as common in the themes as was the rising sequential incidence. A notable factor characterising the instances (excepting that from the Die Weihe des Hauses Overture) was that they all occurred as finale-openings. Evidently, this cannot be a relevant factor in the Group (b) works, except where a tonic minor becomes major in the finale. That this emphasis does not occur suggests that it is a characteristic which is closely related to the basic C tonality of a work. Each of the occurrences in the Group (a) works discussed had at least one instance of the more common rising supertonic emphasis, earlier in the work. Thus it seems likely that this is a feature for which earlier characteristic C emphasis is prerequisite, and that it is not a characteristic of C movements in works in a basically different key. Instead, a new type of melodic emphasis occurs, which contributes to the establishing of the contrasting C tonality in a different context. This is the stepwise descent to the tonic C, which will be considered below. The only instance which might be discussed under the present heading comes from a work in E^b;

it is the opening of the trio of the String Quartet, Op. 74 (ex. 7). This is an arguable emphasis, but it is comparable with exx. 17 and 20 of the Group (a) themes.

This trio is in the major after a scherzo in c (in an E \flat work). It is perhaps debatable whether or not the first three notes are anachrustic. Joseph Kerman adduces evidence in support of this opinion in view of Beethoven's own addition of metronome marks, when he retained the same tempo for the trio as for the scherzo.¹ The whole structure of the opening bars as far as the last bar of the example and the reaching of the tonic, gives the feel of anachrusis to the first three notes. Thus the 'accented' notes of the imaginary $\frac{6}{8}$ which Beethoven finally indicated are D, E, B and C; thus two sets of descending sevenths; a supertonic degree-emphasis, followed by a feeling of dominant emphasis. (The emphasised notes are marked with a line above them in the example).

(ii) as notable intermediary emphasis

This category of emphasis was referred to above as being one of stronger emphasis in the Group (b) than in the Group (a) themes. There are two instances which have already been mentioned as evincing enhancement of initial degree-emphasis by subsequent modulatory emphasis. These are exx. 2a and 4a. The remaining examples may be grouped en bloc; they are nos. 5 - 14 in the Group (b) themes. Thus, from the twenty items included in Group (b) twelve are notable for the degree of intermediary supertonic emphasis which they show. While this particular type of supertonic emphasis is in evidence in the Group (a) themes, it is not proportionately as high an incidence. (See Pp. 63 - 64). However, it is still predominantly the case with the Group (b) as with the Group (a) themes, that initial strong supertonic emphasis in the theme has not occurred. The first three examples cited here, nos. 5, 6 and 7, have been considered in relation to their supertonic

¹ In "The Beethoven Quartets", P. 165.

degree-emphasis coupled with the dominant harmonically, in exx. 5 and 6 ; and in sequential, 'linear' treatment in ex. 7. It is remarkable that all these instances, whose opening usage is essentially one of degree-emphasis evince forceful supertonic harmonic usage in their later stages.

Examples 5, 6 and 12 may usefully be taken together; similarly exx. 3, 9, 10, 11 and 14 are comparable; the remaining two instances, exx. 7 and 13 may also be grouped together by virtue of their formal contexts. Thus there are three kinds of intermediary emphasis apparent in these examples. They are discussed in groups (a) - (c).

(a) Harmonic emphasis within the theme, at a climactic point

It was pointed out above that the sequential supertonic rise (over dominant harmony) is an important facet of the theme in ex. 5. In discussing this, the harmonic structure of bar 6 was given to demonstrate the strong supertonic emphasis at the climax of the theme (P.78); bar 6 is in fact the main melodic apex of the theme (significantly, the submediant, as discussed above). Ex. 6 is comparable; the apex at bars 5 - 6 in the first part of the melody is on the dominant degree, but note its resolution:



That this is an important point in the melodic line is indicated not only by the suspended apex, but also by the dynamic markings. It may well be that in this movement the "atoms of classical C major" are "laid bare",¹ but the theme itself is not without what are emerging as the atoms of Beethoven's C major!

¹ Philip Barford in *The Beethoven Companion*, P. 188.

Example I2 does not include opening supertonic emphasis but has two subsequent instances of emphasis within the theme. Bar 4 is an anticipatory inflection, moving to the dominant degree; tonic harmony follows, but bar 6 has strong emphasis of the submediant melodically, over the supertonic $\begin{matrix} 7 \\ 3 \end{matrix}$ so characteristic of C usage. This in fact proves to be a further anticipation of the climax of the theme melodically on C in the next bar, (an interim apex on the submediant, rising to the tonic, it will be noted!). The supertonic emphasis is not as unequivocal as in example 5, but the melodic structure of the two themes is strikingly similar.¹

(b) A harmonic return via supertonic emphasis - following a modulation to the dominant in exx. 8, 9, IO, and I4 - and the relative minor in ex. II.

Examples 8, 9, IO and II, within an overall C paragraph, each include a modulation, to the dominant in nos. 8, 9 and IO. Examples 8 and 9 are both from slow movements (though of a different kind); Ex. IO is from a scherzo; ex. II, a song.

Examples 8 and IO are directly comparable in their turn to the supertonic, after the modulation to the dominant. Both use subdominant emphasis, prior to the move into the supertonic:

Ex. 8

Ex. IO

¹ See the melodic analysis of exx. 5, 6, and I2, P. 94 et seq. below.

Example 3 returns to the tonic via an imperfect cadence. Ex. 10 returns via the same pivot as occurs at the end of the development of the first movement of the First Symphony: the dominant of a (the relative minor) is stressed, and used as a pivot into the tonal return into C; fifth becomes third, in relation to C. (Such changes will be indicated $5 > 3$, the number referring to the intervallic function).

Ex. 11, after modulating to a (bars 8 - 9), returns to C via the supertonic, in sequential treatment like that discussed in connection with exx. 23 and 24 of the Group (a) works (P.63).

Ex. 8, 9 and 11 share a further common feature relating to supertonic emphasis; they all include notable supertonic emphasis in the closing stages, of the thematic paragraph in exx. 8 and 9 and at the end of the song in ex. 11. Following the return to C after the extract of ex. 8 given above, the opening thematic treatment occurs (an octave higher), but with a notable change in the second bar:



There is strong supertonic emphasis here. The closing part of the song "Neue Liebe, Neues Leben", also has strong pre-cadential supertonic emphasis:

It is not until the high G in the voice that the "shades" of the supertonic are completely dispelled by the dominant. (Again, this example also features threefold repetition).

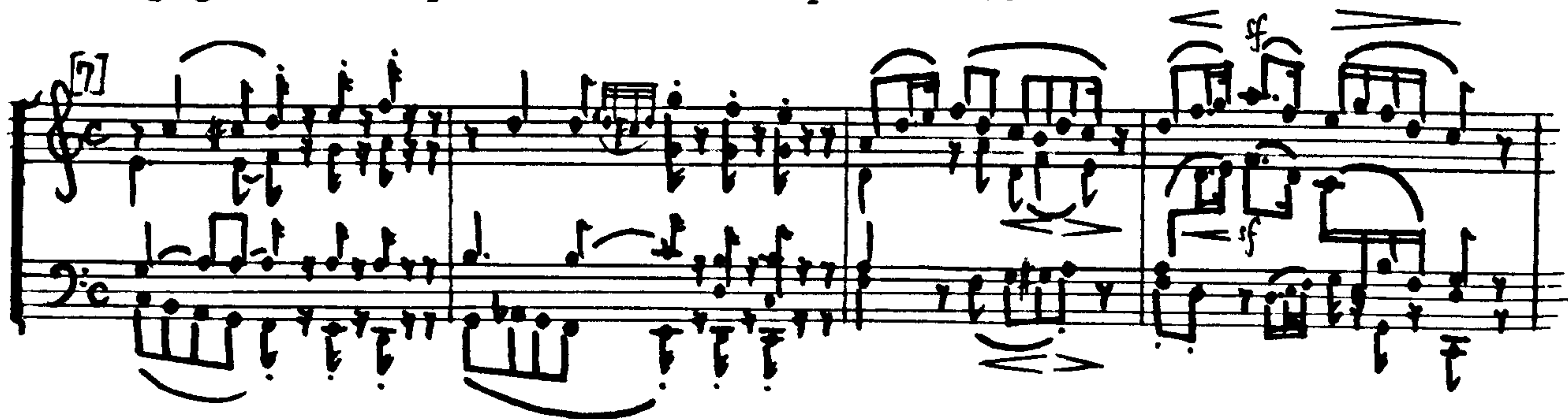
Example 2 has not yet been discussed; it has several interesting features relating to supertonic emphasis. There is initial supertonic usage in the theme, both within the opening phrase, and sequentially in terms of degree-emphasis. In reduced score, the opening two bars are given:



There is a clear harmonic progression within the rhythmically symmetrical opening:



The supertonic is thus important, but not in this instance as the sequential repeat of a tonic opening harmonically. Bars 3 - 4 modulate to the dominant (via a), which is reconverted to the home dominant in bars 5 - 6; bars 7 - 10 close the thematic paragraph and, as with ex. 8 the opening material reappears. However (and again) there is new harmonic emphasis of the supertonic; bars 7 - 8 are also modified as compared with bars 1 - 2, lending greater emphasis to the supertonic:



There is strong supertonic emphasis in each of the four closing bars quoted; the second is not harmonic, but the turn is significant; the third bar diverts the supertonic to an interrupted cadence; the fourth bar again stresses the supertonic,

generating the close. This is comparable with what happened in "Neue Liebe, Neues Leben". A similar use of a turn with supertonic inflection rising onto the dominant degree was commented on in connection with ex. I2 (P.82).

(c) The supertonic used to effect a reprise of opening material, in the course of a trio section

The remaining two examples occur in similar contexts; ex. 7 is from the trio section of the third movement of Op.74 (a String Quartet). Ex. I3 is from the same place in the Fifth Symphony. However, the supertonic emphasis used in these cases differs. Ex. 7, in its continuation (not given), modulates to the dominant; the return to the tonic is via a "horizontalised" II - V progression (See bars 38 - 62 of the Piú Presto, Quasi Prestissimo). In ex I3, the line given is Solo; thus there is no harmonic underlay, but an interesting build back to the dominant (as dominant) via supertonic emphasis occurs. (See ex. I3a). There are two halting attempts, each of which fails to get beyond this supertonic outline; the next has the impetus to reach down in thirds to the dominant proper, and thus back to C and the recurrence of the scherzo's opening material. (Once again, threefold repetition is to the fore.)

What is here termed as "intermediary" emphasis is then, very evident in the Group (b) themes. As was stated in introducing this section there are parallels with the Group (a) examples, but this type of usage is definitely both stronger, and more frequent, in the Group (b) themes.

II TONIC-TRIADIC EMPHASIS IN THE C (GROUP (b)) THEMES

(i) descending, with subsequent dominant emphasis

In all three examples from the Group (b) themes which evince this structure, the falling tonic-triadic emphasis forcefully and quickly leads to the dominant emphasis. It is interesting that all three are the openings of Adagio movements; they are exx. 3, 7 and I2. (While exx. 5 and I2 were previously correlated with ex. 6 in terms of the structural similarity between them, ex. 6 does not feature such triadic structure at this stage in the theme).

(iii) rising tonic-triadic emphasis

As was pointed out in the consideration of the Group (a) works, there is not always a clear distinction to be made between categories (ii) and (iii), treating tonic-triadic emphasis. Thus ex. 2, already fully discussed, could also be included under this heading, in view of the fact that the tonic-triadic opening is an ascending emphasis.

Example 10, also mentioned above, is more relevant here in respect of the forceful treatment of bars 3 - 4. In outline, the theme is similar to the finale theme of the Triple Concerto, Op. 56 (ex. 27 of the Group (a) themes); the grace-note emphasis and the sforzando on the mediant falling to C occur in both openings, at the same point structurally; (Op. 56 is more concise in its rise to the mediant, again from the dominant degree). Beethoven was not happy with this third movement of the c Violin Sonata, but even so, as with the Namensfeier Overture, characteristic tonal features are nonetheless evident.

The two most notable rising tonic-triadic emphases characterising opening treatment are exx. 11 and 15. In the opening of the song "Neue Liebe, Neues Leben", the sentiment is very akin to Mies' feeling that for Beethoven C was the key of joy. The subsequent supertonic emphasis, counterbalancing all this triadic usage has already been discussed. The example from the Fifth Symphony (ex. 15), is the outburst of the major finale following the mysterious transition from the scherzo. The major resolution, and its sense of release and triumph at this point again support Mies' comments.

(iv) tonal-linking between movements

Initial tonic-triadic emphasis in the Group (a) works characterises finale movements. Evidently, there can only be such incidences in works in c which end in the major, as stated above, such as the Fifth Symphony. There is tonic-triadic emphasis in this instance (ex. 15). However, movements occurring in C in works in a basically different key have a particular function to perform; the key of C has to be established as such, as a tonally contrasting key. This it is suggested, is the particular reason for the occurrence of

- (i) - triadic emphasis initially in the Group (b) themes
- (ii) - a marked tendency to build down to the tonic C (a type of melodic emphasis not evident in the Group (a) themes, but resulting from the particular tonal context of C in the Group (b) examples).

Mention has been made of three openings using descending tonic-triadic emphasis in the Group (b) themes, in exx, 3, 5 and 12. These three instances come from works not in c, but in G, G and E^b respectively. In considering the opening treatment in the Group (b) themes, the examples fall into three categories, according to the tonality of the work:

- 1 - c works: exx 2, 9, 13, 15, 18, 10, 4, 6.
- 2 - E^b works: exx 12, 14, 16, 7, (and Op. 27/I).
- 3 - G works: exx 1, 3, 5, 8, 17.

I - c works

The main factor concerned in establishing the tonic major after a movement in the minor tonality is the 'cancelling' of the minor third by the major third. There is one instance, ex. 10, where the C movement follows a slow movement in A^b (from the Violin Sonata Op. 30/2); here the up-beat to the first bar acts as a pivot where third becomes tonic. The establishing of the major is achieved harmonically in the first full bar; the melodic emphasis has been discussed above. Two other examples where the major third occurs on an accented note, melodically, some way into the thematic opening, are exx. 4 and 13. In both cases, only a single line, without harmonic support, is in question. Although both examples include a major scale-passage, the confirmation of the major mode falls on a subsequent first beat.

In exx. 2, 9, 15 and 18, the major third emphasis is particularly clear and immediate, following preceding minor treatment. (The lead into the finale-opening of the Fifth Symphony, ex. 15, includes the major third, but it is only with the ff rising arpeggio after the ff tonic major chord that the major is truly established).

Example 6 stands on its own, as the previous movement in the Sonata (Op. III) ends with a tierce, established over the last seven bars of the movement, resulting from subdominant emphasis. Thus the feeling of tonic major is already established aurally, and the opening of the Arietta can proceed without needing to establish major tonality. The subsequent triadic emphasis in the melody has been discussed.

Thus, despite the tonal need to establish the major, these themes nonetheless evince characteristic C tendencies within the

melodic line, as they have all occurred in the context of the preceding discussion. However, the tonic minor is clearly the least difficult key after which to establish C.

2 - E \flat works

The note common to the tonic triads of C and E \flat is G, third of E \flat , dominant of C. Melodically, exx. I2 and I4 both feature G prominently, as a pivot-note, tonally (3<5).

The first movement of Op. 70/2 ends with G as topmost note in the closing chord; the ensuing movement builds aurally to C, in the rather Haydnesque anachrusis. The first movement of the Sonata for Violin and Piano, Op. 12/3, ends with the tonic, E \flat , uppermost; but G (the third) is a clear tonal pivot-note at the opening of the next movement. These two instances are given here.

(i)

Op. 70/2

(ii) Allegretto

(i)

Op. 12/3

(Adagio)

(ii)

The change is more abrupt in the Piano Sonata Op. 7 (ex. I6). Here the melodic opening note is E \flat , with no pivot from G as the third of E \flat . However, while the opening four bars are inherent to the thematic material of the second movement, it is interesting to note the shape of this opening, and how it does in fact touch on G in the second bar, as it were gently re-orientating it tonally.

are from Piano Sonatas, Op. 31/1 and Op. 14/2 respectively. Three of these examples in fact open with a rise from G (the previous tonic) to C; these are exx. 3, 17, (from the same work) and 8. Again, as with c, C is not a difficult key to establish after G; G as dominant of C is perhaps the reason for the "soh - doh" opening of these three examples. Nos. 3 and 5 have been compared previously for their similarity in the use of an opening descending arpeggio of C, moving to dominant emphasis. Exx. 8 and 17 are movements of a different type, but the soh - doh emphasis is notable. In ex. 1, melodically, the third of C is stressed after G; but beneath it is a sf $\frac{5}{3}$ of C; thus there is a strong re-orientation of the previous tonic, which becomes the dominant of C.

One example of a C section in a different basic context remains; this is from the Piano Sonata in E, Op. 14/1 (ex. 19). This is the middle section of the second movement, marked "maggiore". It is, significantly, in C, after the Allegretto first section in e. This tonal relationship has been mentioned above as recurrent in various contexts. Again, as with ex. 16, there is a building down to the new tonic, C, marked in the example by lines above the staff. (There is an interesting sequential move through the supertonic to C, after the double-bar in this section of the movement).

Thus, while there is some difference of nuance in the opening of Group (b) themes, related to the tonal context of their occurrence, characteristic C tonal tendencies are still evident, as far as supertonic, and tonic-triadic emphases are concerned. The preceding section is included to indicate factors relevant to the larger scale of sectional tonal interrelationships, which affect melodic opening treatment in the Group (b) themes. A further category examined in Group (a) remains to be considered here - the rôle of the submediant degree as melodic apex.

III THE SUBMEDIANT AS MELODIC APEX IN THE C (GROUP (b)) THEMES

(i) falling to the tonic

A initially

This category was discussed in connection with the Group (a) themes and was found to relate to initial supertonic emphasis, and also more strongly to final movements. Thus it is tonally irrelevant to the Group (b) themes, where no prior C emphasis has been established. That it does not characterise any of the nineteen examples included here points to its particular relevance to a basic C tonality.

The only occurrence of the submediant initially is in ex. 14. However, this is, as was pointed out, a tonal bridging from G as third of E \flat , to C as tonic.

B submediant falling to tonic cadentially

Three instances of submediant falling to tonic may be cited; all are both melodic and cadential. They occur in exx. 3, 9 and 18, the last two in works basically in c. The first two both occur in conjunction with supertonic emphasis, melodically and harmonically. The third example is in the C - cadencing section of the trio of Op. 1/3 (iii) (ex. 18a). It arises out of a melodic and harmonic expansion of previous phrase - lengths, rising above the dominant, to the submediant apex, before cadencing. However, the harmony here is a strong cadential subdominant, prior to the dominant which follows the submediant apex.

The submediant does not occur initially or cadentially as a notable apex, falling to the tonic, in the Group (b) themes.

(ii) submediant melodic apex rising to the tonic

Example 14 has been discussed in the previous section, in this respect. One further instance may be identified in ex. 12, in bar 6. The end of the bar rises from the emphatic submediant to the tonic, which generates the subsequent descending cadence.

(iii) the submediant degree as focus of the melodic line

Examples 5 and 12, already several times noted for their similarity, share the rôle of the submediant degree as the main melodic focus and apex of their themes. In each theme, the apex occurs with some kind of 'apoggiatura' approach, in the sixth bar of an eight-bar melody. Example 12 precedes ex. 5 chronologically,

and indeed, is less flowing in its treatment. It is unquestionable that the submediant degree is important in both melodies, and interesting that it should occur similarly in two adagio movements. C has not previously appeared as the key of an adagio movement, in Group (a). It is notable that of the six adagio movements in Group (b) (including a "Largo" marking) - exx. 3,5,6,9,12,16 - four, exx. 3,5,9 and 12, include the submediant as a notable melodic emphasis. Even ex. 16, rather uncharacteristic in its shape and limited scope in terms of range, precedes the first melodic statement of the tonic by a submediant "inflection" (bar 4 of the example). Example 6 is more strongly C - orientated, and with its modulation to a in the second phrase, a submediant apex is less likely to occur. (note that in ex. 11, also strongly triadic, there is a modulation to the relative minor).

In the course of the examination of Group (a) and Group (b) C themes, various comparative remarks have been made. There are basic differences in the contextual occurrence of the Group (a) and the Group (b) themes. Group (a) relates to the tonality of C when it is the key of the work; thus the themes are predominantly in a fast tempo; there is a type of 'complementary' usage in finale movements, relating to what has occurred earlier in the work. Group (b) themes are drawn from movements or sections in which C is a tonality contrasting with that of the work. Thus there are specific problems of tonal linking with the preceding movement, which affect the melodic treatment in the opening of the Group (b) themes. (The question of how Beethoven achieves this type of bridging is a fascinating and illuminating one. The fact that Beethoven obviously took great care to correlate movements tonally is a further indication of how tonally-conscious he was).

In view of the different mood, generally, of the Group (a) and Group (b) themes, one might expect differences in melodic treatment. That these are essentially differences in degree and nuance of usage, rather than differences in the type of tonal-thematic features, strongly suggests that there are tonal characteristics which relate to themes in the key of C irrespective of

the basic key of the work. Perhaps the strongest tonal feature which occurs in all C contexts is the supertonic emphasis,¹ whatever its particular usage in any theme. Tonic-triadic emphasis is also notable, but in different melodic contexts; in the Group (a) works, it was often a finale-theme characteristic; in the Group (b) works (excluding ex. 15 which is a finale) it is particularly notable in establishing the tonality of slow movements. To conclude this section of Part II, an analysis of the three themes previously referred to as sharing notable similarities is appended. These are exx. 5,6 and 12, rewritten as M1, M2, and M3, with their harmonic structure.²

A COMPARATIVE ANALYSIS OF THREE ADAGIO MELODIES
FROM THE GROUP (b) WORKS:-

M1 - Sonata for Violin and Piano,	Op.12/3: (ii) - 1797
M2 - Sonata for Piano,	Op.31/I: (ii) - 1802
M3 - Sonata for Piano,	Op.III : (ii) - 1821-22

In making this comparison, account must be taken of the general stylistic development which occurred during the years spanned by these three compositions. Paul Mies makes some very pertinent and illuminating observations in this respect.³ Three of the conclusions he summarises are relevant to the present analysis:

- 1 Melodic breadth is a feature of Beethoven's style as shown in his later works, but it is also to be found in the early slow movements.
- 2 This breadth is effected, in the main, by elimination of the caesurae characteristic of the particular type of melody.
- 3 For these he frequently substituted repetition of notes, syncopated liaisons and chromatic melodic progressions.

¹ This characteristic, as has been suggested above, occurs in relation to the incidence of C, in wide-ranging tonal contexts.

² Supplementary volume, P.10.

³ Op. cit. Chapter II: The Melodic Form.

A further general observation referred to above with reference to Beethoven's slow movement melodies, is the use of the rising motif of three conjunct notes. The present examination of the three melodies, one from each main compositional period, seeks to identify recurrent factors which correlate to the tonality of the melodies in each case.

There are differences between the melodies, relating both to context and type, which may be considered first. M1 is from a work in a basic $E\flat$; M2 from a work in G, M3 from a work whose first movement is in c. The three instances have already been contextually considered in connection with the tonal relationship to the preceding movement in each case. With reference to this, it is interesting to note that the most remote relationship (that of M1) has a melody which includes forceful emphasis of the C triad, and notably of the $E\flat$ (in bar 5) prior to the apex of bar 6.

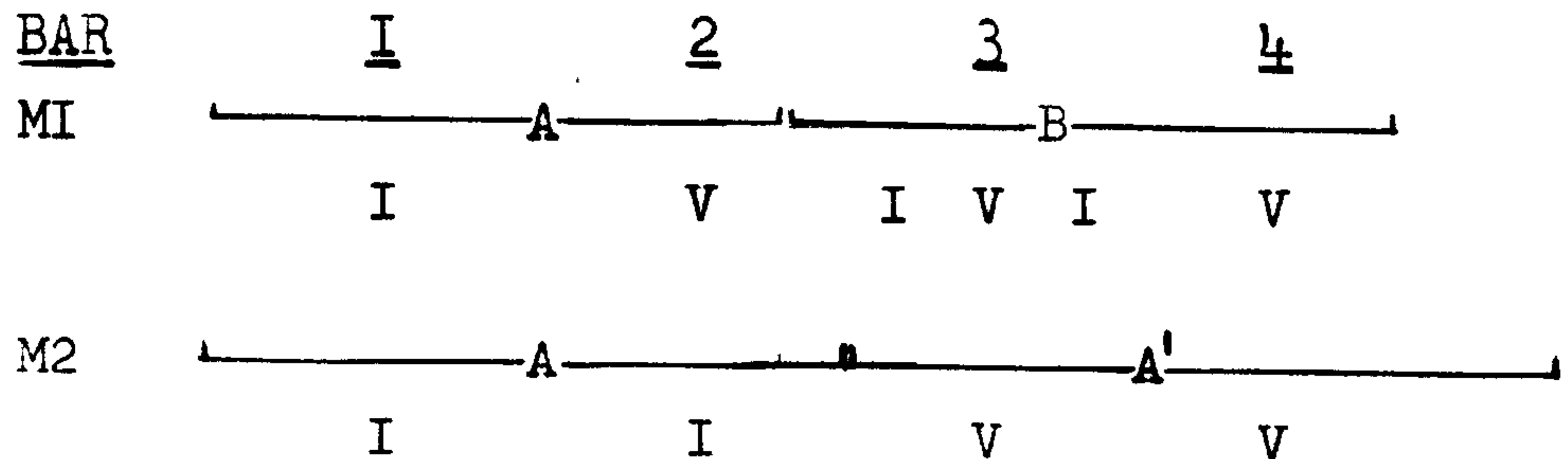
M3 opens a movement of a different type from M1 and M2; M3 is followed by variations, M1 and M2 are each the first A melody in ABA movements (both of which contain strong $A\flat$ usage). However, all three are of the characteristic (for Beethoven) "continuation" type of melodic structure, as defined by Fischer, whose differentiation of types Mies adopts.

However, in each case, the particular type of continuation treatment is different. M2, unusually for a slow movement, comes near threefold repetition. The last melody M3, is, not surprisingly the most complicated of the three structurally. M1 and M2 are both eight-bar melodies (each repeated once, by the Violin in M1 and in the Left Hand, though with modification, in M2).. M3 is an overall sixteen-bar melody. For the present, the comparison with M1 and M2 will focus mainly on the first eight bars of M3; (this cadences in the tonic, and so comparison is possible and meaningful provided that the important subsequent treatment of M3 is borne in mind).

There are substantial differences then, relating to the context type, and time of composition of each of these three melodies. The main shared feature is the tonality of C which, it is suggested, gives rise to further notable similarities, transcending considerations of time and type.

Triple metre is common to all three - $\frac{3}{4}$, $\frac{9}{8}$ and $\frac{9}{16}$ respectively. While M1 and M2 offer the most obvious direct comparisons, yet M3 has notable common ground, particularly with M2, but also with some aspects of M1.

To take MI and M2 together first; structurally (melodically speaking) MI opens with AB in the first four bars, M2 with A A'. Harmonically the tonic/dominant alternation is also differently placed. Thus, the first four bars of MI and M2 may be schematically represented:



In the final four bars, MI uses material from both antecedent phrases; M2 is similarly A-based, if one interprets bar 5 as a sequence-contraction approaching the apex, of the sequential rise occurring in bars 1 - 4. (This type of procedure is very characteristic of Beethoven). The entire melodic structure may be summarised:

MI - A B B' C
M2 - A A' A² A³

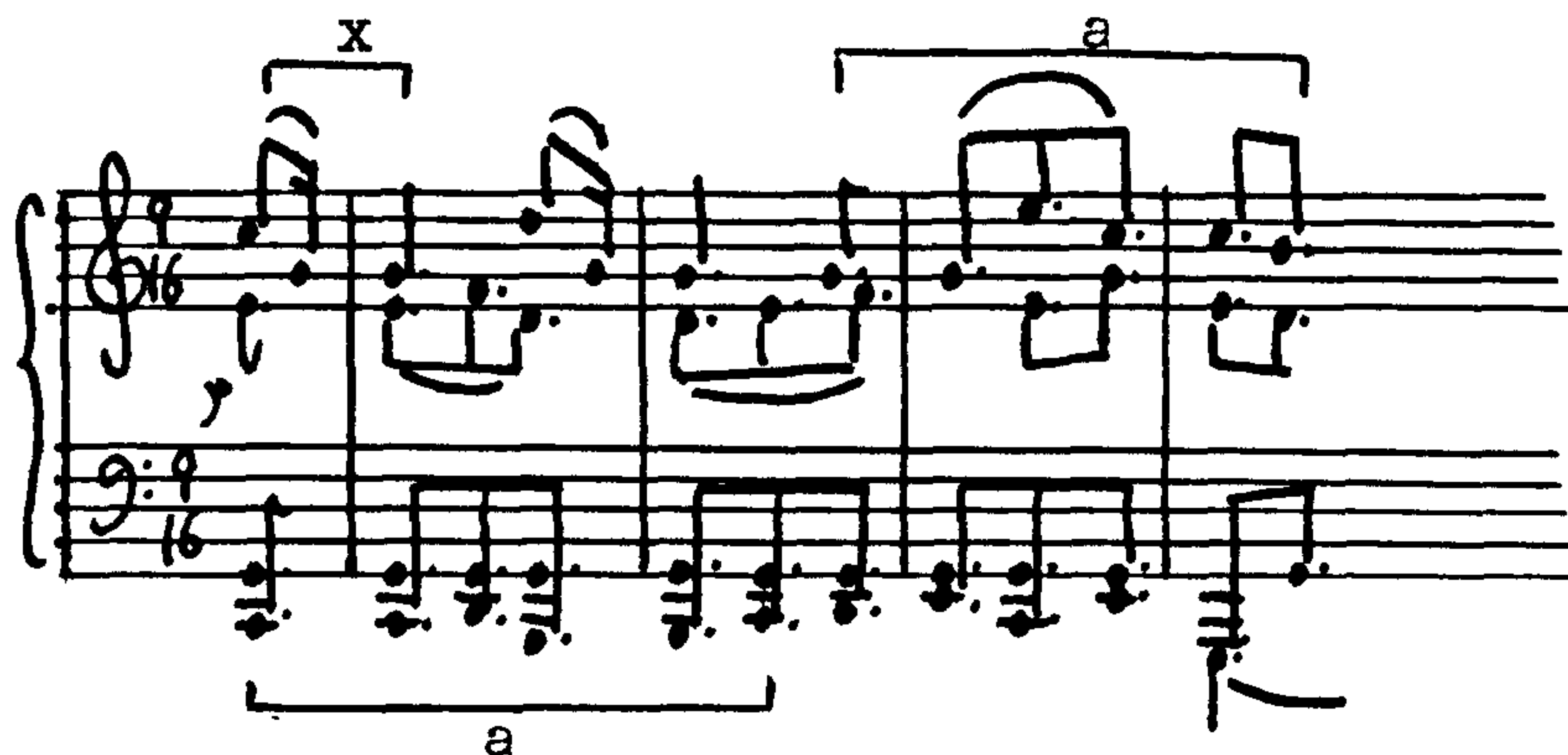
However, within C of MI is a motivic reiteration of from A. At the same place (bar 7) M2 has a very interesting sequence-contraction, of the first three bars in effect; but note how bars 1 - 2 of M2 are restated in just one beat of bar 7. Such motivic unity is part of the process of forging "liaisons" which Mies describes.

The antecedent structure thus differs between MI and M2; but the two melodies nonetheless approach their main apex similarly, and indeed the apex is on the same degree in each case (the submediant) as was discussed above, and occurs at the same place. While MI approaches the climax of bar 6 from above (arguably for the tonal reasons mentioned above concerning the linking of movements), it is interesting to note the exact parallel in the importance of the submediant in each case. (Note that MI also begins on the dominant; thus the higher rise subsequently falling onto the submediant emphasis, is more effective after the higher beginning, which was itself a factor in tonal linking). Bar 7 in each melody is a tonic $\frac{6}{4}$ with dominant $\frac{7}{3}$ on the third beat; the emphasis

in bar 6 varies, opening with the $\frac{7}{3}$ on the supertonic in MI, whereas M2 uses the supertonic more forcefully. The cadence at bars 7 - 8 is melodically directly comparable; interesting too is the fall preceding this in MI, and the rise in M2. Thus each bar 7 complements the earlier tendencies in each melody. (For MI, see bars 1,4,5; for M2 see bars 2,4,5).

M2 is technically an advance on MI; despite the last beats of bars 2,4 and 6, MI is more stilted, more four-square. M2 has only one 'thematic cell' and this grows smoothly across the bars; MI tends this way, in emphasising beat 2 rather than beat 1 (bars 4 and 6) but the overall flow of the melodic line is more convincing in M2. Notable in this respect is the progressive melodic rise in M2; nowhere does it anticipate the submediant apex: Bars 1 - 6 are a gradual development toward it, and for this reason the nearness of what would be a delaying threefold repetition is overlooked, as the upward push of the melody ellipses A into a direct rise, in bars 5 - 6.

With M3, the angularity of MI is absent. Note the harmonic treatment; the tendency of MI is here fully realised; The harmonic basis of M3 ignores the first beat in the opening bars. It is not until bar 2 that the listener in fact realises he is in a triple metre, the first beat is so smoothly ellipsed. Again, bars 1 - 4 are harmonically only tonic/dominant alternation, but far more subtly handled. Beethoven's love of a flowing counter-subject to his melody is in evidence here, and contributes to the elimination of caesurae from the melody. In fact, rhythmically, bars 1 - 3 of the bass yield the framework for the melody of bars 2 - 6:-



Rhythmically, bars 6 (beat 3) - 8 are a combination of x and a (using the terminology of the above extract). For Beethoven to combine motifs from different thematic contexts as part of thematic resolution¹ is a notable characteristic in his compositional technique; but for it to occur within a melody is indicative of the conciseness and subtlety of which he became such a master.

Thus, if x = A, and a = B, there is in bars I - 8 the structure:

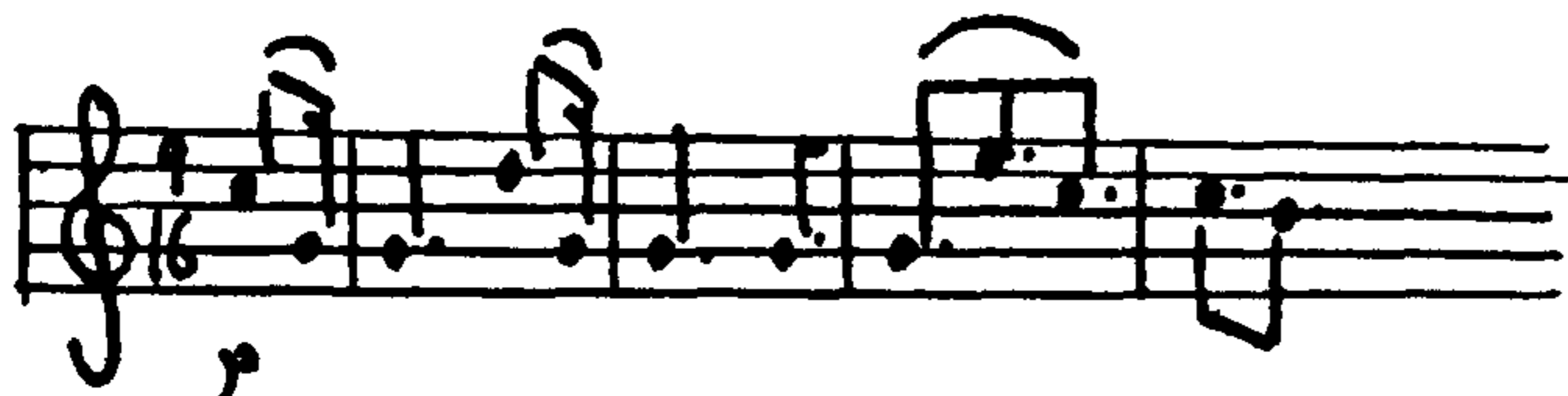
BARS	I	2	3	4	5	6	7	8
M3	A	A'	B	B'		>A+>B	A	

This melody is more tightly controlled than either M1 or M2 in terms of motivic derivation, but yet has far less of a feeling of being formally controlled.

It is very illuminating to note a parallel between M2 and M3, and then to contrast the similarity; melodically bars I - 5 of M2 are:



Bars I - 4 of M3 are:



¹ See page 47, Footnote 2. Beethoven's combining of motifs from various contexts, particularly in coda treatment, is a detailed but remarkable instance of his power of integration. Such tonal-thematic resolution needs detailed examination, but is beyond the scope of the present thesis.

Twenty years later, in Op. III, Beethoven reiterates the melodic germ of M2, but how much more directly is quite amazing. The simultaneous occurrence of x and a in this melody has already been mentioned; the sequential move to the apex, again at bar 6 of the eight bars, is built on a. Bars 3 - 4 prefigure bars 5 - 6 in a very beautiful way. Bar 6 is not a submediant apex but, significantly, uses apoggiatura emphasis, preceding its resolution onto the supertonic. The overall feeling of bars 1 - 6 melodically, is again that of a rise. After the apex in bar 6, there is a drop to the cadence, beautifully combining features of x and a. (Note how the bass is in contrary motion to the melody for most of the time, particularly from bar 4 on; the spacing is widest at the melodic climax of the apex; the hands converge to the cadence). Again in bar 7, there is reference to very early motivic material; x occurs at beat 3, leading into bar 8.

These three melodies are quite widely spaced within Beethoven's oeuvre. While there are notable differences in the stylistic treatment of M3 in particular, M1 yet seems to foreshadow M3, in its emphasis of the triad, although this is far more serene in M3. M2 has more in common with M3. Although the latter has moved onto a different plane of expression, the similarities which exist between these three melodies strongly suggest that for Beethoven the tonality of C had particular significance, certainly in the context of an adagio movement, and that it brought into play tendencies of a distinct and notably consistent kind, characterising the thematic structure.

SECTION 2 - G MAJOR

GROUP (a)

Works in G included in this study

Op. 1/2	Piano Trio
Op. 49/2	Piano Sonata
Op. 9/I	String Trio
Op. 14/2	Piano Sonata
Op. 18/2	String Quartet
Op. 119	Bagatelles No. 6
Op. 30/3	Sonata for Violin and Piano
Op. 31/I	Piano Sonata
Op. 58	Piano Concerto No. 4
Op. 79	Piano Sonata
Op. 113	Overture - The Ruins of Athens
Op. 96	Sonata for Violin and Piano
Op. 126	Bagatelles Nos. 1 and 5

GROUP (b)

Movements or sections in G, in a basically different tonality included in this study

				KEY OF WORK	RELATIVE KEY OF ITEM
Op. 5/2	(ii)	G	Sonata for 'Cello and Piano	g/G	I
Op. 10/3	(iii)	D:G	Piano Sonata	D	IV
Op. 49/I	(ii)	g:G	Piano Sonata	g/G	I
Op. 61	(ii)	G	Violin Concerto	D	IV
Op. 75	No.5	G	Six Songs		
Op. 123	Benedictus	G	Missa Solemnis	D	IV
Op. 119	No.6	G	Bagatelles		
Op. 8	(iii)	D:G	String Trio	D	IV
Op. 25	(ii)	D:D:G	Serenade for Flute,	D	IV
	(iv)	G	Violin and Viola	D	IV
Op. 72b	No.3		Quartet	(following C)	
Fidelio	No.10		Prisoners' Chorus middle section	(B \flat)	
	No.15		O Namenlose Freude (Duet)	(following D)	
Op. 130	(iv)	G	String Quartet	B \flat	VI

In discussing tonal factors which emerged in Tables I - III a lower incidence of the tonic as a sectional key was evident, in relation to G, as compared with usage in other keys. However, other sectional relationships are apparent, notably that of E♭ as a sectionally-contrasting key. This is a juxtaposition which occurs frequently in various contexts. G also evinces the major submediant comparably with C; these two use the relationship along with only two other keys (B♭ and E♭; the B♭/G relationship is, however, a particularly notable one in contexts other than that of its occurrence as a sectional key¹). G also has a dominant section-contrast, but the subdominant is in various ways a stronger element of tonal emphasis. The sectional key-relationships in G range as widely as in E♭, D and C (proportionally, although the contrasted key-relationships are not parallel between the four keys).

Of the fourteen items included in Group (b) of the G themes, there are twelve which involve sectional key-contrast. Of these, only two are instances of the tonic major after the tonic minor; and both (Op.5/2 and Op.49/1) are only two-movement works, with the first in g, the second in G. Evidently the minor/major contrast will not be as notable with sectional occurrences of G as with C, as there are considerably fewer g than c works. Seven of the ten remaining items are instances of G as subdominant to a basic D. This is indeed a significant relationship; while it is not high in the tabular data concerning D, the subdominant tendency in D becomes more prominent in Beethoven's composition in the course of time, affecting various structural levels. The subdominant leaning from a basic G has been mentioned above² and the melodic rôle of the subdominant in G will be discussed in the following examination of tonal-thematic characteristics in the G themes. In the two remaining works in which G occurs as a sectionally contrasting key, the middle section of the Prisoners' Chorus (No. 10 of Fidelio) and the String Quartet Op.130, the basic key is B♭. As stated above, this relationship

1 See Appendix I, P. 319-339.

2 Pp. 55-6.

is one which is evident throughout Beethoven's music as a notable tonal juxtaposition in various contexts. Its occurrence as the key of the alla Tedesca in Op. 130 is not "simply a whimsical bolt out of the blue" as Joseph Kerman would have it¹; nor is it the F^x relationship which Mies advocates, in order to support a very strained interpretation of a third-related cycle throughout the Quartet.²

The Group (a) themes will again be examined to identify notable tonal features; the Group (b) themes will then be similarly treated.

THEMATIC FEATURES IN A G CONTEXT

As with the C themes, there are in the context of G distinct tonal characteristics both in terms of degree-emphasis and of harmonic emphasis. In the C themes, both Group (a) and (b), the supertonic was noted as such an emphasis. In G, there is a different tendency, relating to the subdominant. Again, the particular emphasis varies, as will emerge in the course of the tonal-thematic examination, but it is a notable characteristic of the G themes, not paralleled in C. Arpeggio tonic-emphasis is notably different from that in the C themes, and is more widely used. Together with this factor is the remarkable "tonic-centred" structure of the G themes. G themes differ in general from C themes in that they seem either to be broader, and more lyrical, or far more concise, cadencing in the tonic in the antecedent treatment.

1 The Beethoven Quartets, P. 321.

2 In putting forward this suggestion in comparison with Op. 126, Mies nowhere explains why there is a sudden change of direction of the thirds in Op. 130, where Op. 126 consistently falls. To interpret Op. 130 in this way is too forced and does not take account of B^b/G tonal juxtaposition in other contexts. (See Mies, op. cit., Page 176.)

I SUBDOMINANT EMPHASIS IN THE G (GROUP (a)) THEMES

There are two very notable recurrent thematic "shapes" in the Group (a) themes; the first of these relates to subdominant emphasis, either as an intervallic outline, or with harmonic support; or sometimes the subdominant degree functions as an important melodic apex. The other notable such constituent in G themes is tonic arpeggio emphasis, which will be examined subsequently. Subdominant emphasis will be discussed under the following headings:

(i) degree emphasis

(ii) harmonic emphasis

These categories of differentiation already indicate a distinction between G and C themes; nowhere in the C themes does the subdominant function in a comparable rôle.

(i) Subdominant degree-emphasis in the G (Group (a)) themes

Two of the three examples of this usage are defined as falling into this category, as only a single melodic line, without harmony, is in question. Exx. I - 3 of the Group (a) G themes are the instances of this usage¹.

The first two bars of ex. I are a very clear instance of subdominant emphasis; the preceding slow introduction ends harmonically on a dominant-seventh of G, but the chromatic rise clouds this somewhat, and it is not until bar six of the Allegro (and of ex. I) that G is firmly established.

Example 2, from the finale of the same work, includes subdominant emphasis after opening tonic (and arpeggio!) emphasis. It is interesting to note the recapitulation treatment of bars 4-5 of the example, in view of the C tendencies previously discussed:

Violin
(Cello tacet)

Piano



¹ The Group (a) G themes are given in the Supplementary Volume P. 11 et. seq.

In ex. 3, although there is not harmonic emphasis, subdominant degree-emphasis on the second beat of bars 1, 3 and 5, is important in shaping the theme.

(ii) Subdominant emphasis - harmonically
(a) initially

There are three notable occurrences in the Group (a) themes, exx. 4 - 6. As with ex. 2, tonic emphasis precedes the subdominant emphasis in ex. 4; the subdominant occurs in answer to the opening phrase. The harmonic underlay in ex. 5 is strongly based on the subdominant; in ex. 6 the subdominant practically usurps the tonality. C emphasis is notable in the context of G, a fact which is emerging in the course of the present discussion; it is also notable in relation to the key of e, as has previously been mentioned. Concerning ex. 5, the preceding movement of the Fourth Piano Concerto is in the relative minor (e), thus giving double tonal significance to the opening C emphasis of the G finale.

(b) in the course of the thematic treatment

Instances of this harmonic emphasis occur in exx. 7 - 18. There are different types of usage within this category; the subdominant occurs:

- i as notable emphasis in the thematic consequent
- ii as the pivot in tonal re-orientation
- iii as apex, and cadentially (ex. 14), or cadentially.

The fact that there are these differences relating to the thematic structure, in the occurrence of subdominant harmonic emphasis does not detract from the importance of its incidence tonally. Rather it is remarkable how often the subdominant does occur as the crucial harmonic focus, at various junctures in these themes. This is a distinctly different procedure from that adopted in the C themes where the dominant is frequently preceded by supertonic emphasis; and where the use of a diminished seventh on the sharpened fourth (F#) is more characteristic in approaching the dominant (or the tonic $\frac{6}{4}$ in a tonic cadence) than is the normal subdominant chord. This suggests a tonally-related tendency giving rise to differences in thematic treatment between categories on the level of harmonic structure. It is interesting to note that while there is tonal "deviation" within the thematic treatment in both C and G, all the Group (a) G themes cadence in the tonic. This is not the case with the C themes, which in fact tend to the sharper

side in some instances, without a tonic close. There is no such instance in the Group (a) G themes.

- i The subdominant as notable harmonic emphasis in the thematic consequent (Exx. 7, 10, 12, 16)

In ex. 7, the strong subdominant usage (bar 6) occurs in a phrase which is consequent to the opening bars, but part of an overall 'continuation' - type theme. This emphasis follows a tonic cadence, but reinforces it; the ensuing dominant is harmonically as strong as the subdominant; but the subdominant is itself very forceful, having almost the effect of a cadence into C. (Of course the tonality does not move from G, but the subdominant emphasis is remarkably strong. In its second appearance, it is "softened" into a dominant-tonic cadence, by the Violin run. The entire thematic paragraph is 12 bars long).

In ex. 10, the first eight bars come to a tonic close which is immediately followed by strong subdominant emphasis; again, as in ex. 7, the subdominant emphasis is pronounced.

Example 12 is comparable structurally, in that an 8-bar period has closed in the tonic; however, the ensuing subdominant emphasis does not in this instance occur in an immediate harmonic statement but over a G pedal, as antecedent to the succeeding 2-bar cadential phrase (the four bars are twice stated). Thus exx. 7, 10 and 12 are structurally similar with respect to the incidence of subdominant harmonic emphasis following a tonic cadence.

In ex. 16, the consequent treatment includes notable subdominant emphasis. This occurs in bars 4-5, further enhanced by the F¹ in the last quaver of bar 4¹.

- ii Subdominant harmonic emphasis as the pivot in tonal re-orientation (exx. 8, 9, 11, 13, 14)

Example 8 concerns a thematic paragraph of twenty bars; there is a tonic close after eight bars followed by four tonic to dominant 'oscillations' based on the opening four bars motivically, and alternately forte and piano, dynamically. Following the (piano) dominant of bar 16, bar 17 states the subdominant harmonically after nearly a bar's rest, and this prefaces the tonic

1

Note the occurrence of e/C tonal juxtaposition here, too.

cadence of the paragraph. Thus the subdominant is the tonal pivot which ushers in the cadence, and is harmonically emphatic, after the extensive tonic and dominant usage; the subdominant rôle here also extends to the use of the degree as a melodic apex in bar 18.

Example 9 is from the finale of the same work (The String Quartet in G, Op. 18/2). The opening eight bars move onto the dominant, followed by a 'mediant deviation', (a notable tonal characteristic in some G themes) which extends into an e cadence. Bars 17 - 21 effect the tonal re-orientation, via the subdominant. Thus, as with the example from the opening of the last movement of the Fourth Piano Concerto, there is here an instance of double tonal significance, relating to the e/C juxtaposition, and to C emphasis in G.

Example 11 brings yet another tonal tendency into play. The unexpectedness of the flattened seventh harmonic emphasis at bar 11 (et seq.) has caused much comment. Tovey (as he does the Waldstein opening) dismisses this as "merely an enhanced subdominant".¹ However, a different interpretation is possible in view of the tonal juxtaposition in evidence here. The importance of the F/D relationship in Beethoven's music has already been referred to above.² While the juxtaposition is more in evidence where D is the contrasting key, there are nonetheless several instances of a D/F tonal contrast, not always moving through the linking medium of d, tonic minor to D, and relative minor to F. It is interesting that there are at least two other instances of this usage in G works; these occur in the last movement of the String Quartet in G Op. 18/2, and in the opening movement of the Fourth Piano Concerto, Op. 58. The instance in the Quartet occurs during the second group treatment in D. In the Concerto, the second exposition ends in D; the Piano moves strongly towards F, but the resolution is diverted (by another significant tonal turn - F to the dominant of d). The Quartet

1 Op. cit. P. 49. Concerning the Waldstein example, see P.60 above.

2 See P. 51 above,

is particularly interesting for the way in which it "builds" the F tonal sideslip.

There are also striking occurrences of F in a basic D context, most notably in the Rondo finale of the Violin Sonata Op. 12/I. Here there is an entire section in the key of F. F is also an important key in the development treatment of the first movement of the String Trio Op. 9/2, conspicuous for its major tonality in a predominantly minor development. (There is also a change in direction, tonally, after the incidence of F). This relationship cannot be investigated in detail in the context of the present example, but the instances of its occurrence necessitate a re-appraisal of the tonal factors in question in the opening of the Piano Sonata Op. 31/I. To dismiss as "merely an enhanced subdominant" emphasis, a tonal juxtaposition which is of note in various formal contexts, is to ignore the functioning of distinct tonal references in Beethoven's composition, and to miss their significance as a result of the limitations of conventional analysis.

In the opening of the Piano Sonata Op. 31/I (i), the subdominant first occurs as a result of the exact imitation of the opening, one tone lower. The cadence at bars 21-22 arises from this imitation. However, the ensuing re-orientation of the tonality to G (the tonic) is effected through C emphasis, now used as subdominant of G. It is this occurrence of the subdominant which makes it relevant to category ii of the present considerations.

Example 13 is the next instance of subdominant tonal re-orientation in the Group (a) themes. The opening phrase, moving onto the dominant, is answered by strong mediant usage (with sharpened third). The tonal return begins by moving down the two tones from B to G, successively, but the re-affirmation of G as tonic stems from the strong subdominant emphasis at bar 10 (note the *sf* in the dynamics).

The last example in this category relates to ex. 14. It occurs at the cadence of the theme (not given, see bars 20 - 22 of the score) in the opening of the finale of the last Violin Sonata, Op. 96. In the consequent treatment of the theme (beginning at bar 16), there is a tonal turn to the mediant major, the

same key as occurred in the previous example from the Piano Concerto. This returns to G via strong subdominant emphasis. The D[#] becomes D[♭] and returns to G thus:

Poco Allegretto

In examining the use of the subdominant as a notable factor in tonal re-orientation, various other significant tonal characteristics have emerged. The mediant inflection is strong enough to merit consideration as a tonal-thematic characteristic of the Group (a) G themes. Again, it is valuable to make comparison with C usage. There is less such tonal deviation within an overall tonic thematic paragraph in C than is the case in the G themes. Where there is tonal deviation of the type which is emerging in examination of the G themes, it is not enclosed within a tonic-cadencing paragraph in C. The only incidence of a mediant deviation in a C theme occurs in the opening of the last movement of the Triple Concerto Op. 56.

iii Subdominant harmonic emphasis - as apex and cadentially

This usage occurs in ex. I4, at the end of the theme (that is, in the consequent treatment, not given in the example. See bars 29 - 30). Here there is no secondary seventh emphasis as in bar 6, but the subdominant is in $\frac{5}{3}$ position, and its clarity is notable after the mediant deviation. Together with this harmonic emphasis there is a melodic apex also springing from the subdominant.

- cadentially

Harmonic emphasis of the subdominant cadentially is not a frequent occurrence in the Group (a) themes. Where it is apparent, in exx. I5 and I7, it is interesting to note that these two themes have not been included in preceding categories of subdominant emphasis. Thus there is still subdominant usage of some kind, even in what are not extended themes.

The cadential nuance in ex. 15 is enhanced by the F^{\flat} emphasis, stressing the subdominant:



Example 17 evinces subdominant emphasis, again with F^{\flat} , in the restatement of the 8 - bar period.

In addition to the usage discussed here, there are two further notable instances of the subdominant used early in the works; these occur in exx. 17 and 18. In the Overture (ex. 17) the tonality moves directly into C after the G tonic group, and an emphatic G cadence; and C is the key of the second group material. Further interesting tonal features occur in the course of this undistinguished work. A similar usage, but on a smaller scale, also characterises the opening of the Sonata for Violin and Piano, Op. 96 (ex. 18). Here the restatement of the opening period moves directly into C, and builds back to G only gradually.

The key of C thus functions very strongly in various ways in relation to the thematic treatment in a basic G tonality. The full extent of this tonal tendency requires analysis on larger-scale levels also, but the frequency and the nature of subdominant emphasis in G themes are indications that a distinct tonal tendency exists, relating to the key-location of G. Evidently, as was stated above, the factors characterising thematic treatment will have formal repercussions; that this is particularly the case in relation to C in a G context can only be stated here, as the full examination of this difference requires analysis of larger-scale factors than can be included in the thesis.¹

¹ However, while it may be difficult finally to distinguish

II MEDIANT INFLECTION IN THE G (GROUP (a)) THEMES

Once again, it is necessary to categorise the Group (a) G themes in terms of a particular nuance which does not characterise C themes. There are two types of "mediant inflection" in the G themes; the first is on the level of a melodic inflection, but is rendered more significant in view of the second type, harmonic emphasis of the mediant. As with subdominant emphasis in the Group (a) G themes, the mediant tendency is notable for its frequent occurrence in a G context; the scope of examination is at times extended beyond the immediate confines of the thematic paragraph in considering this feature, to indicate the nearness of mediant inflection in G. Harmonic emphasis of the mediant is examined first.

A Mediant inflection - harmonic
(i) Exx. 4, I3, I4
(ii) Exx. 9, I6, I9

(i) All three of these examples have already occurred above as evincing some kind of subdominant emphasis. The mediant inflection in ex. 4 is to the mediant minor. The section (the opening of the scherzo of the Piano Trio Op. I/2) cadences into the dominant after this, but the turn to the mediant minor in the second

cont.)

types of usage, the concept of a hierarchy of tonal relationships may be suggested here. This can only be treated in detail following full analysis, structural and comparative, of tonal usage in all keys; but it seems to be the case that there are tonal tendencies (such as the supertonic emphasis in C) which do not emerge on the larger-scale levels: and that there are others (such as C in G) which seem to occur both as sectional contrasts and as tonal-thematic characteristics. This is a complicated process to particularise, but that there are such differences in usage strongly suggests the functioning of 'tonal complexes' in Beethoven's music relating to specific tonal categories in particular ways.

phrase is notable; it sounds tonally surprising, particularly after the earlier subdominant emphasis.

The mediant inflection in ex. I3 has been previously mentioned. The second period opens, after a rest of two and a half crotchets' duration, with a chord of the major mediant; it is heard after the dominant of G, but relates motivically and aurally to G, after the dominant, more strongly than to the dominant chord itself. Again the interrelationships which arise come into play; the submediant minor is a particular tonal tendency in the key of D, and the subdominant also plays an increasingly important rôle in D in Beethoven's music. Thus there is a D - b : D - G : G - b/B complex to consider. However, in the present instance the prevailing tonal reference is that of mediant from G; an opinion the other examples of this usage corroborate.

The mediant inflection occurring in the finale theme of Op. 96 (ex. I4), the last Sonata for Violin and Piano, occurs as the contrasting consequent treatment, following the G - cadencing 8-bar period, twice stated, which precedes it. The middle-section of the thematic paragraph, in the mediant major, is stated over a dominant (of B) pedal. The return to G has already been quoted (P. 108); the sideslip to the mediant is given here:

The image shows a musical score for Violin and Piano. The Violin part is written on a single staff in treble clef, with a key signature of one sharp (F#) and a 2/4 time signature. The Piano part is written on two staves (treble and bass clefs) in a key signature of one sharp (F#) and a 4/4 time signature. The score depicts a melodic line in the violin and a harmonic accompaniment in the piano, with dynamic markings such as 'p' and 'f'.

(ii) Example 2, from the opening of Op. 18/2 (iv), falls between categories A and B of the present analysis. The movement opens comparably with ex. I3 in that the first phrase moves onto the dominant. The structure of this move is different in each case. Then instead of the dominant - tonic return which seems to be coming after the next two bars in the 'Cello (bars 9 - 10), there is a chromatic rise onto the mediant degree. This is in fact extended harmonically to form the dominant of the relative minor (e); but bars 12 - 13 are harmonically the major mediant. Again, the mediant is the focus of an early

tonal deviation. In fact, the usage here includes both a melodic inflection (in the 'cello line) and a harmonic inflection (bar 13) of the mediant.

Example 16 is also relevant to B ; however there is notable harmonic emphasis of the mediant at the close of the first section of the Bagatelle. The earlier subdominant emphasis has been discussed; in the restatement of the opening, the treatment is modified tonally, over a rising bass which in fact carries the tonality onto the major mediant triad. However, there is also a feeling of the relative minor in this opening section, at bars 3 - 4, and from bar 10 onwards. Tonally the cadence is rather delicately poised; e has been very much to the fore previously, but in the two bars immediately before the cadence, the strong emphasis, with D \sharp in the 'melody' turns away from e. The last quaver of bar 15 again redirects the tonality; A \sharp then rises to the cadence on the mediant major chord. This is approached from the Neapolitan; the entire progression can be interpreted as an imperfect cadence in e, approached via the subdominant of e, basically a I - IV - V progression. The Neapolitan emphasis, together with A \sharp tend to emphasise the mediant chord rather more finally than as dominant of e, but whatever the interpretation of the passage, the mediant of G is strongly focused tonally. It is interesting to note what follows this cadence after the repeat of the section; the key of C occurs immediately. This is significant both in terms of the key of the Bagatelle - the importance of C in G has been sufficiently stressed above - and of the earlier e emphasis. However this does not confirm that the cadence is onto the dominant of e, as a particular B (b) - C side-slip does occur in various contexts in Beethoven's music!¹

¹ Cf. the return to G in the finale of the Sonata for Violin and Piano Op. 96, given on P. 108 above. The reverse relationship occurs in a remarkable tonal turn in the development of the first movement of the Violin Concerto, Op. 61 (in D). The dominant-seventh of C sharpens, the bass drops onto F \sharp , and the key of b is established. (See bars 280 - 304). In the Violin Concerto the key of b may also be significant as a tonal focus in a D movement. The submediant is a notable tonal 'pivot' in D movements, a feature which is treated more fully in the D tonal-thematic analysis below. (P. 161 et seq.)

Although various tonal tendencies are in evidence in ex. I6, it is not necessary here to categorise their incidence more precisely; rather it is important to note that this particular set of relationships is unique to a G thematic context and forms part of a specific tonal complex.

Example I9 may be appended as an interesting and significant instance of the mediant used as a contrasting key-area. This treatment occurs in the Rondo finale of the Violin Sonata Op.30/3; the return to G is characteristically effected. Together with this example and that of the Bagatelle ex. I6, reference may be made to the Piano Sonata Op. 31/I, (i), where the key of the second group of this first movement is the mediant, major and minor! (The key of the Sonata is G).

The mediant harmonic inflection in G is a tendency which occurs in varying formal contexts. This indicates the significance of the tendency, but it also suggests the reason why such tonal consistency has remained veiled. Conventional analysis does not highlight specific relationships, but immediately these are examined primarily in terms of specific key-location, and not in terms of form and degree-relationship to a similarly functioning tonic, irrespective of the key-location, a remarkable regularity becomes apparent relating to, and differentiating each key.¹

B Mediant Inflection - Melodic

Melodic inflection in Beethoven's thematic treatment is a stylistic feature which has not been examined in terms of whether or not it is a tonally-related characteristic. In the G (Group (a)) themes, a mediant melodic inflection is in evidence. Although this is not strong, that it is apparent is a fact worthy of note, in view of the undoubted harmonic nearness of the mediant

¹ This approach to tonal functioning is more fully developed in Section II of the Introduction; Tonality - The Conventional Analytical Approach, P.6 et seq. above.

in the G (complex). One example in this group uses both harmonic and melodic mediant inflection. The instances of melodic mediant inflection in this group are exx I, (9), I6 and 20. (Ex. 9 has already been fully discussed in the previous section).

The melodic threefold repetition in ex. I, mentioned above, is interesting for the emphasis of the mediant which it demonstrates, in bars 6 (the apex), 8 and 12; the last of these includes the inflection A[#]-B. This is the same inflection as occurs in exx I6 and 20. Examples I and I6 both use the inflection over submediant (minor) harmony; in ex. 20 it is an enhancement of a descending tonic chord. This is repeated sequentially on the supertonic degree over a tonic pedal, a feature not characteristic of G themes generally.

A notable mediant tendency is then discernible in the G (Group (a)) themes. That this tonal tendency is also evident on other levels has been suggested. This relationship, as with the subdominant in G, is to be found on larger structural levels, as well as being evident in initial thematic treatment.¹

III THE TONIC ARPEGGIC AS A NOTABLE THEMATIC SHAPE IN THE G (GROUP (a)) THEMES

The tonic triad was considered as a characteristic of both Group (a) and (b) C themes in the preceding tonal-thematic analysis; it was stated there that no claim was or could be made to identify this feature with C themes alone. The tonic triad is in fact a particularly notable feature in the G (Group (a)) themes. The

¹ Cf. P. 109, Footnote 1.

mediant inflection which is characteristic of G and not of C themes, may be linked to a particular thematic shape in the present instances, where the mediant degree is often central to the theme not only as melodic apex but as a recurring and "pivotal" degree in the overall thematic structure.¹ (This again suggests the particular accessibility of the mediant in a G thematic context).

Although both tonal categories use notable tonic-triadic emphasis in their thematic treatment, the G treatment does differ from that in C in that it is proportionately more often an opening emphasis, or the basis of the thematic contour. As has been suggested, the strong supertonic tendency in C themes (especially in movements other than finales) may well detract from such triadic emphasis. Thus, a tonal tendency may apparently determine and create a stylistic feature, characterising a specific key-category. The mediant tendency in G themes has already been discussed; the question whether or not the triadic tendency initially in G themes is linked with this (or indeed itself arises as a result of the mediant tendency), serves further to illustrate the particular interrelationships which exist within a tonal category, viewed as an entity, in comparison with treatment in other tonalities.

By far the majority of the Group (a) G themes have some instance of triadic usage of note; the examples will be grouped according to three types of occurrence which are evident:

- i initial tonic-triadic emphasis
- ii interim tonic-triadic emphasis
- iii tonic-triadic emphasis as the basis
of the entire thematic shape

The largest of these categories is the first; but it is interesting that in a quarter of the themes comprising Group (a), the thematic shape is basically tonic-triadic. The present division into three

¹ However, it is not as pronounced in this respect as is the case in the E^b (Group (b)) themes. See P. 291 et seq. below.

categories is in the nature of a process of elimination; clearly, an example in category iii, which comprises those themes based on a tonic-triadic thematic shape, could also be said to include interim, and initial emphasis: thus where more than one category is pertinent, instances have been grouped according to the category which best sums up the type of emphasis in question, rather than subject examples to further dissection.

i initial tonic-triadic emphasis

Examples 2 and 5 have already been discussed in relation to subdominant emphasis of various kinds. Example 5 may in the present instance be set aside from the others as the triadic emphasis, while an important part of the opening, is here used in an ornamental capacity. In all the remaining examples, the tonic-triadic emphasis is not subordinate to any other factor. The extent to which this initial emphasis forms a "cell" which generates the ensuing treatment varies, but in all instances the triadic emphasis is heard as the vehicle of the first motion in the theme, shaping the opening. The other examples are nos. 2, 16, 20, 21, 23, 24, 25a, 26 and 27. The subsequent treatment varies; most often the opening tonic is followed by the dominant, but there are other harmonic bases; in example 2 the subdominant is the second harmonic emphasis, in ex. 20 the supertonic is treated sequentially over a tonic pedal. Between the time of the composition of the Piano Trio of ex. 2 and the Piano Sonata of exx. 26 and 27, considerable stylistic differences had developed in Beethoven's approach. Examples 26 and 27 indicate a tendency to weakening caesurae; the opening of ex. 26 is of particular interest in its use of three bars of tonic harmony, a characteristic of Beethoven's Middle-period work. Tonic-triadic emphasis is evident in the two Op. 126 Bagatelles in G (exx. 15 and 16) dating from as late as 1823 - 4. Despite changes in compositional technique in general terms, a particular feature of thematic structure seems to have persisted, relating to these G themes.

ii interim tonic-triadic emphasis

Examples from the Group (a) G themes including tonic-triadic emphasis characterising the thematic shape (and not occurring initially in the theme) are nos. 1, 7, 18, 22, 25b.

Example 1 is especially notable as an instance of a theme which 'pivots' strongly on the mediant degree. This has been

referred to above in connection with the tendency to mediant inflection; all the main notes of emphasis in the theme, after the first four bars are tonic-triadic. Bars 5 - 16 are given below, with the emphasised notes indicated by a line above the staff:



The dominant and mediant degrees are anticipated in bars 4, 6, 8 and 9 of the extract; however the overall shape of the theme is in effect an oscillation between these two degrees, gathering the momentum to cadence (by way of threefold repetition!); indeed the preface to this cadence is an emphatic descending tonic arpeggio

Example 7 has also been discussed for its subdominant emphasis (P.105); this is preceded by an unequivocal tonic-triadic emphasis (bars 4-5) which serves, retrospectively, to emphasise the subdominant immediately following. The interim emphasis is not as strong in example 18, the very serene opening of the last Violin Sonata. A tonic cadence has occurred in the Piano (bar 4) but the Violin ellipses this in its own tonic arpeggio rise through two octaves, before falling to a tonic cadence. The tonic emphasis in ex. 22 occurs similarly after two bars; it is notable here as comparable with ex. 2 in that G is the focus of the melodic line for two bars, and then the move away from the tonic degree is via the tonic triad. (Example 22, (like ex. 18), falls to the tonic cadence triadically.¹)

¹ The antecedent of ex. 22 also occurs in an E \flat context, in the Septet Op.20. The tonic triad emerges as a notable feature of the E \flat themes. In connection with the occurrence of basically the same theme in these two keys, see Pp. 267-8 of the E \flat tonal-thematic analysis below. (The tonic arpeggio in the thematic structure comprises Section III of the E \flat Group (a) tonal-thematic analysis, P. 262 et seq.)

Example 25b is the first episode in the Rondo finale of the Violin Sonata Op. 30/3; it occurs once in the movement, and is constructed simply in terms of tonic-dominant alternation, but the triadic emphasis is in evidence.

iii tonic-triadic emphasis as the basis of the entire thematic shape

The examples in which this emphasis is present are nos. 8, 9, 10, 11, 17, (16). Example 16 is difficult to categorise meaningfully; the first four bars are obviously triadically based melodically; the consequent also focuses melodically on degrees of the tonic triad but softened by suspensions, and used in conjunction with subdominant and dominant harmony.

The tonic-dominant alternation in the opening paragraph of example 8 has been mentioned previously; apart from this harmonic contrast the extent to which the thematic shape is tonic-triadically based is quite striking. Example 9, from the opening of the last movement of the same work also features a triadic outline as the basis of the thematic treatment. Here the tonal treatment is notable, as discussed above (Pp. III-2), but the opening tonic arpeggio motif remains the most prominent factor in the thematic paragraph. (Indeed, note how this emphasis, falling to the cadence, "spills over" into the ensuing transitional material.)

Concerning example 10, an interesting comparison with C tonal usage emerges. In exx. 2 and 22 of the G(Group (a)) themes there was emphasis of the tonic alone, prior to a rising tonic arpeggio; treatment comparable with exx. 2 and 22 in this respect occurs in example 10. The triadic emphasis is more far-reaching in ex. 10, where the opening two bars recur, at bars 5 - 6. At this point comparison with the first movement of the First Symphony (in C) may be made. In that work there is also sequential repetition, motivically, of the first four bars, as is the case in the present ex. 10. (See ex. 5 of the C Group (a) themes.) However, there is a marked difference in the sequential treatment. In the C theme, characteristically, a sequential repetition on the supertonic ensues, but in the G theme the first two bars are repeated exactly, in terms of pitch as well as of motif. The C theme cadences (in the tonic) after the opening four bars; the G theme moves onto the dominant, a procedure most often adopted in the G (Group (a)) themes. Even in bars 3 - 4 and 7 - 8 of example 10 the tonic arpeggio is the main constituent in the

melodic outline. The melodic consequent treatment is strongly subdominant in emphasis, as has been discussed; but the cadence of the phrase (bars 10 - 12) again highlights the mediant to tonic fall.

Example II also includes some tonal deviation which has caused comment above (P. 106). Nonetheless, the 'generative cell' of the thematic paragraph - after the descending scale which announces (albeit piano, dynamically) the tonality of G - is the tonic triad; quite straightforwardly stated. This is exactly repeated in the succeeding sequential treatment; and after the tonic cadence of bars 25 - 6, it is a rising tonic triad which again spills over into transitional material. However one interprets the tonally unexpected treatment in the opening of this Sonata, the fact of the tonic-triadic emphasis is notable. One might argue that Beethoven sought to stress G as straightforwardly as possible, as the key (indeed he moves to the dominant, enhancing this feeling of G tonality) with a view to effecting a completely sudden contrast subsequently. But the thematic structure in this G context cannot be ignored.

Example 17 from the Overture "The Ruins of Athens" is obviously tonic-triadically based.

The tonic arpeggio, in various forms, is then everywhere apparent in the G (Group (a)) themes. This was not true in the same way of the C themes, where triadic emphasis was most notable when used in the context of a finale, and otherwise was a more incidental feature of the themes. Linked to this characteristic, in G, is the mediant emphasis; there is a further feature characterising G themes however, which is not typical of the C themes. The triadic emphasis springs from this other factor at times, but in other instances the arpeggio tonal-thematic emphasis does not notably result. It is that there is a remarkable tendency to centre on the tonic in the G (Group (a)) themes!¹

¹ That this is not paralleled in the C themes (and indeed nor does it emerge in D or E^b as a notable feature) further suggests that, as is becoming apparent in the course of these considerations, the specific key-location gives rise to stylistic differentiation, structurally. In the present

IV TONIC-CENTRALITY IN THE G (GROUP (a)) THEMES

All the examples considered in Section III/iii above are relevant to the present category; and with the addition of the other instances, nearly half of the G (Group (a)) themes have a melodic emphasis of the tonic sufficiently recurrent in the theme, or central at least to the antecedent, for this to merit consideration as a tonally-related tendency. As compared with the treatment in C, it is noticeable that the melodic structure in the G themes tends to be more often of the "song" than of the "continuation" type; this difference extends also to the tonal structure for in G, Beethoven frequently restates the tonic after the opening phrase, a procedure not as common in the C themes. This is not solely as a result of the strong tendency to move onto the dominant in G thematic openings, as there are instances of C usage which do the same; however, the prevailing C tendency is to move onto the supertonic, either harmonically or melodically (over dominant harmony) following such a dominant inflection, and not to return to the tonic. Reference may be made to the C thematic index for corroboration of this.

In considering melodic shape and structure, it is reasonable to assume that some emphasis of the tonic, as a melodic degree, and in relation to its own triad and dominant, would be characteristic of tonal music of the Classic Era. However, close examination certainly of Beethoven's usage reveals a differing distribution and emphasis in the occurrence of such features, but with a consistency relative to specific tonal categories. It is probable that this was not a conscious structuring; thus some inherent quality relating to key-location may reasonably be postulated in view of these differences which are sufficient, and sufficiently consistent, to be identified as distinguishing characteristics.

Concerning "tonic-centrality" in the G themes, the emphasis varies, but that it is notably in evidence indicates a distinguishing tonal tendency, relating to G thematic treatment.

contd)

instance, the marked tendency to supertonic sequential emphasis in C inhibits the possibility of the pronounced "tonic-centrality" which characterises the G themes.

i antecedent emphasis of the tonic

Three examples, 2, II and 2I fall into this category; ex. 25b is also interesting in view of its isolated appearance. Basically an 8-bar (4+4) melodic structure, the first four bars are strongly tonic-centred. (Again the tonic-dominant alternation, very strong in these themes, is apparent here.)

In exx. 2 and II the consequent treatment in each theme is motivically a repetition of the opening; (the examples here are however, characteristically, mixtures of melodic type). In all four instances, the mediant is notably evident, as of melodic importance.¹

ii notable tonic-centrality throughout the theme

The examples which fall into this category are nos. 3, 8, 10, 12, 16, 17, 22. In ex. 3 the tonic degree opens each 4-bar phrase; the mediant is the melodically stressed degree at bar 3 and in bars 1, 3 and 5, the semi-quaver run descends to the tonic at each statement; thus there is a strong feeling of a tonic "under-current" to the melody. Example 8 opens somewhat less directly melodically, but subsequently the tonic is everywhere apparent; it is something of a springboard for ascending arpeggios, but is reiterated several times, and is the anchor of this very cellular and rather disjointed opening.²

Examples 3, 10, 12, 16 and 22 share an interesting feature in their consequent treatment, the cadential drop of a third either from dominant to mediant degree, or from mediant to tonic.³ (In ex. 16 this extends over two bars.) Examples 3, 10, 12, and 16 all include contrasting subdominant emphasis in their consequent

1 The examples are given more fully following the main Group (a) thematic index of the G themes, in the Supplementary Volume, P. 17.

2 Kerman discusses this opening in "The Beethoven Quartets". (See Pp. 45-6). Whatever the stylistic enquiry which concerned Beethoven, the melodic characteristics evident are themselves of interest, in comparison with the other G themes.

3 See P. II7 concerning example I in this respect.

treatment, but the cadencing "G-centrality", involving the drop of a third, is present in all four. (This is not characteristic of C themes, where a fall from the dominant to the tonic (cadentially) is more often employed, or from the seventh of the dominant-seventh to the leading-note, but a fall of a third is unusual. Again, no claim of exclusiveness is made, but where features are consistently recurrent in specific tonal categories, they are pointed out as potentially characterising that tonality and its usage, as distinct from usage in other tonalities.)

In all the examples in this category, the tonic is strongly emphasised initially; the triadic emphases have been considered above; (ex. 22 has an opening dominant inflection, followed by tonic-triadic emphasis).

In connection with the consideration of tonic-centrality, ex. 13 is worthy of comment. Its strong mediant associations have been fully treated in preceding sections. Melodically, the mediant degree is evidently very important here, recurring in bar II; the drop of the third from the dominant is softened by the C[♯] at bar 18. When the orchestra restates the opening motif on the tonic at bar 14, there is characteristic G treatment, melodically; the main notes in the phrase are triadic, and there is typical G-context dominant harmonic emphasis. A notable "reminiscence" of this opening occurs in the early stages of the last Violin Sonata, also in G;

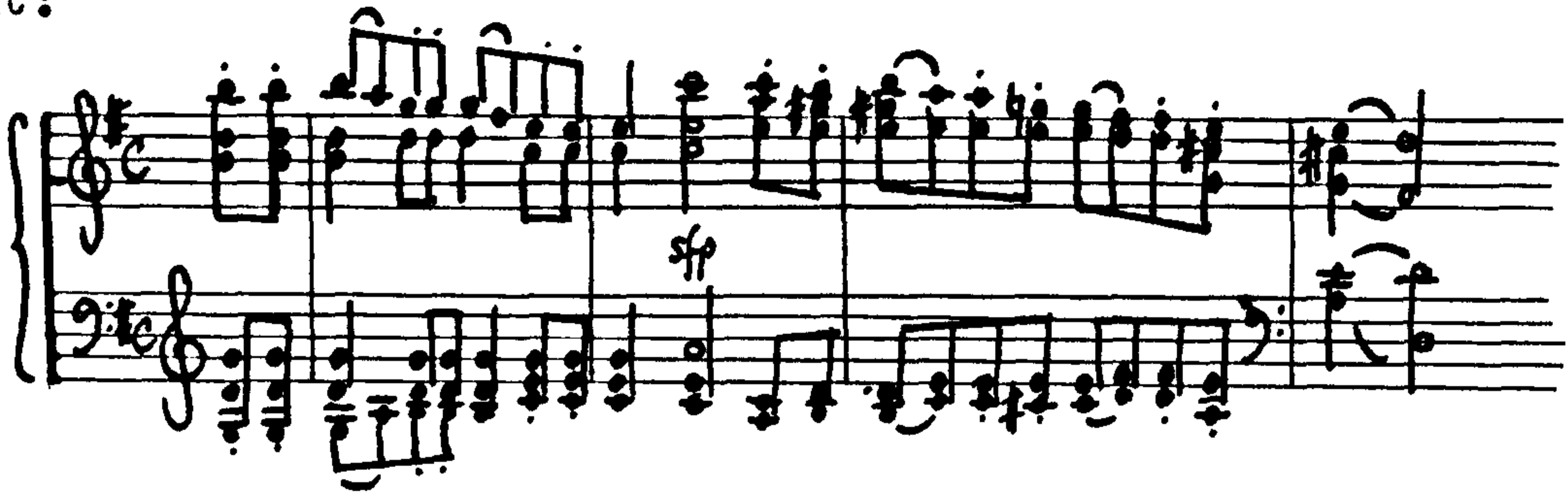
Violin

Piano

Op. 96

Op. 58

One further interesting comparison emerges in the Archduke Trio Op.97. This work (in B \flat) has a second-group key of G, the submediant major, in the first movement:



The similarity raises the interesting question of how far a subsidiary key reflects the tendencies which are evident when the same key occurs as the basic tonality. Such a question is beyond the scope of a thematic analysis, but the particular relationship here yields G in an unusual tonal context (viewed in terms of conventional harmonic analysis) and some comparison with the G tonal-thematic features already identified above may usefully be made. Where G is the secondary key to C, the thematic structure is similar between works, but, importantly, differs with respect to the tendencies which emerge as characterising G themes from works in G. It is an interesting question whether or not the secondary key treatment in the Archduke Trio instance reflects basic G thematic tendencies (which it does) as a result of its unusual tonal context, and therefore treats G as a more independent key-centre than is generally the case, when G occurs as the key of second-group material. This would be one plausible explanation for the different types of structure which appear, in different tonal contexts. Such a suggestion must at this stage remain speculative, but it is certain that in relation to the key of G at least, there are differences in melodic shape according to whether G is used as the dominant of C, or is itself the key of the work. (Note how the Archduke Trio confirms the G tonality in the closing stages of the Exposition! See bars 84-94.)

There is one other instance of a G second group in a B \flat context, in the opening movement of the "Hammerklavier Sonata, Op. 106.

V MELODIC APEX IN THE G (GROUP (a)) THEMES

The melodic apex may be treated in four categories, according to the degree on which the apex focuses.¹ These

- are:
- i the mediant
 - ii the subdominant
 - iii the dominant
 - iv the tonic

The submediant degree does not occur comparably with C melodic usage in the G (Group (a)) themes.

i the mediant as melodic apex

The four examples of this usage occur in nos. 1, 2, 4 and 29. In all four, the mediant emphasis itself occurs at the same pitch; ex. 1, 4 and 29 are also structurally similar - nos. 4 and 29, both scherzo movements, are most alike in this respect. The mediant apex is preceded by sequential treatment in each theme; this is longest in example 2 where an antecedent 8-bar phrase is repeated sequentially, yielding the mediant apex as a result. The apices occur in ex. 1 at bar 6; ex. 2 - bar 12; ex. 4 - bar 6 and ex. 29 - bar 4.

Three of these examples also interestingly include a rise of a sixth (from the dominant degree) to the mediant apex; (in ex. 2 this rise occurs in the course of sequential treatment and is "filled in" with the (tonic) arpeggio).

ii the subdominant as melodic apex

In the four examples where the subdominant is evident as a melodic apex, it is closely related to the dominant. In ex. 8 and 9 (both from the same work) the subdominant is harmonically part of the dominant-seventh; ex. 9 is in fact followed by a higher dominant cadential apex. In ex. 29 the subsidiary melodic apex in the first four bars focuses on the subdominant; but these

¹ Melodic apices are again identified here in accordance with the criteria Mies uses: that the melodic apex is "not the highest note of the whole melody, but merely the highest note of a large portion, clearly delimited by sequence or cadence".

opening bars are antecedent to the mediant apex already discussed. The subdominant apex is then, not strong in these themes.

iii the dominant as melodic apex

It has been observed above that in the C themes the dominant degree often prefaces the tonic at the final cadence; in the G themes, the tendency to move to the dominant as the first tonal contrast in a thematic statement has been pointed out; the frequency of dominant melodic apex emphasis may well be correlated to this other harmonic tendency.

The examples in this category are Nos. 9, I, I2, I5, I6, I7, I8, 2I, 22, 23, 26 and 28. The emphases are by no means only cadential; four instances of an initial dominant melodic apex occur in exx. I2, I7, I8 and 26.

Examples I2 and I are grouped together deliberately; ex. I2 has an initial dominant apex, but the similarity with ex. I occurs later in the thematic treatment when the melodic focus is a fall from the dominant degree to the mediant, discussed above in connection with mediant emphasis (Pp. II6-7). The fall to the mediant creates an apex on the dominant; in both examples this is a subsidiary apex in the context of the whole thematic statement.

The dominant is used cadentially in ex. 9. In ex. I5, the dominant-mediante fall of a third is again in evidence. Here it is both a melodic apex to the first phrase (it occurs in bars 3-4) and a liaison with the ensuing phrase.¹ Example I6 rises early to a dominant apex (as does ex. 26); the fall to the mediant in the second phrase has been noted. There is an interesting "mirror" of this fall, also previously mentioned, in the last two bars of the theme, giving rise to a further subsidiary apex. Although ex. I7 opens with a similar apex (dominant falling to mediant), the dominant also appears as the cadential apex of the 4-bar phrase.

Example I8 has an interesting instance of an initial dominant apex, again dropping to the mediant. This apex is beautifully treated, being emphasised by the auxiliary submediant, and the prefiguring trill. (Mies comments on the trill, but not on the apoggiatura which the submediant forms, falling onto the dominant, in this Sonata.) The dominant is also the melodic apex of the

¹ The melodic line here is notable for its continuity.

arpeggio-based ensuing phrase. Exx. 21 and 22 both stress the dominant as the first melodic apex; ex. 21 is interesting in view of the (tonic) arpeggio anticipation of the dominant. Both examples also stress the mediant melodically.

Example 28 "pivots" on the first dominant apex comparably with ex. 16. The repeat in the higher octave is exact as far as the dominant apex, which then falls to the tonic.

iv the tonic as melodic apex

The previous section in the examination of the G (Group (a)) themes considered the recurrence of the tonic in the thematic structure. Perhaps linked with this, there are four instances of tonic apices occurring in exx. 3, 10, 11 and 24. In ex, 3 the tonic is the apex prior to the cadence. In the other three examples, the tonic occurs notably, early in the theme. Examples 10 and 11 have already been discussed with respect to their "tonic-centrality"; they each have a tonic apex - in ex. 10 this is both initial and the goal of the first phrase (in terms of melodic apex), in ex. 11 the tonic is, unusually, an opening apex, followed by a descent. While this type of tonic emphasis is not widespread in the Group (a) themes, it is nonetheless interesting that it occurs, in view of the fact that these themes in general evince strong tonic-centrality of various kinds.

VI USE OF A RISING SIXTH MELODICALLY IN THE G (GROUP (a)) THEMES

This final category in the examination of the Group (a) G themes involves a further feature of the themes which may escape notice (and indeed has) without systematic correlation of the G themes. However, simple as it may be, this feature does not characterise the C themes to any noticeable extent. In the G (Group (a)) themes there are instances of the use of a rising sixth melodically with varying degrees of prominence; these entail three intervals, in terms of pitch:

- i D rising to B (Maj. 6th) exx. I,29,(2),(9).
- ii G rising to E (" ") exx. 3,13,(2).
- iii B rising to G (Min. 6th) exx. II,15,17,20,24,(8).¹

¹ See P. 18 et seq. of the Supplementary Volume, where these instances are grouped together.

The instances within groups i and iii are the most notable; this is interesting in view of the tendency to tonic arpeggio emphasis in the G themes. Ex. 8 and 20 occur in cadential emphasis, and ex. 24 as the motivic opening of the Quartet scherzo (Op. 18/2). While this feature must not be over-emphasised, it does occur in nearly half of the G (Group (a)) themes.

GROUP (b) THEMATIC FEATURES IN G

The Group (a) themes were examined in six main categories, with various sub-divisions within these categories where appropriate. In Group (b) there are fourteen themes, thus such extensive sub-division is not as meaningful as with the Group (a) themes.¹ However, the themes will be treated in the same category-sequence. Features which characterise the Group (a) themes are not always as pronounced in the Group (b) themes; mediant inflection is not as evident, though present. A notable difference is that while the subdominant is not emphasised in terms of melodic usage, it is very much in evidence harmonically in the Group (b) themes. This tendency has been discussed above as characteristic of G themes in G works; its strong emphasis in G where this is not the basic tonality of the work (or number, in the case of the example from "Fidelio") is particularly notable. Significantly the instance from "Fidelio" and that from the Quartet Op. 130 are the only two where a remote key-relationship is in question, in relation to G. In each case (again significantly) the main tonality is B \flat . Both G themes show particular G tendencies; this further suggests that where a more remote juxtaposition

¹ The first sectional occurrence of G in Op. 25 (the Serenade for Flute, Violin and Viola) is not taken into detailed account in the thematic examination as it is the second trio of the second movement and is essentially a Flute solo, using suitable arpeggiated figuration. As with the similar instance of C in E \flat in Op. 27/I, the contrast of the subdominant after D is effected by a "tonal plateau" without notable thematic interest. (Cf. P. 76 above.)

occurs, the contrasting key tends to evince its basic characteristics (that is, those characteristics in evidence when the key in question is the basic tonic).¹ There are two examples where G occurs after g: the others are all instances of G as subdominant to D. (This excludes the Song Op. 75 No.3; of the two remaining "Fidelio" examples, one follows C, the other, D - there is dialogue between, in each case.) In considering the themes which occur in G where the tonality of the work (or number) is B \flat , note will be taken of the G-characteristics of the themes; the question of the larger-scale juxtaposition of B \flat /G is considered more fully as a particular, and significant tonal relationship, in Appendix I.²

I SUBDOMINANT EMPHASIS IN THE G (GROUP (b)) THEMES

(i) Subdominant degree-emphasis melodically

Where this does occur in the Group (b) themes, it is related to apex-treatment rather than significant as subdominant degree-emphasis. The most notable instance occurs in ex. I, where the subdominant emphasis also extends to the harmonic treatment of the theme. In other instances where the subdominant degree is stressed melodically, it is generally strongly linked to the dominant, and is followed by a different (other than the subdominant) apex. The Song Op.75, No.3 features the subdominant notably, again both melodically and harmonically (ex. 2). In examples 3,4 and 6, the subdominant degree appears prominently melodically in connection with dominant-seventh harmony; in ex. 5 the subdominant occurs as a subsidiary melodic apex in the consequent thematic treatment, again over dominant-seventh harmony. In ex. 7 the first subdominant apex occurs with supertonic harmony, the later instance is strongly subdominant, harmonically.

¹ Cf. P.69 above and the examples given there, also in relation to B \flat /G tonal juxtaposition.

² P.319 et seq. below.

(ii) Subdominant harmonic emphasis

This category comprises the most significant and arresting examples of the Group (b) tonal-thematic characteristics. There are instances of strong subdominant emphasis harmonically in seven of the fourteen Group (b) themes in the course of the "thematic paragraph". That notable emphasis of this kind does characterise the tonality of G in a way in which it does not occur in C has emerged in the course of the Group (a) examination. The Group (b) instances include two remarkable examples from "Fidelio". In both of these cases there is the added dimension of words. As Riezler has stated: "For Beethoven, the text was something more than 'material for the vocal parts'".¹ Without wishing to read too much into the significance of the words for the musical expression, they must indicate something of the emotional associations relating to the key of G, for Beethoven. In each instance, G is not the basic tonality and in that of the Prisoners' Chorus, as has been mentioned, G is a very notable tonal contrast in a basic B^b. Example 7 gives the melody of the Prisoners' Chorus example; Exx. 8 and 9 give the instances from the other two "Fidelio" numbers more fully. Ex. 3 has already been cited in connection with subdominant degree-emphasis; there is also a modulation to the subdominant in the course of this opening to the G Quartet in "Fidelio" (bars 4 - 5).

In his discussion "Style Features adopted for their expressive value",² Paul Mies notes with interest how Beethoven took great pains to preserve the thematic shape of "O namenlose Freude" which was not newly-composed for "Fidelio", but was intended for an earlier work which did not materialise. Although the "Fidelio" libretto was not well-suited to this theme, Beethoven nonetheless used the theme-with the addition of a preceding note- as it stood, and juggled with the "Fidelio" words, accordingly. Mies concludes: "it must be that in Beethoven's opinion its expression so exactly fitted in with the mood of the scene" as the reason for this.

1 "Beethoven" - Walter Riezler. (Translated by G.D.H. Pidcock). M.C. Forrester, London 1938. P.189.

2 Op. cit., P.165 et seq. (Chapter VII).

The theme has a strong tonic-arpeggio basis (note the orchestral opening treatment), a feature which has emerged above as a G - characteristic. However, Mies does not comment on the tonality, which also remained constant, as itself significant.

The usage relevant to the present discussion occurs at bar 10 (et seq.) of the Prisoners' Chorus example, and at bar 12 (et seq.) of the Duet example. In each case there is very strong subdominant emphasis; in the first, this is enhanced by a temporary modulation. It is interesting that prior to this, in both examples, the subdominant degree is melodically stressed. The sentiment of both passages in terms of the words at these points must be considered in relation to the musical treatment. In the tenor solo, "die Hoffnung flüstert sanft mir zu" leads to the definitive subdominant turn at the words "Wir werden frei". The premium Beethoven laid on the importance of the freedom of the individual is legendary; account must be taken of the way he treats this ideal when it is so directly relevant in musical terms. "Frei" extends over five quavers¹ duration, while C remains in sway tonally.

The moral aspects of "Fidelio" were held very dear by Beethoven. In the Duet, Florestan and Leonora are rejoicing at their reunion after such trials. Again, melodically, the subdominant is the starting-point of the subdominant harmonic turn.

¹ In The Beethoven Companion (P.368 et seq.) Winton Dean refers to the changes Beethoven made in this section of the Prisoners' Chorus as "interesting". He observes that "Frei"- "carries more weight", but not viewing this fact as it relates to the tonal structure here and in comparison with the tonal tendencies characterising G usage throughout Beethoven's music, he concludes: "it is impossible not to feel that something has been lost". It is notable that the subdominant emphasis was a constant factor in the various versions; that Beethoven finally withheld the subdominant until the words "Wir werden Frei", and then stated it forte at this point suggests that the words were so significant for him that he moulded what has been shown to be a specific tonal tendency characterising G, to give the greatest impact. (This context does not seem an appropriate one for Beethoven to use "shy staccato arpeggios on the Woodwind" for the sake of "a touching emphasis".)

Although there is no F₄ emphasis, the subdominant is stressed nonetheless; note the pause which occurs and also the treatment in the following bars where the subdominant keeps shining out, and always it is at the occurrence of the same word, "Lust". Their unendurable suffering has now become overwhelming joy.

Without doubt both of these examples occur at points of considerable significance, emotionally. The Prisoners' Chorus example reflects Beethoven's personal values, one feels, whereas with the Duet a climactic juncture in the Opera has been reached. It has emerged above that the subdominant is of particular significance in relation to G tonal usage; the "Fidelio" examples are perhaps more precise indicators of the importance of the subdominant in the G tonal-thematic complex.

Examples 8 and 9 have been discussed in detail in relation to the subdominant harmonic emphasis they evince; the remaining Group (b) instances of such emphasis occur in exx. 1,2,4,5 and 6¹

A strong harmonic emphasis occurs in example 1 after the two opening quavers in the Right Hand; in the restatement of this opening phrase beginning at bar 4, Beethoven elaborates the two quavers by acciaccaturas in the Right Hand and by full harmonic treatment, thus stating the subdominant even more emphatically. The dynamic markings are themselves significant - the sforzandi pointing up the subdominant emphases, and the restatement with its full harmony marked forte, (still with the sf!).

Example 2 is a tender song, "To the beloved afar"; the opening turn to the subdominant is notable as the first harmonic contrast to the tonic. Ex. 4, from the early Serenade Op.8 (a String Trio) includes subdominant harmonic emphasis (with F₄) in the closing stages of both 8-bar (4+4) periods which comprise the Trio section in question here. (The four bars closing the

¹ The relevant bars of each example are given more fully following the Group (b) G Thematic Index in the Supplementary Volume. (P.24 et seq.)

theme are almost identical with the four bars ending the first 8-bar period, with modification in the instrumentation). Ex. 5 is also from an early Serenade (Op.25 - for Flute, Violin and Viola). It is the theme for a set of variations, and includes the subdominant harmonically four times, each time at a point of emphasis in the theme. At bars 12 - 13 the F \sharp reinforcement is notable as lending greater stress to the repeat of the opening bars where there was no such inflection. The consequent treatment of the theme uses the subdominant as a melodic apex, and subdominant harmony underpins the more important submediant apex. The instances within ex. 6 are not as direct. However, the subdominant evidently plays an important rôle harmonically in the Benedictus from the Missa Solemnis. Concerning the thematic structure in exx. 6i and 6ii, the subdominant usage is somewhat qualified by the preceding F \sharp melodically in i, and by the D \sharp in ii.¹ The instance is almost as elliptical in ex. 6iii; however, somewhat surprisingly, F \sharp occurs, first in the rising Violin part, then also in the orchestra generally in the final bar of the example. The "cadence," insofar as it may be so defined, is into the tonic, with the voices entering in G, and overlapping the trilling Violin close. This is a very extended thematic paragraph; indeed it only emerges as such on examination of the treatment. It is preceded, not only by the Praeludium, but by an introductory eight bars. Tovey has referred to this Benedictus as "a kind of aria-concerto of violin, voices and orchestra"². Clearly Beethoven is concerned to mould a continuous, flowing texture. Mies has pointed out the tendency to ellipsis of cadential junctures in the late music of Beethoven; the treatment in the Benedictus is certainly an example of this. However, tonal tendencies discernible throughout the G themes are still in evidence as important features, despite changes in the technique of

1 The relevant extracts from the Benedictus are given under this numbering in the course of the compilation following the Group (b) G Thematic Index in the Supplementary Volume. (P.24-5.)

2 Essays in Musical Analysis, Vol. V. (London OUP Humphrey Milford, 1937). P.181.

phrase-structure. The C emphasis may be less direct; this is partly to contribute to the overall flow of the Benedictus, and the Violin solo-line, but is nonetheless evident. Indeed C becomes the key of a considerable section of the movement.¹ The treatment in ex. 6iii is quite remarkable, both with respect to the strong C emphasis, and to the almost ellided re-appearance of G. How far this theme also evinces other G tonal-thematic characteristics will emerge in the ensuing considerations.

Subdominant harmonic emphasis is particularly evident in the Group (b)G themes. While it is not always as forceful and prominent a constituent as is the case with the two outstanding instances from "Fidelio", that it is present in the majority of the Group (b) G themes marks it as a notable tonal-thematic feature, persisting throughout the widest spectrum of Beethoven's composition, both chronologically and in terms of genre, from the very early Trios to the late Missa Solemnis.

II MEDIANT INFLECTION IN THE G (GROUP (b)) THEMES

Two types of mediant emphasis were distinguished in the course of the examination of the Group (a) themes - harmonic and melodic inflection. Although the Group (b) themes number less than half the Group (a) themes, mediant inflection is evident, but it is not as strong a characteristic in the Group (b) contexts. The only instance of harmonic emphasis is not as direct as is the case in the G works, but it is nonetheless remarkable and affords a very interesting comparison with an example from the Group (a) works, the opening of the Fourth Piano Concerto. Mediant emphasis is then less evident in the Group (b) than in the Group (a) themes and it may be that this nuance is a characteristic which is more likely to occur in a basic G context.

¹ Tovey's otherwise sensitive discussion of the Benedictus (ibid.) does not take account of specific tonal references such as this. He says: "the harmony diverges, and happening to light upon a subdominant chord, surprises us by leading to a new episodic theme." There is more significance and less "chance" in Beethoven's use of C in G than Tovey came to realize.

A Mediant Inflection - harmonic

The one example of this usage in the Group (b) themes occurs in the second movement of the Violin Concerto, Op. 61. The fifth Bagatelle of Op. 126 could have been included in either Group (a) or Group (b); it was included in the former to link with the first Bagatelle of the set, which is also in G. (The fifth Bagatelle includes both melodic and harmonic mediant inflection, as discussed above¹.)

Example 10 gives the opening of the slow movement of the Violin Concerto in reduced score. Although the harmony is simply tonic-dominant-tonic, the structure of the melodic line is of particular interest. This rises step-wise to the mediant degree; the opening is repeated, then the melodic line moves to the higher tonic by means of a rising sixth, from B to G - one of the features discussed above as worthy of note in the Group (a) themes. Thus the opening bars focus on the mediant degree melodically. Comparison may be made with the Fourth Piano Concerto opening, where melodically the first two bars consist solely of Band A. (See ex. 13 of the Group (a) examples.) The melodic line in the Violin Concerto then descends again to the mediant degree, but in the harmonic treatment, the E (bar 3, beat 2 in both Violin parts) lends an ambiguous flavour to the third beat of bar 3, and the fourth beat materialises as the dominant chord of the mediant (- minor or major, theoretically. While it sounds more minor-tending than major here after the submediant harmony (of G), for Beethoven, the mediant major is particularly accessible in the tonality of G as became apparent above). However, no resolution of this "dominant" occurs, but is by-passed by the falling chromatic line in Violin II, and the tonality moves easily through three steps of the circle of fifths onto the home dominant. Although there is no direct mediant harmony stated, this tonal link is certainly apparent; not only is the opening melodically focused on the mediant degree, but there is a fall from the mediant to the tonic, at bars 7-8, a further G tonal-characteristic which

1

P.II2 et seq.

has been noted above.

Examples IOa and IOb bring together the middle bars of ex. IO from the Violin Concerto, and five bars from the string passage at the beginning of the Fourth Piano Concerto. In the latter, there is full major mediant harmony following the opening tonic statement by the Piano;¹ ex. IOb begins one bar later (bar 7 of the work). Despite the different distribution rhythmically, the harmonic progression is almost identical, from beat 2 of bar 2 in both examples. There is some part-rearrangement; the rhythmical differences arise out of the earlier treatment in each case. Although the Piano Concerto subsequently uses subdominant emphasis where the Violin Concerto does not, both append three bars or so of tonic (G) cadential reaffirmation of the tonality. The Piano Concerto uses a wider range of G tonal-thematic characteristics than does the Violin Concerto, but this is of course in the context of a more extended thematic paragraph.

Concerning the treatment in the Violin Concerto theme (ex. IO), the melodic line, taken alone, would seem bound to move into the dominant; but Beethoven's tonal references, of considerable importance emotionally, as structurally, yielded a different, and far more expressive goal. The comparison with the Fourth Piano Concerto treatment offers interesting parallels in terms of the importance of the mediant melodically and harmonically, and in the very similar return to the tonic, all of which reflect the functioning of specific tonal tendencies relating to the key of G.

B Mediant inflection - melodic

As with Group (a), mediant melodic inflection is not particularly strong in the Group (b) themes. One instance occurs in

¹ See P.III above, and example I3 of the Group (a) themes.

the second movement of the Violin Concerto (ex. 10) discussed in the preceding section. There is melodic "inflection" in that the opening is focused melodically on the mediant degree. That this is so at the very opening of the movement suggests that mediant emphasis is integral to the establishing of G as tonic; that, in other words, it is a particular nuance in the G tonal-thematic complex. Although the formal contexts of the Group (b) themes vary, the mediant is notably evident in the majority of the themes as an early emphasis, quite often in connection with an opening phrase structured on the tonic arpeggio. Ex. 1 is a theme where this occurs; the mediant to tonic fall confirms the tonality of G after the strong subdominant emphasis of the opening. In ex. 1, the mediant continues to figure melodically; again the notes B-A-G are prominent, as with ex. 10. (B-A is also a notable factor in the opening of the Fourth Piano Concerto, as stated above). Ex. 6, the Violin melody from the Benedictus of Missa Solemnis, while a far-flung melodic line, uses notable emphasis of the mediant degree. The melody opens on the mediant; the first phrase (as far as the second E of bar 2) is antecedent to the succeeding phrase which begins with a rise to the subdominant degree. But despite the dominant degree half-way through bar 3 the melodic emphasis is on the mediant occurring at the beginning of bar 4. It is softened by the subsequent rise to the dominant, but the stress melodically and musically is on the mediant. The mediant is again the melodic "kernel" of these opening four bars. It is very arresting to note how this melodic line develops; the whole sixteen bars form an arch, melodically, spanning an octave from the opening to the apex, and gradually curving downwards onto the final dominant. Bar 6 opens with the subdominant as a melodic apex, bar 7 with the dominant, and at beat 4 of bar 7 there is an anticipation of the high tonic apex with which bar 8 opens. This is held for nine quavers' duration (in $\frac{12}{8}$), then seems to be subsiding when the supertonic above it sounds. Bars 10-12 are a beautifully violinistic preparation for what proves to be the main melodic apex of the whole melody. The last dotted crotchet of bar 12 is again the high G, but it is crowned in the next bar by the most emphatic use of the mediant (above the

high G) in the melody. It is very interesting to observe how Beethoven has structured this very impressive rise. The melody moves step-wise through B-C-D initially; it leaps to the high G; then the continuing step-wise rise moves onto a broader plane, and each note in the rise is held for at least half a bar; thus G-A-B characterises the melodic shape of bars 8-13. The remaining bars of the melody are a gentle subsiding after this climax, again using the G below as the most important remaining note melodically; once more the fall of the third from mediant to tonic is the basis of this conclusion.

This melody has been treated in some detail in order to show how integral to its structure the mediant degree is. Despite the flow and broad sweep of the melody, features already discerned as characteristic of G treatment are nonetheless in evidence. The continuity so notable in Beethoven's late style is indeed everywhere apparent in the Benedictus; and at the tonally surprising (but significant!) close to the melody, the voices enter prior to the cadence, so that at the end of the Violin trill it is again the mediant which is to the fore melodically and aurally in the alto line.

Three further examples may be mentioned in connection with mediant melodic emphasis - exx. 4, 5 and II. The mediant emphasis in ex. 4 occurs as the opening of three of the four phrases in the overall 16-bar period (excluding the repeats). Once again in a G theme, the rising sixth is apparent, here giving an initial melodic apex on the mediant.

With the early Serenade Op. 25, a forerunner of the Fourth Piano Concerto and even of the Benedictus of the Missa Solemnis might hardly be suspected, and yet this variation theme (ex. 5) is remarkably similar particularly to that of the Piano Concerto, while it seems almost to contain the embryo of the Benedictus theme, notably with respect to the opening mediant emphasis - moving through a central dominant apex in the first phrase (in the Missa Solemnis theme, this is expanded to four $\frac{12}{8}$ bars, but the same thematic shape underlies the treatment) - and in the cell of the consequent thematic treatment (bars 16-18 of ex. 5). Concerning similarities with the Piano Concerto, the opening mediant emphasis is again shared, and while the resultant thematic shape obviously differs, each theme uses the subdominant, dominant and leading-note degrees comparably in the respective openings.

Later in each theme, the thematic structure is remarkably similar. (Cf. bars 16-21 of ex. 5 with bars 9-14 of the Piano Concerto theme.¹) That these three themes, widely spaced in Beethoven's oeuvre clearly share at least "family resemblances of technique and structure"² is evidence of integral tonal-thematic references relating to specific tonalities, and certainly to G, in the present instance.. In ex. 5 of the Group (b) themes, the mediant is not emphatic, although it is once more integral to the thematic structure, occurring with differing harmonic and rhythmic stress, throughout. Finally, despite its seemingly incidental nature, ex. II remains to be taken into account. This is from the Sonatina Op. 49/1. (Beethoven called the two works comprising Op. 49 "Leichte Sonaten".) Ex. II is one of the rare examples in G containing a sequence on the supertonic. The opening of the Piano Sonata Op. 14/1 includes such a sequence, (see ex. 20 of the Group (a) themes) but it is not characteristic in G. However, in ex. II, the structure of the thematic cell which is used sequentially stresses the mediant again with an ensuing fall onto the tonic. The outline of this cell is similar to the opening of the finale of the String Quartet, Op. 18/2. (See ex. 9 of the Group (a) G themes.)

Although mediant emphasis is not as pronounced in the Group (b) themes, it occurs sufficiently notably to suggest that the tendency to mediant emphasis is part of a persisting tonal-thematic complex. Some differentiation in usage between Groups (a) and (b) may be made; the 'mediant tendency' is more emphatic in Group (a), both harmonically and melodically. In Group (b) the examples discussed under the heading of melodic inflection show that the usage in these contexts is less that of inflection, such as characterises the Group (a) themes, and more in the nature of a particular thematic emphasis; the mediant degree emerges as of structural importance in the themes, rather than as an inflection tending to harmonic emphasis. These differences in emphasis of the mediant suggest that the functioning of the G tonal-thematic complex varies in application, relative to tonal context,

1 Ex. 13 of the Group (a) G themes.

2 Basil Deane - The Beethoven Companion, P. 307.

but that the same complex persists. Concerning the mediant tendency in the G themes, there is once more a change of emphasis in the different contexts of Groups (a) and (b), but the same tonal relationships underlie the thematic structure, and thus reflect the functioning of a distinct tonal-thematic complex.

III THE TONIC ARPEGGIO AS A NOTABLE THEMATIC SHAPE IN THE G (GROUP (b)) THEMES

This characteristic will be discussed in the three categories adopted in the Group (a) examination :

- i initial tonic-triadic emphasis
- ii interim tonic-triadic emphasis
- iii tonic-triadic emphasis as the basis of the entire thematic shape

- i initial tonic-triadic emphasis

The examples which fall into this category of emphasis are nos. 3a, 9, II and I2 Ex. 3a is from "Fidelio" and is the first voice-entry in the much-discussed Quartet. Ex. 3 gives the harmonic basis of the entire number; it is against this that the melody ex. 3a enters, after the opening statement of ex. 3 (which is remarkably scored. It is interesting to note the similar scoring of the Praeludium in the Missa Solemnis.) The tonic-triadic emphasis continues to figure throughout the Quartet, both in the initial treatment of each voice as it enters, and in the concluding treatment. It is very simple use of tonic-arpeggio emphasis which shapes the melodic line in the Quartet, but there is great beauty in this simplicity. Ex. 9 is also from "Fidelio", but at a rather later stage in the proceedings. In the earlier discussion of the subdominant harmonic emphasis which occurs in "O namenlose Freude", attention was drawn to the strong tonic-arpeggio basis, not only of the vocal parts, but of the orchestral opening preceding the voice-entries.¹ Ex. 9 begins with the second statement of "O namenlose Freude" by Leonora. The second musical phrase, beginning at bar 5 of the example, opens with a descending tonic-arpeggio figure. In his interesting discussion of ex. 9 Mies comments on particular features of the theme which were retained in the

1 See Pp. 129-131 above.

operatic use of it, but does not identify tonic-arpeggio emphasis as characteristic of G themes in particular ways.¹ Immediately preceding these comments Mies concluded that "it is clear that the thematic use of the common chord is definitely associated with the expression of solemnity."² The present investigation suggests that types of tonic-arpeggio usage can be differentiated, and that these appear to relate in particular ways to specific tonalities.

In ex.11 there is tonic-triadic emphasis as the basis of the "thematic cell" which structures the entire melodic outline; the opening of this theme has already been correlated with ex.9 of the Group (a) themes which uses similar tonic-triadic emphasis, giving rise to the same D-G-B thematic outline initially in the theme. Ex.12 from the String Quartet Op.130 also opens with tonic-triadic emphasis, comprising the antecedent two bars in the two 4-bar phrases.

ii interim tonic-triadic emphasis

Examples I and 10 include this type of usage. In ex.I it is part of, and subsidiary to the fall to the tonic from the mediant. The mediant to tonic fall is "expanded" through super-tonic melodic emphasis in bars 2-3 and 6-7 (the first phrase moving onto the dominant). Ex.10, from the Violin Concerto, uses tonic-triadic emphasis as the basis of the closing three bars of the thematic statement. Ex.6 may be mentioned with reference to the use it makes of the tonic arpeggio in a subsidiary capacity to the main melodic stress in bars 6 and 7. (The subsequent emphasis of the tonic and of the mediant in this theme has been examined above as it is essentially melodic, although a mediant to tonic fall cadentially is once more apparent.)

iii tonic-triadic emphasis as the basis of the entire thematic shape

This type of usage is not evident to the same extent in the Group (b) themes as it was found to be in the Group (a) examination. The only two themes where the tonic triad may be said to form the basis of the entire thematic shape are exx. I and 12. Both themes have already been cited in connection

1 See P.129 et seq. above concerning the origin of this theme. (P.129, Footnote 2 gives the reference to Mies' discussion of the theme.)

2 Op. cit., P.165. - The use of the tonic arpeggio thematically (contd.)

with interim and initial tonic-triadic emphasis. However, the tonic triad is not as important a factor in the structure of either theme as it proved to be in the Group (a) themes.

IV TONIC-CENTRALITY IN THE G (GROUP (b)) THEMES

It was observed in the examination of the Group (a) themes that the tonic was a recurrent melodic emphasis. There are three instances in the Group (b) themes where the tonic recurs to a similar extent: These are exx.I,9 and I2. Ex.9 uses a strongly tonic-centred phrase in the antecedent material; the tonic also acts as the 'springboard' for the next phrase. In ex.I the subdominant emphasis of the first bar and a half is followed by two bars centred on the tonic; the 'song-form' of this theme causes the recurrence of this usage in the second period. Ex.I2 is comparable with the theme of Op.96(iv) in the Group (a) themes in its melodic structure.¹ However, the tonic emphasis is more regularly placed in the Group (b) example, occurring at bars 2 and 4 (and then at bars 6 and 8, as a result of the melodic form). As with the treatment in the Violin Sonata, there is an ensuing 'B' section in the Quartet.

Tonic-centrality of the kind discussed in relation to the Group (a) themes occurs in three of the thirteen Group (b) examples. (Ex.I3, from the Piano Sonata Op.10/3(iii) - the trio section - is a further instance where the main interest is one of figuration² and also here of contrast of range. The tonic-triadic basis of this is not then primarily thematic.) Although this thematic

contd.)

in the Duet is far from being "associated with the expression of solemnity". This instance illustrates the inadequacy of analysing stylistic features isolated from their tonal context. While Mies' approach is extremely illuminating in many ways, failure to identify tonally-related characteristics may lead to errors of judgement such as this.

1 Ex.3 of the Group (a) themes.

2 further, that is, to the instance of Trio II in the Serenade Op.25 (ii). (See P.127, Footnote I.)

characteristic is not proportionately as evident in the Group (b) as in the Group (a) themes, its occurrence suggests that it is a feature relating to the G tonal-thematic complex but that it is more pronounced in the thematic structure when G is the basic tonality of a work.

V MELODIC APEX IN THE G (GROUP (b)) THEMES

Melodic apex usage differs somewhat from that characterising the Group (a) themes. In Group (b), as with Group (a), the dominant is a preferred apex degree, but in the Group (b) context, a new apex degree is prominent in the themes - the submediant. The rôle of the mediant is of a particular kind in the Group (b) themes; the subdominant where it occurs as a melodic apex, is again related to the dominant, harmonically, but it is not a preferred apex degree in these themes. This is consistent with the Group (a) characteristics where the subdominant was found to be not particularly strong as a melodic apex. The Group(b) examples are examined in five categories, comprising the four treated in connection with Group (a) with the addition of a further category relating to the use of the submediant as melodic apex.

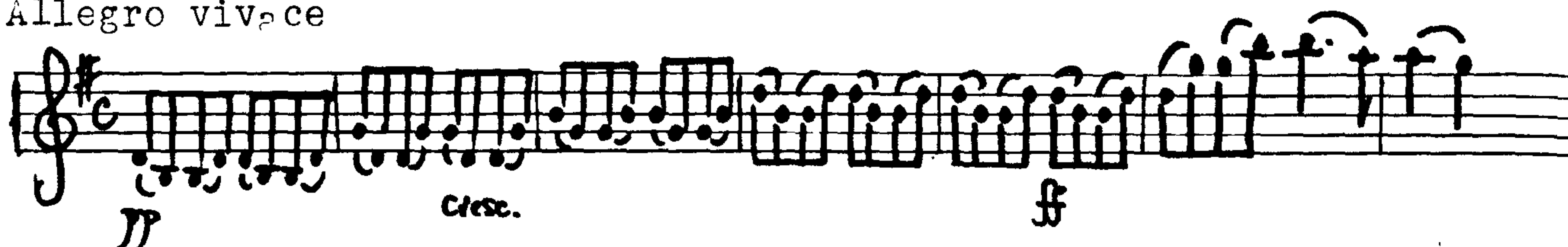
i the mediant as melodic apex

The most notable example of this usage occurs in ex.6 from the Benedictus of the Missa Solemnis. The melody begins with a fall from the mediant, and the main melodic apex of the entire theme also occurs on the mediant degree (at bar 13) as discussed above.¹ This is an outstanding example of mediant emphasis. There are two further instances of the mediant used as a melodic apex in the Group (b) themes; these occur in exx.4 and 9. Ex.4 is from the Serenade Op.8; in this trio section, three of the four phrases open with a melodic apex on the mediant created by a rising sixth, D-B; one of the intervals noted in the Group (a) examination. In ex.9, the mediant forms a more emphatic apex and focus in the treatment. The entire orchestral opening is not given in ex.9 but in Violins I and II there is a 4-bar rising introduction prefacing Leonora's entry. The Violins

1 See Pp.136 - 7 above.

continue this progression, Violin I rising a third higher than the voice, and climaxing on the mediant degree. In fact Beethoven had originally intended Leonora to sing this high B but, possibly after the vocally demanding preceding number, he modified Leonora's line but significantly maintained the rise to the mediant in the Violin line. The opening bars of the Violin I line are:

Allegro vivace



Flute I in fact rises onto the dominant at the fortissimo, but the Violin line clearly leads to and climaxes on the mediant, and aurally the Strings and vocal line are more emphatic than the higher dominant in Flute I, which is in the nature of accompaniment to and reinforcement of the moving melodic line beneath.

ii the subdominant as melodic apex

The subdominant nowhere occurs as an emphatic melodic apex in the Group (b) themes. It forms a subsidiary apex in the course of ex.6 at bars 3,6 and 7, and a "minor" apex at bars 6-7 of ex.3a. Ex.12, from the String Quartet Op.130, uses the subdominant as the apex of the second two bars of each 4-bar cell; but even here the subdominant is subsidiary to the more important apex on the dominant. The subdominant occurs as a main apex in the first phrase of ex.4, and in a subsidiary capacity twice in the third phrase; it is more prominently used in the course of ex.5. The similarity of this theme and those from the Benedictus of the Missa Solemnis and the Fourth Piano Concerto has been noted above.¹ The use of the subdominant is one of the common features. It occurs as some kind of melodic apex in bars 3,5,17 and 23 (omitting the apices in the repeated statements of each 8-bar period). The apex opening the second half of the variation theme is the most emphatic use of the subdominant in the melody, although it is subsidiary to the subsequent submediant apex.

Despite the use of subdominant harmonic emphasis of note in the Group (b) themes, the degree itself does not function as an

1 See Pp. 137 - 8 above.

important melodic apex. Subdominant harmonic usage does however give rise to a melodic apex in these themes - the submediant.¹

iii the dominant as melodic apex

The dominant is the preferred melodic apex degree in the Group (b) themes. It was also the most recurrent melodic apex in the Group (a) themes. In the present Group the dominant forms a main apex in exx.2,3a,4,5 and IO, and a subsidiary apex in exx.1,2,3a and 5.

In ex.2, the Song "An den fernen Geliebten", the dominant forms the main apex of the second phrase of the melody. Ex.3a, the basic melody of the "Fidelio" Quartet, opens with a dominant apex; (it begins with the same drop of a third, D-B, with which ex.2 opens). There is strong dominant emphasis melodically throughout the Quartet theme; the opening phrase centres on the dominant degree; phrase 3 (bars 4-6) begins with a subsidiary dominant apex, and the final phrase climaxes on the dominant.

In ex.4 the dominant occurs twice as a main apex within the third melodic phrase; this comprises a 2-bar cell, twice stated, in which the dominant is the opening, main apex. It also occurs twice in ex.5 (as a main apex) in the first 4-bar phrase and in the concluding bars of this variation theme. Ex.IO features the dominant as the main apex twice in the second half of the melody. The dominant occurring in bar 6 is not the highest point in the phrase (which begins at bar 4 beat 4) but it takes precedence over the earlier part by virtue both of its long duration and of the dynamic emphasis at this juncture in the melody. It is reiterated at bars 8-9 as the main apex of the concluding phrase, and this serves not only to confirm the home-dominant after the tonal move earlier in the melody, but also has the effect of emphasising the first dominant apex, retrospectively.

The dominant occurs twice as a subsidiary apex in ex.1 as a result of the melodic form (at bars 1-2 and 5-6); and is part of the establishing of the tonality of G following the strong subdominant emphasis of the opening. Ex.3a and ex.2 share a number of common features; both use the dominant as the main

1 This is discussed under v below - the submediant as melodic apex.

apex of their final phrases, and each opens similarly, as referred to above. The main apex is on the submediant in the first phrase of ex.2, but, as with ex.3a this phrase is largely shaped by the recurring dominant emphasis.¹

iv the tonic as melodic apex

The tonic emerged as a notable apex degree in several of the Group (a) themes; there are four such instances in Group (b), occurring in exx. 4,6,9 and 10.

In ex.4, rather unusually, the main apex occurs at the close of each 8-bar period in the 16-bar Trio (omitting the repeats - the closing four bars of each period are identical melodically). This apex is on the tonic and dominates the theme both by its higher pitch and as a result of the rise of a fourth onto the tonic apex in a phrase moving predominantly in seconds. Ex.6 uses the tonic as an important apex, half-way through the 16 - bar paragraph. As the melody progresses, this proves to be subsidiary to the ensuing mediant apex, the climax of the entire melodic line; but the tonic gains prominence prior to this as the highest point in the melody thus far and due to the sudden rise onto it (bars 7-8). The second occurrence of the tonic as an apex in ex.6 follows the climax on the mediant. The fall from the mediant melodically is stayed at the end of bar I3 by the tied note on the dominant and there ensues a gradual step-wise rise, pausing on the submediant, and rising to the tonic (bars I4-I5).² This tonic emphasis is of course subsidiary to the main mediant apex, but it is nonetheless notable

1 Note the drop of a third within the tonic triad closing the first phrase of ex.2. This thematic shape is notable throughout the Group (b) G themes at such phrase-endings, whether or not the theme is strongly tonic-centred or tonic-triadic. Cf. ex.1-bar 2; ex.5-bar 23; ex.7-bar 16/17; ex.10-bar 7/8; ex.11-bar 2.

2 Reference may be made to Pp.136-7 above where the thematic structure of ex.6 is discussed in detail.

as a cadential apex, and as once more giving rise to a mediant to tonic fall, cadentially.¹ The tonic is the main melodic apex of the thematic paragraph in ex.9, the opening of the Duet "O namenlose Freude" from "Fidelio". As well as forming the climax on "Lust" (in the first statement of the textual phrase "Nach unnenbaren Leiden so übergrosse Lust") it is reiterated in the sequential contraction of this musical phrase, creating an emphatic cadential apex.

In the slow movement of the Violin Concerto (ex.10) the tonic is not as important an apex in the melody as the dominant later proves to be. However, the rise to the tonic at bars 2-3 is notable not only for the fact of the particular interval involved, but also because the tonic forms the melodic apex of the first four bars. The tonic is thus a significant melodic apex degree in the Group (b) themes, and is evident in varying types of usage.

v the submediant as melodic apex

As stated above, this type of emphasis is not notable in the Group (a) themes; in Group (b) the submediant occurs as melodic apex even more frequently than the dominant degree. The submediant is used in the themes in both types of apex-treatment - as the main melodic apex and in a subsidiary capacity; the instances of submediant apex usage are grouped according to their rôle (as main or subsidiary apices) in the following discussion.

The submediant functions emphatically as the main apex in exx. 1,5 and 7; it is also evident in this capacity in exx. 2 and 11. In ex. 1 the apex occurs early in the phrase, which descends to the tonic after the initial subdominant harmonic emphasis. The submediant is the melody note above the subdominant harmony and both the apex-structure and the harmonic emphasis are stressed by their occurrence on the first main beat and by the dynamic treatment. The submediant also has the longest duration in the melodic line and is further emphasised by the two-note "curtain" preceding it. The submediant is also emphatically prolonged in ex. 7, the melody of the middle-

1 Cf. P.145, Footnote 1.

section of the Prisoners' Chorus from "Fidelio". Although this melody underwent changes, the same tonal-thematic elements are present in all versions and the alterations which Beethoven made reflect his desire to secure the most effective expression of the text. This illustrates Mies' comment referring to "how attentively Beethoven allowed the feeling of the text to influence him, and how he tried to follow it."¹ It also illustrates that the choice of G for this melody brought particular tonal-thematic elements into play and that these remained constant as the basis for the melody, throughout its evolution. The changes are once more changes in emphasis (and here related to the text rather than to the structure of the melody) and not changes in the tonal relationships functioning.

Example 5 has already emerged as evincing tendencies characterising G themes to a remarkable extent.² Comparison with ex.7 also yields common features relating to thematic shape, particularly with respect to the opening treatment in each theme; (bars 1-4 of ex.5 as compared with bars 1-8 of ex.7). Ex.5 is also relevant to the present category in its use of the submediant degree as melodic apex; it occurs twice as main apex (excluding the repeated statements). The contexts of the two themes are very different, and they are quite widely spaced chronologically; it is significant that the same thematic elements, tonal and structural, are apparent to such an extent.

Example 11 is a simple rondo melody based rhythmically on the opening six-note cell, throughout. The submediant occurs twice as melodic apex as a result of the form of the rondo theme; it is not an emphatic apex - the beat falls on the ensuing dominant each time, but it is the highest point in the melodic line.

Example 2 has been cited in connection with the dominant apex in the second phrase; the submediant forms the apex of the first phrase of the melody. As in ex.1, this is linked

1 Op. cit., P.35 (Chpt. I - section (c)). For further discussion of this melody and its tonal structure, the present remarks may be correlated with the treatment above - Pp.130-1 (including P.130, Footnote 1).

2 See Pp.137-8 above.

with notable use of subdominant harmony.¹

The submediant occurs as a subsidiary apex in exx. 3a, 9 and 12. In ex. 3a the usage is once again linked with subdominant harmonic emphasis; the dominant is the main focus of the apex treatment in the melody.

Example 9, also from "Fidelio", uses subsidiary submediant apex emphasis after the main tonic apex, but this is a significant focus, textually and musically. It occurs at the restatement of "Lust" and acts as a "platform" subsequently rising to the tonic, in the expressively joyful cadential treatment.

Example 12 is comparable with ex. 3a. The dominant forms the main apex in both themes, the submediant also occurs in a similar context, melodically, leading to the dominant harmony of the following bar; the harmony supporting each apex is super-tonic.

VI USE OF A RISING SIXTH MELODICALLY IN THE G (GROUP (b)) THEMES

In the Group (a) themes three different intervals, of a rising sixth melodically, were distinguished as occurring with significant frequency. In the Group (b) themes however, this melodic feature is not as notable. There is one instance of the rise B-G occurring prominently in the themes - in ex. 10, the opening melody of the Violin Concerto slow movement. This particular rise is the one most often used in the Group (a) contexts (of the three rises of a sixth D-B, B-G and G-E, identified as notably recurrent). In the present instance it is interesting that it occurs both emphatically and early in the theme which evinces a number of G tonal-thematic characteristics, as has emerged above.²

1 See the extracts from these themes, given in full following the main Group (b) Thematic Index in the Supplementary Volume, P.24.

2 See P.134 et seq., above.

There is one example of each of the remaining rises of a sixth in the Group (b) themes. Ex.4 uses the rise D-B as the opening of three of its four main melodic phrases; and in ex.5, where the submediant occurs twice as a main melodic apex (excluding the repeated statements) the apex is enhanced in the final eight bars by the rise onto it from the tonic, creating the rising sixth, G-E.

In examining the tonal characteristics of the Group (b) themes it has proved relevant to consider the same categories as were appropriate for Group (a). However, within these categories, some differences have emerged. The mediant emphasis, harmonic and melodic, has been evident in both Groups, but it is stronger in the Group (a) themes. Subdominant degree-emphasis is also more notable in Group (a), but subdominant harmonic emphasis is more pronounced in the Group (b) themes. Linked with this is the emergence of the submediant degree as an apex in the Group (b) themes; this usage is not in evidence as characterising Group (a). However, the rising sixth is not as apparent in Group (b); (there are three instances in the twelve themes¹).

While there are differences of usage between Groups (a) and (b), these relate to a change of emphasis within a consistent tonal-thematic complex rather than to any fundamental change in the tonal vocabulary, and there still emerges a distinct G tonal-thematic complex, which differs from that characterising C themes. The most notable features in the G complex are mediant emphasis - both harmonic and melodic, particular use of the subdominant, and a significant incidence of tonic-centrality.

1 Ex.13 is included in this total, although it is not treated as a melodic theme in this examination, as explained previously. (See P.141 above.) There are however only twelve items in Group (b), (including ex.13), ex.8 being a fuller version of ex.7.

SECTION 3 - D MAJOR

GROUP (a)

Works in D included in this study

Pre-opus	Piano Quartet (No.75 in Collected Edition-Edwards)
Op. 8	Serenade for String Trio
Op. 25	Serenade for Flute, Violin and Viola
Op. 9/2	String Trio
Op. 12/1	Sonata for Violin and Piano
Op. 10/3	Piano Sonata
Op. 18/3	String Quartet
Op. 119	Bagatelles - No.3
Op. 28	Piano Sonata
Op. 36	Symphony No.2
Op. 61	Violin Concerto
Op. 70/1	Piano Trio
Op. 76	Piano Variations
Op. 82 No.2	Six Songs
Op. 102/2	Sonata for 'Cello and Piano
Op. 123	Missa Solemnis

GROUP (b)

Movements or sections in D, in a basically different tonality included in this study

				KEY OF WORK	RELATIVE KEY OF ITEM
Op. 2/2	(ii)	D	Piano Sonata	A	IV
Op. 18/5	(iii)	D	String Quartet	A	IV
Op. 30/1	(ii)	D	Sonata for Violin and Piano	A	IV
Op. 95	(ii)	D	String Quartet	f	VI
Op. 97	(iii)	D	Piano Trio	B \flat	III
Op. 92	(iii)	F:D	Symphony No.7	A	IV
Op. 125	(ii)	d:D	Symphony No.9	d/D	I
	(iv)	d:D			I
Op. 132	(iii)	F Lydian : D	String Quartet	a	IV
Op. 131	(ii)	D	String Quartet	c \sharp	II
Op. 72b	No.14				
Fidelio	.				

D is the (major) key most used as tonic in Beethoven's oeuvre, after E \flat . In view of this, the factors which emerge in Tables I-III in Section II of the Introduction above¹ may be compared both with the E \flat particulars, and with those relating to C.² Table III yields some interesting tonal information concerning the key of D. Although reference has frequently been made above to the particular and progressively more notable relationship between D and G, in various formal contexts, the incidence of the subdominant in a basic D tonality is lower than in all but one of the incidences for the entire Table (comprising nine major key categories). The incidence of the tonic is in line with what emerges as a norm of two-thirds of the sections. The most notable sectional relationship pertaining to D is the incidence of the tonic minor which, as a sectional key-contrast, is **several** times as great as occurs either in E \flat or in C.

Concerning the Group (b) relationships, a very interesting situation emerges. Of the eleven items including D as a movement- or section-key, D itself occurs as subdominant to A in four cases, and is subdominant major to a in one work. In the remaining five works, one is a number from "Fidelio", the climax to that work in fact, where D follows a number in A; again a subdominant relationship - although there is intervening dialogue. There is no instance of D as dominant. The two instances from the Ninth Symphony involve D as tonic major to d. The remaining three items include a particularly remote sectional relationship, that of D to a basic f (in the String Quartet Op.95). D also occurs as major mediant to B \flat in the Archduke Trio, and as the key of the flattened second, to c \sharp (in the String Quartet Op.131). The sectional relationship of D to a basic f is unique in Beethoven's music; this is also true of D in relationship to c \sharp , (sectionally), but there is only one other work in the key of c \sharp , the Piano Sonata Op.27/2. (There is notable Neapolitan emphasis in that Sonata, however.) Thus, while D occurs mostly as sub-

1 Pp. 44-5.

2 E \flat , D and C being the major keys most used as basic tonic by Beethoven. (The Tables do not in any way take account of the incidence of the basic tonic in other contexts.)

dominant when it is a sectionally contrasting key, it also occurs in very wide-ranging relationships. How far particular features in the thematic treatment recur and characterise or differentiate such varying contexts will be discussed below.

In terms of the large-scale use of tonality, it is interesting to note the high incidence of the tonic minor as a sectionally contrasting key (within a work in D), while there are only two works actually in the key of d. This is a completely different situation from that relating to C, where the minor key (c), as is well known, is frequently used as a basic key by Beethoven.¹ The usage in E^b differs from both D and C; the minor hardly figures as a sectionally-contrasting key, and never as the key of an entire work. (The e^b Allegro of the Pre-Opus Piano Quartet is preceded by a major-tending Adagio.)

Such information relating to the basic, large-scale relationships pertaining to the various tonalities is very revealing, and indicates the need for fundamental comparison. However, the aim of the present examination concerning the key of D is again to establish its particular tonal-thematic characteristics. These are investigated as before, first in relation to the Group (a) contexts and subsequently in relation to the Group (b) works.

1 Although the thesis is concerned to examine the functioning of tonality primarily on the level of the thematic structure, reference has frequently been made to the importance of basic factors such as the initial choice of key, and the sectional relationships. (The thesis is, it may be restated, that a basic change in the analytical approach to the examination of his use of tonality is essential to an accurate and fully representative assessment of this factor in Beethoven's music.) Concerning the use of c as the key of a considerable number of works, although 'Beethoven's "c minor" is extremely familiar' (see above, P.48), relevant significance has hardly been accorded to this fact. Hans Keller has commented on the frequency with which Beethoven used c as a minor mode tonic, as compared with d. "Aren't these facts about Beethoven's tonal world violently striking? I can't understand why nobody ever notices or mentions them" he states. (The Listener, 10th. February, 1972. - "Beethoven's c Concerto - 12 bars if it".) But this is the first such reference commenting on these basic tonal facts to have been made in so direct a manner, to the present writer's knowledge. (It also appears to be the first mention of them to have been made by Keller, too, despite his amazement.)

THEMATIC FEATURES IN A D CONTEXT

Examination of C and G thematic characteristics indicated that particular features recur in the respective categories. A definite "complex" of characteristics was discerned for each category. Examination of the D themes also reveals a particular tonal-thematic complex, again with distinguishing characteristics not directly comparable with usage in other tonalities. The supertonic emerges as more significant thematically than is the case in G, but it is not as pronounced as is the case in C. A particular "inflection" is in evidence in D; this is to the submediant and is evident both melodically and harmonically. The latter emphasis is the more notable, and to be fully explored in relation to D usage needs examination in the context of larger-scale considerations than are in question here. (Discussion is extended in the course of the tonal-thematic analysis to take account of some of these factors, where relevant.)

A feature which was significant in C and G was the use of the tonic triad; this is not a notable feature of D themes, in either Group. Step-wise movement in the themes is more characteristic of D usage, as will be discussed below. There is emphasis of the subdominant, but this is not as strong in D as in G (it does not characterise C with any consistency). In D there is harmonic rather than melodic emphasis of the subdominant, and it occurs less prominently in the course of the themes than is the case in G. It is also stronger in the Group (b) than in the Group (a) themes.

In relation to melodic apex usage in the D themes, as with G the dominant is an emphatic apex-degree; however in D it is frequently connected with the marked tendency to step-wise movement in the thematic structure, and so differs from apex-treatment characterising other tonalities. A more prominent apex emerges in Group (b) - the mediant.

Two further features of note, not always relevant to the thematic treatment alone, may be mentioned. The first is an intervallic fall of a third, from D to B, sometimes extending further (in thirds). The second notable feature concerns the bass. The rôle of the bass as a structural force is of immense importance in Beethoven's music. How far such structural

features are in fact tonally related (that is, related to the tonality functioning) - if at all, is a far-reaching question. Full discussion of bass-procedure is not within the scope of the present examination, but it seems to be the case that in D treatment the bass more frequently reflects characteristics identifiable on the thematic level than is true of other keys. Thus, the tendency to submediant emphasis, while giving rise to a thematic fall of a third and to melodic inflection, also gives rise to harmonic emphasis and to a fall of a third (from tonic to submediant) in the bass, not necessarily in connection with harmonic emphasis. Perhaps the most strikingly recurrent bass-procedure in the D themes is the step-wise descent from tonic to dominant, the second notable feature relevant here.¹

I THE THEMATIC FALL OF A 3RD IN THE D (GROUP (a)) THEMES

There is a tendency to submediant inflection in D, as has been stated. The submediant minor frequently occurs in a D context, the major occasionally: this tonal tendency is not limited to the thematic treatment but is also evident on the larger-scale levels to a notable extent.² The thematic fall of a third from D to B initially in the thematic structure may well be part of the tendency to harmonic emphasis of the submediant in D, even though, as will be apparent, the fall often extends - in thirds - beyond the submediant. This type of interlinking of particular tonal features between different levels of the thematic (and larger-scale) structure has already emerged in connection with other tonalities. The 'intervallic inflection' in question here is not as obvious a tonal-thematic characteristic as harmonic emphasis, but it occurs to a significant extent in the Group (a) D themes. That a submediant tendency

1 The instances of this thematic shape in the D themes (Groups (a) and (b)) are correlated and briefly discussed following the Group (b) tonal-thematic analysis. See P. 229 et seq. below.

2 Submediant inflection in the Group (a) D themes is examined as the second category of tonal-thematic features relating to D (Group (a) themes) below.

is evident on the basic level of thematic structure suggests that it is a relationship particularly accessible in a D context; its rôle in the large-scale functions of tonal-structuring cannot be examined in detail here, but some instances of such usage will be indicated in the course of the thematic examination.

The thematic fall of a third from the tonic in the Group (a) themes is examined in three categories, according to the type of usage evident.

i the fall of a 3rd as basic to the thematic structure

This thematic characteristic is comparable with the strong tendency to supertonic usage in C in a number of ways, not least with respect to its frequent occurrence. However, as an intervallic fall, it is evident on two levels - as an interval, occurring melodically and, on a level more directly comparable with C usage, in sequential phrase-structure (the submediant 'stands in apposition to' the opening tonic, each degree the first of the respective phrases in the sequence). The fall is basic to the theme in one of these two ways in exx.1-5 of the Group (a) D themes.¹

Example 1 combines the two types of emphasis; the fall of the third occurs indirectly, separated by the last two beats of bar 1. However, the rhythmic emphasis and the harmony, together with the continued fall in thirds in bars 3-4, reinforce its importance in the thematic structure. Bars 2-3 (beat 1) may also be regarded as a sequential repeat of bars 1-2 (beat 1).

The movement from which ex.2 is taken is entitled "Entrada" and it is in the nature of a fanfare. The first four bars are clearly of this kind; bar 5 is interesting, for it includes the first departure from a triadic, fanfare-like treatment, and the

1 The D Thematic Index is given in the Supplementary Volume - P.26 et seq.

first "foreign" note is the submediant, resulting from the drop of a third from the tonic.

In ex. 3 the intervallic fall is on the level of phrase-structure; there is sequential repetition of bars 1-8 on the supertonic. But there is notable difference of usage here, as compared with that in C. One important difference is that the sequential treatment in ex. 3 does not lead onto the dominant of the supertonic; the sequence is not exact in the D theme. The second period of ex. 3 in fact cadences into the tonic; this is of interest in that the first section of a minuet modulates more often than it stays in the tonic.¹ The fall of a third from D to B in this theme is also an important differentiating factor, in comparison with C usage. The minuet opens on the tonic thematically; the first note of the sequential statement is the submediant. Harmonically the progression is tonic initially and supertonic in the sequential statement. However, thematically the sequence is not exact in that the first note (of the sequence) is not the supertonic. Thus the two phrases are linked by the fall of the third, D - B. As already stated Beethoven uses an exact repeat in such sequential treatment in C. The only reason why the submediant might be stated here in preference to the supertonic is the "grammatical" one of avoiding exposed octaves as between the Violin and 'Cello. That the significance of the intervallic fall is the more likely reason for this inexact sequential treatment is reinforced by what happens immediately following the double-bar cadence:

The image shows a musical score for three instruments: Violin, Viola, and 'Cello. The score is in 3/4 time and features a double-bar cadence. The Violin part starts with a melodic line that descends from D4 to B3, illustrating the submediant tendency. The Viola and 'Cello parts provide harmonic support with chords and single notes. Dynamics markings include *sf* (sforzando) and *fp* (fortissimo piano).

This is an instance of the submediant tendency occurring harmonically in a very direct way.

1 This is another factor which needs to be examined in detail to establish whether or not modulation at this point is tonally related.

Example 4 is more like ex. 1; in ex. 4 however the intervallic fall occurs immediately, and extends to two further falls of a third, and thus initiates the basic shape of the first two bars of the thematic paragraph. In the course of this paragraph there is a further instance which shapes the cadential treatment.¹

Example 5 gives the opening of the Missa Solemnis, Op. 123 in reduced score. The first five and a half bars are a harmonic establishing of the tonality of D, prior to the entry of melodic material at bar 6. In view of the rôle of these opening bars, it is particularly interesting to note the first contrast to the forte statement of a tutti tonic chord; a decrescendo is followed by a piano submediant chord. Still piano dynamically, a supertonic⁶ ushers in the tonic cadence, whose resolution is simultaneous³ with the beginning of the melodic treatment in the Woodwind.² At the Woodwind entry (beginning at bar 6 of ex. 5) the harmony proceeds through subdominant emphasis; the thematic line however opens with the fall of a third from the tonic to the submediant. Thus both harmonic and melodic emphasis of the fall of a third occur in this opening, in connection with the initial establishing of the tonality.

The concluding treatment in the opening orchestral passage of the Missa Solemnis (prior to the voice entries) also uses the submediant emphatically, as a climactic focus preceding the tonic cadence (bars 14 - 20 of ex. 5). Clearly the submediant is an important factor, harmonically and melodically (and of course tonally, in the fullest sense) in the opening of the Missa Solemnis. The fall of a third is one aspect of the particular tonal nuance apparent in this treatment.³

1 This is treated under ii below.

2 This is an instance of "ellipsis", which is particularly characteristic of Beethoven's late music in various ways. Cadential overlapping is evident in earlier works, but ellipsis on a larger and more complicated scale is notable in the later works, including the Missa Solemnis. (One instance was mentioned in connection with the Benedictus theme - see above, Pp. 132-3.)

3 Although tonal considerations on the larger scale of sectional relationships are beyond the scope of the thematic analysis, it is perhaps appropriate to point out here that the key of the following "Christe eleison is b, the submediant minor.

ii the fall of a 3rd as consequent treatment in the thematic structure

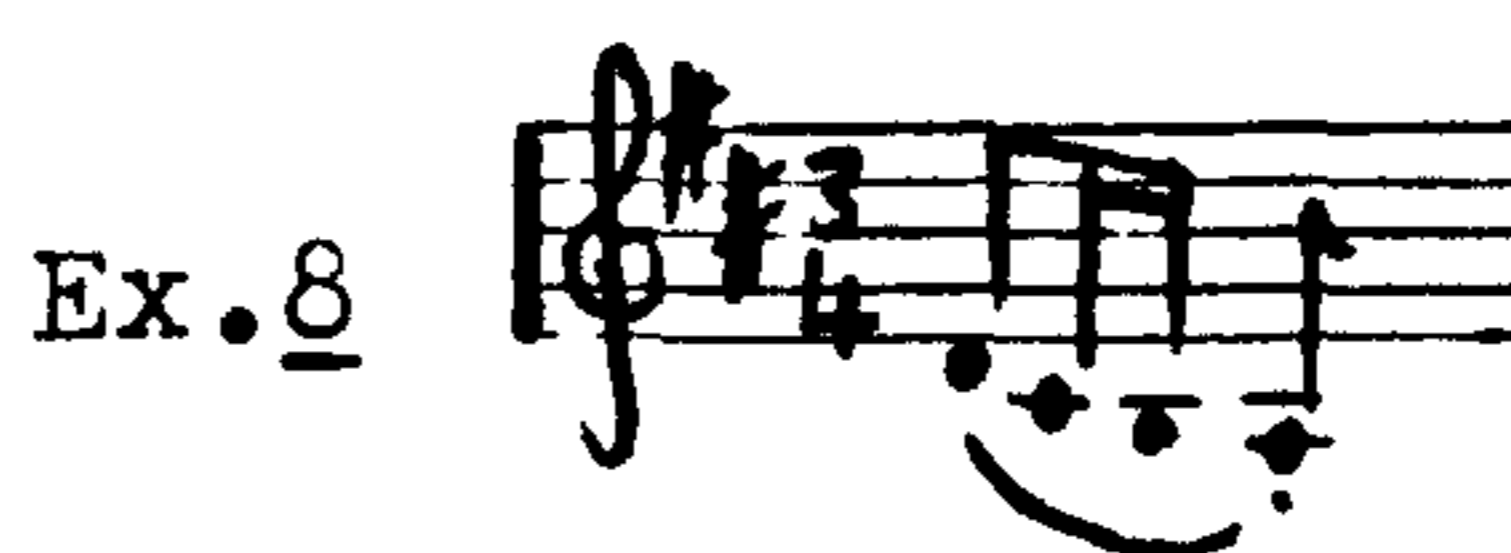
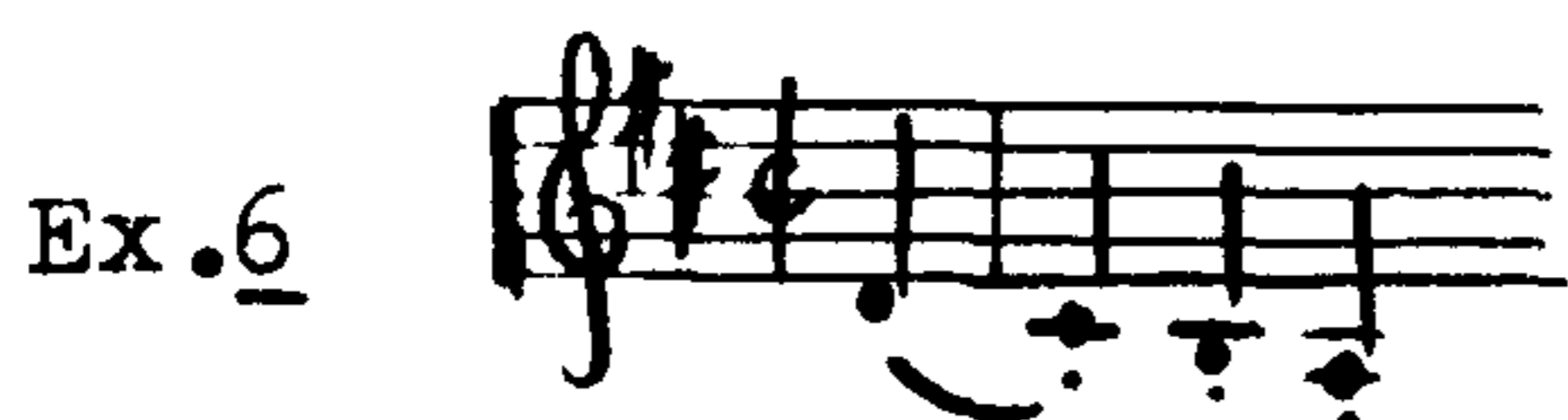
The examples comprising this category of usage are nos. 6, 7, 8 and 4. Example 6 is notable for its use of step-wise motion in the opening of the Piano Sonata, Op. 10/3.¹ The first four crotchets are in fact germinal to the entire movement; following the pause at bar 4, it is this descending pattern of four crotchets, three times repeated (itself a significant fact in Beethoven's music) which forms the basis of the consequent treatment. However, the first note of each of these groups of four crotchets, which are clearly of importance in the melodic line, immediately point up the sequence of falling thirds from the tonic. Rhythmically, the stress is on the succeeding note each time but the first of each group of four notes is accentuated by the break in the step-wise motion. The occurrence of the submediant (at bar 5, beat 4) is even more noticeable as a result of the restated dominant above; while the rhythmical stress is on bar 6 beat 1, the submediant preceding this is clearly related to the tonic (bar 4, beat 4) and links with it aurally. The sequence continues, falling in thirds, as far as the supertonic - as in the opening of exx. 1 and 4.

As with ex. 3, ex. 7 will recur in consideration of supertonic sequential usage in D themes. Once again the sequence on the supertonic is not exact, but is modified tonally to redirect the tonality to D as tonic. Bars 15 - 18 are interesting melodically with respect to the rise to the supertonic over a tonic cadence, harmonically; but the full cadential treatment follows this, and it is at this point that the fall in thirds occurs. At bar 18 the theme is on the tonic degree, above $\begin{matrix} 6 \\ 3 \end{matrix}$ tonic harmony, but the ensuing bars establish the home tonality firmly. Thematically, this is achieved by way of the fall (of a third) to the submediant, once again extended (in thirds) -

¹ As stated above this thematic feature is particularly evident in D and is examined in detail below. (Section IV - P.190 et seq.)

this time beyond the supertonic to the leading-note, and the first forte statement of the tonic. Indeed, the whole opening paragraph is not forceful; this is due not only to the pianissimo dynamic for 22 bars, but is related to the harmonic treatment. This is not striking, although significant tonal-thematic characteristics are functioning, remaining inconspicuous until comparison with other D usage reveals the tonal consistency apparent. The rôle of the sequentially falling thirds in the approach to the definitive statement of the tonic is a notable characteristic in the consequent treatment of this thematic paragraph.

Example 8 has a very arresting opening, to which various factors contribute. It is interesting to note that the "reverse" usage of the descent discussed above (in connection with bars 4-8 of ex.6) occurs in this opening. Both themes also use the same thematic cell initially:



As discussed previously, ex.6 subsequently uses a sequence of falling thirds as the basis of its descent to the tonic; in ex.8 the opening figure is used immediately in an overall rise to the tonic. However, it is at bars 14-16 of ex.8 that the usage directly relevant to the present category occurs. The Piano takes the melody to the higher tonic for the first time - melodically, this is the main apex; the remaining 8 bars are a descent from this apex to a tonic cadence. In the Piano this descent consists of a cell, three times stated, (♩♩♩), overlapping with the Violin's taking over of the melodic line at bar 16. The first note of each bar in the Piano part (bars 14-16) again stresses the fall in thirds, melodically, from tonic to submediant initially and extending onto the subdominant.

The last example of consequent usage of the fall of a third in the Group (a) themes occurs in the closing stages of ex.4, in the course of a cadential theme, following the main tonic cadence. This instance is comparable to the example from the Piano Trio, Op. 70/1, just discussed. The mood is different, the melodic line less sustained, but once again the intervallic fall from tonic to submediant gives rise to a sequence of falling thirds as the basis of this cadential theme.¹

iii the fall of a 3rd as incidental in the theme, but notably used

This description may be used of ex.9. In this opening (of the String Quartet Op.18/3) the three lower strings enter at the third bar, the 'Cello with a rising diatonic progression onto the dominant. The treatment in Violin I is essentially a falling thematic line, which is not a regular descent and as a result includes the fall from tonic to submediant, Bars 3 and 5 in Violin I are "elaborations" of the tonic degree; bar 5 is tonic-centred throughout, and it is between bars 5 and 6 that the fall occurs. It is a less significant incidence than those discussed under i and ii above. However, once more the harmonic treatment is further evidence of the functioning of the submediant tendency in this movement. The transitional material opens in D with new thematic material which, after a D statement, immediately recurs in the submediant minor (see bars 35-43 of the movement).

A further instance of significant use of the fall of the third from tonic to submediant in this Quartet may be mentioned here. It occurs in the Allegro section of the third movement. The double-bar cadence (at bar 8) is into the mediant minor; preceding this, the fall in the bass from D to B (at bars 5-6) is an important factor in the tonal move. There is fuller submediant emphasis later in this Allegro, which is examined in the following category of tonal-thematic features in D (Group (a)).

1 Despite the differences in mood, metre and indeed chronology of these two themes, note the further similarity in the respective cadential treatment. Cf. ex.4 - bars 20-26 and ex.8 - bars 15-21. The submediant is emphasised thematically in both; also the cadence following this emphasis is remarkably similar in both cases.

II SUBMEDIANT INFLECTION IN THE D (GROUP (a)) THEMES

The tendency to submediant emphasis in the D (Group (a)) themes has been discussed on the level of thematic structure in terms of the particular use of certain intervals. Further evidence of the submediant tendency is afforded by what is referred to here as "submediant inflection". As with the tendency to mediant inflection in G, submediant inflection in D is present on two levels, sometimes simultaneously. They are once more the level of melodic inflection and that of harmonic inflection. The Group (a) themes are examined in these two categories with respect to submediant emphasis. Degree-inflection occurs in connection with three harmonic bases - the supertonic, the subdominant and the submediant. This fact suggests the particular accessibility of the submediant in D in Beethoven's music. Indeed, the frequency with which some kind of submediant inflection occurs in D - at whatever level - indicates that it is a basic facet in Beethoven's approach to this specific tonality. In neither C nor G is such submediant emphasis in evidence.¹

i submediant inflection - melodic

The ten instances of degree-inflection in the Group (a) themes occur, as stated, in various contexts. Five are linked to supertonic usage, three to the interval of a third, rising or falling; the remaining instances do not have a strong common factor other than the inflection.

Examples 7,9,10,12 and 13 include submediant degree-inflection in connection with the supertonic. (The instance in ex.7 will also be examined in relation to supertonic usage per se in the Group (a) themes.)

Bars 1-16 in ex.7 consist of two 8-bar periods, the second of which is a sequential repeat of the first, on the supertonic. The submediant inflection arises out of this sequence; thus it is here subsidiary to the more important fact of the supertonic sequential treatment. This is also true of ex.9 where the supertonic is harmonically emphasised (bars 16-17); this emphasis is horizontalised in the ensuing Violin I treatment. The submediant inflection is part of this supertonic-based expansion.²

1 Concerning E \flat , see the comments in Footnote 1, P. 165 below.

2 Also, see P. 173 below.

Example 10 uses the supertonic harmonically following the first tonic cadence (bar 4). Submediant inflection introduces the descending harmonic move from supertonic to tonic, sequentially; the reverse procedure of that more usually adopted in the thematic structure.

Examples 12 and 13 are particularly interesting in their use of the secondary seventh on the supertonic. Attention was drawn to this chord in C usage, with the fifth flattened or natural.¹ The use of this chord in D differs however, as will be discussed subsequently. In ex. 12 this chord precedes a tonic $\frac{6}{4}$ at the end of the opening thematic paragraph (bar 11), but in ex. 13 the chord occurs after the tonic. Ex. 13 is comparable with ex. 7 in relation to the sequential supertonic treatment, here apparent in a more condensed form; as with ex. 7 the melodic inflection results from exact repetition of the first phrase. The degree-inflection in ex. 12 occurs in the closing bars of the thematic paragraph, in a progression characteristically stressing the subdominant.

The importance of the fall of a third thematically in the Group (a) D themes was discussed above.² That the submediant inflection does not occur solely in connection with this factor is clear, and serves to emphasise the particular accessibility of this inflection in D. However, there are two instances in the Group (a) themes where these two aspects of submediant inflection do occur simultaneously, in contexts other than the supertonic, harmonically. These will emerge in the discussion of the remaining instances of melodic inflection of the submediant.

In bars 1-4 of ex. 4, the use of the falling third sequentially gives rise to a horizontalised secondary seventh. (A similar instance in ex. 9 was referred to above.³) The opening

1 See Pp. 58-64, passim.

2 Section I above, P.154 et seq.

3 P. 161. (The present instance may also be correlated with that from the String Trio, Op.9,(iii) P.173 below.)

three quavers comprise a thematic cell, which is repeated on each successive step of the sequence of falling thirds, giving rise to the submediant inflection. This instance in itself may seem of slight significance, but that it is in fact significant and a characteristic element in the construction of this opening is amply borne out by the later course of the movement. The tendency to submediant emphasis in D is apparent on varying levels; that it occurs in a relatively inconsequential manner in this and other themes is, when approached in the light of Beethoven's use of the tonality of D generally, indicative of the importance of the submediant in the D tonal-thematic complex. In ex. 4, the submediant is also used as an important melodic apex, cadentially; the submediant minor is the main, 'pivotal' key in the development section of the movement.¹

1 This is characteristic of other movements in D, notably in the Piano Sonata, Op. 28(i). Significant use of the submediant later in this movement is also notable and may be compared with a climactic passage in the Ninth Symphony. In Op. 28(i), the strong submediant minor emphasis of the development is prolonged over a dominant (F#) pedal: following the pause (at bar 256) and surprisingly, a major resolution momentarily sounds; a second statement of this thematic material (stemming from the original Transition) flattens the third and thus the submediant minor occurs and is neatly redirected onto the home dominant-seventh prefacing the D Recapitulation. In the finale of the Ninth Symphony similar usage occurs immediately before the lead-in to the closing Prestissimo. The second slowing of the tempo (to Poco adagio) extends what sounds to be a move onto the dominant (of D) sharpwards, tonally, and the dominant of the dominant is a pivotal chord into the key of B (the key-signature is altered for this passage). Each Soloist in turn utters the beautiful embellishment of this ecstatic tonal 'lift': - the return to D is again achieved via the flattening of the third (D#- D \flat), but by a typical ellipsis Beethoven does not 'bother' with the home dominant-seventh here, but merely states a tonic $\overset{\circ}{D}$; however, the next 8 bars are also significant in relation to submediant emphasis, for the submediant-dominant 'swing' melodically further stresses the submediant degree and (again significantly in D) generates the final (D) cadential treatment. (The submediant occurs as a notable melodic apex in the D themes, as will be discussed below.) This instance from the Ninth Symphony is not an example of tonal usage peculiar to the late music, but a particularly clear (and obvious) use of what is for Beethoven, basic to the tonality of D, and consistently in evidence throughout his oeuvre.

Example 14 includes two instances of submediant degree-inflection. The first occurs in connection with the grace-notes at bar 5. Here the submediant forms a subsidiary melodic apex preceding the fall onto the dominant, and the inflection occurs in the ornamentation of this fall. Beethoven seems to want the fall of a third onto the dominant, melodically, but he could have used a different formula for the grace-notes; the submediant inflection appears to be particularly accessible. A further inflection, used with the fall of a third, D - B, in the bass, is stated in the following bar. A sequential progression, IV - VI - I harmonically, repeats the semitonal inflection of the thematic cell, as with ex. 4; but the submediant inflection at this point in ex. 14 is more notable as this is the first time in the theme that the initial thematic cell is used in a progression, moving from its original position. (The harmonic treatment is characteristic in a D context; the submediant is in evidence harmonically in the theme, as will be discussed below).

The remaining instances of submediant degree-inflection occur in exx. 11, 15 and 16. In bar 3 of ex. 11 it is more noticeable as a result of the rising seventh preceding it. This usage occurs at an important juncture in the rondo theme, yielding a melodic apex of significance, structurally. Example 15 uses a rising third progression, thematically; this begins at bar 15 and proceeds to the dominant degree (at bar 22 - the harmony here is mediant). The submediant inflection follows immediately. Although the dominant (of b) is stated, no harmonic resolution is made in b, but this dominant is enigmatically redirected to a tonic (D) cadence.

Example 16 uses submediant emphasis in a brusque move from the tonic, which is the only bass until the last quaver of bar 7.¹ The nearness of the submediant both harmonically and in terms of degree-inflection is in evidence here (note the fall of the third D - B in the bass created by this move).

1 Concerning the B^b use of this theme by Beethoven, see below P. 171, Footnote.2

Submediant degree-inflection in the D Group (a) themes is a feature occurring in various contexts; it may be distinguished as a tonal-thematic characteristic specifically related to the tonality of D as a basic key.

ii Submediant inflection - harmonic

As with degree-inflection, submediant harmonic inflection may be treated in groups according to contextual occurrence. The tendency to harmonic usage of the submediant is a notable one in the Group (a) D themes, and is not paralleled by similar usage in other tonalities.¹ That the submediant minor is a notable key in D, on the larger scale of movement structure has been mentioned above.² The tendency to harmonic emphasis of the submediant in the thematic structure also identifies this feature as a tonal-thematic characteristic.

In the Group (a) D themes the harmonic emphasis of the submediant again occurs in a variety of contexts - in three cases immediately after the tonic, as the first tonal contrast; in several other instances it occurs in the course of the thematic paragraph. There are also examples of the submediant (minor) as the contrasting tonality in the middle-section of minuets, or in the continuation of thematic openings. (This does not always relate to the "transition" as such. Transitional treatment is a stylistic feature which changes in the course of

1 Of the four tonalities examined in the thesis, only E^b tends to emphasis of the submediant in any comparable way. However, it is not as pronounced a characteristic of E^b as of D usage, and the contextual occurrence of the submediant in E^b differs in important ways from the characteristics in D usage. For instance the submediant minor frequently opens the development treatment in E^b movements, whereas in D, the tonic minor is remarkably consistently used in this context. Although E^b themes quite often include submediant (minor) harmony, the E^b/C relationship is a more notable one relating to that tonality, and the submediant tendency is not sufficiently consistent nor pronounced to necessitate its consideration as a tonal-thematic characteristic in E^b usage.

2 See Pp.161et seq(including Footnote 1, P.163).

Beethoven's development in his use of form, and in instances such as the D 'Cello Sonata, Op.102/2 - to be discussed below - there is a greater flow thematically. Overlap of this kind, avoiding clear-cut sections, is characteristic of the later music.)

Relevant extracts from those examples including submediant harmonic emphasis are given as exx. 1s - 9s.¹ These may be treated in three groups, as outlined above:

- a the submediant immediately following the tonic
- b the submediant as a notable inflection in the thematic paragraph
- c the submediant as a notable tonal contrast sectionally or following a tonic thematic paragraph, outside Sonata Form movements

Category c necessarily moves beyond consideration of the initial tonic theme. However, it is included here as a notable type of emphasis in a D context, a further indication of the nearness of this particular inflection in D. Where the movement in question is a minuet or scherzo section, the first double-bar can hardly be said to delimit "the theme", particularly where modulation occurs.² Category c includes submediant harmonic usage from contexts such as these. It also includes an example from the Gloria of the Missa Solemnis.

1 These extracts follow the Group (a) D Thematic Index in the Supplementary Volume, P.32-3.

2 As already stated, the question of modulation at this juncture in a scherzo or minuet movement is yet another which needs investigation to establish whether or not such treatment is tonally related, as it may be that modulation to particular keys occurs (or indeed that it does not) depending on the basic tonality functioning. In Section III below, the D and C themes are correlated and examined to identify to what extent tonally-related elements are functioning in such contexts. (See P.182 et seq.)

a the submediant immediately following the tonic

Three instances where this use of the submediant occurs in the Group (a) themes are cited here. The submediant is not the first harmonic contrast after the tonic in all D movements, but that it does occur in this context is nonetheless related to the submediant tendency in D, and the instances in the *Missa Solemnis* are particularly notable. Much stress has already been laid on the successive fall in thirds from the tonic in the intervallic structure of D themes (and at times in the harmonic treatment). The use of submediant harmony following the tonic must be related to this distinct tonal tendency to a drop of a third thematically. Given Beethoven's frequent use of a submediant inflection - both melodic and harmonic - in D, the use of submediant harmony in connection with the thematic fall of a third is hardly surprising.

Example 1s is a very straightforward instance. The continued fall in thirds in this theme has been discussed above.¹ However, the only two triads used in the antecedent (which is otherwise in octaves) are the tonic and the submediant. This is an early work, composed in about 1785 in Bonn. The second of a set of three Piano Quartets, it opens fortissimo, in martial mood. In view of this, the submediant is a weak harmony; the falling thirds seem to be more important than harmonic considerations, although it is notable that the submediant is the only harmony used apart from the tonic. Without overstating the case, this opening is interesting when viewed in the light of the tonal tendencies which emerge in relation to D in the course of Beethoven's oeuvre.

Example 2s could hardly be further removed in time in Beethoven's composing life. Here the very opening of the *Missa Solemnis* is in question. The dynamic is forte, the forces a large orchestra with organ. There is a diminuendo through the sustained D of bar 2; then the submediant is stated, piano, at bar 3 as the first harmonic contrast to the forceful opening chord of D. The first 6 bars serve largely to establish

1 P. 155.

the tonality; it is interesting to note how Beethoven chooses to do this in the context of D. Just two chords intervene between the opening chord and the main cadence of bar 5-6. Significantly, these are first the submediant and then the secondary seventh on the supertonic. The importance of this second chord in D has been referred to previously, and it will recur in subsequent considerations. It is also of interest to note D-B-G, falling, as the bass of the three opening chords. The clarinet enters at bar 6 with the tonic falling to the submediant, thematically; bar 7, harmonically, again comprises the tonic followed by the submediant. (The subdominant is the next harmony - a typical D-complex is in evidence.)

Example 3s is also from the Missa Solemnis. Bars 1-9 are again concerned with establishing the tonality of D. However, the Sanctus follows the Credo, which is in B^b. Beethoven links back to D via the submediant; because of the preceding flat tonality, there is a strong move to the dominant, and beyond, to re-establish the sharpness of D; once more the submediant and the subdominant are evident in this process. By bar 9, D has been fully re-established; this being so, the fact that the very opening of the work - harmonically - is reiterated, is significant. The tonic is again followed by the submediant - this prefaces the entry of the voices, also on the submediant (as part of an interrupted cadence).

The contexts of the two instances from the Missa Solemnis cited here must also be considered. In the first, the opening of the Kyrie is in question; in the second, that of the Sanctus. From the treatment in both sections, it is clear that Beethoven regarded each as of profound significance. There is a reverence about both the Kyrie and the Sanctus which is deeply impressive. In the present connection, it is relevant to indicate that both sections subsequently use the submediant (minor) as a key of importance. The key of the *Christe eleison* is b; the Sanctus modulates to b before stepping down onto the dominant for the wonderful treatment of "Sanctus Dominus Deus, Deus Sabaoth", where the texture seems to melt in the awareness of and the inexpressibility of Holiness. The use of submediant harmony in the respective opening treatment must be viewed as significant,

and as directly relevant both to the nature of the setting and to the tonality chosen as its vehicle. A distinct tonal tendency relating to D is clearly in evidence.

b the submediant as a notable inflection in the thematic paragraph

The continuation of ex. 2s yields a further instance of the submediant used harmonically, in addition to that referred to above (in bar 2 of ex. 2s). More notable usage occurs subsequently, and may be termed an inflection with respect to the strong emphasis of the dominant of b which precedes the submediant. There is a swift return to the tonic following the incidence of the submediant, which is in fact the climax of the entire paragraph. The dominant of b immediately before occurs, with a sforzando, where the tonic might have been anticipated (bar 17 of ex. 2s); this submediant deflects the tonality momentarily. In these few opening bars, the tonic-submediant relationship has occurred as the initial harmonic contrast; in the thematic contour; in the bass; and finally as a strong inflection prior to the D cadence.

Example 4s, from the Piano Sonata Op.10/3, includes a similar submediant deviation at bars 13-14, although the (home) dominant receives the dynamic impetus of the sforzando, and the submediant inflection is less disruptive of the tonality. This opening movement subsequently yields a further example of the nearness of the submediant in D. The transition begins with a rhythmically modified repeat of the opening, but on achieving the dominant, a notable extension occurs:



There follows a theme in b, which modulates to f#, and the transition to the second group (in A) continues. This move to the submediant at bar 20 is a significant instance, occurring as it does in direct relationship with the tonic.

The inflection in ex.5s, as in ex.4s, is not an emphatic swing to the submediant. It occurs at bars 6-7 of the extract (bars 16-17 of the movement). The 'return' to the tonic is by way of the subdominant; this complex of relationships is emerging as a recurrent 'tonal shape' in the D themes. Stylistically ex.5s is a characteristic example of Beethoven's Middle-Period treatment; in this movement there is no "closed theme": there is a 2-bar cell, permutations of which are used to build up a large thematic paragraph. Thus it is most meaningful to include instances of this kind under the present heading, together with more straightforward thematic structures which may also be termed thematic paragraphs.

The incidence of submediant inflection, both melodic and harmonic, occurring in ex.6s has been mentioned above. The harmonic inflection in bar 6 - part of a rising harmonic progression in thirds, from subdominant, to submediant, to tonic - is notable largely for the fact that this motif has so far only been stated in its opening position. When it moves, it is significant how Beethoven uses it to resolve by a sequence of thirds. (Thirds are evidently integral to this motif, but the particular progression involved here is characteristic of D treatment.) Two further observations may be made in connection with this theme. Firstly, there is a strong subdominant stress in the opening of this movement. The tonic to mediant emerged as important in the examination of G thematic characteristics. However, and secondly, account must be taken of the bass, whose three notes D-B-G, in a falling succession, constitute a familiar shape in D usage. There is a typically Beethovenian ambivalence about this opening. In view of this, the use of the submediant harmonic inflection in establishing the tonality is the more notable. Indeed, the first cadential formula is frustrated by a further statement of the submediant, creating an interrupted cadence.

Example 7s, although included in this section, does not state the submediant triad, but its nearness is evident in the Violins' reprise after the pause, which gives to bar 5 a very

strong feeling of the dominant of b. Bar 10 also includes a slight inflection tucked neatly into the Viola line.¹

Example 8s is the brusque modulation to b mentioned above.² Example 9s from the Song "Liebes-Klage", is particularly interesting for its use of the submediant in an overall modulation to G, the subdominant. Here is a clear indication of the particular significance for Beethoven of the tonal move D-b-G, and of the special force of that from b to G.³ The words are notable in this submediant treatment which comprises a full inflection, poignantly treated. A similar D-b-G complex is also evident at the opening of the finale of the Piano Trio, Op.70/1. The submediant does not emerge, but the interrelation of the three is clear:

Presto

- 1 It is interesting to note that every movement in D in this work includes submediant inflection of some kind.
- 2 Concerning this theme, the Turkish March from The Ruins of Athens, of some two years later than Op.76, uses this theme in B \flat . The only alteration to the treatment is in the addition of grace-notes. Thus there is a modulation from B \flat to g equally brusquely. However, the grace-notes do qualify this somewhat. The whole question of Beethoven's transposition of material between keys is an important one; the more detailed examination of Beethoven's tonality must precede competent consideration of this aspect.
- 3 Beethoven's use of the flattened submediant has been referred to, in general terms, by several commentators. However, the use of particular, specific relationships, such as b/G has yet to be clarified.

There is a strong subdominant at bar 2 (in fact thwarting a possible submediant) and the feeling of the dominant of b (at bar 4) is immediately followed by emphatic subdominant treatment. A further case where the dominant of b never resolves but is re-directed through the home dominant to D occurs mid-way through the trio of the Second Symphony, Op.36, (in the third movement).¹ The remaining instances of submediant harmonic inflection all occur in contexts which extend beyond the thematic paragraph, and are thus comparable to that occurring in the Second Symphony, where a sectional relationship is in question.

c the submediant as a notable tonal contrast sectionally or following a tonic thematic paragraph, outside Sonata Form movements

The sectional qualification here refers to junctures such as occur in scherzo/minuet movements, where the double-bar does not delimit a theme.² The reference to instances following a tonic-thematic paragraph outside Sonata Form movements includes works such as the Masses and other vocal works (the Songs included) where a different formal scheme functions, but where tonal relationships occur as cogently as in more formalised sonata structures (as far as Beethoven's sonata structures may be said to be "formalised"!.) Indeed, the submediant very frequently occurs as a key of considerable importance in transition and development treatment in Sonata Form movements in D, but such instances cannot be examined in detail in the context of what is primarily a thematic analysis. The 'freer' formal structures are included here as being comparable with the instances at sectional junctures in other works, and as worthy of comment in this context. Five instances may be cited in connection with the present types of usage:³

1 See below, P. 174.

2 See above, Pp. 165-6.

3 The relevant extracts are given in the Supplementary Volume, Pp. 34-43.

- (a) String Trio, Op.9/2(iii)
- (b) Piano Sonata, Op.28(iii)
- (c) Symphony No.2, Op.36(iii)
- (d) Missa Solemnis - Gloria
- (e) Missa Solemnis - Agnus Dei → Dona nobis Pacem. (b→D)

Examples (a) and (b) both relate to the third movement in works with four movements; (a) a minuet, (b) a scherzo. The opening section of (b) is more extended, modulating to the dominant by the double-bar, whereas (a) cadences into the tonic. In (a) this cadence is immediately followed by the submediant, treated as a key, prior to the return to the (home) dominant. Concerning this continuation, and the move back onto the dominant, it is interesting to note the similarity of the treatment here and in the first movement of the String Quartet Op.18/3, composed some two to three years later. There is similar horizontalisation in a descending Violin I passage, focussing on the submediant triad in the String Trio (note the sfz markings) and on the supertonic in Op.18/3(i):

The image contains two musical score excerpts. The top excerpt is a string trio score with three staves (Violin I, Violin II, and Cello/Double Bass). It features a descending violin I passage with sfz markings and a submediant triad. The bottom excerpt is a similar passage from Op.18/3(i), focusing on the supertonic. Both excerpts show a descending violin I passage with sfz markings and a submediant triad.

In ex.(b) the submediant inflection is less direct. Following the double-bar in the Piano Sonata scherzo, there is a chromatic rise in the Left Hand, with octave displacement, moving through the dominant and beyond - through the submediant - to the pause on the home dominant-seventh. (There is a submediant inflection at the third bar after the double-bar, prior to the "interrupting" subdominant of the succeeding bar.) A further interesting fact concerning exx.(a) and (b) is that in each case the trio section is in the relative minor - b; this is somewhat ambivalently treated in the String Trio, and is an early and notable example of Beethoven's ability to mislead.

Example (c), mentioned above¹ is an interesting instance where ambivalence also prevails for a time. The first part of the trio is simply and firmly in D; the insistence on the mediant degree following this is very arresting. (Note the dynamic treatment.) Initially there is the feeling that the mediant minor might emerge; indeed this is a relationship which does arise in D. In the String Quartet Op.18/3, the scherzo opening does modulate directly into f#, and the opening phrase of that work uses a mediant inflection.² However, in the Symphony, the mediant stress then bursts into a mediant major arpeggio, the dominant of b. While there is no resolution, the impression aurally is not that the mediant is going to become the tonic of F#, but that b is only just eluding resolution. The six bars following the forte arpeggio - when again only the mediant (degree) sounds, softening to pianissimo - maintain the sense of uncertainty and ambivalence. The aural response is of course a personal thing, but in view of the distinct tendency to submediant emphasis in D in Beethoven's usage, the interpretation of the mediant major triad as dominant of b is far more in keeping

1 P. 172

2 See ex.2, bars 9-10 in Violin I.

with his stylistic vocabulary tonally, than would be a move to F#.¹

Two instances of notable submediant harmonic usage from the Missa Solemnis, may be cited here. In the Gloria, from which ex.(d) is taken, it is not helpful to discuss the structure in terms of thematic paragraphs as the text is continuous, and clearly Beethoven was at great pains to honour the textual demands throughout this work. Continuity of treatment musically is perhaps one of the most impressive features of the Missa Solemnis, a feature particularly characteristic of Beethoven's late style. Thus, at bar 38, where the triumphant opening acclamation of "Gloria in excelsis Deo" may be said to cadence in the voices, the tonality is on the way elsewhere. Bars 1-21 are forcefully expressed but, as if to convey something of the scale of the acclamation - Glory to God in the highest - Beethoven expands the musical treatment. This expansion is achieved tonally by moving through the dominant to the submediant, in a sequential rise. Inflection of this kind has already emerged as notable in D contexts; here in the late music is clear and powerful use of the tendency apparent so much earlier. The tonality of D is not disrupted by this treatment, but more fully established, prior to the more complicated treatment in the ensuing "stretto".²

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- 1 The present case was referred to in connection with the Piano Trio Op.70/1. (See P.171-2.) In the Piano Trio, there is again no submediant resolution, although the tonal feeling is very much one of suspension rather than of resolution into F#. However, the use there of the $\frac{6}{5}$ preceding $\frac{4}{3}$ mediant major triad tends less to a submediant minor resolution. P.170-1 treat the case of ex.7s from the String Quartet Op.18/3(iii) where again no submediant triad is stated, but where the mediant major triad is very strongly in evidence aurally. The Op.70/1 case is less clear-cut; it may be linked to a growing tendency in Beethoven's music, which becomes clearer in the late works, to "ellide" a step or steps in the circle of fifths. Full discussion of such developments is however, beyond the scope of the present investigation.
- 2 Reference may be made to exx.2s-bars 16-20; 4s-bars 10-16; 5s-bars 5-7; where similar harmonic treatment is used. These instances were treated in the preceding category. Despite the differing formal requirements relating to the examples in the present category, the same tonal complex is functioning in the musical structure.

The tendency to b in the Missa Solemnis is evident, as has been indicated above, in the very opening of the work, on both small-scale and larger-scale levels.¹ In the Gloria, the submediant becomes a glorious part indeed of the affirmation of the tonality of D. Ex.(e) does not fall within the present category but is included here as a further notable instance of the use of the submediant minor in the Missa Solemnis. As is well known, the Agnus Dei recurs in the course of the Dona nobis Pacem, but in the key of B \flat . Its first appearance is however in the submediant minor, b. An earlier example from the Missa Solemnis, the Sanctus, discussed in some detail above,² may be compared with the Agnus Dei to show the functioning of particular D tonal-thematic characteristics. When these two instances are compared with a considerably earlier work, it is remarkable to note the consistency of the tonal complex structuring them. The Liebes-Klage, Op.32 No.2, was published in 1811, although it had existed in sketches from as early as 1795. The Song is in D, but the first statement of the text includes the tonal move D-b-G referred to above,³ returning to D via a characteristic (in D) submediant-dominant progression. The continuation uses most of the text again, but at the recurrence of "con tanto palpitar" the tonality swings suddenly (through the flattened third of the tonic triad) to B \flat . D is subsequently re-established by means of a German Sixth, resolving onto the home dominant. (Note the delightfully balancing cadential emphasis of the subdominant minor in the closing bars.) The Agnus Dei of the Missa Solemnis follows the Benedictus and precedes the Dona nobis Pacem. The keys of these three sections are G, b and D, respectively. This complex has been noted internally in the D music; here it is evident on the large-scale level. Within the Agnus Dei itself, there are further parallels with the Liebes-Klage treatment. G is

1 P. 169.

2 P. 168.

3 P. 171.

not used as a key in the Agnus Dei treatment, but there is notable \flat VI emphasis cadentially at two points in particular.¹ The second of these is part of the preparation for the tonal link into the Dona nobis Pacem. The surprising use of \flat II in the cadential treatment prior to this link is not far removed from the unexpected tonal turn at "ah! soffri il tuo martir" (the first textual statement) in Op.82 No.2, although it is not expanded to a full Neapolitan inflection in the Song. But the most notable parallel in the two works relates to the recurrence of textual material. In each case the submediant is used at the first statement of the text (evidently more fully in the Agnus Dei) and at the recurrence, the text is treated in the key of $B\flat$ in both works. These are not isolated instances of the $D/B\flat$ tonal link but with the added dimension of words, they do suggest that it is of particular significance in the D tonal complex. The move to $B\flat$ in the Missa Solemnis (Agnus Dei) is again via the flattened third of the tonic triad (stated on the tympani).

The same tonal complex is apparent in the Sanctus but in a different sequence. The Credo is in $B\flat$, the ensuing Sanctus in D. Within the Sanctus, the emphasis of the submediant echoing the opening of the entire work and preceding the treatment of "Dominus Deus, Deus Sabaoth" on the dominant has been mentioned above.²

These three items - the Agnus Dei and the Sanctus from the Missa Solemnis, and the Liebes-Klage, Op.82 No.2 - differ from each other in terms of their formal structure, but the same tonal complex is clearly functioning in all three. This tonal

1 See bars 50-53 and bars 82-90 of the Agnus Dei.

2 P.168.

consistency is the more notable in view of the formal diversity.¹

The D/b juxtaposition seems to be of particular significance to Beethoven when used with a text, and appears to be linked with the expression of reverence and solemnity. The Agnus Dei in the Missa Solemnis may also be used to illustrate another aspect of the D/b tonal link. It is in the key of the relative minor (b) which, it might be argued, is a suitably contrasting key - a "darker" key - in relation to the tonic, for such a section. However, it is possible to make a comparison between two of Beethoven's works, with reference to this choice of key. That a tonic-relative minor relationship was not the overriding factor in his selection (whether conscious or not) of the key of the Agnus Dei in Op.123 is suggested by comparison with the earlier Mass in C, Op.86. While some years and considerable development separate the two works, and while Beethoven undoubtedly sought to express himself differently in the later work, the basic tonal facts relating to the specific key-locations in question must be considered. Despite the stylistic developments apparent, particular tonal complexes persist in the two keys of C and D. Analysis of the tonal relationships solely in conventional terms fails to identify this consistency.

1 In connection with the Agnus Dei, it is interesting that Beethoven should choose to close the Missa Solemnis with the reverse relationship of that structuring the very opening of the work. The Kyrie is in D (with notable submediant emphasis); the Christe is in b. Indeed the larger-scale relationships throughout the work adhere strongly to the D tonal-thematic complex discussed here:

Kyrie - D Christe b Kyrie D
Gloria - D
Credo - B^b
Sanctus - D
Benedictus - G
Agnus Dei - b
Dona nobis Pacem - D; B^b (Agnus Dei): D

The minor keys of c and d are particularly important in Beethoven's tonal vocabulary. The number of works in c is indicative of its significance; d plays a particular rôle in relation to its tonic major in the context of the D music. The tendency to emphasis of the tonic minor in a basic D context reaches the level of a notable sectional relationship in comparison with tonal usage in other major keys. The incidence of the tonic minor sectionally in C is very low.¹ Conversely however, there is a developing tendency in the c music to close not only with tierce treatment, but with a genuine move into the tonic major.² There are thus differing emphases relating to the respective tonics of C and D. In C, the C/c tendency is not remarkable, but there is notable development of the reverse, c/C relationship. In D, there is a notable D/d tendency, both sectionally and "internally" in the D music, but the d/D relationship is not strongly in evidence.

In relation to the Mass in C Op.86, and to the Missa Solemnis Op.123, the Agnus Dei in each work opens comparatively remote tonally from the preceding section. The Missa Solemnis relationships here have been shown to be part of the specific G-b-D complex in D. In Op.86, the Agnus Dei is in c, following the second "Osanna" in A. (Beethoven returns for this to the key and material of the first Osanna in Op.86, in Op.123 it is

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- 1 See Table III in the Introduction to the thesis (Section II), P.46 above, with reference to D and C.
 - 2 The chronological list of works in c gives some indication of this development (Section II of the Introduction; see List II, Pp.33-34.) The Ninth Symphony is a similar instance in relation to d; there is a "progression" to the final tonic major.

integral to the Benedictus.¹) But in both works the key of the Agnus Dei relates forward in that the Dona nobis Pacem is integral to the treatment. The respective keys of the Agnus Dei in each work emerge in a particular light with reference to this structure; the relationships involved in each case are consistent with the specific tonal complexes in question. In Op.86, to preface the final C section with the Agnus Dei in the tonic minor (c) is in line with Beethoven's tonal procedure in comparable contexts. In Op.123 however, the submediant minor is used in this capacity; the particular interrelationship between D and b (in a D context) has been illustrated and, as stated is apparent throughout the Missa Solemnis.² When both Masses are correlated tonally with the procedure characterising works in C (and c) and D (and d) respectively, it becomes clear that the tonal relationships structuring the music relate to a particular tonal hierarchy in each key-context - the "tonal complex". Comparison in conventional terms indicates the differing relationships functioning, but tonal correlation reveals them in a new light, consistent with the usage characterising the specific key-location generally.

- 1 Concerning Op.86, there is one later instance of the juxtaposition A/c sectionally. However, it relates to "Fidelio", and resulted from the reversal of the opening two numbers (following the Overture) for the 1814 version. There is of course intervening dialogue. The fact that Beethoven chose to compose the new "Fidelio" Overture for this version in the key of E is indicative of the importance to him of the tonal structuring. The original order of numbers (following an Overture in C) would have been satisfactory tonally; while the C/A relationship is also notable in Beethoven's music in particular ways, the choice of E to preface No.1 in A perhaps gives better tonal balance in view of the ensuing c:C Aria. It is interesting that the A/c relationship remains unaltered; in the earlier Mass in C, it occurs as a more direct tonal juxtaposition only somewhat prepared by the statement of C \flat alone for the opening bar.
- 2 The air of "reverence and solemnity" mentioned above is certainly in keeping with the prayer of the Agnus Dei. (See P. 178 above).

Discussion of the submediant inflection in D has led to very clear links with larger-scale levels and relationships than those immediately relevant to the initial thematic treatment. That this is so is indicative of how far-reaching in their influence certain specific relationships can be in Beethoven's use of tonality, as "stylistic determinants", influencing the musical structure on various levels. Not all such tonal characteristics in Beethoven's music are identifiable at the level of thematic analysis, but in the context of the tonality of D, the submediant tendency is one which is evident on the basic level of a degree-inflection, on the 'larger' level of harmonic inflection of various kinds, and the submediant (usually minor) also emerges both as a section-key (in differing contexts) and as the main, 'pivotal' key in development treatment. While the immediate scope of the thematic analysis has been extended in considering some of these instances, the factors which have emerged indicate the functioning of particular tonal references relating to the specific tonality of D, and characterising its use in varying and sometimes in extensive ways. Analysis of Beethoven's music in terms of the conventional degree-relationships alone is in danger of remaining unaware of the varying importance of specific relationships, when no account is taken of the key-location in question. Indeed, the present relationship (D/b) is only apparent when the works are examined in detail and in relation to the specific tonal complex functioning; it eludes identification in conventional terms. The D/b tonal link is not in evidence sectionally, as is apparent in the tabular analysis of the large-scale relationships,¹ but internally it structures the D music in particular, significant and far-reaching ways.

1 See Table III in the Introduction (Section II), P. 46 above.

III THE SUPERTONIC IN THE D (GROUP (a)) THEMES

In the course of this tonal-thematic analysis of the Group (a) D themes, reference has several times been made to the incidence of the supertonic. The secondary seventh on the supertonic has been commented on as a tonally significant factor in D. It was stated in the remarks introductory to the detailed examination of the D themes that the supertonic emerges as more significant in D than is the case in G.¹ The supertonic is exceptionally strong in the C themes, its use extending to several types of occurrence. In the Group (a) D themes there is sequential use of the supertonic, seemingly comparable with that in C. However, this feature does not characterise the D themes to the same extent as is the case in C, and when it does, its occurrence is markedly different in treatment. The incidence of the supertonic in the Group (a) D themes will be examined in two categories, the first of which is structured to afford comparison with tonal-thematic characteristics in C.

i the supertonic used sequentially in phrase-structure

There are four notable instances of this type of extended sequence on the supertonic; they are exx. 3,7,17 and 18.²

Examples 3,7 and 17 share a further common feature; in each case, an 3-bar antecedent moves onto the dominant. This is a type of antecedent which occurs in C usage.³ However, the subsequent tonal treatment in the D themes differs notably from that structuring the consequent treatment in C. In the C themes the procedure adopted in the sequential statement is to repeat the first phrase, commencing on the supertonic-but otherwise exactly-without exception; thus the second phrase in

1 P. 153.

2 These numbers refer to the main Thematic Index of the Group (a) D themes, given in the Supplementary Volume Pp. 28-30.

3 See exx. 3,10,11 and 13 of the Group (a) and ex. 1 of the Group (b) C themes in the Supplementary Volume, Pp. 3-4 and P. 8 respectively.

turn moves onto the dominant of the supertonic. This is not the case in any of the D themes. In no instance is the sequence exact to the point of the parallel move onto the dominant (of the supertonic). In each D theme the sequential statement is modified tonally in order to round back into the tonic. Further comparison with the C themes suggests that this is a tonally-related feature, that is, that the thematic treatment is directly linked in each case with the specific key-location, rather than that formal 'requirements' are being observed. Of the three themes in the present Group (a) which afford comparison with C usage in terms of the sequential use of the supertonic in phrase-structure, two, exx. 3 and 17, are opening themes from the third (minuet-type) movement in four-movement sonata structures. The third theme, ex. 7, is from the first movement of the String Trio Op.9/2. (Ex. 3 is from the same work.) As previously stated, the presence or absence of modulation at the close of the first section of a minuet/scherzo movement in Beethoven's music has not been investigated to establish whether or not this factor is tonally-related. But an interesting situation is apparent with respect to the C and D themes of such minuet-type movements, when correlated tonally. In the following compilation of data, consideration has been extended to trio sections in order to admit as much evidence as possible for comparative purposes in relation to the tonalities of C and D.¹

The examples relevant to this consideration are:

- | | |
|---|---|
| | Group (a) - exx. 4(T), 6, 25(=9), 31, 35, 36, 38. |
| C | Group (b) - exx. 1(T), 2(T), 7*(T), 10, 13, 17(F), 18(T). |
| | Group (a) - exx. 3, 15, 17, 19, 20(T). |
| D | Group (b) - exx. 4, 10*, 12. |

1 These are indicated by (T) following the number of the examples which are trio section themes.

* denotes two themes with particular formal characteristics. Ex. 7 from C (Group (b)) is the trio section of the String Quartet, Op. 74 (in E^b). The Scherzo is in C; the trio-section does not use a double-bar. Ex. 10 from D (Group (b)) is the D Andante section in the F Lydian "Heiliger Dankgesang" from the String Quartet Op. 132 (in a).

There are 8 scherzo sections in C, comprising 6 from Group (a) - exx. 6, 25, 31, 35, 36, 38 and 2 from Group (b) - exx. 10 and 13. These compare with 6 in D - exx. 3, 15, 17 and 19 from Group (a) and exx. 4 and 12 from Group (b). Of the 8 scherzo sections in C, modulation is effected by the double-bar in 7 instances, and in every case the modulation is into G, the dominant. The only exception is ex. 38 (in Group (a)), which returns to C for the section-cadence. Of the 6 sections in D, 4 cadence in the tonic at this point, 1 theme modulates into the mediant minor (Group (a) - ex. 15) and only 1 theme, ex. 19 in Group (a), modulates into the dominant at this point.

Extending the compass to the trio and other comparable sections included in the two lists, of the 6 such sections in C, 4 modulate into G, the dominant, by the double-bar (or equivalent in Group (b), ex. 7). Ex. 4 from Group (a) cadences on the dominant of the relative minor; ex. 1 from Group (b) cadences in the tonic. (This cadence is not convincing, a fact which acquires new significance when it emerges as uncharacteristic tonal procedure in C.) Only 2 themes fall into this category in D - ex. 20 in Group (a) and ex. 10 in Group (b). The former cadences in the tonic at the double-bar. The latter is again more freely structured; an apparent modulation into the dominant at bars 7-8 of the "Heiliger Dankgesang" is elliptically redirected into the tonic; such ellipsis has been referred to above as characteristic of the late music.¹

1 Despite the ellipsis, which is a particular stylistic development, note that the return to the tonic is characteristic of D contexts comparable with this instance. Tonal references apparently (and significantly) persist, underlying considerable development in other respects.

The volume of minuet/scherzo and allied sections in C is nearly twice that of such sections in D.¹ As Beethoven used C with such frequency in this context, one might reasonably have anticipated that there would be a greater degree of variety in his tonal handling of the initial section in C than in D. This is not so, and the consistency with which the C themes modulate into the dominant, and the D themes cadence in the tonic suggests that in relation to the tonalities of C and D at least, tonally-related factors are influential in determining the formal structure of the opening thematic treatment in minuet/scherzo and allied sections.²

This comparison has shown that in D, there is a marked tendency to cadence in the tonic at the first double-bar in a minuet/scherzo or similar movement-section. Ex. 7 in the Group (a) D themes is from a Sonata Form movement, the first movement of the String Trio Op. 9/2. It is comparable with exx. 3 and 17, included in the preceding comparison with C usage, both with respect to the sequence-structure on the supertonic and also in that it too is tonally modified to return to the tonic. Ex. 18 uses an interesting "variant" of the supertonic sequence. Melodically, phrase 2 (bars 5-8) begins a fourth higher than the opening phrase; but harmonically the sequence is structured over the supertonic $\frac{7}{3}$.

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- 1 14 themes as opposed to 8. This total is augmented by the larger number of works in the tonic minor (c) which use C as the third-movement key; there are only 2 works in the key of d.
 - 2 Inherent in this statement is the implication that the key-location is more far-reaching in its influence and that not only the opening thematic structure is tonally-related. As the nature of the opening underlies the subsequent treatment, in that it structures the basic elements of the movement, the tonal-location is influential throughout, at all levels of the musical structure.

In the course of this analysis the scope of examination has been extended both tonally, to facilitate comparison with C usage (superficially so similar to that in the 4 themes relevant to the present category of tonal-thematic characteristics in the D (Group (a)) themes) and formally, to take account of comparable D contexts, irrespective of the detailed structure of individual themes. While the additional D themes included for comparative purposes are not structured by supertonic sequence-treatment, remarkable tonal consistency is apparent. The second category of usage relating to the supertonic in the Group (a) D themes demonstrates the functioning of the supertonic as a tonal-thematic feature on a more detailed level; it is in evidence to a notable extent in the thematic structure. The use of an extended supertonic sequence is a particular focussing of a tonal-thematic feature which characterises the thematic structure on all levels.

- ii the supertonic used sequentially within the opening phrase; and some instances of the supertonic $\frac{7}{3}$

The particular use of the supertonic defined here overlaps with a further tonal-thematic feature relating to the D themes and to be discussed subsequently - the tendency to stepwise motion in the themes. The supertonic tendency is not as remarkable a characteristic as is the stepwise motion, but it may be distinguished as an identifiable element, functioning in particular ways in the themes. The supertonic $\frac{7}{3}$ is indicated in the course of the consideration of the themes relevant to this category, which are exx. 1, 19, 20, 21 and 22.

Example 1 was discussed above in relation to the fall of a third, thematically; this extends into a "horizontalised" supertonic emphasis. The opening is stated mainly in octaves, but the restatement by all instruments confirms the supertonic emphasis. The supertonic $\frac{7}{3}$ is prominent cadentially at the close of the thematic paragraph in an uncharacteristic (for Beethoven) cadential formula. The rôle of the supertonic $\frac{7}{3}$ varies according to key-location, certainly in relation to C³ and D. It is frequently in evidence in the C themes as emerged in the course of the C tonal-thematic analysis¹ but in C, it usually functions as a pivotal chord in tonal re-orientation of the music

1 See Part II, Section I of the thesis above, Pp. 58-64.

to the tonic. This use is clearly relevant to a fairly advanced stage in the theme. In D however, the supertonic $\frac{7}{3}$ is more often stated early in the theme and acts as a generating element thematically rather than as a re-orientating factor tonally which is in general its function in C.¹ The cadential use of the supertonic $\frac{7}{3}$ in the present ex. 1 is not typical of D usage.

The supertonic is used in sequential treatment within the opening phrase in three themes. Two of these relate to the Second Symphony, Op. 36, the first movement of which was cited in category i above in connection with larger-scale supertonic sequence-structure.² Exx. 19 and 20 give the two instances from the third movement in reduced score. It is interesting to note that ex. 19 is in effect ex. 18 restated in a more concise form with respect to the first two phrases in each theme.³ Some commentators would seek to interpret this as solely related to Beethoven's "unifying" of the work by certain motivic means. However, that such factors are tonally-related becomes apparent when comparison is made with tonal usage in other works in the same key. It might be argued that ex. 20, the trio-section of the same movement is motivically linked with exx. 18 and 19; the rôle of the supertonic sequentially within the 8-bar period is self-evident, whatever its motivic associations.

That tonally-related factors are relevant to the analysis of such instances as those from the Second Symphony correlated in this discussion becomes clear in consideration of ex. 21. This theme opens the 'Cello Sonata Op. 102/2, a work composed some thirteen years after Op. 36. There are remarkable similarities between this theme and that of the first movement of

1 The reference to the supertonic as a "generating element thematically" does not preclude its rôle as a tonal element; the two are part of its particular functioning as a tonal-thematic characteristic in a specific context.

2 P. 185.

3 See ex. 18, bars 1-8 and ex. 19, bars 1-4, in the full score. Both use the supertonic prominently in the sequential statement as does ex. 20.

Op.36 (ex.18). Both movements are marked Allegro con brio;¹ the mood is similar, although the opening theme in the earlier work is contained within a piano dynamic (but for the initial fp, and the crescendo through bar 4 of the theme). Op.102/2 reverses the dynamic treatment, but structurally the two themes use similar thematic cells; the "supertonic step" is to the fore in both themes - more concisely stated in the later work. The 'Cello Sonata opens without harmony; the first two bars are a forte statement, in octaves of the important opening thematic cell. But within these two bars is the "kernel" of bars 1-6 of ex.18. The sequential step onto the supertonic structures the opening; interestingly, the leap to G in Op. 102/2 is paralleled in the bass of the Op.36 theme where, as discussed above, the supertonic sequence-treatment opens on G, melodically.² Bar 3 of the 'Cello Sonata is surprisingly similar to bar 4 of the Symphony theme. Both themes also use a supertonic harmonic inflection prefacing the cadence of the first thematic statement.³ Ex.21 shares a number of common features with ex.18, but in its harmonic structure, evinces characteristics linking it with the D themes generally. (Also note the sudden turn to the submediant minor, b, prefacing the second group treatment in the dominant.⁴) Stylistically, Op.102/2

1 Ex.8 is marked Allegro vivace e con brio, ex.12 - Allegro con brio. (The marking Allegro vivo e disinvolto of ex.11 is in similar vein - one of Beethoven's more adventurous 'flights' into Italian!). It may well prove to be the case that such tempo markings are tonally-related. This is one aspect which is not complex to investigate; correlation by tempo and tonality may be readily achieved - cross - reference for comparison is a relatively straightforward procedure in this area.

2 P.185.

3 See ex.18, bars 11-14 and ex.21, bars 5-8.

4 Cf. the treatment in the Piano Sonata, Op.10/3 (i) (see above, P. 169), and that in the String Trio Op.9/2 (iii) (see above, P.156).

differs from the earlier D works, but the fact that in harmonic structuring the same complex of relationships is functioning and that characteristic D thematic procedures are evident melodically indicate the persisting influence of a distinct tonal-thematic complex in D as the vehicle of Beethoven's musical expression, despite significant changes and developments in other aspects of the compositional process.

Example 22 is from the Missa Solemnis. It is not an 'opening' theme, but it is a new theme in its context, introducing the fugal treatment of the text "in gloria Dei patris, amen"; although this is in the later stages of the Gloria textually, Beethoven's treatment of it musically is expansive - he also appends a climactic restatement of the opening material, textual and musical, following the close of the formal liturgical text. The main feature of the fugue-theme, ex.22, is the rising fourth which shapes the phrase-structure. But within this overall structure, characteristic D tonal-thematic features are evident - emphasis of the subdominant melodically is notable in D themes; the successive rising fourths expand and elaborate what is essentially a step-wise rise; the main apex of the theme is on the submediant degree; and there is a supertonic inflection (which is, significantly, not 'literally' repeated in the sequential treatment immediately following). There is sequential use of the supertonic in that bar 2 of the theme centres on the supertonic - note the dynamic treatment and the structure of the 'counter-subject' in the Oboe, Clarinet and Viola lines. But this theme exhibits several features of the D tonal-thematic complex of which the supertonic tendency is only one. It links clearly with exx.21 and 18 in the initial melodic leap from D to G, 'superimposed' on supertonic emphasis.

The use of the supertonic is not as pronounced in the D (Group (a)) themes as is the case in the C themes. While it does not structure the thematic treatment to the same extent in D and is tonally modified to cadence in the tonic where such larger-scale use is apparent, it is nonetheless a recurrent

tonal-thematic feature, inconspicuous in conventional analytical terms, but consistently in evidence when the themes are correlated tonally. The supertonic emphasis, both melodically and harmonically (including the use of the $\frac{7}{3}$) generally occurs in the early stages of the thematic statement in D; it relates to smaller-scale levels of the thematic structure than is the case in C. It is not a prominent tonal-thematic feature in the D complex, but it is used in particular, tonally-related ways in the D themes.

IV STEP-WISE MOVEMENT IN THE D (GROUP (a)) THEMES

This tonal-thematic feature has been referred to in the course of the examination of the Group (a) themes as particularly notable in D. It emerged in connection with the C and G themes that the tonic arpeggio functions in particular and differing ways in the respective tonalities.¹ Step-wise motion is as basic an element of the diatonic scale as is the tonic arpeggio in terms of the 'raw material' of the thematic structure in tonal music; the possibility that this thematic shape might be tonally-related has consequently been overlooked. The detailed investigation of such simple processes is however an essential factor in identifying and defining the individual tonal complexes which characterise each tonality.

The peculiar tonal-thematic characteristics relating to C and G respectively are such that step-wise motion is not inherent to the complex functioning in each key. In G, the triadic emphasis (particularly in Group (a)) and the strong tendency to early emphasis of the dominant detract from the use of step-wise motion. Similarly, in C the use of extended supertonic sequences lessens the likelihood of conjunct step-

1 See above, P.65 et seq. and P.85 et seq. concerning C; P.137 et seq. concerning G. The use of the tonic arpeggio in the E \flat themes is examined in the course of the E \flat tonal-thematic analysis, P.262-9below.

wise-motion as a basic factor in the thematic shape. In D however, triadic emphasis does not constitute a notable thematic shape, nor is there a pronounced tendency to sequence-treatment comparable with that in C; but there is extensive step-wise motion in the themes, both ascending and descending.¹ In the majority of significant instances of the latter, the move is from an emphasised dominant degree to the tonic. The dominant frequently occurs as a melodic apex in the D themes and in several cases it is the focus of the thematic phrase, preceded and followed by step-wise movement (ascending and descending, respectively²) in a notably symmetrical type of phrase-structure, instances of which are correlated in category i below. Step-wise movement in the Group (a) D themes is examined in four categories, according to the type of usage evident, although some overlap between these categories is inevitable.³

i step-wise movement used in symmetrical structure⁴

The instances of this type of usage are given as exx. 1i - 8i⁵. The themes are compiled chronologically, and this

- 1 Clearly, the tendency to triadic emphasis and that to step-wise motion - if either is to characterise the thematic shape to a significant extent - are mutually exclusive.
- 2 Only rarely does the thematic shape consist of a fall followed by a rise.
- 3 For instance, where only descending step-wise movement is identified, it is treated in a different category from those themes exhibiting symmetry in their use of this thematic feature, but a part at least of the two 'types' of thematic structure would be relevant to both categories. The divisions are made to correlate similar types of usage and thus to establish the nature of this thematic feature and to demonstrate its particular functioning.
- 4 The term "symmetrical" is not used in the precise mathematical sense, but is used to describe a particular thematic shape. The notion of symmetry is an indicator of a certain type of usage and not a rigid definition of its characteristic shape.
- 5 Supplementary Volume, P. 44 and P. 46.

reveals notable development in the use of step-wise movement.

Examples 1i and 2i, both from the same work, include symmetry of structure within the antecedent phrase ¹. The treatment is strictly step-wise from bar 3 of ex. 1i and from bar 4 in ex. 2i, but in each the opening bars of the theme are built upon a basically step-wise progression. Ex. 5i, a 'song-form' (abab) rondo theme, is structured by a step-wise progression which comprises the 'b' section of the melody, rising from the tonic to the dominant and returning to the tonic. The theme is thus similar to ex. 2i both formally and in the symmetrical structuring of phrase 'b'.

With exx. 3i and 4i an interesting development in the phrase-structure is apparent; both themes are "irregular" in terms of bar-structure, ex. 3i being a 10-bar melody and ex. 4i a 14-bar melody. In ex. 3i the consequent treatment is 'extended'; in ex. 4i the antecedent is used to link to the consequent, creating an additional 2 bars. But both themes share a common basic structure in that there is a progression from the tonic to the dominant, which is the melodic apex of the entire melody in each case, and a subsequent return to the tonic. (There is not mathematical symmetry in the placing of the apex in either theme.) Ex. 3i and 4i differ notably from exx. 1i, 2i and 5i in that the symmetrical structure encompasses the entire melody in both cases. A similar "arch-shape" also

¹ Ex. 2i is the only theme where the symmetry consists of a fall preceding a rise melodically, as opposed to the conventional use of an apex preceded by a rise. It is unusual in this respect, both stylistically in general terms in Beethoven's music and with reference to the specific tonality of D.

characterises ex.6i. This is from a Middle-Period work, and indicates the increasing tendency to thematic continuity, so notable a characteristic of the late music. The present opening extends to a lengthy thematic paragraph which 'overflows' into the transition treatment, rendering this term a rather inadequate guide to the musical process structuring this movement. Again the bar-structure is "irregular". Bars 1-8 (ex. 6i) could come to a satisfactory close on the tonic at bar 8 but typically (at this time in his work) Beethoven leaves the theme 'open-ended' and proceeds with new continuation material (the overall thematic paragraph forms an abba structure). Ex. 6i is reminiscent of ex.3i in shape and spirit (note that both are marked Presto) although the symmetry of bars 1-8 does not centre on the dominant in this theme, but on the tonic¹. In passing, it is interesting to note the opening rising sixth in ex.6i; this initial thematic shape is used in five of the Group (a) D themes.²

Examples 7i and 8i are both from the Missa Solemnis. The structure of these themes reveals important developments in the use of step-wise movement; it is a synthesis of the tendencies characterising the earlier D themes. The main melodic apex in both themes is again the dominant.³ But exx. 7i and 8i avoid

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- 1 The harmonic structure of this theme, significant in D, was discussed above. See P.171-2, and P.175, Footnote 1.
 - 2 Ex. 1i in the present compilation is one of these.
 - 3 Ex.6i focuses on the tonic as the apex of the symmetrical phrase, but the dominant does emerge as a main apex subsequently in the thematic paragraph, and most emphatically in the "transition" theme where, it is interesting to note, the dominant apex is approached exactly step-wise.

the obvious symmetry in exx. 1i - 6i, and create a forward impetus melodically, rather than suggest a regular, 'closed' thematic statement. This is achieved by structuring the melodic line in smaller, 'progressive' cells.¹ In each of these melodies, the approach to the dominant is a gradual one and this process gives rise to a preliminary subordinate apex (on the subdominant in both cases).

Ex. 7i is comparable with ex. 6i with respect to the opening bars; there is an initial melodic apex in both themes, and the thematic shape is similar.² Ex. 7i opens in a somewhat 'four-square' manner, but the words must not be forgotten; this is the first statement of "Osanna", at the end of the Sanctus. From the inception of the step-wise movement however (at "in excelsis") the melodic line smooths out into the gradual and very beautiful rise to the dominant apex. This apex occurs in the second of the two smaller-scale symmetrical phrases which together comprise the overall melodic line. In each phrase the starting-point is the tonic and the melody reaches upwards to the apex, subsiding slowly.³ In the second phrase, the dom-

1 That is, Beethoven takes a thematic cell, comprising a melodic fragment with its particular rhythmical structure, and uses it to build a thematic paragraph, creating an essentially linear emphasis, rather than a series of sections and thematic 'blocks'. The same basic cell is used as the vehicle of an entire melody, so that the impression of continuity and flow is uppermost. The technique underlying such melodic structure is highly developed but by its very nature remains unobtrusive. Beethoven's desire for continuity is everywhere apparent on the larger-scale level in his late music; analysis of the thematic structure indicates changes and developments at a basic level which in turn contribute to the overall continuity and flow of the music. (Some instances of this tendency have been indicated above; the opening of the Piano Trio Op.70/1 uses this technique to a certain extent. A notable instance in the late music is the second movement of the String Quartet, Op.131. The second movement of the String Quartet Op.132 also makes extensive use of a thematic cell.)

2 Note that the tempo marking is also Presto in both cases.

3 Once more, it is not a question of mathematical symmetry, but of a particular thematic shape used by Beethoven in specific contexts. The present climax on "in excelsis" is certainly apt, in terms of word-painting, but that this is not the sole factor functioning here is borne out by the variety of contexts in which this thematic structure is apparent, in D.

inant is sustained for three and a half times as long as is the earlier subdominant apex. The step-wise movement is still the main feature of the thematic shape, but it is treated in almost a wave-like manner, sweeping further with each fresh impetus. The opening phrase of the Osanna, although not predominantly step-wise, is the first of these 'waves', the continuity and flow of which belie the symmetrical phrase-structure underlying the music.

Example 8i, from the Dona nobis Pacem of the Missa Solemnis, is essentially similar in structure. The tempo is different, as is the mood, but the same progressive rise to the dominant apex is in evidence. In this theme the first symmetrical phrase does not return to the tonic, but remains on the supertonic. Characteristic of the flow of this music is the fact that this theme 'oversteps' the tonic cadence. (Step-wise movement is prominent in the ensuing rise to the climax on "Dona nobis Pacem", stated by the unaccompanied choir. It is interesting to note that the subdominant and dominant are the emphasised melody-notes in this brief climax.)

The use of "symmetry" in the step-wise movement structuring exx. 1i - 8i changes significantly between the Op. 9/2 examples and those from the Missa Solemnis of some twenty-five years later. However, more significant than these changes is the consistency with which this type of usage is in evidence throughout the Group (a) D themes, which span the greater part of Beethoven's composing life. Although the particular application of this thematic shape develops and "matures", along with the different expressive aims which concerned Beethoven, the same tonal-thematic feature, the tendency to step-wise movement, used "symmetrically", underlies such changes. It is significant that despite Beethoven's breaking-down of the symmetrical thematic shape into more 'malleable' thematic cells, step-wise movement remains the constant factor throughout the stylistic changes.

This suggests that step-wise movement is inherent to the D tonal complex and thus to the structuring of the thematic shape in D themes. Categories ii - iv examine the Group (a) D themes in relation to the use of step-wise movement in the themes, in other than symmetrical phrase-structure.

- ii emphatic step-wise descent from the dominant
(without a preceding step-wise rise)

The dominant is the main apex in six of the eight themes comprising category i above; the present category concerns those instances of a descent (step-wise) from the dominant degree as a notable part of the theme, at any stage in the thematic statement. The dominant is again in evidence as a melodic apex but in a subsidiary as well as a main apex capacity. The instances of this type of usage are given as exx. 1ii - 9ii¹. The step-wise descent occurs in three ways in these themes and is examined accordingly. Ex. 2ii uses such a descent as the 'b' phrase in an aba¹a² rondo theme and is the only case of such 'interim' usage.² Exx. 3ii, 5ii, 6ii and 7ii open with a step-wise descent from the dominant. Exx. 1ii, 4ii, 8ii and 9ii feature the descent in the consequent thematic structure, or in the closing stages of the thematic paragraph. The themes are again given in chronological order, revealing the persistence of this thematic shape too, from the early Op.8 String Trio to the Missa Solemnis.

Example 2ii is a very lively rondo theme, from the Op.25 Serenade. Although this is an early work, ex. 2ii includes several

1 Supplementary Volume, P.44 and Pp.46-7.

2 This rondo theme is then a modified song-type, formally (to use Mies' basic terms of melodic definition. See Mies, op. cit., Chapter II - The Melodic Form, P.44 et seq.)

features characteristic in D usage and which have emerged as such in earlier considerations. One such feature is the use of a rising fourth, a notable shaping factor in this theme:¹



Note also the supertonic melodic inflection of bar 2 (and bar 6). The dominant is again an important apex in this theme. The apex at bar 2 (on the dominant) is a main melodic apex, the importance of which is reinforced by bars 3-4. In each case the dominant is quitted by means of a step-wise descent; these two descents comprise a melodic cell ('b') in the overall rondo theme.

Examples 3ii, 5ii, 6ii and 7ii differ from ex. 2ii in that they open with an emphasised dominant apex, followed by a step-wise descent. Ex. 3ii is in effect a 'compressed' statement of the structure also underlying ex. 5ii, 6ii and 7ii. All four examples are remarkably similar in their opening treatment; in each the tonic is stated in the bass prior to the melodic apex on the dominant.²

Examples 5ii and 6ii occur in the same work, but the other two examples (3ii and 7ii) which are considerably spaced in time, together with the tendency to a step-wise fall from the dominant generally in evidence in the D themes, suggest the predominance of tonally-related tendencies over motivically derived connections. Although the tempo varies between these four themes as does the musical mood, the thematic shape is basically similar in that the opening of each theme is structured upon a step-wise fall from

1 See the remarks made above concerning other D themes - P. 188-9.

2 The four openings are given on the following page.

Allegro

Ex. 3ii

Musical score for Ex. 3ii, marked Allegro. The score is in 3/4 time and consists of three staves. The first staff (treble clef) features a melodic line with slurs and accents, marked with *cresc.* and *fp*. The second staff (alto clef) provides harmonic support with chords and slurs, also marked with *cresc.* and *fp*. The third staff (bass clef) contains a bass line with slurs, marked with *p*, *cresc.*, and *sf*.

Allegro

Ex. 5ii

Musical score for Ex. 5ii, marked Allegro. The score is in 3/4 time and consists of two staves. The first staff (treble clef) has a melodic line with slurs and accents. The second staff (bass clef) features a rhythmic accompaniment of repeated eighth notes, marked with *p*.

Allegro ma non troppo

Ex. 6ii

Musical score for Ex. 6ii, marked Allegro ma non troppo. The score is in 3/4 time and consists of two staves. The first staff (treble clef) has a melodic line with slurs and accents. The second staff (bass clef) has a rhythmic accompaniment with slurs.

Allegro ma non troppo

Ex. 7ii

Musical score for Ex. 7ii, marked Allegro ma non troppo. The score is in 3/4 time and consists of two staves. The first staff (treble clef) has a melodic line with slurs and accents, marked with *p dolce* and *cresc.*. The second staff (bass clef) has a rhythmic accompaniment with slurs, marked with *sf*.

a dominant apex. The respective openings of exx. 5ii and 7ii are directly comparable, despite the differing metres; similarly exx. 3ii and 6ii share common features; they are alike in mood (ex. 6ii is rather gentler in its "perkiness") and even share the suspending of the dominant apex across the bar. But despite the variation in detail, all four make use of the same tonal vocabulary in their opening thematic structure.

With exx. 1ii, 4ii, 8ii and 9ii the same thematic feature of a step-wise fall from a dominant apex makes its appearance at a later stage in the thematic statement. Ex. 1ii is also shaped by an overall symmetry of phrase-structure, again using step-wise movement as the basis of this but used rather more loosely than is the case in the themes comprising category i above. The symmetrical structure in this theme extends from bar 1 to bar 14 (omitting the repeat). As with ex. 2ii, these bars focus on the dominant, which is sustained through bars 6-8 and followed by a step-wise descent to the tonic structuring bars 9-14. (Bar 9 is momentarily disorientating tonally but is followed (somewhat weakly) by a home dominant-seventh.¹) The dominant-tonic step-wise fall is repeated as the basis of the ensuing cadential treatment.

Example 4ii (which opens with the rising major sixth from the dominant mentioned above²) is a gentler theme, again basically shaped by a rise prefacing a gradual fall, thematically,

1 Although an apparently weak return to the tonic here, this progression seems to be a significant one in D. Comparison may be made with the Song "Liebes-Klage" Op.82 No.2, discussed above (see the first statement of "soffrir il tuo martir") and with the return of the Dona nobis Pacem after the reappearance of the Agnus Dei (see bars 206-8 of the Dona nobis Pacem in the Missa Solemnis). These remarks may be correlated with the earlier comparative remarks made in connection with the Op.82 and Op.123 on Pp.176-8 above. The many aspects of tonal functioning relevant to these extracts all evince the same basic tonal vocabulary. In the present ex. 1ii the progression from the 'enhanced' to the home dominant is used straightforwardly, whereas the later works exhibit a more developed technique incorporating the tonal move more smoothly. Particularly is this so in Op.123 (Op. 82 No.2 dates originally from about the same time as Op.25.) While the submediant-dominant move tonally is particularly characteristic in D as has been discussed, it is interesting to note the recurrence of a move from an 'enhanced' to a 'home' dominant persisting in the D music.

2 P.193.

in each 8-bar period (although not symmetrical or exclusively step-wise in treatment). The dominant is emphasised melodically in each period; in the antecedent it is the 'springboard' for the descent to the supertonic melodically (the harmony at this point is dominant): in the consequent it serves to reorientate the tonality following the supertonic inflection. In each, the step-wise descent is not direct (and in the case of the final phrase not complete, but clearly the same structural principle is functioning here).

In ex. 8ii the dominant is once more the main melodic apex of the entire thematic paragraph. Characteristically (in D, as will be discussed subsequently) this apex is preceded by the higher submediant melodically.¹ It is sustained for two and a half bars in a moderate tempo. The melody moves to the final cadence of this opening thematic paragraph over the next five bars, by way of a step-wise descent from the dominant apex to the tonic, broken only by the 'grace-note' on G preceding the supertonic. The harmony in this opening of the Missa Solemnis has emerged as characteristic in the tonality of D; on the level of the thematic structure alone particular thematic shapes (in relation to D usage generally) are also apparent.

Example 9ii is notably similar melodically to some of the themes correlated in category i; there is also an overall symmetry of phrase-structure in ex. 9ii but as with ex. 4ii in the present category the step-wise motion is not exact throughout the theme. The part of ex. 9ii relevant here is the second half of the melody, bars 5-9. However, in view of the remarks made in connection with other examples from the Missa Solemnis² it is interesting to note

1 This theme is also shaped by rising fourths in bars 1-9.
Cf. P.197.

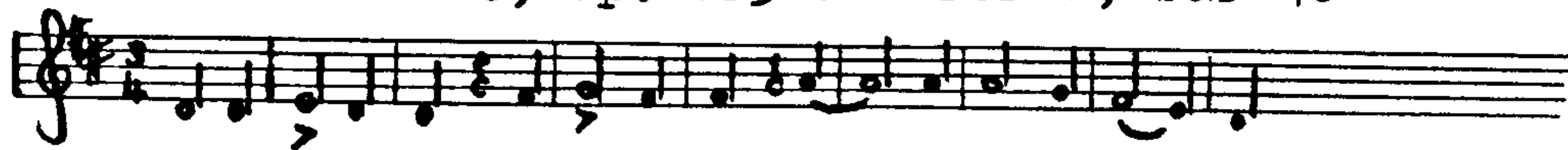
2 P.192-5.

the structure of the first four bars. Ex. 9ii occurs relatively early in the work (and in the early stages of the Gloria), at the words "and in earth peace, good will towards men"; the gradual approach to the dominant via a modified step-wise progression is directly comparable with the other Missa Solemnis instances, notably with that from the Dona nobis Pacem.

Although ex. 9ii concerns only a fragment, textually and musically, of the Gloria, these two aspects - the textual and the musical - are paralleled in the Dona nobis Pacem. Textually, the invocation of peace is common to both contexts; musically the similarity in thematic shape is clear. However, the following correlation of these two themes and of that from the first Osanna with two (D) themes from sources outside the Missa Solemnis suggests that the similarity between D themes from that work is not related solely to their particular context within it, but that tonally-related factors are also functioning in determining the thematic structure, and that these factors relate to the tonality of D, irrespective of formal context.¹

1 A further aspect of tonal functioning may be mentioned here in connection with the last two themes in the correlation. In each case, the theme quoted is not closely related tonally to the key - of the movement, in the example from the Ninth Symphony, - of the preceding movement in the case of the Archduke Trio example. Interestingly, the preceding key in each case is B \flat . That the two themes are so similar in structure to basic D-context themes suggests that in the case of D at least, the tonal remoteness may lead to identification with those thematic characteristics relating to the key when used in a basic capacity. Such considerations are relevant to large-scale levels of tonal functioning; the need for clarification of the structure of the tonal complexes on such levels can only be indicated here. (The five themes are given on the following page).

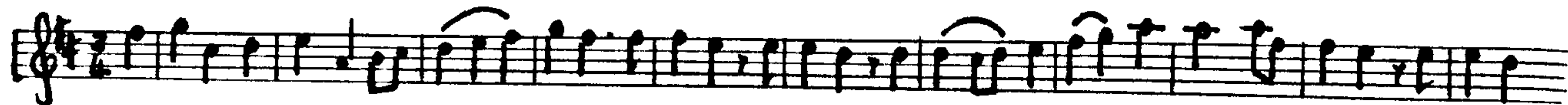
Missa Solemnis, Op. 123 :- Gloria, bar 46



Missa Solemnis - Dona nobis Pacem (bar 12)



Missa Solemnis - Osanna I



Archduke Trio, Op.97 - (iii)



Symphony No.9, Op.125 - (iii) (bar 25)



iii step-wise movement ascending (without a subsequent step-wise fall)

There are eight instances of this usage, given as exx. liii - 8iii.¹ Exx. liii, 2iii, 6iii, 7iii and 8iii open with such a step-wise ascent. Ex. liii is basically a thematic shape which has emerged as particularly characteristic in D; it is essentially symmetrical, climaxing melodically on the dominant, and to a large extent it uses step-wise movement as the vehicle of the thematic statement. It could thus have been included in both categories i and ii above, but is discussed here due to its rather freer use of this particular thematic shape. Ex. 2iii, from the same work, compresses the opening rise of ex. liii into a succinct thematic cell, twice-stated. Ex. 6iii also begins on the dominant degree; its subsequent apex is a notable feature in this fugue-theme.. The shaping fourths of the final bars have been cited previously as a recurrent feature in several of the D themes. Exx. 7iii and 8iii both begin on the tonic and rise step-wise to the dominant as an emphatic melodic apex; in each case there is a forceful thrust from the tonic to this apex.

In ex. 4iii the step-wise rise is more extended and is the basis of bars 8-22, where the dominant apex is reached, and continuing beyond this to submediant emphasis. Ex. 5iii is the finale-opening from the same work (the String Quartet Op.18/3). The falling thirds structuring the opening thematic cell were discussed as notable in D;² It is interesting that the 2-bar cell counterbalancing this opening consists entirely of a step-wise rise. (This theme employs step-wise movement to a large extent as the basis of the melodic treatment.) Ex. 3iii uses step-wise movement in a more 'fragmentary' way in its opening thematic cell. Bars 1-2 (and 3-4) use the same thematic elements as bars 1-4 of ex. liii; thus reflecting characteristic D features; step-wise movement is also the basis of bars 5-6.

1 Supplementary Volume, P. 45 and Pp. 47-8.

2 P. 154 et seq. above.

But this theme is not characteristic of Beethoven; it uses typical stylistic and tonal-thematic vocabulary but lacks the drive and flow generally evident - certainly in the D themes.¹

- iv step-wise movement descending (from a degree other than the dominant)

The step-wise movement in the examples relevant here is more incidental to the thematic structure than is the case in those examples comprising categories i - iii.

Referring to the main Group (a) D Thematic Index,² there are several themes which use step-wise movement in this less structural way, and in some cases it is subsidiary to another tonally-related thematic shape in the treatment. This is so with the closing theme in ex. 4; although a step-wise descent is in evidence here, it is less prominent and tonally less significant than the falling thirds shaping it.³ Exx. 8 and 21 are similar in their use of successive groups of four adjacent notes, in a basically rising progression in ex. 8 (bars 1-4) and falling in ex. 21 (bars 3-4). Ex. 8 was compared above with ex. 6; both themes use the same initial thematic cell; in ex. 6 it is employed in extensive step-wise movement. The usage of a similar cell in exx. 8 and 21 is interesting in its particular application in the themes, in view of its step-wise structure and of the tendency to movement in fourths in the D themes.

Although it is elaborated and part of a quite unusual thematic opening in ex. 2, step-wise movement underlies the descent from bars 2-10 in this theme. Ex. 12 uses a step-wise descent (including two groups of four notes) in the cadential treatment (bars 11-12).⁴ In ex. 16, a step-wise descent of an octave (from

1 Threefold repetition is a stylistic feature particularly characteristic of Beethoven's melodic structure in his early works. This theme uses step-wise movement, but more notable features relating to the D tonal complex are evident in the subsequent course of this movement.

2 Supplementary Volume P. 28 et seq.

3 See above, P. 157.

4 Clearly the accompanying Piano treatment is of importance in the thematic statement; it is largely built upon step-wise movement.

mediant to mediant) is a recurrent thematic cell. The usage in ex.22 is again subordinate both to the overall (step-wise) rise to the submediant and to the rising fourths shaping the fugue-theme, but it is interesting that Beethoven uses step-wise movement both as the larger - and smaller-scale vehicle within this theme, and that it is again evident in groups of four notes.

Not every instance of step-wise movement in the Group (a) themes is included here, but the present examples are pointed out as further evidence of the particular accessibility of this thematic tendency throughout the themes.

Categories i and ii treat the most notable instances of extended step-wise movement in the Group (a) D themes, and the fact that these instances are drawn from a total of more than half of the themes suggests that the use of step-wise movement is a tendency of considerable significance in the tonality of D as a factor influential in determining the thematic structure.

V MELODIC APEX IN THE D (GROUP (a)) THEMES

The preceding examination of step-wise movement in the Group (a) themes has also served to indicate the importance of the dominant degree as a melodic apex. It forms the main apex in the majority of the themes in varying types of thematic structure, both within 'subordinate' phrases and as the main apex of an entire thematic paragraph.¹ It is not proposed to examine the dominant as a melodic apex in the Group (a) themes in the present section, as its importance has emerged in connection

1 Notable instances of the latter are exx.5,6 and 18 in the Group (a) Thematic Index. (Supplementary Volume, Pp.28;30.)

with the particular rôle it plays in relation to step-wise movement. It is this aspect of its use which marks it as a specific D characteristic. The dominant is a notable apex in G, but it is not the focus of step-wise movement in the thematic structure.¹ With the stylistic development in the use of step-wise movement discussed above, the subdominant becomes more notable as a melodic apex degree, but it remains subordinate to the dominant in this respect.² Two further apex degrees merit discussion in some detail; these are the submediant and the tonic.

i the submediant as melodic apex

The tendency to emphasis of the submediant in D has been investigated above.³ While it is evident both harmonically and melodically in a variety of ways, the particular rôle of the submediant as an apex degree has not been considered. It is **not** linked with submediant harmonic usage in most cases where there is submediant apex emphasis. The submediant (degree) is at times used as what may be termed a "dominant enhancement", melodically. In this type of usage, the submediant is not itself the main melodic apex, but immediately precedes the dominant degree which although lower in pitch is unquestionably the main melodic apex in such cases. There are instances of this particular use of the submediant melodically in about a quarter of the Group (a) themes. It is also used as an apex degree in its own right however. Two types of usage may be distinguished here; the submediant occurs as a main apex in

1 See above, Pp. 125-6 and P.144 concerning the G Group (a) and (b) themes respectively.

2 See Pp. 193-4.

3 Pp. 154-181, passim.

an individual phrase or period as a result of supertonic sequence-treatment and it also occurs as a main apex structurally, independent of sequence-treatment. The former case is a corollary of the tendency to emphasis of the dominant in the D themes; the submediant is inevitably the apex of a sequential supertonic phrase, where the dominant is the apex of the first phrase. The cases of dominant enhancement and of the submediant as an 'independent' main apex are examined here.¹

a the submediant as an enhancement of a dominant apex

There are seven instances of this type of usage in the Group (a) themes; as they occur in various contexts in the themes which have already been correlated for particular purposes, they are drawn together as exx.1a - 7a.² The seven themes occur in five works, four early works and one late work, the *Missa Solemnis*.

Example 1a exhibits step-wise movement to a notable degree,³ focussing on the dominant in terms of melodic apex treatment. The submediant occurs as an enhancement of this dominant at bars 4-5. While the submediant continues the sequence of rising step-wise movement, its rôle thematically is to emphasise the lower ensuing dominant (and retrospectively it also lends emphasis to the dominant degree stated at the beginning of bar 4). In ex.2a, from the same String Trio, Op.8, the submediant occurs particularly emphatically in this capacity in the variations theme.. The main apex of the melody is stated in the final 4-bar phrase. Melodically this phrase grows out of the preceding

1 Concerning the submediant as an apex in supertonic sequence-treatment, reference may be made to Section III i above, P.182 et seq.

2 Supplementary Volume, P.45 and Pp. 48-9.

3 See above, P.198. (The present ex.1a is there referred to as ex.11i.)

one, and a motif derived from phrase 3, together with a crescendo, leads to the climax on the dominant, melodically (the harmony is a tonic ⁶). This dominant is immediately preceded by the submediant, and the dynamic treatment is notable; but while the ensuing dominant is marked *fp*, the effect musically is not to focus on the submediant but on the dominant as apex.¹

The rondo theme ex. 3a uses the submediant similarly; it 'interposes' between two statements of the dominant degree, reinforcing the dominant as the main apex. (See bars 3-5.) The dominant is an initial apex in ex. 4a; the submediant occurs as an enhancement of the imperfect cadence at the close of the first period (bars 7-8); the submediant occasions particular harmonic treatment here. In ex. 5a, the usage is not dissimilar, but the submediant is not emphasised rhythmically in this theme. The descent from the dominant in both periods of the theme was discussed above; the present usage relates to the first of these where (at bars 4-5) the submediant occurs as an enhancement melodically, prefacing the fall from the dominant.² Ex. 6a is the finale theme from the same work, the Piano Sonata Op. 10/3.

1 In view of the tendency to step-wise movement so prominent a feature of these themes, it is interesting to observe the preceding apices in each phrase of this theme; they are D.E(A)F#(G)A.

2 The melodic structure here is particularly interesting in relation to D; harmonically, the treatment is such as to tend to emphasise falling thirds in the melody - B-G, A-F# G-E; viewed in this light the initial fall D-B (bars 3-4) is interesting as the first in this chain. However, Beethoven's expansion of the melodic line is such that the step-wise emphasis is also strong. The particular complexion of the submediant here is then debatable, but both interpretations are consistent with D tonal usage.

The submediant is in effect a decorated apoggiatura, enhancing the dominant, melodically (bar 5). The melodic apex occurs prior to this, on the high E; bars 4-5 are an embellishment of the fall from E to A, creating a subordinate apex (significantly, with a submediant inflection) on the submediant degree. Once again however, the musical emphasis is on the dominant, and the harmony is also suspended from resolving until the melodic line moves from the submediant onto the dominant.

Example 7a is from the Kyrie of the Missa Solemnis. The dominant is clearly the climax of the thematic paragraph, melodically; it is also stated twice in close succession, both times with preceding subdominant emphasis, melodic and harmonic. The main climax occurs at bars 14-13, during which the dominant is sustained melodically, with harmonic expansion beneath. The submediant again immediately precedes this dominant, but despite its higher pitch, it in no way ousts or qualifies its effect as a melodic apex. This opening forms the framework for the vocal treatment of the Kyrie, and the submediant enhancement consequently recurs, contributing to the gently pleading tone of this section.

The rôle of the dominant melodically in the thematic structure varies in these seven themes (exx. 1a-7a), but in each the submediant is used very similarly to emphasise the ensuing dominant degree melodically without itself obtruding. It is interesting to observe how Beethoven uses the submediant degree to lend greater emphasis to the paradoxically lower dominant, and although there are not a great many instances of this usage in the themes, the seven examples cited here suggest a particular, tonally-related tendency.

b the submediant as a main melodic apex

There are five instances of the submediant occurring as the main melodic apex; these are correlated as exx. 1b-5b. Ex. 1b rises to the submediant by way of a modified step-wise rise; although it is used incidentally, without particular emphasis, the submediant is clearly the main melodic apex of the rondo theme, occurring three times. Ex. 4b, although considerably

removed in time, uses the same rise, here exactly step-wise, moving from the dominant through an octave and onto the higher submediant. But this theme steps emphatically onto the submediant (note the accentuation mark) which forms the apex of the fugue-theme. Ex.5b is also a fugue-theme, from the Gloria of the Missa Solemnis; it too builds through a rising sequence to the main apex on the submediant.¹

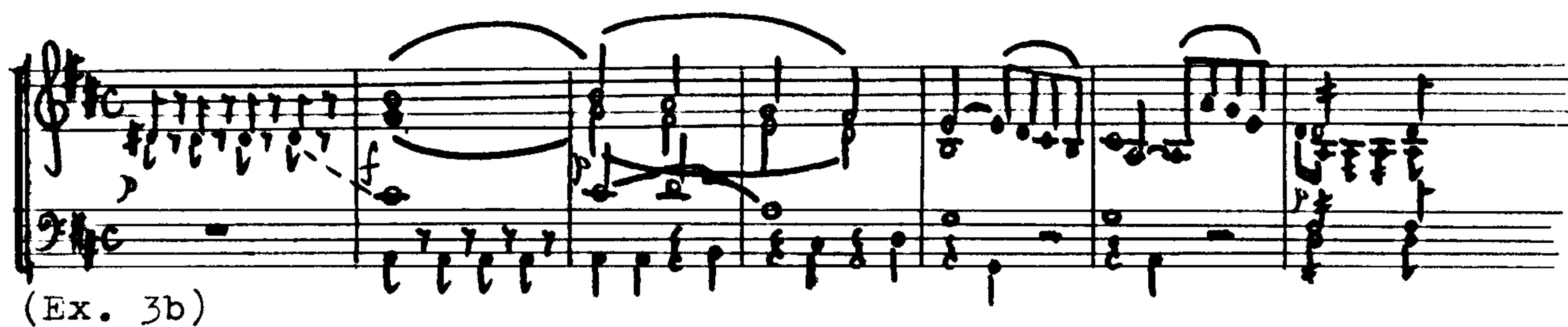
The submediant occurs as the main apex in the two phrases of the thematic paragraph comprising bars 12-26 of ex.2b. The second is particularly emphatic, with its rhythmic intensity and repetition. It is interesting that the submediant is used here, as tonally it is instrumental in re-affirming the tonic (D) following submediant harmonic emphasis.

Example 3b includes the most emphatic use of the submediant as a melodic apex in the Group (a) D themes. It is the main apex in three of the four phrases in the opening of the Violin Concerto (ex.3b). The emphasis of the submediant seems to grow with each statement; in the first phrase it occurs on the 'weak' half of the bar, and the harmony is simply subdominant ($\frac{6}{4}$, with tonic pedal). The second statement occurs on the first beat of the bar; it is held for three beats and is *sf*, following a crescendo; the emphasis is increased by the harmonic tension (the dominant is sustained as the bass). The final statement follows the tonal ambiguity of the D \sharp , and is enhanced by the melodic leap; the dynamic treatment and the dominant harmony

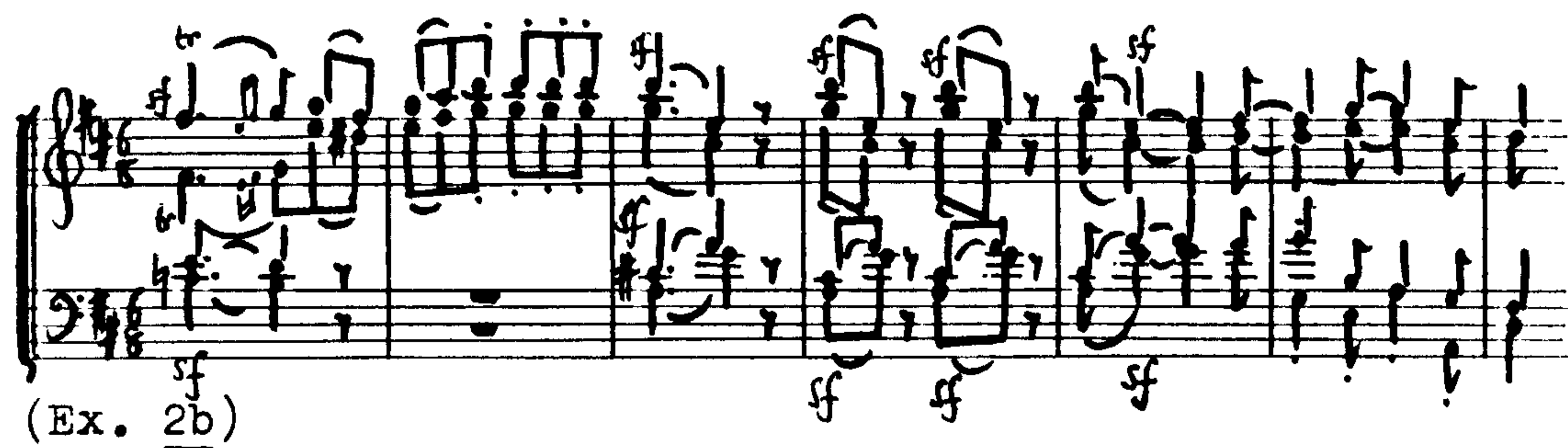
1 Both themes also use rising fourths melodically, D-G and E-A, respectively.

beneath make this a powerful climax; the harmonic tension is increased by the sustaining of the apex through a whole bar and by its suspension across the bar; this is then eased by the gradual meeting of the falling melody and the rising bass in a beautiful and gently executed cadence.¹

There is an interesting parallel between the final phrase of ex. 3b and the second of the two referred to from ex. 2b. The mood and metre vary but the same harmonic basis underpins not only the apex in each case, but also the cadential treatment. The Quartet is less restrained in mood, but there is the same feeling of tension at the melodic climax; the dynamic treatment and the insistent repetition effectively reinforce and sustain the tension of the melodic apex on the submediant in this theme, as does the unbroken *f* chord in the Violin Concerto (the bass here is of course motivically important). The two extracts are given in reduced score:



(Ex. 3b)



(Ex. 2b)

1 Note the use of the step-wise movement in this theme. Although it does not fall into the categories of usage identified above, step-wise movement is very much in evidence in this theme.

Examples 6b and 7b each use the submediant degree prominently as a melodic apex, although it is subsidiary to a preceding apex in the context of the entire theme in both cases. The main apex of ex.6b is on the tonic (at bar 14). This climax is followed by a (tonally significant) fall in thirds; from bar 16 there is a further anticipation of climax with the crescendo, harmonic tension and melodic interweaving between the Piano and the Strings. The 'climax' is a forceful statement of the submediant (note its duration) prefacing the cadence of the thematic paragraph.¹ The submediant is variously evident in Ex.7b. The melodic apex at bar 8 is climactic, but essentially cadential in emphasis. (Note the supertonic inflection harmonically, the dynamic treatment, and the fact that the melodic line is the exact statement of the basic thematic cell of the rondo theme.) The submediant degree is a straightforward cadential apex in bars 6 and 8 of ex.7b.

There is a further instance where the submediant is, strictly speaking, a melodic apex; this is in the third movement of the String Quartet Op.18/3 (ex.15 in the Group (a) Thematic Index). In bars 22-30 of this thematic paragraph, the submediant is the highest note relative to the immediate (and indeed preceding) context. However the submediant does not constitute a strong melodic apex. Bars 22-30 consist predominantly of an elliptical 'allusion' to submediant harmonic emphasis, creating an effect more typical of the late music and its ellided tonal moves. In the Op.18 Quartet this wistful, mysterious moment is soon forgotten in the following bars, and passes into the perky closing theme.

ii the tonic as melodic apex

There are six themes where the tonic is used as a melodic apex degree; only in two instances is it used as the main apex of a thematic statement. The six examples may be grouped in pairs according to the type of usage evident; these are exx. 11 and 25; exx.4 and 12; exx.8 and 26.²

1 The present comments concerning exx.2b and 6b may be correlated with earlier remarks made in relation to these themes (as exx.4 and 8 of the main Group (a) Thematic Index); See Pp. 159-60 above.

2 The numbering here refers to the main Group (a) Thematic Index in the Supplementary Volume, Pp. 28-31.

Examples 11 and 25 are song-form themes, and both from early works. Ex.25 uses the tonic as the melodic apex of the 'b' section of the theme in each statement; in ex.11 which is a little more ambitious formally, the tonic occurs in the final phrase, as the melodic apex of the whole theme.

The usage in exx.4 and 12 concerns the cadential treatment. Ex.12 is the earlier work (composed in 1797, only some two years after ex.11). Bars 9-13 comprise cadential material, following an 8-bar (4+4) thematic statement; the step-wise movement in the Piano at this point has been indicated; melodically, the Violin sustains the tonic (the crescendo and reiteration of the tonic increase the emphasis upon it), creating an apex when the melodic line falls to the cadence. This is clearly not an emphatic use of the tonic melodically, but is interesting tonally, as sustaining the tonic over cadential subdominant harmonic emphasis. The tonic occurs as an apex in a similar context in ex.4. The thematic treatment here is more complex, but again bars 26-34 are essentially cadential; they consist of two statements of a fully-fledged 'cadence-theme'. The tonic is the initial and main apex of this theme.

Examples 8 and 26 concern the first and final movements respectively of the Piano Trio, Op.70/1. Ex.8 shares with ex. 4 the falling thirds following the main apex on the tonic; this occurs at bar 14 (in the Piano) in ex.8. Ex.26 uses the tonic a number of times, each time as a main apex. The climax in the tonic in the opening two periods is clear; (despite the dynamic contrast, the tonic constitutes the melodic apex). As the theme progresses, it again returns to the tonic via rising chromaticism, and the tonic is the cadential apex - a second main apex (at bars 17 and 27); the opening of the movement is also repeated following this, completing the ABBA structure of this thematic paragraph.

It is of interest to note that the last four examples of these six all use the tonic as a melodic apex in close connection with subdominant harmonic emphasis.

GROUP (b) THEMATIC FEATURES IN D

There are eleven items in Group (b), drawn from ten works. The wide-ranging tonal contexts in which the Group (b) themes occur was referred to in some detail above.¹ The present examination is not primarily concerned with these larger-scale relationships but investigates the tonal-thematic features evident in the themes as themes in the tonality of D in contexts where D is not the basic key. There is some diversity of usage within Group (b) which does seem to relate to the larger-scale relationships; where a Group (b) theme stands in a remote tonal context there is a strong tendency for that theme to evince features particularly characteristic of the Group (a) tonal context (that of D as the basic tonality). However, where such a Group (b) theme is in question, its tonal context is subordinate to the particular tonality which is functioning in the 'basic' capacity, and thus for the purposes of the present correlation must be included in the Group (b) context. That there are direct links with the basic D - context tonal-thematic features where Group (b) themes occur in remote relationships further suggests that the present investigations are preliminary to a full understanding of the nature of tonal functioning, but it also reinforces the concept of certain tonal references as inherent to a specific tonality. For as with C and G, the tonal-thematic features evident in the Group (b) D themes do not constitute the emergence of distinctive new traits, but rather reflect a change in emphasis within the tonal complex already discerned as characterising Group (a). Such a change of emphasis yields the subdominant as a notable harmonic inflection in the Group (b) themes, where it is not as emphatic a component in the Group (a) themes; also, the mediant emerges as a notable melodic apex degree in Group (b). Features characteristic of Group (a) but not to a significant extent of Group (b) are the thematic fall of a third D-B, submediant harmonic and degree-inflection and sequential use of the supertonic. There is however one category of usage which remains constant; the Group (b) themes also exhibit a strong tendency to step-wise movement. That it is common to the entire 'gamut' of D themes suggests that step-wise movement in the thematic structure is inherent to the D tonal-thematic complex, irrespective of formal context.

The Group (b) tonal-thematic analysis comprises three main categories; step-wise movement as a thematic feature, harmonic inflection of the subdominant, and melodic apex treatment.

I STEP-WISE MOVEMENT IN THE D (GROUP (b)) THEMES

As with Group (a) step-wise movement is evident in various types of usage in the Group (b) themes. These types are again examined in categories with the result that, once more, some overlap between categories is inevitable. However, that such overlap is of a particular kind in relation to Group (b), differing from Group (a), will emerge in the examination. The same category-divisions are adopted as the basis of the Group (b) considerations, but the category-sequence differs.

i step-wise movement used in symmetrical structure

There is the same variety in this type of usage in the Group (b) themes as characterises Group (a). The present instances are given chronologically as ex.1-5 of the Group (b) Thematic Index.¹

Examples 2 and 4 are instances where the antecedent phrase is structured by symmetrical step-wise movement. While the opening four bars of ex.2 retrace the initial step-wise fall, note for note, returning to the high mediant, two succeeding phrases also use this shape as the basis of the melodic line, 'interrupted' for cadential purposes. Joseph Kerman refers to this theme as "not a tune at all, but an abstract construction".² While it is not of the order of ex.1, the Quartet theme ex.2 is structured by tonally-related factors in the use of step-wise movement in a symmetrical thematic shape. (The mediant apex is also notable in this context.) Whatever the merit of the theme as a melody, to take it in isolation is to overlook features characteristic of D tonal-thematic structure; that

1 Supplementary Volume, P.53.

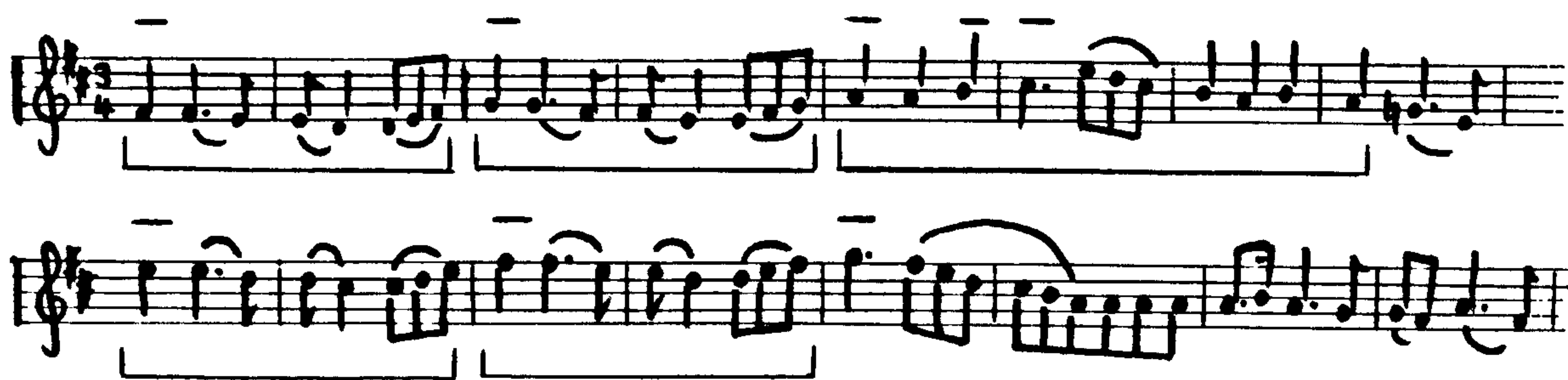
2 Cp. cit., P.62.

they are consistently in evidence in what Kerman terms an "abstract construction" suggests how integral to the tonality of D, in terms of the thematic structure, these elements are. Ex. 4, from the Ninth Symphony, is constructed entirely of step-wise movement. The symmetrical structure of the antecedent yields a characteristic thematic shape in D, consisting of a rise from the tonic to the dominant and returning to the tonic. However, it is interesting to note that the emphasised degree is not the dominant degree but the earlier mediant. The return to the tonic initiates the second phrase, which is a repeat of the first. (The eventual cadence is achieved by a step-wise rise to the higher tonic.)

Examples 1, 3 and 5 use symmetrical structure on the 'cellular' level. This type of usage characterises the later Group (a) themes. Exx. 1, 3 and 5 however, are from an early, a middle-period and a late work, respectively. (These are the Piano Sonata, Op.2/2, the Archduke Trio, Op.97 and the Ninth Symphony, Op.125.) While the 'symmetry' apparent in ex. 1 is indeed only cellular and only once-stated, bars 2-4 of the melody do seem to prefigure a particular thematic cell which Beethoven uses so notably in the late music.¹

Example 3 demonstrates the kind of combination of types of step-wise movement which seems to characterise the Group (b) themes. It is also comparable with ex. 1 in this respect. Step-wise movement underlies the entire structure; while the theme is in part symmetrically structured, step-wise movement is the vehicle of the whole. In ex. 3 these levels of functioning are beautifully interwoven. It is given here (without the repeated statements) to illustrate the structure:

1 Reference may be made to the correlation of themes given between P.200 and P.201 above.



The main outline of the melody (marked —) is a step-wise rise from the mediant to the high subdominant, returning directly (and step-wise) to the lower mediant. The brackets indicate the symmetrically-structured thematic cells (using step-wise movement) within this framework. There is remarkable similarity between this theme and those with which it is correlated above, but also between this theme and the present ex.1. Ex.3 is clearly more developed, but common factors are the opening on the mediant degree, a symmetrical thematic cell, a focussing on the dominant centrally in the thematic structure, and an extensive rise, step-wise, leading to the climax in each theme.

Without seeking to exaggerate the various levels of symmetry and thematic balance functioning in ex.3, it is interesting to note the counterbalancing emphasis on the dominant at bars 14-15; counterbalancing the swift descent from the climax and also complementing and counterbalancing the earlier dominant emphasis (bars 5-8). The importance of the dominant in D themes has emerged in earlier considerations; its rôle in this theme is that of particular emphasis, tonally and melodically; it is something of a 'plateau', in both respects, within the larger-scale melodic shape.

Before leaving this melody, one further comparison with the late music may be made. This relates to the *Dona nobis Pacem* of the *Missa Solemnis*. The approach to the climax there is remarkably similar to the progress of the *Archduke Trio* theme. While the melodic treatment is more complex in the *Missa Solemnis*,

moving between the four voices, the overall structure consists of a step-wise rise, culminating in the soprano line and the climax at the passage for unaccompanied voices. The subsequent descent and beautiful cadential treatment are also strongly reminiscent of the Archduke Trio theme. The similarities seem to have passed unnoticed. The later stages in both 'thematic paragraphs' (the main melodic treatment) are given here:



In terms of less tangible comparison, the mood of these two contexts is certainly similar; several writers have referred to the "sublimity" of the Archduke Trio theme, and both contexts evince something of the "warmth and richness" spoken of in relation to the tonality of D in Beethoven's music.¹ Riezler considers that the *Dona nobis Pacem* of the *Missa Solemnis* is the "least approachable" and "the most enigmatic" part of that work.²

1 This term is used by Philip Radcliffe in his book "Beethoven's String Quartets" (London, 1965); P.117 .

2 Op. cit., P.195.

Its basic structure thematically is however characteristic in a D context. The thematic treatment is modified in the interests of the continuity and flow of the music, but fundamentally, particular features relating to the tonality of D are evident.

Example 5 is also built upon a thematic cell, involving symmetrical structure, but this is extended, step-wise, linking directly into the sequential thematic cell. (It is interesting to note the early prominence of the mediant degree in all five of the themes, exx.1-5).

The consideration of symmetrical structure in the Group (b) themes has encompassed other aspects of step-wise movement in the themes, and has included comparison with other themes in various respects. All these factors reflect tonally-related tendencies and demonstrate how integral to the thematic structure of the Group (b) themes step-wise movement is, as it cannot always be meaningfully separated out into 'types'.

ii step-wise movement ascending

Ascending step-wise movement of some kind occurs notably in exx.1,3 and 6. Bars 14-15 of ex.1 comprise a beautiful and extended step-wise rise to the climax on the mediant. This theme is the earliest slow movement in D of the published works; the remarkable ways in which it apparently prefigures very much later D themes have emerged in the preceding category. The melodic structure underlying ex.3 is basically that of an extended step-wise rise, as discussed above.¹ Ex.6 exhibits similar tendencies but on a smaller scale. The first part of the step-wise rise is expanded by ornamentation; the "upper appoggiaturas" are very beautiful and also hark back to the Archduke Trio theme, with which the present theme has already been correlated. Ex.6 is also basically symmetrically structured, although the apex is 'displaced'; the swift, step-wise descent following the climax is also similar to the treatment in ex.3.

1 P.214-5.

iii step-wise movement descending

a fro. the dominant (without a preceding rise)

In the Group (a) themes there is a considerable number of instances where this structure is apparent, but in Group (b) the dominant is not prominent as a melodic apex. There are two instances of an emphatic step-wise descent from the dominant; these occur in exx. 7 and 9. Ex. 7 is comparable with the four Group (a) themes correlated above with respect to the opening treatment.¹ The melody opens on the dominant, and there ensues an expanded step-wise descent to the tonic. The treatment here may be noted in relation to the establishing of D as the tonality following the first movement in A; there is submediant harmonic inflection, followed by the subdominant (the D-b-G complex) and melodically, rising fourths shape the theme following the opening descent (bars 5-6). In ex. 9, there is a step-wise fall from the dominant at bars 7-9. Although this is immediately preceded by a step-wise rise, the context of the entire thematic shape is basically that of an extended step-wise descent. The rise in Violin I effects an octave-transposition of this descent; the result is the high dominant apex. In view of the importance of the dominant as a main melodic apex in the D themes, particularly in Group (a), it is interesting to observe that Beethoven structures the melodic line in such a way as to focus emphatically on the dominant degree. This D theme also occurs as a remote relationship in the context of the Heiliger Dankgesang; the Group (a) tonal-thematic characteristics are apparently particularly accessible in this context.

Two less emphatic instances occur in exx. 1 and 3. The rôle of the dominant tonally and melodically in these two themes was referred to above.² The descent from the dominant in ex. 1 is a chromatic link to the reprise of the opening. In ex. 3, the same function is fulfilled at the first occurrence (bar 8) but prior to the cadence of the thematic statement, there is prolonged emphasis of the dominant, only subsequently falling cadentially.

1 The four themes are correlated between P.197 and P.198 above.

2 See P. 215.

b from a degree other than the dominant

Investigation of the Group (b) themes has already indicated that step-wise movement is used in particular ways in these generally slower D themes; a notable thematic shape is the extended rise coupled with various types of melodic expansion (in which step-wise movement is to the fore) within it. Such enlargement of a step-wise progression is also used in melodic descent in the Group (b) themes. These somewhat concealed thematic structures characterise the three D themes from the late Quartets. There are also more straightforward instances of descending step-wise movement; the most notable in the present connection also occurs in a String Quartet, as the opening of the Second movement of the f Quartet, Op.95 (ex. 8). Tonally however ex. 8 is not a completely straightforward incidence of this characteristic D feature; it must be viewed in relation to the preceding (f) movement (but that it occurs as the first thematic shape in the here remote tonal context of D is notable).

Joseph Kerman seeks to explain the relationship between the first two movements of Op.95 in terms of semitonal relationships evident in the first.¹ Indeed, the D \flat second group material of that movement is interrupted by its Neapolitan, the enharmonic equivalent of D. However, it is not to this that Joseph Kerman primarily alludes. He regards the key of the second group as D \flat "in place of c(v)", referring to D \flat as an "enhanced dominant". From this he then deduces an "enhancement of the enhancement" as giving rise to the key of the slow movement. While detailed consideration of this relationship is beyond the present scope of investigation, a fundamental mistake which Kerman makes in his assessment must be rectified. In deriving the key of D from the D \flat of the second group of the first movement he considers that D \flat stands "in place of " the minor dominant. Although he does not particularise his terms of reference, the context seems to imply that Beethoven replaced the dominant minor with the key of (b)VI in this instance, where the dominant minor was the most likely key to occur at this juncture. But whatever Kerman's terms of reference, his statement does not take account of Beethoven's own procedure in minor key movements. The present thesis is that tonal procedure in Beethoven's compositional process is related to key-location. Thus, the f/D \flat relationship in the first movement of Op.95 springs from a particular tonal tendency to D \flat

1. Cp.cit., Pp.175-6

from f, which is evident in various formal contexts, and not from a "semitonal enhancement" of the dominant. Comparison of the treatment in minor mode movements, even in terms of degree-relationships irrespective of tonal category does not yield the dominant minor as necessarily the most likely second group key in Beethoven's music. When the movements are correlated tonally, particular tendencies emerge as characterising specific tonalities. Generalisation in terms of degree-relationships does not accurately represent these differences, and consistency relating to tonal location is not apparent. As the analysis necessary to verify this assessment further enlarges the scope of discussion, the relevant material is collated and examined as Appendix II.

Whatever the 'derivation' of the key of D in relation to ex.8, the step-wise movement is a characteristic tonal-thematic feature in a D context. The particular descent involved here begins with a diatonic step-wise fall from D to A, a progression previously noted as recurrent in the bass-structure in the context of the opening treatment in D.¹ In ex.8 the descent extends further, apparently outlining a diatonic scale (although following the key of f it sounds extremely mysterious and remote) but recoils from F# onto the dominant (of D). The thematic paragraph also contains other characteristic D tonal features as will emerge in subsequent considerations.

Examples 9 and 10 are further instances of D occurring as a remote key relative to the overall tonal context. Ex.9 is integral to the Heiliger Dankgesang movement in the String Quartet Op.132 (in a). The choice of D as the key of the Andante sections of the movement is of interest; the Heiliger Dankgesang is basically in F Lydian, but that a characteristic tonal tendency offsets the modality in the choice of D is supported by notable use of this relationship (F/D) in other contexts, of which the present

1 Various instances from both the Group (a) and Group (b) themes are correlated below, following the Group (b) tonal-thematic analysis. (P.229 et seq.)

ex. 11, from the Seventh Symphony, is one.¹

The underlying structure of the Andante is that of a step-wise descent. Thus it is built upon a progressively descending bass-line which again proceeds as far as F[#] in its diatonic fall (there is octave transposition at this point in the 'Cello line). Violin II 'shadows' this descent at the third, disguising the relationship somewhat with its ornamentation and rhythmic treatment. Violin I takes over the melody from the dominant degree and carries it to the higher dominant, again moving step-wise. (Note the dominant enhancement on the submediant following this).

Example 10 is the opening of the D second movement of the Quartet in C[#], Op. 131. It is interesting to note the submediant degree-inflection in this theme. Such submediant inflection characterises the key of D when used in its basic capacity. However, while a notable Group (a) feature is apparent, there are particular Group (b) characteristics shaping the thematic paragraph. The mediant is an emphasised degree melodically, and it is from the mediant that the extended step-wise descent stems. The mediant is the main apex of the paragraph; the climax at bar 17 initiates a gradual fall step-wise to the tonic, followed by a tonic-submediant fall of a third, and a step-wise fall onto the cadential dominant. The fall D-B and the submediant enhancement are particular D tonal characteristics, as has emerged above.

1 An instance occurs in the Piano Sonata Op. 10/2 (i) where the (motivic) Recapitulation begins tonally in D in this F work. (D is also a focal point tonally in the finale-development). Other instances where D occurs in direct juxtaposition with F include the finale of the String Quartet Op. 18/1 (following the emphatic move onto the home dominant, bars 173-186 the Recapitulation is anticipated, but the characteristically engineered chromatic modulation occurs, and the key of D is established) and the Trio for Piano, Clarinet and 'Cello, Op. 11. In the first movement, there is an emphatic move onto the dominant, culminating in a ff chord of F (at bars 37-8). But instead of the second group material occurring immediately in the key of F, a further 8 bars interpose, giving rise to a startling F/D tonal juxtaposition.

Step-wise movement is apparent in the Group (b) context as a basic structural element in the shaping of the themes. The 'disguising' of this underlying structure is appropriate to the nature of these generally more broadly-based, more lyrical slower themes. Although melodic expansion obscures the extent of the step-wise framework in the themes, this feature remains as basic to the thematic structure and thus emerges as a constant tonal-thematic characteristic relating to D in both Group (a) and (b) contexts.

II HARMONIC EMPHASIS OF THE SUBDOMINANT IN THE D (GROUP (b)) THEMES

This tendency emerges as characteristic of the Group (b) themes to a notable extent. The subdominant is in evidence as a harmonic nuance in Group (a) (as in the opening of the Piano Sonata, Op.23) and emerges as an important subordinate apex melodically in the later themes, but in the context of the Group (b) themes harmonic emphasis of the subdominant occurs more frequently as a notable inflection (that is, with C^{\sharp} emphasis). There are other instances where the subdominant is an important focus both melodically and harmonically (such as the climax of the Archduke Trio theme, ex.3) but apparently integral to the expression of the D tonality in these thematic statements is harmonic inflection of the subdominant. This inflection may be defined as integral in that it occurs where the tonality is beyond question; thus the emphasis is in the nature of an enhancement of the tonality; there is no sense of tonal deviation from D. The instances of this usage are regrouped as exx. liv-6iv.¹

The subdominant is in evidence in a number of ways in ex. liv. Early in the thematic statement it stands in apposition to the tonic (as the opening of bar 2 in the bass), a tendency noted in the Group (a) themes; at this point in the second phrase (which

1 Supplementary Volume, P52; P.54-5. (The relevant extracts are given with harmony, cross-referenced with the main Group (b) Thematic Index).

opens identically with phrase 1) the subdominant emerges as the climax melodically, with subdominant harmony. The subdominant inflection occurs during the impressive step-wise rise to the melodic climax of the entire thematic paragraph (note the emphatic treatment of the subdominant; the harmonic structure is filled out for this bar, and there is an added inner part with an sf subdominant on beat 3). The inflection in ex. 2iv is less emphatic, an enhancement of the well-established D tonality in this simple variation theme. Ex. 4iv may be included here, as Variation 1 of the Op. 13/5 theme (ex. 2iv) uses the subdominant minor inflection, rather unexpectedly, and similarly with the Op. 95 Quartet theme. In the latter however, the minor inflection may well be linked to the preceding movement; prior to this it is interesting to note the early C \sharp emphasis in this opening, confirming the D tonality and establishing the preceding inflection in the 'Cello as a dominant inflection.¹ In view of the remoteness of D in this context, it is interesting that bars 11-12 constitute a direct parallel with earlier D themes both in terms of the submediant enhancement of the dominant and of harmonic treatment.²

Example 3iv was referred to above in connection with its opening structure, and the D-b-G complex apparent. The last step in this progression uses subdominant harmonic inflection and, significantly, the opening sequential treatment changes on achieving the subdominant which is in effect a pivot both tonally and melodically.

The harmonic inflection of the subdominant is similar in exx. 5iv and 6iv. In both the tonality is established. Especially is this so in ex. 5iv, following the characteristic 'introduction' preceding this passage in the opening of the climactic Quartet from "Fidelio". An extended rising bass-progression is the

1 Although a seemingly paradoxical statement (that C \sharp emphasis confirms the tonality of D) the present discussion indicates that such an inflection is indeed inherent to the expression of D tonality in these themes.

2 Cf. P. 209 above.

mainstay of resourceful tonal treatment, and culminates in the present passage. As this is the definitive statement of the tonality of D, it is the more notable that a subdominant harmonic inflection appears so early on the scene; this further suggests that such treatment is inherent to the definition of D tonality in particular ways. The treatment in ex. 6iv, although in less tortuous tonal surroundings, uses essentially the same bass-structure.¹

The example from "Fidelio" (ex. 5iv) is one which falls between the present Group (a) and (b) categories and it in fact includes tonal-thematic features characteristic of both contexts. Some notable tonal features in the Quartet may be indicated here. It opens with a forceful supertonic sequence; the basic melodic cell is a rising fourth; the subdominant emerges as a central key;² the G/E \flat juxtaposition at Leonora's declaration of her identity is characteristic, as is the B \flat interruption at the trumpet-call; finally the expansion of the supertonic sequence in the equivalent of the Coda is notable, as is the melodic climax on the dominant in this final section.

Harmonic inflection of the subdominant, while a notable nuance in the Group (b) themes, is not as emphatic a tonal-thematic characteristic as is the case in G usage. However, an unobtrusive enhancing of the tonality of D by this means seems to be particularly characteristic of the Group (b) themes.

1 Note also the falling bass-structure in the second part of this trio-section. This extends from D to F \sharp , as with the Op. 95 and Op. 132 examples.

2 While the subdominant is not notably in evidence in the Group (a) D themes, it does emerge as a key of importance on the larger-scale structural levels in D movements; the "Fidelio" Quartet treatment is then representative of characteristic D treatment in this respect. The particular thematic emphasis of the subdominant evident in the opening treatment was pointed out above.

III MELODIC APEX IN THE D (GROUP (b)) THEMES

The preferred melodic apex degrees in the Group (b) themes are the dominant, the submediant and the mediant. As with the Group (a) themes, the dominant is frequently an apex-degree in Group (b) although it is not used as emphatically as is the case in Group (a). The submediant is also apparent both as a melodic apex and as a 'dominant enhancement' - the two rôles identified in the Group (a) themes. With the mediant however a new melodic emphasis emerges in the present themes. The subdominant is in evidence as a melodic apex but does not constitute a notable apex-degree in the themes. Apex usage in the Group (b) themes is then similar to that characterising Group (a) but with the addition of mediant emphasis; the dominant, submediant and mediant are examined with respect to their rôle as apex-degrees in the Group (b) themes in categories i - iii below.

i the dominant as melodic apex

While symmetrical step-wise structure shapes the Group (b) themes it is not as extensively apparent as is the case in Group (a). The dominant is once more the focus of such structure, but not exclusively so in Group (b). It is not an emphatic apex generally in the themes but that it is frequently in evidence marks this as a characteristic tonal-thematic feature in D. The themes in which the dominant occurs as a melodic apex in some capacity are exx. 1, 4, 5, 7, 8, 9 and 11

In ex. 1 the dominant forms a 'plateau' melodically in the third of the four 4-bar phrases (bars 8-12).¹ Here however it is part of a modulation into the key of the dominant in the course of the melody; thus its rôle as a home dominant apex is qualified. The dominant is the literal apex in ex. 4 but the musical emphasis is on the preceding mediant. The mediant is also an emphasised degree throughout ex. 5 but in this theme the dominant is the main melodic apex in its own right, both within

1 The similarity of ex. 1 with ex. 3 in this and other respects has been indicated above. (See P. 214-5 and P. 218 above.)

the symmetrically-structured 2-bar cell and in the larger context of the complete melodic statement. Ex. 7 opens with a melodic apex on the dominant which is the main apex of the first 4-bar phrase. The dominant emerges as an apex in the last phrase of the thematic paragraph in ex. 8. Its melodic rôle here is somewhat obscured by the broken intervals structuring three of the four parts; but the dominant is the melodic apex and a step-wise fall melodically ensues above a step-wise rise (with chromaticism) in the bass. The subsequent cadential phrases confirm the importance of the dominant melodically in their restatement of bars 17-22 in a modified (but essentially a simplified) form.

The dominant is more emphatically used in ex. 9 than in any other of the Group (b) themes; as already discussed, the transposition of the falling step-wise progression into the higher range in Violin I creates an impressive dominant apex.

With ex. 11 the dominant occurs as a main apex in a characteristic D trio-theme. (Note the sequential treatment on the supertonic. This theme is similar to those from the same context in the Second Symphony and the Ninth Symphony; the same thematic elements underlie the treatment).

ii the submediant as melodic apex

The submediant is not emphatically used as a melodic apex in the themes, but is once more in evidence as a dominant enhancement in various contexts. It does constitute a main melodic apex in two of the themes; these are exx. 1 and 7. In both, the harmony is subdominant, a tendency noted in the Group (a) use of submediant apices. The submediant is an important melodic focus in ex. 1, constituting the main apex of the first eight bars and, with the increased harmonic (and dynamic) emphasis at bar 16, also acts as an interim apex (note its duration), a springboard for the main climax of the entire melody.

In ex. 7 the submediant in fact eclipses the opening dominant and is clearly the climax of the melody in both Violin and Piano statements. (Note the dynamic treatment and its focussing on the submediant).

The use of the submediant as a dominant enhancement is not obtrusive in the themes but as with Group (a) is sufficiently in evidence to indicate a particular 'fingerprint' in the thematic shape in D. It occurs in exx. 3, 8 and 9.

That the cadential 'plateau' on the dominant in ex. 3 complements the earlier thematic structure was suggested above.¹ However, in the cadential treatment the submediant is used as an enhancement of this dominant, and indirectly as a cadential apex, 'precipitating' the final fall from the dominant. Although the submediant is only a semiquaver in duration its effect is indeed enhancing.

There are two points in ex. 8 where the submediant acts as a dominant enhancement. Early in the melodic treatment the minor submediant perhaps qualifies rather than enhances the dominant melodically; but in the ensuing bars it is naturalised and the cadential figure previously alluded to and apparent elsewhere in the D themes occurs.²

The submediant prefaces the final dominant of the melody in ex. 9. A modulation into the dominant appears to be occurring at this point but it is elliptically (and characteristically at this time in Beethoven's composing life) redirected into the tonic. That the submediant is the melodic focus of this treatment is interesting when viewed in the light of the tendency to particular thematic emphasis of the submediant in relation to an ensuing dominant which is in evidence in D usage throughout Beethoven's oeuvre.

Reference may be made here to the use of the submediant in ex. 10, the opening of the second movement of the String Quartet Op. 131. The submediant degree is in effect a pivot melodically, the emphasis being on the submediant and then on the dominant (in dominant enhancement usage), these two emphases alternating throughout bars 1-17. The submediant re-emerges as a focal point melodically at bars 23-4 where the rise E-B breaks the preceding sequence of rising sixths and also breaks the step-wise fall melodically (significantly creating the fall D-B).

1 P. 215

2 See Pp. 209 and 223.

iii the mediant as melodic apex

The mediant is a main apex degree in six of the eleven themes comprising Group (b). However, it is also evident as a notable melodic emphasis in a different capacity; four of the themes open on the mediant degree and a further two themes focus on the mediant after an opening 'curtain'. Those themes opening on the mediant degree are exx. 1,3,5 and 6; exx. 2 and 9 focus on the mediant early in the thematic statement (as a melodic apex in each case). Exx. 1,3,5 and 6 occur in a variety of basic tonal contexts A, B \flat , d and B \flat respectively. This variety suggests a thematic tendency relating to the tonality of D in a Group (b) context rather than reflects a direct tonal linking with preceding material, in view of the varied relationships functioning.

The mediant emerges as a melodic apex in the course of the thematic statement in exx. 1,2,4,8,9 and 10. Ex. 4 focuses on the mediant melodically (and musically) despite the ensuing higher subdominant and dominant. In the remaining examples the rôle of the mediant as a main apex is clear. It constitutes the climax of the entire melody in ex. 1, crowning the extended step-wise rise, and further emphasised dynamically. Ex. 2, while more facile as a theme (it is the vehicle of a different formal structure from that characterising the Piano Sonata movement ex. 1) is nonetheless notable in its emphasis of the mediant melodically.

In ex. 8 the mediant is the main apex of a 4-bar phrase within the thematic paragraph (bars 13-16), although this is a less emphatic use of the mediant which is here an ornamentation of the supertonic, an "upper auxiliary" over dominant harmony.

Example 9 is structured by a falling step-wise progression, as has been discussed above. Melodically this fall begins on the mediant which is the main apex of the first four bars.

Perhaps the most remarkable characteristic of ex. 10 is its continuity; the melodic overlap between phrases contributes to this flow, as does the basically 'cellular' structure.¹

1 See above P. 194 and Footnote 1 there.

The mediant is a recurrent apex in the thematic paragraph and also the main apex in the thematic statement, initiating the step-wise descent structuring the consequent treatment (bars 17-25).

The Group (b) D themes comprise themes drawn from a wide variety of contexts, formal and tonal. There is however a unity with the Group (a) compilation with respect to the tonal-thematic features apparent which suggests that when D occurs in a remote tonal context, it evinces tendencies particularly characteristic of the tonality when used in a basic capacity (that is, as the basic tonic). While there was not found to be a completely new tonal-thematic complex in the Group (b) context in either C or G, there is less difference in degree in the D Group (b) themes than characterises C or G. There is a more pronounced emphasis of the subdominant harmonically in the Group (b) D themes, and the mediant emerges as a particular melodic emphasis. But generally in the themes Group (a) tonal-thematic features persist, notably in relation to the use of step-wise movement. Melodic apex treatment is similar, with the addition of the mediant as a notable apex-degree. While other features which were correlated and examined in Group (a) are not treated in relation to Group (b) (the thematic fall of a third, D-B; the rôle of the supertonic; submediant emphasis) there are instances of all these features in the Group (b) context.

The evidence thus suggests that while the Group (b) D themes occur in more wide-ranging tonal relationships than characterise the Group (b) context in C, G or E^b , there is notable consistency in the thematic treatment in both the Group (a) and (b) D contexts, and that the tonality of D has an inherent tonal-thematic complex which, despite (and perhaps because of) its occurrence in wide-ranging tonal contexts, is unified and less amenable to differentiation according to formal context than is the case in other tonalities. Perhaps the most notable feature in the D themes (both Group (a) and Group (b)) is the use of step-wise movement as the structural vehicle; it is also the most consistently apparent

of the tonal-thematic features.

The following compilation considers additional aspects of the use of step-wise movement and of other tonal-thematic features in the D themes and, in bringing together themes from both Group (a) and (b) - a procedure which has been peculiarly evident and relevant in the D tonal-thematic examination - further indicates the functioning of a consistent tonal-thematic complex relating and inherent to the tonality of D and not to formal context.

SOME ADDITIONAL CONSIDERATIONS RELATING TO THEMATIC FEATURES IN A D CONTEXT.¹

Various bass-progressions are notably recurrent in a D context and become readily apparent when the themes are correlated. The fall of a third, D-B, was found to characterise the bass-structure as well as the melodic shape and in fact extends to the larger structural level of harmonic contrast where this intervallic fall is also the vehicle of the tendency to harmonic emphasis of the submediant so accessible in D. The nature of this tendency, when apparent harmonically, is such that it extends beyond the scope of the present investigations and, while this has at times been enlarged to take account of such features, its limited terms of reference mean that all such occurrences have by no means been specified.

A second bass-progression in the D themes, built on step-wise movement, is a diatonic rise from tonic to mediant. This bass seems particularly accessible where the thematic treatment is sequentially structured (on the supertonic), but is also evident, extending beyond the mediant, where this thematic structure is not used. The instances are correlated below.

There is a tendency to use of a tonic pedal in the opening thematic treatment, as in the Piano Sonata Op.28 (i) and (iv),

1 That is, comprising the Group (a) and (b) themes and not relating to D usage in other contexts.

the Violin Concerto Op.61 (i), the Trio of the Seventh Symphony, Op.92 and the String Quartet, Op.131 (ii).¹ But perhaps the most notable bass-structure is the fall from D to A, and again sometimes extending further, apparent throughout the themes. Examples of this structure are also correlated in the following compilation.

There is again remarkable consistency in this aspect (the opening bass-structure) of the D themes; only a minority of the themes do not commence with one of these four progressions in the bass - a fall from D to B, a rise diatonically, a tonic pedal or a diatonic fall. Clearly the bass-structure is integral to the thematic treatment; it seems peculiarly characteristic of D usage that the complex of tonal-thematic features functions similarly at all levels of the thematic structure.

The final section in the ensuing compilation concerns a particular thematic shape several times referred to in the course of the D tonal-thematic examination. This is a rise of a (major) sixth from the dominant initially. It is used as a direct interval in about a quarter of the themes. Although such an opening is generally subsidiary to subsequent melodic apices it does indicate a tendency to emphasis of the mediant in the themes.

1 The tonic pedal in the D themes seems to be the alternative bass-structure (alternative to step-wise movement) where step-wise movement prevails melodically.

(i) Thematic openings structured by a diatonically rising bass.

String Trio, Op.9/2 (i)

Musical score for String Trio, Op.9/2 (i). The score is written for three staves (Violin I, Violin II, and Cello/Double Bass) in 3/4 time. The key signature has one sharp (F#). The first staff (Violin I) features a melodic line with a diatonically rising bass line. The second and third staves (Violin II and Cello/Double Bass) provide harmonic support with sustained notes and chords. The score includes dynamic markings such as *mf* and *f*, and phrasing slurs.

String Trio, Op.9/2 (iii)

Musical score for String Trio, Op.9/2 (iii). The score is written for three staves (Violin I, Violin II, and Cello/Double Bass) in 3/4 time. The key signature has one sharp (F#). The first staff (Violin I) features a melodic line with a diatonically rising bass line. The second and third staves (Violin II and Cello/Double Bass) provide harmonic support with sustained notes and chords. The score includes dynamic markings such as *f*, *crec.*, and *dim.*, and phrasing slurs.

Piano Sonata, Op.10/3 (iii)

Musical score for Piano Sonata, Op.10/3 (iii). The score is written for two staves (Right Hand and Left Hand) in 3/4 time. The key signature has one sharp (F#). The right hand features a melodic line with a diatonically rising bass line. The left hand provides harmonic support with sustained notes and chords. The score includes dynamic markings such as *mf* and *f*, and phrasing slurs.

Symphony No.2 (Op.36) (iii)

Musical score for Symphony No.2 (Op.36) (iii). The score is written for two staves (Right Hand and Left Hand) in 3/4 time. The key signature has one sharp (F#). The right hand features a melodic line with a diatonically rising bass line. The left hand provides harmonic support with sustained notes and chords. The score includes dynamic markings such as *f* and *ff*, and phrasing slurs.

Sonata for Violin and Piano, Op.12/1 (iii)

Musical score for Sonata for Violin and Piano, Op.12/1 (iii). The score is written for violin and piano. The violin part is in the upper staff, and the piano accompaniment is in the lower staff. The key signature is one sharp (F#) and the time signature is 4/4. The music features a melodic line in the violin and a rhythmic accompaniment in the piano.

Piano Sonata Op.2/2 (ii)

Musical score for Piano Sonata Op.2/2 (ii). The score is written for piano. The key signature is one sharp (F#) and the time signature is 3/4. The music is marked *tanto tempo*. It features a melodic line in the right hand and a rhythmic accompaniment in the left hand.

Archduke Trio, Op.97 (iii)

Musical score for Archduke Trio, Op.97 (iii). The score is written for piano. The key signature is one sharp (F#) and the time signature is 3/4. The music is marked *semplice*. It features a melodic line in the right hand and a rhythmic accompaniment in the left hand.

String Quartet, Op.18/3 (i)

Musical score for String Quartet, Op.18/3 (i). The score is written for string quartet. The key signature is one sharp (F#) and the time signature is 4/4. The music features a melodic line in the first violin and a rhythmic accompaniment in the other instruments.

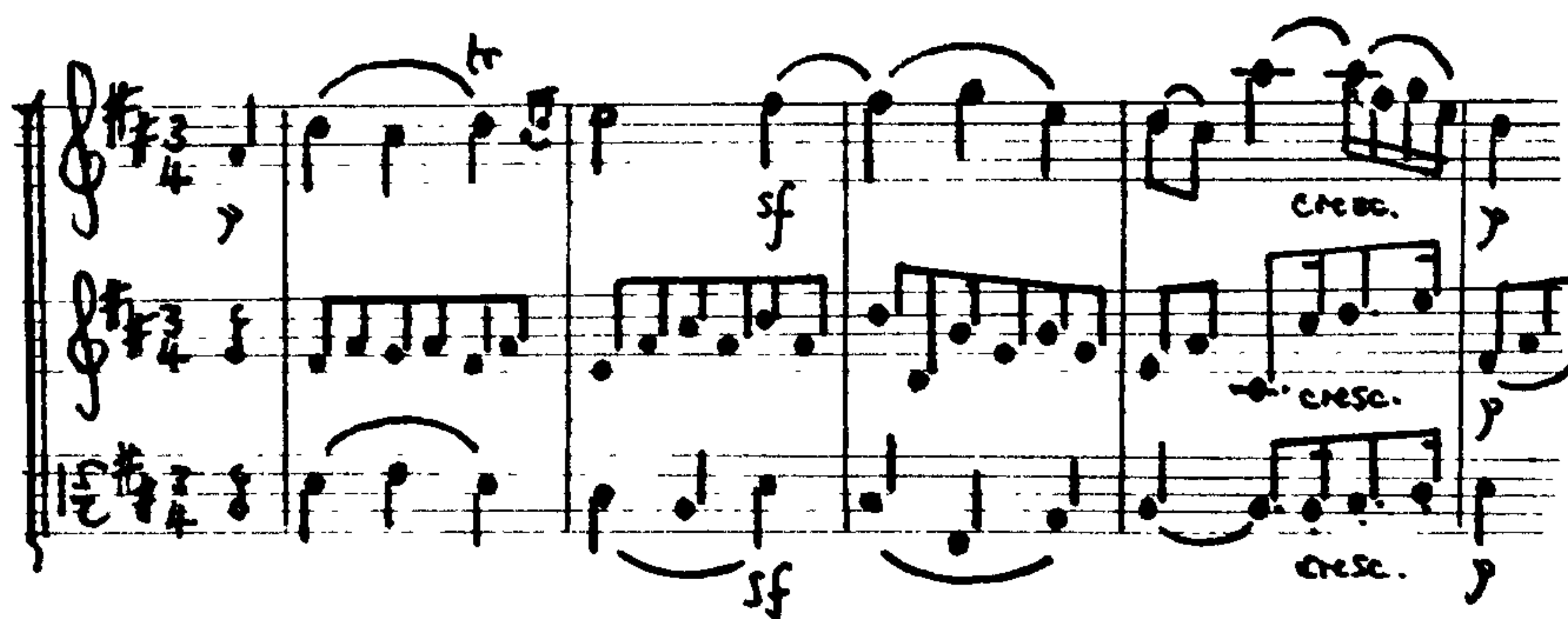
Piano Sonata Op. 28 (iv)



(This opening combines the use of a sustained tonic pedal with a rising figure in the bass.)

- (ii) Thematic openings structured by a diatonically falling bass

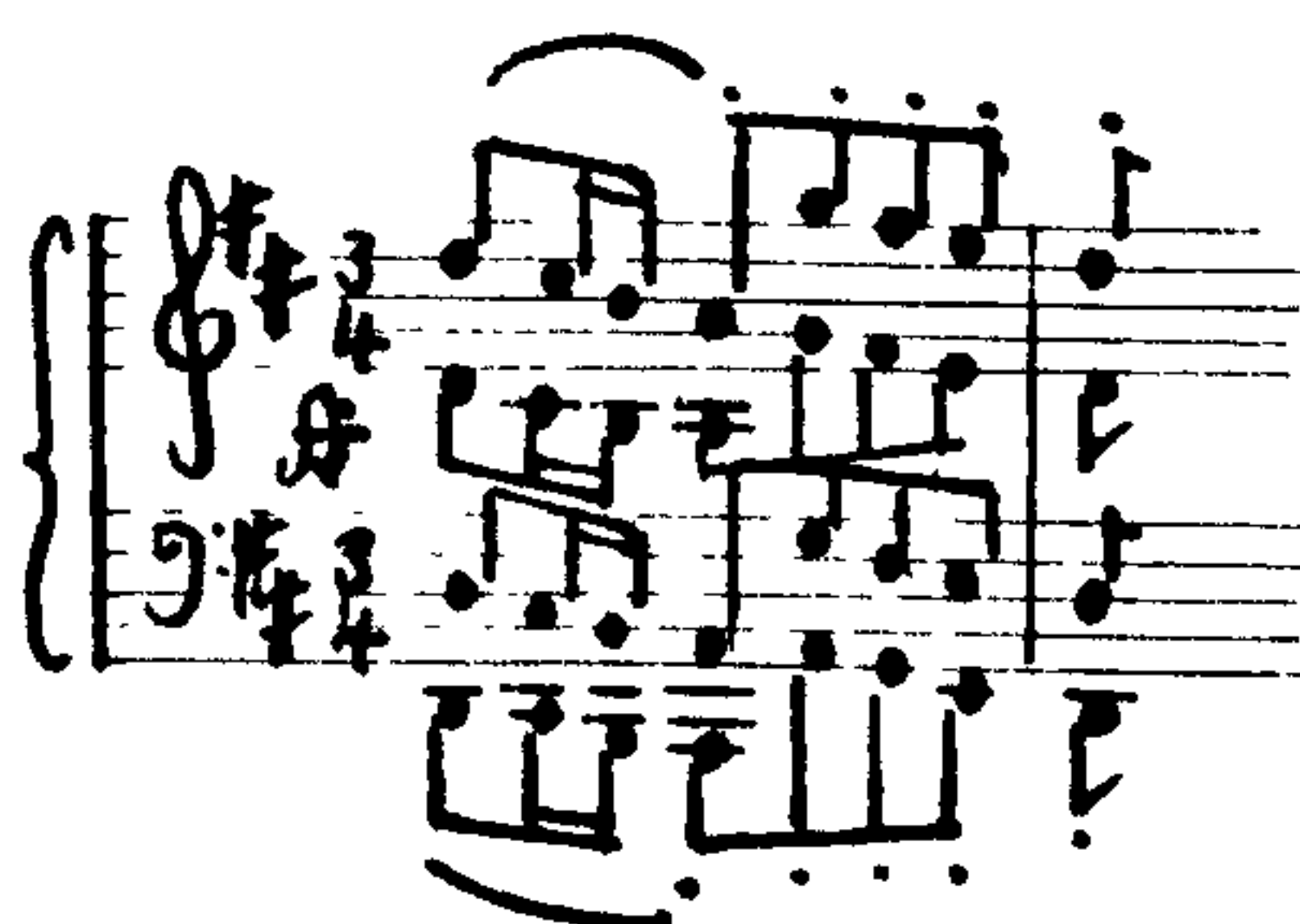
Trio for Flute, Violin and Viola, Op. 25 (ii)



Piano Sonata, Op. 10/3 (i)



Piano Sonata, Op. 28 (i); bar 40 - transition opening



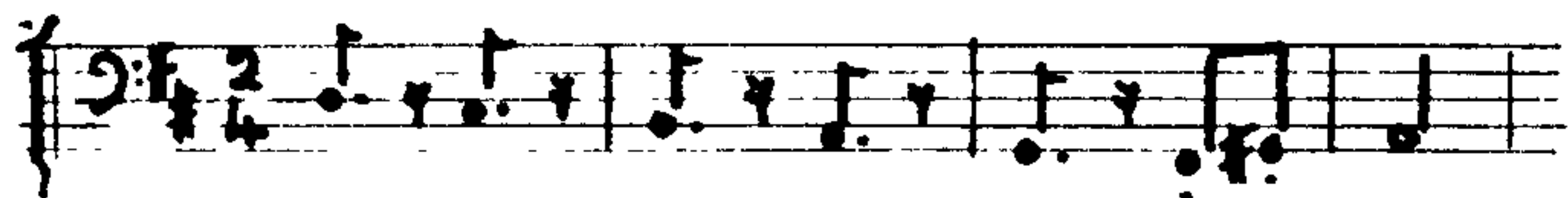
Piano Trio, Op. 70/1 (i)

MISSING

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String Quartet Op. 95 (ii) - 'Cello

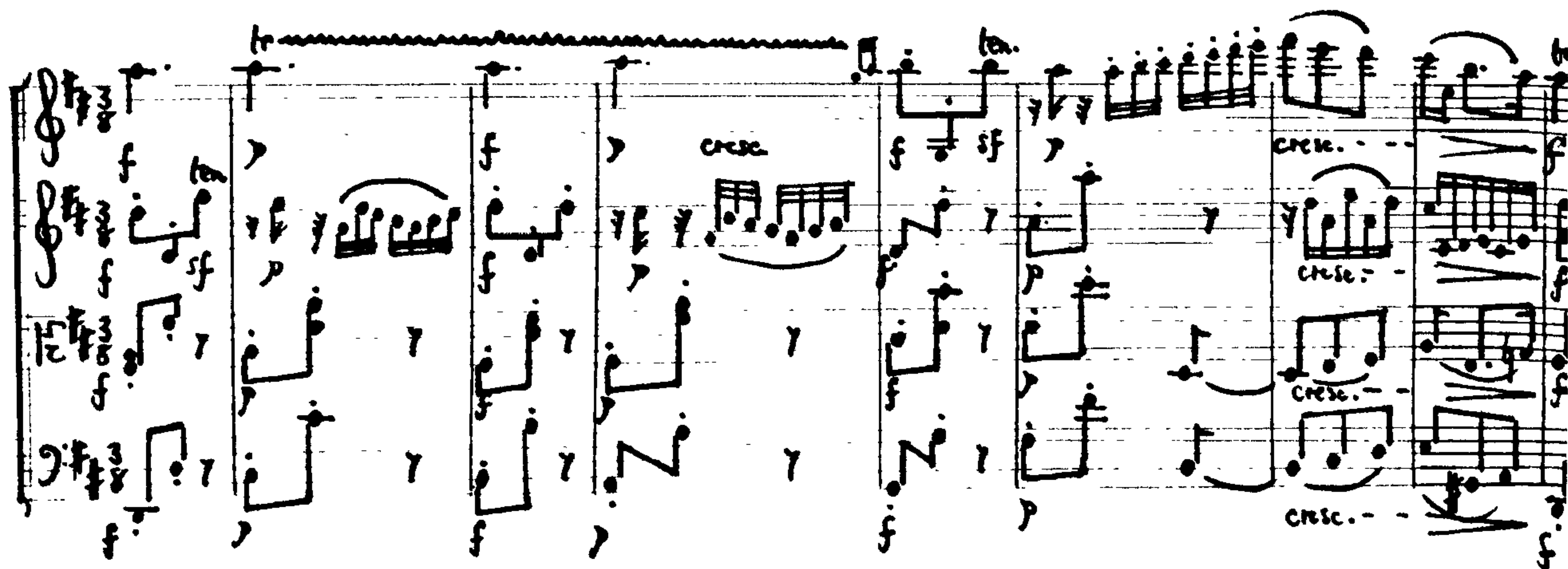
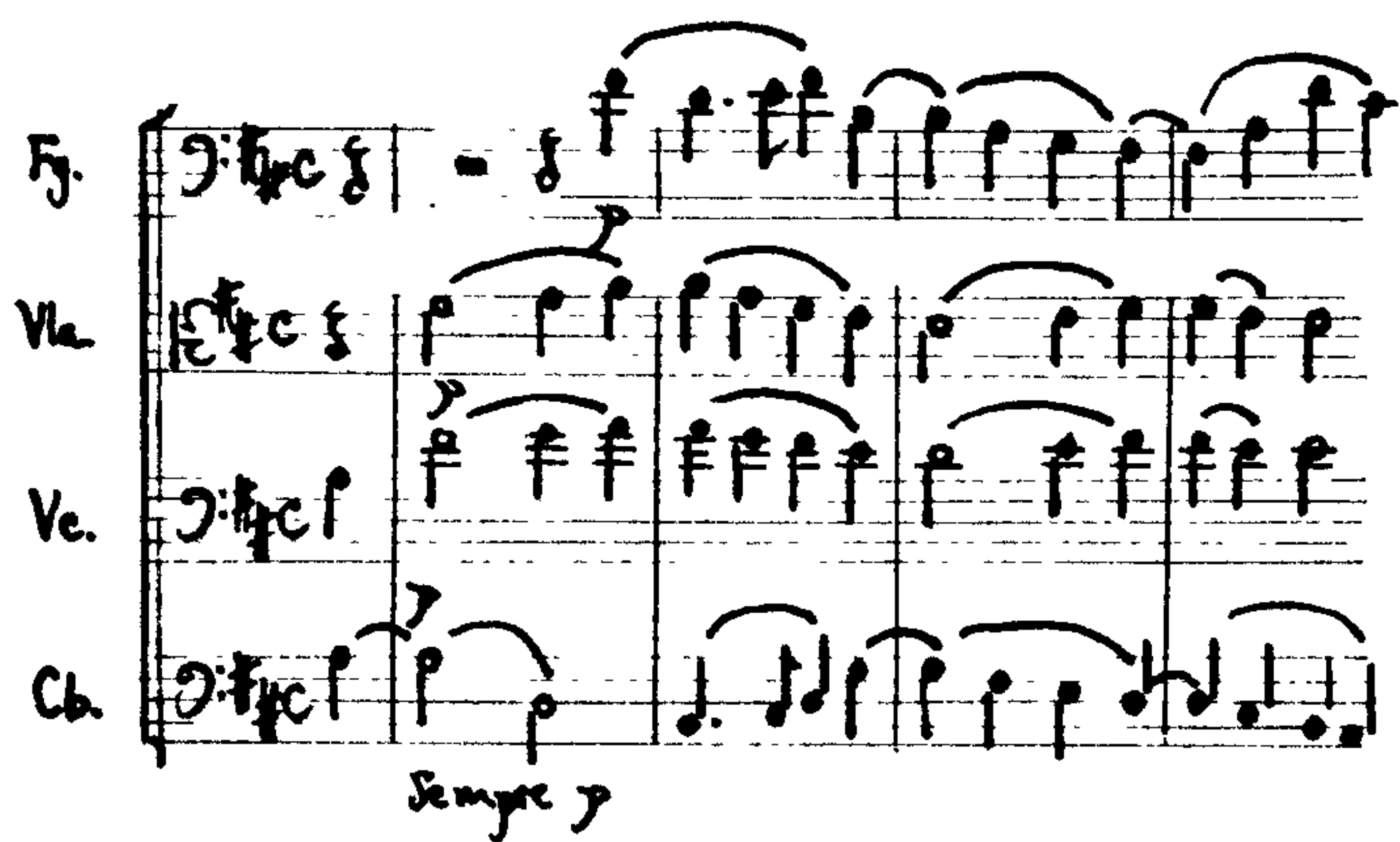
MEZZO VOCE



Sanctus - Missa Solemnis, Op. 123



Symphony No. 9
(Op. 125) - (iv)



String Quartet, Op. 132 (ii)

SECTION 4 - E \flat MAJOR

GROUP (a)

Works in E \flat included in this study

Pre-opus	Piano Quartet (No.74 in Collected Edition-Edwards)
Op. 81b	Wind Sextet
WoO 25	Rondino for Wind Octet
Op. 103	Wind Octet
Op. 1	String Quintet (a reworking of Op.103)
Op. 1/1	Piano Trio
Op. 3	String Trio
Op. 7	Piano Sonata
Op. 16	{ Quintet for Piano and Wind Piano Quartet
Op. 71	Wind Sextet
Op. 12/3	Sonata for Violin and Piano
Op. 20	Septet
Op. 27/1	Piano Sonata
Op. 31/3	Piano Sonata
Op. 55	Symphony No.3
Op. 70/2	Piano Trio
Op. 73	Piano Concerto No.5
Op. 74	String Quartet
Op. 81a	Piano Sonata
Op. 117	Overture to "King Stephen"
Op. 98	Song-cycle: "An die Ferne Geliebte"
Op. 127	String Quartet

GROUP (b)

Movements or sections in E \flat , in a basically different tonality included in this study

				KEY OF WORK	RELATIVE KEY OF ITEM
Op. 1/3	(ii)	E \flat	Piano Trio	c	III
Op. 19	(ii)	E \flat	Piano Concerto No.2	B \flat	IV
Op. 11	(ii)	E \flat	Trio for Piano, Clarinet and 'cello	B \flat	IV
Op. 18/6	(ii)	E \flat	String Quartet	B \flat	IV
Op. 22	(ii)	E \flat	Piano Sonata	B \flat	IV
Op. 30/3	(ii)	E \flat	Sonata for Violin and Piano	G	VI
Op. 60	(ii)	E \flat	Symphony No.4	B \flat	IV
Op. 96	(ii)	E \flat	Sonata for Violin and Piano	G	VI
	(iii)	g/E \flat	Piano		i: VI
Op.126	No.3	E \flat	Bagatelles		
	No.6	E \flat			
Op.130	(v)	E \flat	String Quartet	B \flat	IV

Beethoven's predilection for the tonality of E \flat is well known. E \flat is indeed the key most used as basic tonic in his oeuvre. This suggests that for Beethoven particular significance attaches to this tonality, but such factors have not been evaluated as significant in assessing the rôle of tonality in his music. It emerged in the course of the discussion of the Basic Key-Categories that each tonality is characterised by individuality in the matter of basic tonal relationships, a fact which indicates the existence of tonal complexes relating to specific key-locations.¹ Although there are more works in E \flat than in any other key in Beethoven's oeuvre, a distinct and persisting tonal complex is in evidence from the early Chamber Music to the late Quartet Op.127. Certain tonal tendencies do gain more prominence in the later works but this is linked to stylistic developments in the handling of the formal vehicle and does not detract from the tonal consistency characterising the whole corpus of the E \flat music. That there is this consistency suggests that the functioning of tonality in Beethoven's music relates in fundamental ways to key-location and is not the product of the volume of music composed in a particular key.² It further suggests that not only are there individual tonal complexes relating to specific tonalities but that the particular tonal references which characterise and constitute these complexes are inherent.

1 See Pp. 48-52 (passim) above.

2 Conversely, however, the incidence of a particular key in a basic capacity (or indeed in other tonal contexts) is itself the functioning of a tonal preference as implied in the opening comments here.

Attention was drawn to a particular failure to recognise the functioning of tonal references in relation to the early E \flat Chamber Music in the discussion of the Basic Key-Categories.¹ That Marion Scott's comment is not representative even of the E \flat music composed up to and including the Septet Op.20 (the period under discussion when this observation is made) may be seen from the list of works in E \flat given above.² Of these eleven works, five include no Wind whatsoever.³ The ratio of works in E \flat without Wind increases overall to two-thirds, as indicated in the earlier discussion. Technical factors alone do not account for the high proportion of works in E \flat ; rather, tonal references are functioning on the level of the selection of the basic tonality. The choice of E \flat as the tonality most preferred by Beethoven in this capacity is itself the expression of a specific and particular tonal reference.

On a more general level a notable feature which indicates that a particular structural tendency may be tonally-related has been overlooked. This concerns the incidence of slow introductions. Of the twenty works in E \flat ⁴ nine open with a slow introduction; there is in addition a finale with a slow introductory section (in the Septet, Op.20) and the Piano Concerto No.5 includes a slow pre-statement of the Rondo theme. Thus there are ten slow introductions in all, excluding the Piano Concerto treatment.

1 P.49 above (the quotation referred to in the present discussion is given there.)

2 P.237.

3 This is to omit the reworking of Op.103 for String Quintet and the rescoring of Op.16 for Piano Quartet; their inclusion would further reduce the incidence of Wind.

4 This excludes the Overture, the Song-cycle and the re-scoring of Op.16; it includes Op.4 which is a reworking of Op.103 and differs in important ways from the Octet.

Comparison with usage in other keys reveals that this number is far in excess of the proportion of slow introductions evident in other tonalities. In C there are two slow introductions, plus the humorous introduction to the finale of the First Symphony and the introductory C treatment prefacing the Allegro in a in the 'Cello Sonata Op.102/1. This is out of a total of eleven works relevant to this consideration. In ten such works in G there are two slow introductions; in fourteen D works where comparison can be made there is one slow introduction. The incidence in E \flat is outstandingly high, a fact not wholly accounted for by the fanfare-like openings of works involving brass as the frequency of slow introductions increases with the later E \flat works, which include no wind. These variations suggest that an apparently formal feature may be directly related to key-location.¹

The tonality of E \flat is characterised by wide-ranging tonal relationships internally in the music, but these are hardly in evidence either on the large-scale level of sectional relationships or on the level of the initial thematic structure. Particular emphasis of the subdominant, the flattened submediant, the relative minor and wide-ranging development treatment including tonally remote episodic treatment are among the more notable of the tonal tendencies apparent structurally in the E \flat music; on the level of the initial thematic treatment a particular complex is in evidence but this does not reflect the hierarchy of relationships which characterise the larger-scale structural levels, with the exception of particular emphasis of the subdominant. The tonal-thematic complex is more fully discussed preceding the Group (a) and Group (b) analyses below.

Concerning the Group (b) works there is noticeably less variety in the relationships apparent than is the case in the comparable D Group (b) context. E \flat stands in subdominant relation to B \flat in six of the ten items where such comparison may be made; this reflects the strong subdominant tendency which characterises E \flat in notable ways. The three instances where E \flat is the flattened submediant in relation to a basic G tonality

1 Cf. the Introduction to the thesis, Section II - Tonality: The Conventional Analytical Approach (Pp.6-10), including the example of a similar instance relating to the tonality of A (P.10; Footnote 1).

also reflect a notable tendency - G/F¹; E^b stands as relative major in the remaining work. Although the tonal vocabulary functioning internally in the E^b music is very wide-ranging, this is not reflected in the basic sectional relationships; this variation is one aspect of the particular individuality which characterises the tonality of E^b. The Group (a) and (b) tonal-thematic analyses do not explore what are perhaps the most characteristic features peculiar to E^b usage, but the scope of examination is widened to include some consideration of these where relevant; additional material illustrating tonal features characteristic of both Group (a) and (b) contexts is also appended following the analyses.

THE BASIC FEATURES IN AN E^b CONTEXT

As the introduction to the examination of tonal-thematic features in E^b has suggested, the most characteristic tonal factors relating to and distinguishing this key are not generally in evidence in the initial thematic treatment. The tonal-thematic complex in E^b does not comprise a wide-ranging series of characteristics and reveals little of the notable tonal tendencies which emerge on the larger-scale structural levels and which are integral to the tonality of E^b in Beethoven's oeuvre. There is individuality in the thematic structure however, unparalleled in other keys. There are some features common to both the Group (a) and the Group (b) themes, notably the submediant as an emphatic melodic apex, and particular emphasis of the supertonic. The Group (a) themes are characterised by a more marked subdominant emphasis whereas the Group (b) themes are strongly mediant-centred (in terms of degree-emphasis²).

1 See above, P.101.

2 Although mediant-centrality has emerged as peculiarly characteristic in G, as has the subdominant, and step-wise movement in relation to D, these features are characteristic of E^b usage in ways peculiar to this tonality as will emerge in the subsequent considerations.

The tonic arpeggio is particularly characteristic of the Group (a) context; the Group (b) themes tend to step-wise movement rather than to tonic-triadic structure. An additional common feature is the pronounced tendency to chromaticism in the E^b themes; this is discussed following the main tonal-thematic analyses. It is a feature which extends beyond the level of thematic structure, frequently occurring as an important element in thematic resolution in Coda treatment.¹

GROUP (a) THEMATIC FEATURES IN E^b

THE USE OF THE SUPERTONIC IN THE E^b (GROUP (a)) THEMES

The supertonic has emerged as a significant tonal-thematic feature characterising the tonalities of C and D, but in differing usage in each key. This is unquestionably more emphatic in C; indeed the supertonic is more prominent thematically in C than in any other key. The rôle of the supertonic in E^b is in some ways comparable with D usage. Both tonalities use the secondary seventh on the supertonic (11⁷), although in D this chord frequently occurs early in the thematic statement and not as a tonally reorientating pivot as is the case in C. In E^b the use of this chord is unobtrusive (as it is in D). There is however a degree of harmonic emphasis of the supertonic evident in E^b which differentiates E^b from D usage. There is a notable tendency to move into the key of f as the first move away from the tonic in E^b works, or following E^b in other tonal contexts. This tonal move seems to be particularly accessible to Beethoven in relation to E^b. In some cases there is harmonic emphasis of the supertonic in the course of the thematic statement; in others supertonic emphasis is less conspicuous. Particular melodic emphasis is linked with this tendency, occurring at various stages in the thematic statement.

1 See the note on thematic resolution, P.47, Footnote 2 above.

The rôle of the supertonic in the Group (a) $E\flat$ themes is examined in relation to harmonic and melodic emphasis respectively.

i harmonic emphasis of the supertonic

Supertonic emphasis in the $E\flat$ themes occurs at various stages in the thematic statement, both harmonically and melodically. The instances of harmonic emphasis are treated in two main groups, bringing together types of usage contextually. These relate to harmonic emphasis of the supertonic early in the thematic statement in category (a) and in the course of the thematic statement in category (b).

(a) There are a number of instances in the Group (a) $E\flat$ themes where the supertonic occurs in close relationship with the tonic in the opening treatment. The secondary seventh on the supertonic (11^7) is frequently in evidence at this point where such emphasis is apparent. The themes relevant to this section are exx. 1-12 of the Group (a) $E\flat$ themes.¹

Example 1, (a slow introduction) includes an interruption into a characteristic of such opening sections in $E\flat$. But preceding this in bar 2, the supertonic $\left. \begin{matrix} 7 \\ 3 \end{matrix} \right\}$ occurs immediately following the tonic. This is an early work (1735) and the opening is rather four-square; thematically it is remarkably similar to the theme of the slow movement (in $E\flat$) of the Second Piano Concerto (in $B\flat$, Op.19). This work was composed at about the same time as the Pre-opus Piano Quartet although it was reworked by Beethoven in 1800.²

Example 2 from the Octet Op.103 is a characteristic $E\flat$ opening, harmonically. There is marked emphasis of the subdominant, but this extends into a supertonic inflection, followed by the dominant.

1 See the main Thematic Index for the Group (a) $E\flat$ themes in the Supplementary Volume, P.61 et seq.

2 These themes are correlated below in the course of the Group (b) tonal-thematic analysis and in connection with other $E\flat$ themes. (P.293 et seq.)

Example 3 follows a movement in $A\flat$; it is tonally uncommitted at the outset, but moves through a supertonic inflection to the home dominant; the repeat cadences in $E\flat$. The supertonic seems to bear a particular relationship to the dominant in $E\flat$. Similar tendencies are evident in exx. 4 and 10a of the present themes. Ex. 4 in effect compresses ex. 3, using the same opening thematic cell; the harmony here uses the supertonic unobtrusively, but it is pivotal in establishing the tonality (bars 3 and 6). Ex. 10a is the opening of the Piano Trio Op. 70/2 (a slow introduction); once again it is tonally uncommitted but the same nuance (the supertonic inflection extending onto the dominant) is used and emerges retrospectively as relating to $E\flat$. Although the aural effect is one of mystery, the opening of the Piano Trio reflects tonal features which are characteristic in an $E\flat$ context.

Example 4 is notable in other respects. The thematic cell and the subdominant emphasis are typical of $E\flat$ usage and give rise to tonal linking peculiarly characteristic of $E\flat$ works. In the present movement, the reprise is via a tonal link which makes use of the 'ambivalence' of this opening.¹

Example 5 is also from a slow introduction. Following the tonic fanfare the supertonic is the first harmonic contrast, leading to 11^7 emphasis. Bars 6-7 reiterate the supertonic $\frac{7}{3}$ more forcefully, culminating in a characteristic move onto the dominant, with $\flat 6$ (degree) emphasis. Ex. 7 is very similar; an emphatic tonic opening is followed by equally emphatic supertonic $\frac{7}{3}$ usage, here followed by the subdominant before moving onto the dominant comparably with ex. 5.

Example 6 opens with a flourish of arpeggios- tonic to dominant and dominant to tonic. Bars 4-5 introduce melodic material, and it is here that the supertonic $\frac{7}{3}$ again immediately follows the tonic. This becomes a true inflection in the repeat of this material (bars 9-10).²

1 See bars 225-230; also P. 258 below where a list of comparable instances in other $E\flat$ works is given.

2 Note the move onto the dominant, bars 11-12.

Example 8 goes one step further; the entire work, the Piano Sonata Op.31/3, opens with the supertonic secondary seventh. This proceeds to a tonic cadence via notable use of chromaticism. The opening of this Sonata, considered singly and without reference to other $E\flat$ usage, is generally regarded as part of the "new style" of which Beethoven was himself so aware at the time of this set of Sonatas. However, examination of the earlier $E\flat$ works shows that the newness does not entail the introduction of new tonal vocabulary but that the elements comprising bars 1-3 are those which characterise the basic definition of the tonality of $E\flat$. The supertonic emphasis is one such element. The rising bass progression in ex.8 is also paralleled by similar treatment in exx.1,5,6 and 7. The Op. 31/3 Sonata effectively contains its slow introduction as an integral part of the Allegro, but the tonal-thematic structure is consistent with earlier $E\flat$ usage.

Example 9, from the finale of the same work, includes a supertonic inflection, used as a dominant enhancement. Ex.10b (from the Allegro succeeding ex.10a) confirms the tonality of $E\flat$, and integral to this confirmation is the supertonic $\frac{7}{3}$ which occurs immediately, characterising both the harmonic and melodic structure. Supertonic emphasis recurs throughout the thematic paragraph, and is discussed further in category (b) below.

Example 11 is the finale-opening of the Piano Sonata Op.81a ("Les Adieux"). There is supertonic inflection sequentially following the initial tonic. This is not like the large-scale supertonic sequences which structure the C themes but is a tonal "sideslip" in the course of the opening period and particularly accessible to Beethoven in $E\flat$, as part of the definition of this specific tonality. The supertonic inflection is smoothly absorbed into the home dominant.

Example 12 follows a Song in C in the continuous Song-cycle Op.98. $E\flat$ is re-established in bars 1-2; the supertonic immediately ensues (it is reinforced, becoming the full $\frac{7}{3}$ in the restatement of this material, following the voice-entry).

These examples show that the supertonic, frequently as a $\frac{7}{3}$ harmonically, is integral to the initial definition of the tonality of $E\flat$. It is not conspicuously used and is not as

prominent a feature of the thematic openings as is the case in C. But it contributes to the lyricism peculiar to so many E \flat themes, a quality which has often drawn the attention of commentators on Beethoven's music. Both the supertonic and the subdominant have a "softening" effect and avoid strong contrasts. The supertonic is used with subtlety in E \flat ; this is not to suggest deliberateness on Beethoven's part but rather that the tonal-thematic complex inherent (for Beethoven) in the tonality of E \flat qualified his handling of the "conventional" harmonic relationships. This lends particular emphasis to the supertonic and creates its rôle in relation to E \flat as tonic. Harmonically this rôle of the supertonic is peculiar to E \flat usage and is integral to the basic framework of key-definition and thematic structure characterising this tonality.¹

(b) Although there are instances of the supertonic occurring momentarily in a thematic statement (such as in bars 7-8 of the Rondino for Wind Octet) or prefacing a cadence, these are not included in the present considerations. The examples treated here are given as exx. 13-27 of the Group (a) Thematic Index² and instance the supertonic as an important structural element in the thematic statement. It is apparent as such in the themes, with varying emphasis, but in three cases the supertonic comprises the climax or central focus of an entire thematic paragraph. (Ex. 6 displays a similar tendency on a smaller scale). The themes fall into three groups according to the type of emphasis apparent - exx. 13 (13a) and 14 (14a); exx. 15 - 21; exx. 22 - 27.

1 The melodic aspects of supertonic emphasis in the thematic structure are discussed below.

2 Supplementary Volume, P. 63 et seq.

Examples 13 and 14 are from the String Quintet Op.4 which is a reworking of the Wind Octet, Op.103. Exx. 13a and 14a give the parallel excerpts from Op.103. The earlier Octet examples do not evince supertonic emphasis but, as with other aspects of the two versions, comparison reveals interesting differences. In exx.13a and 14a the tonic-dominant basis is clear. The characteristic "horn-call" figure in ex.14a suggests that technical (and traditional) considerations may well have shaped this theme. In ex.14 however it is interesting that with the horns no longer participating Beethoven proceeds to the supertonic so easily and so soon. Similarly in ex.13 the second phrase repeats the opening (motivically) but as a sequence in the supertonic. Although the Op.103 openings do not use supertonic emphasis, characteristic tonal references shape both the Op.103 and Op.4 contexts (note the subdominant emphasis in ex.13a). The differences apparent on the larger-scale levels in both works are also illuminating, but tonally they are differences in the application of a consistent tonal complex.¹

Examples 15 - 21 are instances where the harmonic emphasis of the supertonic is not pronounced but is integral to the treatment, with thematic emphasis or inflection adding to its importance in the thematic structure.² The melodic line is shaped by supertonic emphasis in exx.16, 18 (where it acquires added emphasis with each occurrence, both melodically and rhythmically) 20 and 21. Ex.19 includes the famous C# of the opening of the

1 In the String Quintet version there is a second trio; This is in A \flat and affords comparison with other A \flat contexts in E \flat works. The turn to F \flat is paralleled in the Piano Trio, Op.70/2 (iii), and in the String Quartet Op.127 (ii). There is similar use of F \flat in an A \flat context in the opening movement of the Piano Sonata Op.110. While F \flat occurs in relation to A \flat in these varying contexts, it also functions in particular ways in relation to E \flat . (See for instance the closing stages of Op.1/1 (iv), Op.7 (iv) and Op.127 (iv)). The chain of falling thirds apparent in E \flat also gives rise to the successive tonalities of E \flat , C, A \flat and F \flat in the finale of the Piano Concert No.5, comparably with the procedure apparent in Op.127(iv).

2 The supertonic emphasis referred to here is marked in the Thematic Index by a bracket above the staff in exx.15-21 (Supplementary Volume, P.64-7) as indicated there. (P.57)

Eroica Symphony. Aurally this chromatic note sounds as D \flat until the bass rises and retrospectively reveals its function in this context as that of C \sharp . Emphasis of the flattened seventh degree (D \flat) is characteristic in E \flat as will emerge in later considerations, and for Beethoven could easily preface subdominant or supertonic emphasis, or a tonal move into either respective key (A \flat or f; indeed the Recapitulation treatment of the C \sharp in the Third Symphony is its resolution, as D \flat , into the key of f.) It is interesting to note that there are at least two similar instances of this same C \sharp /D \flat "paradox" in E \flat usage. These occur in the minuet of the Piano Sonata Op. 31/3 (at bar 7) and in the opening Allegro of the Piano Trio Op. 70/2 (bar 4, in the 'Cello line).¹ The instance in Op. 70/2 is the first statement of an important thematic cell; it is interesting that this cell springs from this apparently idiosyncratic tendency.²

The third group of themes relevant here, exx. 22-27, evince what may be termed 'focal' emphasis of the supertonic. To a varying extent in these themes the supertonic constitutes the focus of the entire thematic paragraph or of the thematic statement, as the melodic apex, the harmonic climax or as the vehicle of both. Exx. 22, 24 and 25 are the most notable instances where the supertonic is the central focus, harmonically and melodically, in the thematic treatment.

Example 22, the "minuet" from the Piano Sonata Op. 7 is in fact an exposition of a number of tonal characteristics which distinguish the tonality of E \flat , of which the supertonic usage is one. The supertonic "emerges" after the double-bar (the dominant has been reached) and is the focus of the middle-section in the overall ABA structure of the minuet. The climax of the

1 These two thematic paragraphs comprise exx. 18 and 27 respectively of the present themes.

2 That it recurs in a number of E \flat contexts suggests that such an idiosyncrasy is primarily related to key-location and indicates the functioning of a consistent tonal complex and thus qualifies any notion of whimsicality.

'B' section is the resolution into the supertonic which also gives rise to new melodic treatment. The return to 'A' is simply effected, the supertonic characteristically blending into the home dominant. The harmonic progression I-V-I is everywhere apparent in all tonal music, but the particular rôle of the supertonic in E \flat in Beethoven's music is such that it is at times elevated as the vehicle of climax in the thematic treatment. Before leaving ex.22 attention must be drawn to the C \flat emphasis which occurs in the repeat of 'A'. This is a definitive E \flat characteristic here remarkably used.¹

The supertonic occurs comparably with ex.22 in the Trio, ex.24 (following the Scherzo movement of the Septet, Op.20). Again the overall melodic structure falls basically into an A-A scheme and the supertonic forms the harmonic climax of 'B'. Following the move into the dominant, there is a tonal progression through the tonic, extending beyond the subdominant emphasis (note the D \flat) into the supertonic at the main melodic apex. The progressively falling bass halts here, on the supertonic, and subsequently rises onto the home dominant.

Although ex.25 is the opening of the Piano Sonata (quasi una Fantasia) Op.27/1, a Sonata which presents particular problems formally, the structure of the Andante is again ternary (ABA). Bar 9 (disregarding the repeats) begins the 'B' section. The first four bars remain in the tonic, but are followed by a direct E \flat /C tonal juxtaposition. The rising sixth melodically which precedes the major submediant harmony exactly reproduces the beginning of the 'B' section, enhancing the impression of E \flat /C tonal juxtaposition. This emphasis is absorbed into a climax, harmonically and melodically, in the supertonic,^{the} major submediant functioning as the dominant of the supertonic. This function is however only retrospectively perceived and the fact of a direct juxtaposition of the tonic and the major submediant (E \flat /C) cannot be overlooked. That there is a distinct tendency to C emphasis in a basic E \flat has been indicated above and has emerged in

1 The closing submediant/subdominant emphases also reflect particular E \flat tonal tendencies.

various contexts.¹ The insistence on the chord of the major submediant in Op.27/1 tends to render it as dominant, but despite its ensuing rôle, the aural impression of a direct tonal juxtaposition has occurred. Although C is not established as a key until the following Allegro section, the incidence of the major submediant in the Andante reflects the same tonal tendency as occasions the subsequent E^b/C tonal juxtaposition between the sections.²

In the remaining themes in this group, exx. 23, 26 and 27, the supertonic is not as emphatic a focal point, but is integral to the thematic structure. In ex. 23 the supertonic is used as a pivot harmonically, both absorbing and redirecting the submediant inflection onto the dominant (bars 3-16). The dynamic treatment lends emphasis to the supertonic harmonically. A notable feature of this thematic paragraph is the importance of the submediant degree as a melodic apex. This is a characteristic feature of the E^b themes; in ex. 23 the submediant is in effect sustained for two bars and one beat as the main melodic apex. It recurs in the closing bars of the thematic paragraph.

Ex. 26 consists of the entire opening thematic paragraph of the Piano Sonata Op.31/3; the initial emphasis of the supertonic in this movement was indicated in (a) above.³ The repeat of the first eight bars in the higher register retains the supertonic ⁷/₃ emphasis (although the root is missing from the harmony, thus tending to subdominant emphasis⁴).

- 1 See Pp.52, 55-6, 89-90. Reference may also be made to Appendix I - Pp.328, 334-5 and 338.
- 2 Tovey's interpretation of this juxtaposition rightly calls attention to the emphasis of the supertonic. However he also overlooks the tonal significance of both features (the E^b/C and supertonic emphasis) and the consistency with which they are apparent in E^b contexts. (See his "Beethoven", O.U.P. paperback; reprinted 1971; P.36. It is clear from the ensuing discussion that Tovey did not relate tonal procedure to key-location, but that his interpretation is always in terms of parallel degree-relationships.)
- 3 P.245 (The opening bars of this Sonata are given as Ex. 8 in the main Group (a) Thematic Index).
- 4 Concerning the importance of the subdominant emphasis in this thematic treatment and in other E^b contexts, reference may be made to P.257-8 and the material collated there.

In the continuation treatment (bars 18-25) the opening thematic cell is transposed and initiates a compact 4-bar period which 'resolves' this falling fifth melodically by a progressive increase in the intervallic fall with each successive bar. The harmonic structure underlying this is notable; the transposition of the motif gives rise to clear subdominant emphasis but the focus of the four bars again revolves around the supertonic $\frac{7}{3}$. The four bars are repeated with new melodic figuration and modification of the rhythmic structure of the cell. (It is interesting that the ensuing bars also build down to the dominant through the supertonic.)

Example 27 shares a number of features in common with ex.26. It evinces initial emphasis of the supertonic harmonically,¹ and subsequently juxtaposes subdominant and supertonic emphasis. Bars 9-20 of ex.27 comprise the continuation treatment in the thematic paragraph. This is initiated by the thematic cell including the 'idiosyncratic C#', and proceeds to subdominant emphasis; the new melodic cell to which it gives rise is stated as in $A\flat$ followed immediately by an f statement which extends characteristically into tonic cadential treatment.² This $A\flat$ /f link is notable in $T\flat$ both with respect to the tendency to subdominant and supertonic emphasis which is inherent in the $E\flat$ tonal-thematic complex and also as part of a distinctive tonal chain of thirds which is apparent in larger-scale structure in $E\flat$ movements.

1 as discussed with reference to the excerpt from this opening, ex.10b, P.245 above.

2 This is not to suggest modulation within the $E\flat$ statement; rather is a pronounced degree of emphasis of the subdominant and of the supertonic inherent to the definition of the tonality of $E\flat$. What constitutes "modulation" is to some extent subjective. Analytically there consequently remains an area which is inevitably susceptible to interpretation. (See the Introduction to the thesis, Pp. 3-5).

The instances of harmonic emphasis of the supertonic discussed in sections(a) and (b) are not exhaustive; harmonic inflection is apparent elsewhere in the themes. That it is used in so integral a capacity in the examples cited above and in a variety of contexts structurally in the themes, together with the frequency of its occurrence, are factors which indicate that harmonic emphasis of the supertonic is inherent to the tonal-thematic complex in E \flat .

ii melodic emphasis of the supertonic

Harmonic emphasis of the supertonic structures the Group (a) E \flat themes in various ways as has emerged above; that supertonic emphasis is indeed integral to the E \flat tonal-thematic complex is further indicated by the tendency to melodic emphasis of the supertonic in structuring the melodic line which is apparent in the themes. Such melodic shaping occurs in connection with supertonic harmony but is also in evidence with other harmonic structure. It is the more notable in that it is frequently used as a new melodic cell in the thematic statement and is not solely the product of sequential repetition. Melodic emphasis of the supertonic is most obvious where the structure employs sequential repetition on the supertonic (or even in the supertonic - such harmonic inflection is particularly accessible in E \flat). This is the case in exx. 6,11,14,16,19,29 (although the supertonic emphasis here extends into new melodic treatment, linking back to the tonic) and 30¹.

The instances of a new melodic cell structured by the supertonic are less obvious in the thematic treatment but the fact that there is so remarkable a degree of "melodic reflection" of the supertonic, independent of sequential structuring, suggests how integral to the basic tonal-thematic complex the supertonic is in E \flat . The majority of these instances occur in connection with supertonic harmony, in exx. 1,8 (=26), 10a(=27),12,15,17,18, 20,21,22,23,29,31 and 32. The element of melodic reflection is

1 All instances relevant to the present section are bracketed above the staff in the themes as indicated in the Thematic Index (Supplementary Volume, P.57.)

not strong in exx.15,17 and 18 but in all three the supertonic stands in a particularly close relationship with the tonic. The harmonic inflection in ex.17 is the strongest constituent in the supertonic emphasis in this opening; the melodic line acquires its supertonic relationship from this inflection; that the supertonic here stands in close relationship with the tonic is evinced by the conciseness of the inflection.¹

The use of the supertonic to structure a new melodic cell is integral to the thematic treatment where it recurs and also extends into what may be termed "linear" emphasis in exx.12,21,31 and 32. The harmonic structure underpinning the instances in exx.31 and 32 is of particular interest. The subdominant/supertonic tendency is evident in ex.31, with emphatic supertonic $\frac{7}{3}$ usage in the closing bars. At the penultimate bar the dominant is sounded against this suspended harmony and the resultant chord is one which becomes particularly characteristic in the later $E\flat$ music. Ex.32 is a very clear instance of this harmonic structuring; reference may also be made to ex. 34 and bar 2 of the Allegro where rhythmic and dynamic stress focus on this notable 'tonal fingerprint' of the $E\flat$ music.²

Concerning the melodic emphasis in ex. 22, the pronounced harmonic emphasis of the supertonic leads to new melodic treatment in the middle-section of the 'minuet' as indicated previously. It is of interest to note the structure of the opening

1 Reference was made above to the progressively more prominent use of the supertonic, harmonically and melodically, in the course of ex.18 (see P. 247). It becomes an important melodic cell, enhancing the climax and cadence in both sections of the Minuet.

2 While it gains prominence in these themes from the later music this tendency is in evidence in the early $E\flat$ music. The opening of the String Trio Op.3 focuses on a tonic-supertonic move in the bass, and the harmonic treatment contains the seeds of the supertonic+dominant (degree) tendency. See also the openings of Op.7 (iv), Op.12/3 (i) (ex.6).

of the movement. The melodic line in bars 4-7 repeats the thematic cell, rhythmically, beginning a third lower with each successive statement. Thus the supertonic $\frac{7}{3}$ is outlined. How far this is a melodic reflection of the evident tendency to supertonic emphasis of various kinds which there is in the $E\flat$ themes is open to interpretation. The treatment here is however similar to that in ex. 16 and indeed in the finale of the Op. 7 Piano Sonata, which uses the same process of descending thirds at the beginning of each bar (bars 1-3) again outlining the supertonic $\frac{7}{3}$.

In the majority of the themes which use the supertonic as the framework of a new thematic cell, the emphasis centres on the triad, but with notable variety in the rhythmic structure and in differing contexts in the thematic statement.

Supertonic emphasis is not a prominent feature of the Group (a) $E\flat$ themes. It does pervade the thematic structure however, as an agent both of harmonic and melodic emphasis; the evidence thus suggests that it is an inherent tonal-thematic feature in the $E\flat$ complex.

II SUBDOMINANT EMPHASIS IN THE $E\flat$ (GROUP (a)) THEMES

Particular emphasis of the subdominant characterises the $E\flat$ music on various levels. The subdominant frequently occurs as an important development key and is also used to effect a tonal or tonal-thematic link structurally, either directly (via tonal-thematic emphasis) or by way of its own minor, preceding the home-dominant ($\flat 6$ degree-emphasis is often notable in such contexts). On the level of the thematic structure there is a tendency to particular emphasis of the subdominant initially, but subdominant emphasis more frequently occurs in the course of the thematic statement, as a harmonic focus or inflection. Some of these instances have already become apparent in the examination of supertonic emphasis; the subdominant/supertonic link in $E\flat$ is one which is in evidence both on the level of the thematic structure and on larger-scale structural levels, in various tonal contexts.

The examples of subdominant-emphasis in the Group (a) $E\flat$ themes are examined in two main categories. The first of these treats the initial emphasis of the subdominant evident in a number of the themes and the larger-scale functioning of this apparently tonally-related tendency. The second category correlates other aspects of subdominant emphasis in the thematic treatment.

i initial emphasis of the subdominant

Several of the Group (a) themes open on the subdominant, both melodically and harmonically. This tendency seems to reflect a peculiar aspect of subdominant emphasis in the $E\flat$ tonal complex which functions most emphatically on larger-scale structural levels. Subdominant emphasis early in the thematic treatment is characteristic in $E\flat$, but only those themes which literally open on the subdominant are included here, prior to some discussion of the functioning of this tendency on other levels. They are exx. 3,4,12,33 and 34.

The Scherzo with which ex. 3 begins follows a slow movement in $A\flat$. Thus the opening is somewhat ambivalent, only the grace-note hinting at the change of tonality. That this opening reflects characteristic $E\flat$ treatment however and is not solely a means of tonal linking is suggested by the other instances. The similarity between the melodic line in Exx. 3 and 4 was indicated above.¹ Ex. 4 follows an $E\flat$ movement; the opening quaver is harmonised as subdominant. The importance of the subdominant degree melodically in this opening is emphasised in a characteristic tonal link subsequently in the movement.²

Example 12 is the opening of the final Song in the Song-cycle "An die ferne Geliebte", Op. 98. It follows a Song in C (itself tonally interesting in relation to the preceding $A\flat$).

1 P. 244

2 See below concerning this and other similar instances (P. 253)

The tonality moves through minor (c) emphasis, enhanced by $\flat 6$ degree-emphasis ($A\flat$ in c). The degree of C is then taken as a tonally-linking element and initiates the $E\flat$ melody. The subdominant harmony completes this distinctive thematic shaping.

Examples 33 and 34 are from works in which a slow 'introduction' precedes the first Allegro. The Op.127 Maestoso is in fact treated as an integral and recurring part of the movement (continuing the tendency apparent in the Piano Sonata Op.31/3 (i)¹). The climax of these six bars of the opening Maestoso is on the subdominant, both harmonically and melodically, and the Allegro opening is comparable with ex. 12 in that it is on the subdominant, harmonically and melodically.² The slow introduction in the Piano Sonata, Op.51a, is more extended and includes notable tonal features; motivically it introduces at the outset the basic thematic cell of the first movement. As with the Maestoso of Op.127, there is a direct link into the Allegro and the 'pivot' is again the subdominant, with which the Allegro opens, melodically and harmonically. It is notable that Beethoven prepares this subdominant emphasis, focusing on it harmonically and not building down onto the home dominant in the bass.

The five examples of initial subdominant emphasis occur in a variety of tonal and formal contexts. In only one case (ex.3) does the theme in question follow a separate movement in $A\flat$. In the four remaining examples the subdominant is a focal point thematically and harmonically in a basic $E\flat$ context, especially in exx. 33 and 34. This suggests that the subdominant plays a particular rôle in the tonal-thematic vocabulary in $E\flat$. As suggested above, the tendency to open themes with pronounced

1 The preponderance of slow introductions in $E\flat$ was outlined above (P. 240). Concerning the Op.31/3 example, reference may be made to P. 245 above.

2 The opening of the finale (Op.127) is notable in the light of the tendency under discussion here; following the $E\flat$ scherzo there is no notion of tonal linking. The instances of subdominant emphasis generally in the $E\flat$ themes suggest that tonally-related factors are functioning here. The interpretation of such structural similarity solely in terms of "thematic unity" does not account for the consistency apparent between works.

subdominant emphasis of the kind evident in the present examples is not strong but seems to be related to a distinct preference for the subdominant as a tonally-linking factor on larger-scale structural levels. Clearly the thematic structure is relevant in such usage, but prominent use of the subdominant at these junctures is apparent in numerous contexts and is a preferred agent of tonal-linking harmonically, irrespective of the thematic structure.¹ In some cases there is extended preparation using the subdominant followed by the supertonic in sequential 'blocks' prior to dominant emphasis; this $A\flat/f$ link has been noted as of particular (and ubiquitous) significance in $E\flat$. There is however a developing tendency to "elide" such structured preparation and the nearness of subdominant emphasis in these contexts becomes more apparent. It is sometimes linked with $\flat 6$ degree-emphasis, the minor subdominant acting as a 'pivot' for such emphasis. The following list draws together a number of examples where the subdominant functions as a structural link:

1 The 'junctures' under consideration here concern the approach to reprise of $E\flat$ tonal-thematic material in a variety of formal structures. It may also be mentioned here that concerning the functioning of the subdominant on various levels there is clearly an overlap between the ($E\flat$) tonal complex and the ($E\flat$) tonal-thematic complex. The former encompasses the latter in all keys, but the tonal-thematic complex is not necessarily representative of all aspects of the entire tonal complex characterising a particular tonality. The present enquiry is concerned to establish the existence of tonal hierarchies relating to specific key-location primarily on the thematic level.

- Op. 103 (iv) bars 146-152
- Op. 3 (vi) bars 225-231 (note the $A\flat/f$ link here)
- Cp. 1/1 (iv) bars 131-138 (prefacing the dominant)
- ¹ Cp. 27/1 Allegro vivace
bars 140-154 (minor following $C\flat$ emphasis,
and preceding an $A\flat/f$ move onto
the dominant)
- Cp. 31/3 (i) bars 125-130 (preceding tonal-thematic link
using the supertonic; $A\flat/f$ link here)
- (iv) bars 144-151 (first step in sequential "block"
on IV:II:V thus $A\flat/f$ link apparent)²
- Op. 55 (i) bars 382-391 (minor, following $C\flat$ emphasis)
- Op. 31a (i) bars 103-110 (direct tonal-thematic link into
Recapitulation; cf. Cp. 31/3 (i))
- (iii) bars 107-109 (of the ⁶ elliptical return via
 $A\flat$ emphasis)

As suggested in earlier considerations the subdominant is frequently a notable key in $E\flat$ movements in the context of developmental treatment and its significance generally as a structural focus is particularly notable in $E\flat$. The above examples indicate one facet of subdominant emphasis which in some cases

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- 1 It is interesting to note the overall structure of the closing stages of this Sonata. The Allegro vivace is preceded by an Adagio. This is in $A\flat$ (the f emphasis immediately before the Adagio is notable) but is subsequently integrated into the Allegro vivace, in $E\flat$ (with a significant modification in the apex treatment directly related to $E\flat$ usage). Together with the formal continuity characterising this Sonata, this recurrence suggests that the $A\flat$ treatment is integral, formally and tonally with the Allegro vivace (the indication Tempo I is additional evidence of this). Thus it evinces the tendency to preface $E\flat$ with subdominant emphasis in a notably extended and developed way.
- 2 The 'emphatic' and prolonged preparation is part of the tonal reorientation following the enharmonicism of the development treatment; the particular structure of this tonal reorientation is significant in the light of $E\flat$ usage.

is also expressed in the thematic structure. The list is not exhaustive but does suggest distinct tonal tendencies relating to the rôle of the subdominant in the E \flat tonal complex.¹

Initial emphasis of the subdominant in the five themes correlated above is a reflection in the thematic structure of a tonal tendency which is most significantly in evidence on larger-scale structural levels in the E \flat music.

ii subdominant emphasis in the course of the theme

The degree of emphasis of the subdominant in the course of the theme varies but is basically of two kinds - chromatic or diatonic. Both types overlap with other tonal-thematic features, the former notably with supertonic emphasis (the A \flat /f link) the latter with the pronounced tendency in E \flat to focus on the submediant degree as a melodic apex. There is one theme in Group (a) which concisely brings together these various tendencies - ex.28. The final four bars of this Sonata Rondo theme begin with a rising sixth from the dominant which is notable in certain contexts in the E \flat themes; there is a turn towards submediant inflection which is 'diverted' into subdominant emphasis harmonically; this is the climax melodically and focuses on the submediant degree; the ensuing supertonic inflection was indicated above. Thus the subdominant is emphasised harmonically (diatonically) but is smoothly absorbed into the supertonic preceding the cadence.

1 Joseph Kerman has correlated the opening treatment of Op.81a, Op.31/3 and Op.127 (op.cit. Pp.206-8) but not in relation to their common tonality of E \flat , even though he cites the first two as "the direct precedent" for the last, having mentioned other instances which in fact evince other and tonally-related (to their respective key-locations) linking features, as Haydnesque. That Beethoven's treatment is certainly not of the same kind as Haydn's in such contexts can only be objected here. Kerman's reference to "the paradoxical idea of preparing not the actual key of a theme but the off-tonic sonority on which the theme happens to begin" reveals that his approach to tonal structure in Beethoven's music does not recognise the importance of tonal location. The thematic structure is born of the specific key-location functioning, and thus it is that the themes he brings together come to evince consistency of tonal usage which is according to their tonality, and distinct from instances in other keys, instances which Kerman himself dismisses in favour of three works in the same key. The present list is additional evidence of the consistency apparent in E \flat usage and indicates the primary importance of specific key-location.

Where there is chromatic emphasis of the subdominant this is essentially 'linear' in that it is integral to the harmonic progression in the thematic structure and does not create a melodic focus or climax. It occurs at various stages in the thematic statement, at times as a particularly emphatic 'cadence-formula'; that this conventional rôle is in fact part of a tonal-thematic tendency generally in the themes is suggested by the other instances. The themes evincing chromatic inflection of the subdominant are exx. 2, 13a, 19, ¹24, 27, 31, 37, 38, 39 and 40. (The examples are not given chronologically; also exx. 24 and 39 are from one work, as are exx. 27 and 40.) Of these themes, exx. 2 and 19, exx. 31 and 37 may be grouped together as evincing similar subdominant emphasis. In both pairs the inflection occurs early in the thematic statement but is primarily harmonic in the first two themes; in exx. 31 and 37 it also shapes the melodic structure notably. Ex. 40 is not unlike exx. 31 and 37 but the formal context is one of introduction prior to a definitive statement of the tonality.² These five examples indicate the importance of particular subdominant emphasis in the definition of the tonality of $E\flat$, the variety of formal context lending greater emphasis to the consistency of the tonal vocabulary apparent. Exx. 13a and 39 are both Scherzo openings and evince similar inflection of the subdominant; in exx. 24 and 27 the inflection is structural and in both extends into similar emphasis of the supertonic.

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- 1 The inflection is marked in each example as indicated in the Supplementary Volume (P. 57). The dotted lines in ex. 19 indicate the aural tendency to expect the subdominant. This use of the 'idiosyncratic $C\sharp$ ' was discussed above (P. 248) and is a particular functioning of the tendency to inflection of the subdominant in the $E\flat$ tonal-thematic complex.
- 2 The opening of the Piano Concerto No. 5 and of the Overture Op. 117 reflect the importance of subdominant emphasis in the definition of the tonality of $E\flat$, but in these two instances the emphasis is diatonic and thus the tonal significance has been overlooked and interpreted solely in conventional terms.

The remaining examples of diatonic emphasis of the subdominant are of interest in the light of the distinct tendency to other types of subdominant emphasis evident in the themes. They are exx. 23 (cadential, and subordinate to the submediant apex treatment prominent in this thematic paragraph) 26 (the first occurrence transfers the initial supertonic-based motif;¹ the supertonic is the main structural element but the incidence of the clear subdominant is notable as opening the continuation treatment in the thematic paragraph) 28, 33 (the emphasis here both reflects the tendency to subdominant emphasis in the definition of $E\flat$ in introductory treatment² and links with the thematic emphasis of the subdominant initially in the ensuing Allegro) 35 and 36 (these are from early works; the submediant melodic apex is characteristic, the subdominant emphasis straightforward but notable when compared with the later music).

Subdominant emphasis is not conspicuous in the Group (a) $E\flat$ themes but it emerges as integral to the $E\flat$ tonal-thematic complex and as inherent in the definition of this tonality. That it functions more prominently on larger-scale levels than the level of the thematic structure has been indicated. The rôle of the subdominant in the Group (a) themes is peculiar to $E\flat$ usage; it is in some ways comparable with the use of the supertonic but is not elevated to the position of tonal focus in the thematic paragraph, as is the supertonic. In its unobtrusiveness and the tendency to 'linear' emphasis, the subdominant functions differently from the parallel relationship in G; the subdominant emphasis in G is comparable in type and extent with the rôle of the supertonic in $E\flat$. While neither the supertonic nor the subdominant function prominently in the thematic structure, each functions peculiarly in relation to the tonality of $E\flat$. As with the supertonic, the subdominant is a basic element in the $E\flat$ tonal-thematic complex.

1 See above, Pp 245,250 and, concerning the larger-scale use of both tonal-thematic features, P.258.

2 See the preceding Footnote 2(to P. 260).

III THE TONIC ARPEGGIO AS A NOTABLE THEMATIC SHAPE IN THE E♭ (GROUP (a)) THE ES

In his penetrating study of Beethoven's melodic style, already frequently referred to in the course of the present examination, Paul Mies gives some detailed consideration to the 'tonic chord' (here termed arpeggio or triad) as a thematic shape.¹ However, while he identifies it as a significant thematic shape in Beethoven's usage, and as a notable feature of E♭ melodies in particular ways, his assessment remains on the level of general comment concerning recurrent features, largely irrespective of tonal category. He does include a section entitled "The Character of the Keys"² but this too is approached in general terms. Thus despite thorough and illuminating investigation of characteristic features of Beethoven's melodic style, because he nowhere correlates the music and consequently his own analysis in terms of tonal category, Mies does not become aware that melodic features such as he identifies are relative factors in Beethoven's style, that they bear a differing relationship contextually depending on the specific key-location functioning.³ Concerning the tonic arpeggio in particular he comments on its recurrence in descending motion, as a significant thematic shape. He thus isolates one aspect of the incidence of the tonic triad thematically and in making

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- 1 Op cit., Pp. 135-7; 165 - 6. Mies considers that "in Beethoven's music the key of E♭ is introduced in association with moods denoting ceremonial or else tenderness and grace" (P.180). The use of the descending tonic triad used thematically he links with "ceremonial" and "solemnity", (irrespective of key-location) as a general stylistic feature.
 - 2 Ibid, P.174 et seq. (Chpt. VII (d))
 - 3 This is certainly true of the basic context of the initial thematic treatment which is the main focus of Mies' analysis also and, by implication, relates to the larger-scale levels of structure to which such openings progress and of which they to some extent form the basis.

general comparison irrespective of tonality he inadvertently overlooks the wider consistency apparent in relation to key-location and similarly the differences in usage between tonalities which characterise the melodic treatment in the thematic structure. Clearly his study is instructive and challenging in its insight but it is respectfully suggested that an assessment which is fully representative of the stylistic factors underlying Beethoven's melodic style can only be made on the basis of correlation of the music in terms of key-location. When Beethoven's music is examined in relation to tonal location the evidence suggests that the tonic arpeggio is a thematic shape which is used in particular ways in relation to specific tonalities; thus types of tonic arpeggio emphasis may be differentiated according to specific key-location. Such differences have already become apparent in the investigation of the tonal-thematic complexes in C, G and D. The latter is notable for its lack of tonic-triadic structure; the D themes are extensively characterised by step-wise movement in the thematic treatment, a feature which evidently precludes the use of tonic-triadic emphasis. The rôle of the tonic arpeggio also differs between the tonalities of C and G.¹ E \flat and G are directly comparable in their use of this thematic shape as both tonalities evince a similar incidence.² (There is in addition particular emphasis of the tonic triad in the slow introductions which characterise E \flat and are not paralleled in other tonalities). There are also significant differences

1 For the discussion of the tonic arpeggio as a notable thematic shape in C, reference may be made to Pp. 65-68 (Group (a)) and Pp. 85-88 (Group (b)) and in G to Pp. 114-9 and Pp. 139-41, respectively.

2 Approximately 40% of the Group (a) G themes use initial tonic arpeggio emphasis and nearly 50% of the Group (a) E \flat themes. It is the basis of the entire thematic shape in just under 20% of the G themes and in about 17% of the E \flat themes (Group (a))

between E \flat and G usage. Mediant emphasis which is so notable a tonal-thematic feature in G is characteristic only of the Group (b) E \flat themes;¹ also the tonic-centrality of the G themes is not evident in E \flat . The G themes have a pronounced tendency to move quickly onto the dominant; the E \flat themes are about equally split between a similar tendency and a tendency to cadence in the tonic in the first phrase.

Tonic-triadic emphasis in the Group (a) E \flat themes is treated in two main categories representing the type of usage apparent.

i initial emphasis of the tonic triad

Included in this category are the instances of tonic-triadic structure as the basis of the opening treatment in several of the slow introductions which so notably characterise this tonality. While this treatment is in the nature of a "fanfare", that this is not solely related to the traditional rôle of the brass is suggested both by the extent of tonic-triadic emphasis generally in the E \flat themes and by the fact that it characterises works which include no brass. The instances of initial tonic-triadic emphasis are correlated as exx. 1t - 25t.²

Examples 1t - 3t are the respective openings (melodically) of the Quintet for Piano and Wind, Op.16 (rescored for Piano Quartet), the Wind Sextet Op.71 and the String Quartet Op.127. All occur as the initial treatment in slow introductions. The tonic-triadic emphasis is clear in each case. The marking

1 It also differs in type as discussed in the Group (b) E \flat tonal-thematic analysis below. (P.291 et seq.)

2 These examples follow the main Group (a) E \flat Thematic Index in the Supplementary Volume. (Pp.58; 75-8.)

"Maestoso" heading the Op.127 opening aptly indicates the call to attention and the unequivocal declaration of E \flat tonality which constitute these opening bars.¹

Examples 4t - 25t are given in chronological order of their composition. Although there is a variety of consequent treatment apparent in these themes, they all use the tonic arpeggio as the basis of the initial thematic treatment. The subsequent thematic structure is in some cases shaped by this opening emphasis (as in exx. 7t, 16t and 20t); in others it is in effect a "curtain" establishing the tonality of E \flat but preceding linear treatment melodically (as in exx. 10t, 13t and 18t). Ex. 21t continues the various rôles; this Allegro opening follows the elusive Poco Adagio with which the String Quartet Op.74 begins. It serves both to affirm the tonality of E \flat and to set the first theme of the Allegro in motion, standing as a melodic antecedent and "curtain". A third type of usage may be distinguished in relation to initial tonic-triadic emphasis where the tonic arpeggio functions melodically as an antecedent, and is structured correspondingly in terms of rhythmical distribution. This is so in exx. 4t (the tonic-triadic emphasis here extends into the second phrase) 6t/1 and /2, 8t, 11t, 12t, 14t, 19t, 23t and 25t.

Of the remaining themes in this group, exx. 5t, 9t, 17t and 20t incorporate initial tonic-triadic emphasis into more lyrical themes (the first three are in moderate tempi). It is notable that this thematic shape remains integral despite the different mood of these four themes. Exx. 15t and 22t were not included above as the emphasis apparent in these two themes is combined with other elements thematically; nevertheless the tonic arpeggio

1 The bass rise from E \flat to F (bars 1-2) is particularly interesting in the light of the relationship between the tonic and supertonic in E \flat . (See above P. 243). The structural similarity with the opening bars of the String Trio Op.3 is notable and suggests a particular functioning of the supertonic in relation to E \flat , underpinning the thematic structure but not extending to harmonic or melodic emphasis.

is evident in both themes, more emphatically in ex. 22t. It is interesting that exx. 15t and 22t do not fall naturally into the groups of usage outlined above but that both themes focus notably on the dominant to tonic rise in the thematic structure. The tonic arpeggio is, as indicated, more extensively used in ex. 22t. Indeed this is one of the themes which Mies cites as demonstrating the significance of the descending common chord.¹ He states that "the determining factor here may be the heroic character of the theme". The use of the tonic triad in this theme is however not as pronounced an emphasis as is the case in the majority of the themes included in the present section: The last movement of this same work (the Piano Concerto No. 5-ex. 23t) is structured solely by the tonic triad in its antecedent, a more emphatic tonic arpeggio focus than is apparent in ex. 22t.² The tonic arpeggio in descending, rising and mixed emphasis is consistently in evidence in the initial thematic treatment in the Group (a) $E\flat$ themes. It functions in various ways but to isolate the use of the descending tonic arpeggio as a thematic shape without reference to the thematic complex characterising individual tonal categories and without regard to specific key-location does not fully represent the rôle of the tonic triad melodically in relation to the tonality of $E\flat$. When the themes are correlated tonally the tonic arpeggio emerges as consistently in evidence initially in the thematic treatment in the Group (a) $E\flat$ themes, irrespective of mood and formal context.

1 See above, P.261 and Mies, Op. cit., P.137.

2 The mood here might be termed not so much 'heroic' as 'exultant'. It is recognised that Mies seeks only to qualify one aspect of the use of the tonic triad thematically in such terms but the present examination suggests that in so doing he inevitably overlooks the wider rôle and significance of this thematic shape in the melodic structure.

ii the tonic triad as the basis of the entire thematic shape
A number of the Group (a) themes use the initial tonic-triadic emphasis as the basic shaping factor in the melodic structure as indicated above,¹ but the tonic triad persists throughout the thematic statement in several of the Group (a) themes as the basis of the overall thematic shape. These instances are given as exx. 26t - 29t. The precise rôle of the tonic triad varies between the themes but in all four it is the framework upon which the thematic structure is built. It is least emphatic in ex. 29t, but notable for its incidence following the (tonally significant) initial stress of the subdominant and for the shaping of the step-wise consequent treatment in each period of this thematic statement. In ex. 28t the extended "fanfare"-type opening is particularly arresting; the tonic-triadic emphasis persists into the more lyrical answering phrase however and structures the closing bars. In this persistence of the tonic triad the Piano Trio treatment differs from the examples of fanfare-type treatment and melodic antecedent emphasis (both of which it includes) correlated under section i above.

The tonic triad also structures the greater part of the Sonata Rondo theme, ex. 26t. That this compact theme evinces several characteristic E^b tonal-thematic features has emerged above;² the tonic arpeggio as a significant thematic shape is an additional such feature.

An interesting situation emerges in connection with ex. 27t and its relationship to ex. 22 of the Group (a) G themes.³ Both themes use the same antecedent, the original key of which is indeed G. In each occurrence (that is opening the second-and final-movement of the second of the two "Leichte Sonaten", Op. 49,

1 P. 265.

2 See P. 259 and ex. 28 in the main Group (a) Thematic Index where the supertonic inflection referred to on P. 259 is marked as indicated there. (Supplementary Volume, P. 57.)

3 Ex. 22 of the Group (a) G themes is given on P. 15 of the Supplementary Volume.

and the Minuet in the Septet Op.20) the respective movement is headed "Tempo di Minuetto". Although there are rhythmical differences between the two versions the antecedent treatment is essentially the same. But the subsequent thematic procedure differs in notable and tonally significant ways. The emphasis in the Septet is characteristic in such an E \flat context and also typical (in E \flat) prefacing the modulation into the dominant. However the common ground between the two works is also worthy of note for its tonal interest; this lies in the fact that the theme centres upon tonic-triadic structure, a feature which has already occasioned comparison between the tonalities of G and E \flat in the course of the present considerations, as characterising the thematic structure to a notable extent in both tonalities.¹ In view of the marked preference for tonic-triadic emphasis in the G and the E \flat themes it is indeed interesting that the Op. 49 theme should recur in E \flat .²

Examples 26t — 29t are themes where tonic-triadic emphasis is the main structural component shaping the entire melodic line. This is not the most characteristic use of the tonic triad as a notable thematic shape in the Group (a) E \flat themes but is a particular functioning of the tendency to such emphasis.

There is a high incidence of tonic-triadic emphasis as a significant structural feature in the Group (a) E \flat themes. The frequency of its occurrence suggests that it is a tonal-thematic feature characterising and distinguishing E \flat usage. The similarities with the G tonal complex in this respect have been indicated; there are also interesting differences relating to the tonal-thematic vocabulary apparent in the detailed structure of the themes where the tonic triad is a notable shaping factor. Both the importance of the tonic triad in the Group (a) E \flat themes and the differences in the application of this thematic shape which are evident between E \flat and G usage, E \flat and G being

1 See above, P.263.

2 Other aspects of this theme in relation to the tonality of E \flat emerge in the considerations concluding the examination of the E \flat tonal-thematic complex, following the Group (a) and (b) analyses below. (See P.310.)

directly comparable in this respect, suggest that the tonic arpeggio is tonally-related as a thematic shape in Beethoven's music - that it functions in particular ways relative to key-location.

IV MELODIC APEX IN THE E^b (GROUP (a)) THEMES

There are three preferred main melodic apex degrees in the Group (a) E^b themes - the submediant, the tonic and the dominant, each of which is used distinctively in this tonality. The tonic in fact becomes progressively more prominent in the themes, reflecting a particular development in the thematic structure and in the application of the tonally-related tendency to melodic apex emphasis focusing on the tonic. The three preferred apex degrees are examined individually.

i the submediant as melodic apex

The submediant degree is more prominent as a melodic apex in E^b than in C, G or D. It is evident in a variety of contexts, harmonically and structurally, within the thematic statement. The tendency to sequential repetition on the supertonic of an opening thematic cell or phrase yields a submediant apex in a number of themes. These are the least significant instances of the submediant apex, the particular supertonic emphasis structuring such apices being the more notable tonally-related feature. The submediant apex occurs in such a context in exx. 5, 13, 14 and 11 of the Group (a) E^b themes.¹ It is interesting that in the Octet Op.103, in the context parallel with ex.13 from the String Quintet Op.4, (ex.13a), there is a submediant melodic apex independent of sequential supertonic structure, which is not used in the Op.103 context.²

1 In each group of themes given in the course of the discussion of melodic apex treatment, the examples are cited in chronological order. The present enumeration refers to the main Group (a) E^b Thematic Index; subsequent examples are correlated in an additional compilation as indicated below.

2 Cf. the remarks made above concerning Opp. 4 and 103 (P.247.. Ex.13a is included in the correlation of themes using the submediant as a main melodic apex, in the following discussion).

The submediant functions as an initial (main) melodic apex in exx. 3,4,26 and 27. The harmonic contexts are linked with supertonic or subdominant emphasis¹ but that the submediant is so frequently a main melodic apex in the Group (a) E \flat themes suggests that distinctive melodic tendencies are functioning in these four openings, together with the tonally-related tendencies structuring the themes harmonically. (Ex. 12 also opens on the submediant melodically but initiates a rise to the tonic; the subdominant harmonic emphasis in this opening was discussed above.²)

The submediant occurs in the rôle of a dominant enhancement melodically in two themes. This use of the submediant characterises the D themes to a notable extent; it is not a strong constituent in the melodic structure in E \flat . In the Minuet Section of ex. 15, it is used in this rôle in conjunction with particular emphasis of the supertonic.³ In ex. 31 the submediant apex at bar 6 is also a 'melodic reflection' of particular supertonic emphasis, and the ensuing dominant is the stressed melody note.⁴

There is a considerable number of themes in which the submediant functions as a main melodic apex in the course of the thematic statement. These are correlated as exx. 1m - 16m.⁵ They are drawn from twelve works, encompassing the entire corpus of the E \flat music. The precise rôle of the submediant apex in the themes varies according to the melodic structure apparent, and in the detailed application of a particular structural model.

1. See P.255 concerning exx. 3 and 4 and P.251 with reference to exx. 26 and 27.
2 P. 255-6.

3 Concerning the supertonic in the Minuet, see above, P. 253.

4 Cf. P.253.

5 Supplementary Volume, P. ~~59, 78-80~~. The instances of the submediant as a main melodic apex are marked in the examples as indicated there. (P. 60.)

In the context of simple "Song-form" melodies the submediant may occur as the main apex of several phrases as in exx. 1m, 2m, 9a and 16m (in which the Song-form structure is prefaced by a 'melodic curtain'). Ex. 7m uses a Song-form structure, but the single submediant apex is the climax of the whole Rondo theme. The remaining themes are a combination of 'continuation' and mixed types of formal structure. Although there is focal emphasis of the submediant in these contexts, there is a marked tendency to subsequent emphasis of the tonic as the main overall climax of the thematic statement. This is so in exx. 11m, 12m, 13m and 15m. (Ex. 14m reflects the same tendency but does not climax as emphatically on the later tonic¹). Ex. 13m focuses on the submediant particularly strongly in the course of the 3-bar ascent to the climactic tonic. The submediant breaks the sequential rise and itself generates a descent of a bar and a half before rising to the tonic. There is thus a plateau-like emphasis of the submediant in the melodic structure. A melodic apex on the tonic also follows the submediant (melodic) emphasis in ex. 10m but the ensuing dominant is more stressed melodically.

Three further examples afford interesting comparison with the themes in which the submediant rises to a tonic climax; they are exx. 17m, 24m and 25m from the early Wind Sextet Op. 31b, the Piano Trio Op. 70/2 and the String Quartet Op. 74 respectively. Ex. 17m is a concise Song-form structure, tonic-triadically based in terms of its thematic shape. The rise through the submediant in the final phrase is perhaps the more notable in the light of this. Ex. 24m although from a considerably later work is also shaped by tonic-triadic emphasis. There is no submediant emphasis melodically until the rise to the tonic cadentially breaks the tonic-triadic sequence on the submediant, which again serves as a pre-cadential 'plateau'

1 The melodic line is modified in the voice-part but the submediant is retained as the main apex in the final phrase of each verse.

prefacing the apex on the tonic. Ex. 25m uses submediant apex emphasis in a number of ways in the course of the thematic statement - as a dominant enhancement (bar 6), as a main melodic apex in the Viola (bar 10) and above this as a pre-cadential 'plateau'. The melody as such is in the Viola line at this point but the effect of the Violin I treatment is to culminate the thematic statement as a whole and it is interesting to note that the procedure adopted focuses on the submediant and a subsequent rise to the tonic climactically.¹

The remaining themes in which the submediant occurs as a main melodic apex are exx. 3m, 4m, 5m, 6m and 8m. Of these, the submediant main apex is in effect the climax of the thematic statement in exx. 5m and 8m.

There is an additional context in the themes in which the submediant is used as a main apex. This concerns cadential treatment. A main melodic apex occurs cadentially in exx. 6t/1 and 6t/2, 6m, 13m, 23m and 33m.² Ex. 13m was included in the consideration of instances of the submediant as a main melodic apex in the course of the thematic statement; it is both this and a particular pre-cadential emphasis prefacing the rise to the tonic. Exx. 6m and 33m also focus notably on the submediant before the cadence; the same thematic shape characterises these two themes at this point, in the fall to the tonic. Ex. 33m is interesting as there is no submediant apex earlier in the theme, but the final cadential apex on the submediant in fact supersedes the dominant, which is the prevailing melodic focus; in this ex. 33m is comparable with ex. 13m.

That the submediant occurs as a main melodic apex in such a variety of contexts, formal and tonal, and that it is in evidence

1 The harmonic structure at this juncture was discussed above (P. 253). It now emerges that the detailed melodic treatment in both the Viola and Violin I lines is tonally-related per se.

2 This is to exclude the instances given previously in which the submediant recurs in the final phrase as a main melodic apex as the result of a simple Song-form structure.

from the pre-opus Piano Quartet to the late String Quartet Op.127 suggests that there is in the Group (a) $E\flat$ themes a tonally-related tendency to apex emphasis of the submediant characterising the melodic structure as distinct from the larger levels of the initial thematic treatment.¹

ii the tonic as melodic apex

There are three principal types of main melodic apex emphasis of the tonic - the tonic occurs as a main apex early in the thematic statement, as a main apex (and in two cases this constitutes the thematic climax) 'centrally' in the thematic statement, and as a climactic cadential apex.

The tonic is a main apex early in the theme in exx. 20m, 11m and 26m, the last two of which are $E\flat$ melodies from the Song-cycle Op.93. It occurs as a main apex 'centrally' in the thematic statement in exx. 18m, 19m, 21m and 23m. The tonic constitutes the climax of the theme at this point in exx. 13m and 19m whereas the emphasis of the tonic is less pronounced in exx. 21m and 23m. Ex. 23m focuses on the submediant cadentially, ex. 21m on the tonic; the main tonic apex in both themes occurs above subdominant harmony. Although the cadential treatment in ex. 21m is not climactically tonic-centred, it is interesting to note that the tonic is sustained as a cadential focus melodically.²

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- 1 That the harmonic structure in the Group (a) $E\flat$ themes is tonally-related has emerged above. This is also relevant to the context of the melodic apices, but viewed in terms solely of the structure of the melodic line there are definite and consistent preferences with respect to melodic apex treatment in the themes.
 - 2 The motivic elements of this treatment were discussed above (P.251). The retention of the tonic may be part of the developing tendency to a cadential climax on the tonic which becomes more apparent in the $E\flat$ music from this time on. This tendency is traced in the following discussion. (Concerning ex. 21m, cf. the end of the Minuet in the Piano Sonata Op.7 in which there is similar emphasis of the tonic cadentially.)

The most notable aspect of the rôle of the tonic as a main melodic apex in the Group (a) E^b themes concerns the preference for a single main thematic climax which seems to characterise the thematic treatment in this tonal context, becoming progressively more apparent in the themes. While this climax in some cases occurs in the course of the thematic statement (as in exx. 18m and 19m) and focuses on degrees other than the tonic - the submediant and the dominant being the preferred degrees - there is a tendency to a cadential focusing of an overall thematic climax on a final tonic apex melodically. This tendency is already apparent in the early E^b music as evinced by exx. 17a, 10m and 11m. Although ex. 21m uses the tonic less emphatically, the tendency underlies the cadential structure of both sections of the Trio in the same work (the Piano Sonata Op.31/3 - see ex. 12m). Ex. 22m, from the Third Symphony, is the first instance of a prominent cadential focusing of the thematic statement on the tonic. Both tonic cadences in the initial thematic paragraph (at bars 13-15 and 35-37) are thus structured melodically. Similar treatment characterises all except one of the subsequent E^b works. Exx. 13m, 24m, 25m and 15m of the present compilation are instances of this melodic structure; in addition to the present examples attention may be drawn to the final bars of the Song-cycle Op.98, and to the opening theme of the "King Stephen" Overture (although not a particularly emphatic instance, the tendency is still apparent here). The exception is the Piano Sonata Op.81a, but that other notable tonally-related tendencies are functioning in the thematic structure in this work has to some extent already emerged.

That this tendency is apparent from the early E^b music suggests that there may be a dimension relevant to the stylistic analysis of Beethoven's music of which account has not yet been taken. Clearly there are general stylistic developments in his handling of the normal vehicle, the increasing concern for continuity being particularly notable among them, but that the specific key-location and the concomitant tonal-thematic complexes might qualify and characterise such developments in relation to key-category has not been suggested.

1 See above, P. 245, 252, 253, 255-8, 265, (269).

Whatever the final significance of the preference for a climactic tonic apex cadentially in the thematic statement, that the tonic is a preferred melodic apex degree in the Group (a) E \flat themes and that it is used with consistency in this rôle indicates the functioning of a tonally-related tendency in this context.

iii the dominant as melodic apex

The dominant is frequently in evidence as a main melodic apex in the Group (a) E \flat themes but is generally subordinate to other melodic apices in the thematic structure. It occurs as a main melodic apex in about a quarter of the themes - in exx. 3m, 5m, 6m, 19m, 11m, 30m, 22m, 23m, 24m, 13m, 25m and 32m. It is interesting to note the structural similarity evident in the melodic treatment in exx. 3m, 5m, 6m and 11m. In all four the dominant apex (first occurring in the third phrase in ex. 6m) is followed by a submediant main apex which in each case supersedes the earlier dominant. Technically the dominant is a main melodic apex but musically it is subordinate to the submediant. Of the whole group of themes in which the dominant occurs as a main melodic apex, five themes, exx. 19m, 11m, 22m, 13m and 25m are structured by a single overall thematic climax, on the tonic¹. The dominant itself occurs in this rôle in exx. 23m, 24m and 31m, but is not as emphatic a climactic focus as is the tonic in the themes. The submediant is consistently used in conjunction with the dominant climax, as a dominant enhancement, in ex. 31m.

The dominant is a prominent melodic focus in exx. 22m, 13m, 33m and 34m in addition to its occurrence as a main melodic apex in each thematic statement. Exx. 22m and 13m are both themes structured by a main climax on the tonic which occurs as a climactic focus twice in each statement. The dominant is superseded by a submediant apex cadentially in ex. 33m, but in the four themes (exx. 22m, 13m, 33m and 34m) the dominant is sustained in the course of the thematic statement as an emphatic melodic focus, a type of 'plateau-emphasis' in the melodic structure.

1 See the preceding section, P.274

There are four themes in which the dominant occurs as a main apex initially, exx. 27m, 32m, 25m and 35m. The last three use a prefatory "curtain" to the apex; all four thematic openings are structured by notable tonic-triadic emphasis.¹

Although the dominant does acquire prominence in the thematic treatment in a few particularly notable instances (exx. 29m, 22m, 13m, 33m and 34m) it is neither as frequently nor as emphatically in evidence as a main melodic apex in the Group (a) E^b themes as are the submediant and the tonic, and is generally subordinate to these degrees in terms of melodic apex usage in this thematic context. Thus the rôle of the dominant melodically in the Group (a) E^b context also evinces particular characteristics, differentiating its function in relation to this tonality.

GROUP (b) THEMATIC FEATURES IN E^b

The sectional relationships characterising the Group (b) E^b context were outlined above.² E^b stands in subdominant relationship with a basic B^b in the majority of the Group (b) works but the G/E^b relationship is also apparent in relation to one movement, the Cavatina from the String Quartet in B^b , Op. 130. This is in E^b , the subdominant in relation to B^b , but it also follows a movement in G , the Alla tedesca.³ Both the slow movement of the Violin Sonata Op. 96 and the Bagatelle Op. 126 No. 6 are instances of the G/E^b tonal juxtaposition in the present Group (b) compilation.⁴

1 See above, Pp. 264-6.

2 See Pp. 240-1.

3 That this is itself a significant occurrence of the tendency to B^b/G tonal juxtaposition was suggested above (Cf. Pp. 101-2). The B^b/G relationship is investigated in Appendix I below (Pp. 319-339).

4 Concerning the six Bagatelles Op. 126 the overall tonal structure is of interest in the light of the pronounced tendency to move in sequentially falling thirds 'internally' in the E^b music. (The E^b/C^b relationship also occurs sectionally between movements in the Fifth Piano Concerto, Op. 73).

The one instance in which $E\flat$ stands as relative major to a basic c occurs in the Piano Trio Op.1/3. This reflects the tonal preference for the keys of C and $A\flat$ sectionally, which characterises a basic c context.¹

With only one exception the Group (b) $F\flat$ themes are in moderate or slow tempi. Seven of the twelve themes are marked as Adagio (with the qualification "espressivo" and "con molt espressione" notably recurrent); three themes are marked Andante.² (Two of these include the indication "cantabile"; the third marking - "Andante amabile e con moto" - is clearly similar. This heads the Bagatelle Op. 126 No.6, following the Presto opening flourish). The theme from the Violin Sonata Op. 30/3 has the indication "Tempo di Menuetto ma molto moderato e grazioso"; the term "grazioso" also occurs in relation to Op.126 No. 3.³ The exception (apart from the short Presto prefacing Op. 126 No.6) is the Trio section of the Violin Sonata Op.96; there is no tempo marking here but no change is indicated following the preceding Scherzo, which is marked Allegro. The consistency of these tempo indications suggests

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- 1 Cf. the findings of the Appendix II investigation. (P.340 et seq. below). This also reveals that $E\flat$ in fact bears a particular relationship to c internally in the c music, differentiating its rôle as tonally-related when compared with usage in other minor key contexts.
 - 2 Reference may be made to the Group (b) $E\flat$ themes in the Supplementary Volume (P.84).
 - 3 It is interesting to note the very similar tempo headings in the Group (a) $E\flat$ themes in slow tempi. See in particular exx. 1m, 2m, 3m, 14m, 26m, 30m and 31m (note that this Minuet is also headed "Moderato e grazioso"). The enumeration refers to the final compilation in the Group (a) Thematic Index in the Supplementary Volume (P.59; P.78 et seq.)

the prevalence of a certain mood in the Group (b) E \flat themes; indeed Mies' reference to the use of E \flat as denoting something "elegant and tender" is certainly an appropriate description of the predominant characteristics of the themes in this E \flat context.¹

In addition to the unanimity of mood (and perhaps contributing to this) the themes evince remarkable consistency with respect to the rôle of the mediant melodically. Nine of the twelve themes either open on the mediant degree, or focus on it as the first stressed melody note. There is also a strong tendency in the melodic structure to centre on the mediant throughout, but not however as a melodic apex. Its rôle is thus clearly differentiable from that characterising the mediant in the Group (b) D context. Six of the eleven Group (b) D themes either open on the mediant or focus on it as the first emphasised degree melodically. But the most notable mediant emphasis in the D context is a marked preference for mediant melodic apex treatment. (Indeed in the two cases in which the mediant is the first stressed melody note, it stands as a melodic apex; this is not so in the comparable E \flat themes).²

Stepwise movement was also found to characterise the D themes, in both the Group (a) and the Group (b) contexts.

1 See Mies, Op. cit., Pp. 173-80.

2 Cf. Pp. 228-9 of the D Group (b) tonal-thematic analysis above. It is interesting that the Group (a) E \flat themes which are in moderate or slow tempi (apart from fanfare-type introductory sections) also tend to mediant-centrality, a characteristic not otherwise a notable feature in the Group (a) E \flat context.

This thematic feature is also prominent in the Group (b) $E\flat$ themes but that it differs from that which structures the D themes will emerge in the ensuing considerations. As with Group (a), the Group (b) themes show a marked preference for the sub-adjacent as a melodic apex degree; the tendency to particular emphasis of the supertonic also persists and is examined as the first category in the Group (b) tonal-thematic analysis.¹

I THE USE OF THE SUPERTONIC IN THE $E\flat$ (GROUP (b)) THEMES

Harmonic and melodic emphasis of the supertonic characterise the Group (b) $E\flat$ themes comparably with the Group (a) context in terms of the types of usage apparent, although a particular aspect of "melodic reflection" becomes especially pronounced in the Group (b) themes. The rôle of the supertonic in the Group (b) $E\flat$ context is examined with reference to harmonic emphasis in category i and concerning melodic emphasis in category ii.

i harmonic emphasis of the supertonic

Although the Group (b) themes number only approximately a quarter of the themes in the Group (a) context, types of harmonic emphasis of the supertonic remain apparent in the themes and may be distinguished according to the context of its occurrence similarly with the procedure adopted in the Group (a) examination. Thus harmonic emphasis of the supertonic early in the thematic statement is discussed in category (a) and category (b) treats the instances of harmonic emphasis of the supertonic in the course of the thematic statement.

1 The category - sequence is again adopted in conjunction with the Group (a) procedure, with melodic apex treatment comprising the final category of thematic features examined in relation to the Group (b) $E\flat$ themes.

(a) There are four themes in which the supertonic occurs in close conjunction with the tonic harmonically early in the thematic statement, exx. 1,2,10 and 12.¹ The incidence in the Piano Trio theme (exx. 1 and 1s) concerns only a quaver's duration - albeit in a tempo of Andante - in each statement of the opening phrase (at bars 1 and 9); but it is included in view of the tendency to emphasis of the supertonic early in the thematic statement which characterises the Group (a) $E\flat$ context and which persists in the Group (b) themes as evidenced by exx. 2s,10s and 12s.

Example 2s is the first statement in the Piano of the slow movement theme of the Second Piano Concerto. The supertonic is similarly apparent prior to this in the orchestral "preface" to the full statement of ex. 2s (see bars 1-2 and bar 4 of the movement, where the supertonic $\frac{7}{3}$ is emphatically used). Ex. 10s is comparable with exx. 1s and 2s in that the subdominant is melodically stressed early in the thematic statement (this melodic emphasis acquires subdominant harmonic inflection in its final occurrence in the Piano Trio theme, ex. 1s, bars 20-21 and 20-29) but the subdominant precedes the incidence of the supertonic harmonically in ex. 10s. The supertonic is thereafter a prominent element in the thematic structure of the Bagatelle. In ex. 12s a supertonic inflection occurs (in the Cello) immediately following the initial tonic. This inflection is characteristically "elided" into the dominant with the beginning of the melody on the third beat in Violin I.² (Note also the ensuing bass treatment and the use of the supertonic prefacing the dominant in bar 3.)

1 These numbers refer to the main Group (b) $E\flat$ Thematic Index (Supplementary Volume, P.83-4). A second index follows in which these themes are given fully, as exx. 1s,2s,10s and 12s. The order of themes in this second index follows that in which the themes are cited subsequently in the text; (with the exception of the recurrence in the text of a theme which has already been given in the second index and to which reference may be made by the enumeration).

2 Although separated chronologically by the main corpus of Beethoven's oeuvre, exx. 2s and 12s evince remarkable similarity. They are correlated analytically below. (P. 293 et seq.)

A fifth theme, ex. 9, incorporates the tendency to early emphasis of the supertonic in the restatement of the opening melodic period. (See bars 10-12 of the Trio in the Sonata for Violin and Piano, Op. 9b (iii). The inflection at bar 17, which is absorbed into the dominant, is also notable.)

The tendency to harmonic emphasis of the supertonic early in the thematic statement which was discerned in the Group (a) E \flat themes is also in evidence in the Group (b) context but it is not the most significant aspect of the tendency to supertonic emphasis functioning in these themes.

(b) While there is not a marked preference for early harmonic emphasis, the supertonic is consistently in evidence harmonically subsequently in the thematic statement in the Group (b) E \flat themes. Ten of the twelve themes include such emphasis which may be divided into three types - the supertonic as the vehicle of the main climax, the supertonic as an emphatic pre-cadential focus and the supertonic as a notable cadential inflection.¹

The supertonic is the vehicle of the main thematic climax, both harmonically and melodically, in exx. 3s, 5s and 7s. Of these, ex. 3s includes the least emphatic harmonic incidence but together with the melodic outline structuring the climax (at bar 6) the supertonic tendency is in evidence. Exx. 5s and 7s each include extended emphasis of the supertonic harmonically (at bars 6 and 7 respectively) structuring the melodic climax.

A pre-cadential supertonic focus characterises exx. 2s, 6s, 10s and 12s (of which exx. 2s, 10s and 12s also use supertonic emphasis early in the thematic treatment). This 'focus' creates a melodic climax preceding the cadence; it is not the main thematic climax, but is a focal point melodically. The closing bars of the four themes are correlated on the following page and show remarkable similarity harmonically and, with respect to exx. 2s, 6s and 12s, melodically:

1 One theme, ex. 11/2 is not included in these divisions; it merits individual discussion taking account of the overall structure of this Bagatelle, Op. 126 No. 6. The total of ten themes excludes the inflection in ex. 9 referred to in category (a).

Ex. 2s

Ex. 6s

Ex. 10s

Ex. 12s

The Bagatelle (ex. 10s) is the most individual instance and the emergence of the supertonic harmonically at this point is of interest in the light of the structure of the opening sixteen bars of the Bagatelle. Supertonic emphasis, in which the supertonic $\frac{5}{3}$ is to the fore, is integral to the first four bars of each 3-bar period, and the melodic climax in the final bars (given above) focuses this supertonic tendency in the pre-cadential climax.¹

The supertonic occurs in cadential emphasis harmonically in exx. 4s and 6s. Neither instance is pronounced but each is of interest, ex. 4s in that the supertonic is fully stated harmonically at this point, compared with its more incidental occurrence earlier in the thematic paragraph (at bar 3 - the tonic-supertonic sequence here may be noted however); and ex. 6s with respect to the accessibility of the supertonic inflection (at bar 7) which is again absorbed into the dominant. Reference was made above to the individuality of ex. 10s in certain respects; despite features in this Bagatelle which are particularly characteristic of the late music, the similarity in the melodic structure between exx. 4s and 10s suggests the persistence of tonally-related tendencies in relation to $E\flat$, separated as these two works are by some twenty-three years. The direction of the octave transposition between the two opening periods in each theme is reversed (but that it characterises both is fascinating); but the melodic structure of the opening (and of the final) sixteen bars of each thematic paragraph is remarkably similar in essence. The two themes are correlated overleaf:

L Other aspects of the structure of this opening are discussed in the course of the examination of step-wise movement in the Group (b) $E\flat$ themes below. (See P. 289)

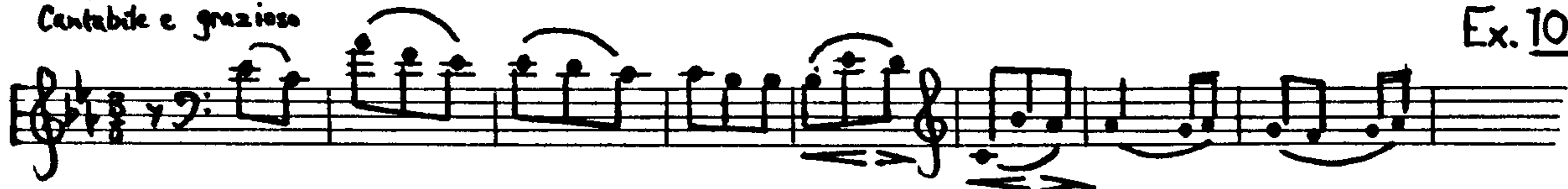
Adagio ma non troppo

Ex. 45



*Andante
Cantabile e grazioso*

Ex. 10s



The Bagatelle Op.126 No.3 is structured by other notable tonally-related features and will recur in later considerations concerning its relationship to other $E\flat$ themes from both the Group (a) and the Group (b) contexts.

The nine themes cited in this section of the examination of harmonic emphasis of the supertonic demonstrate the consistency with which the supertonic is in evidence harmonically in the Group (b) $E\flat$ themes.¹ The scope of investigation may be widened with respect to the tenth item, the Bagatelle, Op.126 No.6. There is some similarity in this Bagatelle with No.3 of the Op.126 set with respect to melodic structure (compare bars 1-3 of the Andante in No.6 with bars 16-20 of No.3, and bars 7-12 of No.6 with the melodic treatment in bars 1-16 of No.3). Continuity also characterises the treatment in both Bagatelles and is typical in music of this time in Beethoven's oeuvre. Concerning supertonic emphasis, this occurs notably on the larger-scale structural level in the Bagatelle Op.126 No.6 and is not emphatically apparent in the initial melodic treatment. The nature of the formal vehicle in Op.126 gives rise to what are in effect tonal-thematic expositions in miniature. This became apparent in relation to Nos. 1 and 3 of the Set in the course of the tonal-thematic examination in G; such a description is particularly applicable to the $E\flat$ Bagatelles, Nos. 3 and 6 of Op.126. The rôle of the supertonic in No.6 is one aspect of the characteristic tonal-thematic features structuring this Bagatelle. The supertonic occurs harmonically in close conjunction with the recurrence of the opening melodic material in $A\flat$, centrally in the Bagatelle.² The $A\flat/f$ link has frequently been

1 The consistency of melodic emphasis of the supertonic notes to some extent also emerged; this is fully discussed in the ensuing category ii.

2 This is another instance of focal emphasis of the subdominant cf. Pp.257-3. It is also fascinating to compare this treatment with the introduction of the second group material, in $A\flat$, in the Piano Sonata in f, Op.57 (i).

referred to above and the present instance is notable in relation to E \flat . Restatement of the melodic material comprising bars 7-12 of the Bagatelle commences in f (although the A \flat /f link serves to ellide this tonal move and a formal resolution is delayed) but the continuation of this period is ellided into E \flat by a characteristic 'tonal sideslip'. The supertonic also functions as a notable inflection in the "Coda" section of the Bagatelle (following the second repeated section; note also the emphatic use here of the submediant as a climactic apex).

Harmonic emphasis of the supertonic is thus consistently apparent in the Group (a) E \flat themes; it is often linked with particular melodic emphasis of the supertonic which also characterises the themes with consistency both in terms of recurrent incidence and with respect to uniformity of usage.

ii melodic emphasis of the supertonic

Various types of supertonic "melodic reflection" were distinguished in the thematic structure characterising the Group (a) E \flat context.¹ This aspect of supertonic emphasis also persists in the Group (b) themes but it is characterised in this context by the recurrent use of a distinct melodic outline relating to the supertonic triad. The interval of a perfect fifth, F-C (rising) or C-F (falling) is a notable and usually a particularly expressive melodic focus in the themes. It occurs in conjunction with the entire supertonic triad or with stepwise treatment (diatonically) of the intervening sequence of notes, but in every instance the "supertonic fifth" is a prominent melodic feature. Seven of the twelve themes include this feature in the melodic structure; they are exx. 2, 3, 5 (there are two instances in this theme, at bar 3 and at bars 7-8 respectively) 6, 7, 8 and 12.² The harmonic structure at these junctures is

1 Reference may be made to Pp. 252-4 above.

2 The instances are marked in the main E \flat Group (b) Thematic Index as indicated there (Supplementary Volume, P. 83.).

also linked with the supertonic in all but two cases, as emerged in the consideration of harmonic emphasis of the supertonic. The two exceptions are exx. 5 (bar 3) and 3 (bar 2). Although the harmonic structure is not supertonic, the melodic shaping at these points may be identified as characteristic, evincing the tendency to supertonic-related thematic shaping so notable in this tonal context. Ex. 5 is in fact the theme in which this feature recurs as the vehicle of the main climax; the supertonic emphasis here is particularly notable.¹ The supertonic fifth is also integral to the thematic climax in exx. 3 and 7. While it is not the vehicle of the main climax in exx. 2,5 (bar 3), 6,8 and 12, its prominence, structural and expressive, in the various contexts of its occurrence is noteworthy.

Examination of the $E\flat$ themes in both the Group (a) and the Group (b) contexts thus indicates the persistence of supertonic "melodic reflection" in the thematic structure from the earliest $E\flat$ theme to the latest. In the latter, the rising supertonic fifth in the final bars of the Op. 130 Cavatina theme (the present ex. 12) is one of the most expressive moments in this melody, a fact consistent with the rôle of the supertonic melodically in the slower $E\flat$ themes in particular; but that this is a tonally-related melodic shape characteristic of such an $E\flat$ context has not been noted.

Particular emphasis of the supertonic is consistently apparent in the Group (b) $E\flat$ themes, both harmonically and melodically. There is a tendency to focal emphasis of the supertonic in both $E\flat$ contexts (Group (a) and Group (b)); this is harmonically more pronounced in the former and is the vehicle of particular melodic emphasis in the latter. The consistent and at times extensive use of the supertonic in the thematic structure may well be a factor contributing to that "tenderness" so characteristic in this tonal context.

1 Cf. P. 282 above, and see ex. 5s in the Supplementary Volume.

II STEP-WISE MOVEMENT IN THE Eb (GROUP (b)) THEMES

Step-wise movement is apparent in the Group (a) Eb context but the marked preference for tonic-triadic melodic shaping in the Group (a) themes evidently precludes extensive use of this feature. The Group (b) themes are with one exception in slow tempi as previously observed.¹ Rising step-wise movement is characteristic of Beethoven in such a context but as has emerged in relation to other thematic features, its particular application varies in type and extent according to key-location. Step-wise movement characterises the D Group (a) and Group (b) themes extensively and in a variety of ways. In the Group (b) Eb context however the thematic use of step-wise movement is less conspicuous. It is also less extensive, but is an integral shaping factor in the thematic structure. The pronounced tendency in the themes to open on the mediant melodically gives rise to a preliminary curtain in two themes, obscuring the step-wise framework which subsequently structures the melodic line. The ascending and descending step-wise progressions are also concealed by ornamentation or other "interim" melodic cells. The use of a step-wise framework is a flexible undercurrent structurally in the themes but it may well be the primary thematic feature from which stems the feeling of shape and order in these themes.

The two themes which preface the step-wise framework with a mediant-centred melodic curtain are exx. 2 and 6. In ex. 2 a descending step-wise framework begins on the dominant in bar 2; in ex. 6 a symmetrically-shaped framework, rising, then falling, commences on the tonic at bar 2.² Exx. 5,8,9 and 12 incorporate an initial mediant melodic focus into the step-wise framework.

One notable interim melodic cell is the supertonic fifth which characterises exx. 2,3,5,6,7,8, and 12. In each occurrence this thematic shape is a new element in the melodic line, and in exx. 3,5,6 and 7 it interrupts predominantly step-wise progressions in the themes.

1 See P.277.

2 The respective step-wise frameworks in the Group (b) themes are marked in the main Group (b) Index as indicated in the Supplementary Volume (P.83).

The Group (b) themes in which the degree of step-wise movement apparent in the thematic statement may be said to constitute a framework are exx. 2,3,5,6,7,9,10 and 12. These eight themes may be grouped according to the type of framework they evince. Thus in exx. 3,5 and 6 a rising framework structures the antecedent treatment and is variously ornamented in each theme. Exx. 3 and 6 also share an overall symmetry in the step-wise framework, an ascent followed by a descent (the dominant is focal in both). Exx. 7 and 10 include a descending step-wise framework early in the theme; in ex. 7 this leads to a step-wise rise, but ex. 10 proceeds differently. This theme opens with an unusual curtain in $E\flat$ (in terms of shape and pitch-location). The step-wise descent which ensues becomes the vehicle of chromatic usage particularly characteristic of $E\flat$ subsequently in the Bagatelle.¹ There are more surprising leaps in this beautifully restrained opening, but its calm and poise are never disturbed. This is in part due to the harmonic structure and in part to the continuity of the melodic line, both of which contribute to the sense of forward impulsion in this melody.² The rising seventh is particularly notable among the melodic leaps; that it is in fact an extension, though very expressive, of the supertonic emphasis and an enhancement of the rising sixth becomes clear in the course of the thematic paragraph.

Of the three remaining themes containing a step-wise framework, ex. 2 as indicated above incorporates a descending framework as the mainstay of the theme following the mediant-centred melodic curtain. The successive steps are variously and beautifully ornamented; this ornamentation is evidently integral to the very expressive melodic line. Ex. 9 proceeds entirely step-wise from the opening mediant to the higher tonic (at bar 4) and the subsequent descent is constructed of step-wise cells stated with intervening descents of a third.

1 Cf. P.304 et seq. below.

2 These features reflect the "elimination of caesurae" which Mies comments on as characteristic of the later music. (See op. cit., Chpt. II - The Melodic Form - section (g)).

Ex. 12 includes the various features of step-wise movement apparent in the Group (b) $E\flat$ context in a particularly individual thematic statement. Its similarity with ex. 2 has been indicated; one notable difference concerns the step-wise tendency and the type of framework structuring the two themes. Ex. 12 combines two main step-wise structures within which particular melodic expansion - itself including step-wise movement - occurs. There is also an initial melodic curtain, enhancing the opening mediant. This mediant is the first degree in an overall descending framework which proceeds finally to the tonic.¹ In the first four bars of the movement there are two similarly structured melodic cells, outlining an expected fall to the tonic. However the $E\flat$ at bar 5 regains the level of pitch achieved in bar 2 and a rising framework then usurps the melodic impetus. The peculiarly strong expressive impact of the rise to F perhaps results from the conflicting step-wise tendencies. The anticipated descent to the tonic is subsequently gently executed, the supertonic fifth and the fall to the mediant immediately following creating a beautiful melodic expansion and a complement to the preceding rise.²

The opening four bars of the Cavatina theme ostensibly resemble the particular "synthesis" of the use of step-wise movement which characterises notably the later D themes.³ In the D context however, the prevailing tendency is to ascend in plateau-like steps whereas in the Op.130 theme there is tension between the two forces, rising and falling. The sudden upturning of the melody which is totally unexpected and something of a lurch is however a cogent factor in the expressiveness of this melody.

1 This framework comprises series I in the Group (b) Index, (Supplementary Volume, P.84).

2 The rising sequence is given as series II in ex.12 (ibid).

3 See Pp.191-5 above; also the correlation of themes between P.200 and 201, and P.214, concerning both the Group (a) and the Group (b)D themes.

Examples 10 and 12 are perhaps the most individual melodies in the Group (b) $E\flat$ themes. (They are of course among the latest, chronologically.) Each nonetheless incorporates characteristic tonal-thematic features in the melodic line (and in the overall thematic structure). Step-wise movement is integral **to** both but occurs with significant intensifications when compared with the other Group (b) themes.

Although not an obtrusive element in the thematic structure, step-wise movement is an important vehicle in the Group (b) $E\flat$ themes and acts as a framework - to a varying extent, but with notable consistency - for the detailed development of the melodic treatment.

III MEDIANT-CENTRALITY IN THE $E\flat$ (GROUP (b)) THEMES

As previously stated, in nine of the twelve Group (b) $E\flat$ themes the mediant is either the first melody note or the first accented degree in the melodic line.¹ The themes which open on the mediant melodically are exx. 1,2,5,6,8 and 9; the mediant is the first stressed melody note in exx. 4, 11/2 and 12. The incidence of early emphasis of the mediant melodically is thus remarkably high. In addition to this the mediant is notably recurrent in eight of the themes, indicating a tendency to mediant-centrality in the melodic structure. The themes evincing such mediant-centrality are exx. 1,2,5,6,8,9,11/2 and 12, the first six of which also open on the mediant, the last two focusing on this degree as the first stressed melody note. Although exx. 3,4,7 and 10 are not mediant-centred, the mediant is stressed cadentially in exx. 3 and 4, a feature which seems characteristic of this tonal context.²

1 See P.278 above, where some comparative remarks are also made in relation to the rôle of the mediant in D.

2 Cf. exx. 2,6,8 and 12.

The extent and emphasis of the tendency to mediant-centrality vary in the eight themes in which it is a notable feature. The incidence in ex. 1 stems from the formal structure, but that the mediant is focal in the recurring phrase may be noted.¹ The mediant is melodically emphasised throughout ex. 2 and forms a kind of 'axis' in the melodic line. It is not as recurrent in ex. 5; this reflects the particular breadth of the melody however and the mediant is focal both initially and in each subsequent phrase. Ex. 6 is similar to ex. 2; the melody begins on the mediant which remains central in the melodic structure, also occurring cadentially. The formal vehicle in ex. 8 is simple, but the mediant occurs as a stressed melody note in three of the four phrases (and twice in the last); the theme thus evinces a characteristic tonal-thematic feature despite its conciseness and simplicity. Ex. 9 from the same work (the Sonata for Violin and Piano, Op. 96) ranges more widely but again the mediant is the starting-point, the climax of the period (enhanced by the rising sixth) and recurs in the ensuing descending sequence. In ex. 11/2 the mediant is melodically stressed although the most characteristic tonal features in this Bagatelle (Op. 126 No. 6) relate to larger-scale treatment as emerged above.² Ex. 12, the latest of the themes, reflects perhaps the most remarkable degree of mediant-centrality. That this is not solely the influence of the preceding Alla tedesca in G is indicated by the consistency with which the Group (b) themes as a whole evince mediant-centrality; ex. 12 is directly comparable with exx. 2;6 and 8 with respect to the type and extent of this feature in the melodic structure. The early emphasis of the mediant is enhanced by the rising sixth (note the dynamic treatment) and the mediant is retained throughout the melody as a pivot and again as an 'axis', central to the progress of the melodic line. Four bars of the melody open on the mediant which is characteristically (at this time) anticipated.

1 The incidence of the mediant relevant to the consideration of mediant-centrality is marked in the Group (b) E♭ themes as indicated in the Supplementary Volume. (P. 83.)

2 P. 285-6.

Although exx. 6 and 8 are also notably mediant-centred, ex. 2 reflects very similar tendencies in relation to ex. 12, a fact indicated in earlier considerations. Mediant-centrality is integral in both themes but their similarity in other respects also merits detailed comparison. It is of interest to note the respective dates of composition of these two themes, the first 1794-5, the second in 1825. Comparison may be extended to two other $E\flat$ themes in considering the present exx. 2 and 12, one early and one late. These are ex. 1 of the Group (a) $E\flat$ themes (the Adagio opening of the Pre-Opus Piano Quartet) and the present ex. 11/2.¹

The Group (a) Adagio melody is a very early $E\flat$ theme. Various characteristic tonal-thematic features have been discussed above in relation to it, but attention may now be drawn to the mediant-centrality which it also evinces. The theme is indeed "rather four-square",² yet the thematic features structuring this melody are germinal to $E\flat$ themes in slow tempi as demonstrated in later works. Notable among these features are particular emphasis of the mediant and the rôle of the supertonic fifth, together with supertonic harmonic emphasis.

The Piano Concerto theme, which dates from some ten years later may be a conscious remoulding of the Piano Quartet theme.³ It is however a fundamental remoulding, whether conscious or not. Bar 3 has no parallel with the earlier theme; but common points are initial mediant emphasis melodically, the mediant-supertonic fall, the early supertonic harmony (stronger in the Piano Concerto theme), the supertonic fifth rise and ornamented descent, and cadential melodic emphasis of the mediant. One interesting and somewhat idiosyncratic feature of the Piano Quartet theme is the use of dynamics which is rather erratic but significant in the light of Beethoven's highly individual treatment of this aspect in his main oeuvre. The present Op.130 theme exhibits

1 All four themes are correlated following the Group (b) $E\flat$ Thematic Index in the Supplementary Volume, (P. 88).

2 See P. 2144.

3 It was drafted at the time of the Op.2 Piano Sonatas in which Beethoven incorporates some material from the Pre-Opus Piano Quartets.

great precision in the matter of dynamic markings which are carefully handled and integral in the thematic statement. This stylistic feature would seem to be latent in the Piano Quartet treatment.

To bring together the Piano Concerto and the Cavatina theme is to bridge thirty years and the main corpus of Beethoven's oeuvre. Both themes have been discussed in some detail in the present section and in previous considerations; they may now be treated comparatively. The two themes are of course in $E\flat$; interestingly they are also both marked Adagio and are in the same metre. They are also comparable in the less tangible area of mood.

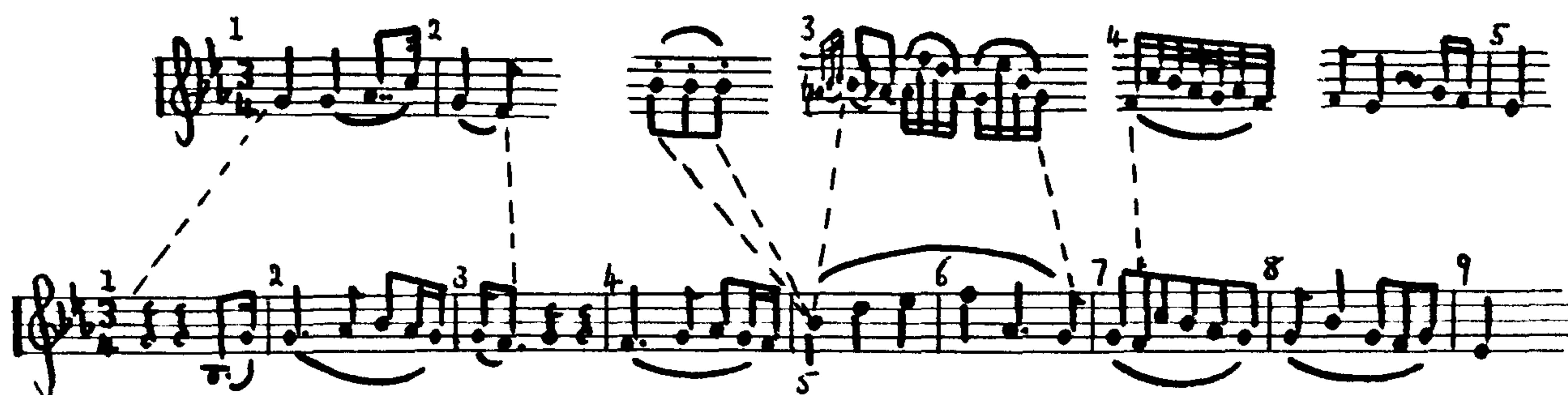
Bar 1 of the Cavatina is in the nature of a curtain in the lower strings. The treatment is notable in establishing the tonality of $E\flat$ following the G Alla tedesca (the supertonic inflection in the Cello was observed above). The mediant degree in Violin I and its enhancement with respect to the rising sixth and the dynamic treatment have been indicated. Bars 1-3 of the Cavatina parallel bars 1-2 of the Concerto slow movement, Bar 4 of the Cavatina is a prolongation of the supertonic melodic focus not present in the Concerto. Bars 5-6 of the Cavatina parallel bar 3 of the Concerto. There are however important differences in the respective treatment here. The tensions inherent in the Cavatina melody were discussed above;¹ the Concerto theme initiates a descending step-wise framework at this point where the Cavatina is structured by two conflicting tendencies. Although the Concerto theme also touches on the higher register, beats 2 and 3 of bar 3 are integral to the overall descent. Essentially the same note-series is used at this point in both themes however, but with a different contour and with different expressive effect. The elements apparent at this juncture in both contexts are remarkably similar.

Bar 7 of the Cavatina reiterates the mediant across the bar (as in bars 2-3); such "softening" is characteristic of the later music. This suspension is not evident in the parallel context in the Concerto theme (bars 3-4) but the same rising supertonic fifth ensues with a subsequent descent, in both themes. The mediant is more emphatically stressed cadentially in the Cavatina

1 See P. 290.

than in the Concerto, but this characteristic emphasis is nonetheless apparent in the latter. (The mediant prefacing the cadence in the Concerto theme in fact sounds a dissonance, thus enhancing its impact.)

The elements structuring these two themes and in particular the respective melodic lines are essentially similar; the points of similarity may be represented diagrammatically:



The Cavatina tends to more expansive treatment, but the basic melodic material is common to both.

The last extract, from the Bagatelle Op.126 No.6 is given as an interesting comparison from the later music. It in fact preceded the Op.130 Quartet by approximately one year. Four points in common with the Cavatina theme are of particular interest; these are the prominence of the mediant, the fall of a sixth, F-A \flat , at bars 5-6, the use of suspensions and the rhythmical distribution in general. Together with the supertonic-linked melodic treatment, the Bagatelle extract compresses characteristic E \flat tonal-thematic features in this concise phrase which also evinces features particularly apparent in the later music.

The first three themes discussed here, that is from the Pre-Opus Piano Quartet, the Second Piano Concerto and the String Quartet Op.130 respectively imply by their similarity the persistence of particular and it is suggested specifically tonally-

related features, here notably with respect to the melodic structure, throughout Beethoven's composing life.¹ There are of course significant differences stylistically in the area of harmonic treatment and of part-treatment in the themes (although the latter also relates to the particular medium employed) but no less important are the factors which emerge as constant.

While the examination of ex. 12 has been enlarged to take account of other tonal-thematic features consistently in evidence in this and other E \flat themes, that this theme exhibits notable mediant-centrality has also emerged. The comparison has indicated a number of features discussed individually in previous considerations as characterising this tonal context with consistency; the tendency to mediant-centrality is a further such feature. That it differs from the usage in the D themes has been demonstrated. Examination of the G themes also indicated a preference for particular emphasis of the mediant in the tonal-thematic complex but it is a harmonic rather than a melodic emphasis which characterises that tonal complex.² The tendency to mediant-centrality in the Group (b) E \flat themes (and in the E \flat themes in a slow tempo generally) thus emerges as peculiarly characteristic of this tonal context as distinct from usage in other tonalities.

1 While a similar conclusion was expressed following the comparative analysis of three Adagio melodies in C, the recurrent features identified as characterising the C context are not those which emerge as significant in the present tonality of E \flat . (See above Pp.94-99.)

2 Cf. Pp. 110-14 and Pp. 133-9 above concerning the Group (a) and Group (b) G themes respectively.

IV MELODIC APEX IN THE $E\flat$ (GROUP (b)) THEMES

The preferred main apex degrees characterising the Group (a) context, namely the submediant, the tonic and the dominant recur as the preferred agents of main melodic apex treatment in the Group (b) $E\flat$ themes. The subdominant is also in evidence in this capacity (in exx. 1, 10 and 11/2) but with neither the frequency nor the focal emphasis of the submediant, the tonic and the dominant. These three degrees are again examined individually with respect to their rôle in the treatment of the main melodic apices in the Group (b) themes. The number of themes comprising this Group is evidently considerably less than is the case in the Group (a) context, but that the same degrees are preferred in the rôle of main melodic apex is significant.

i the submediant as melodic apex

The submediant is again notably recurrent as a melodic apex in the Group (b) themes. It occurs as a main apex in exx. 2, 3, 5, 6, 7 and 8. Of these instances the submediant is a main apex in a subsidiary phrase in exx. 2 (bar 1), 6 (bars 6-7) and 8 (bar 2). It is the main overall apex, the focus of the thematic climax in exx. 3, 5 and 7. Exx. 6 and 7 afford a particularly interesting comparison, however. Both focus on the tonic as a structural apex (at bars 4 and 2 respectively) initiating a step-wise descent; subsequently in both themes the melodic line again rises and focuses emphatically on the submediant degree, prefacing (and in ex. 7 forming part of) the cadence.

Particular emphasis of the submediant in the later stages of the thematic treatment characterises a number of the themes and is linked to the incidence of the supertonic fifth. This type of apex occurs in exx. 2, 6, 7 and 12; (the main climax in exx. 3, 5 and 7 is similarly shaped¹). While these instances are only "local" apices they give rise to notable stress of the submediant in the melodic line.

1 See P. 287.

There are three themes in which the submediant constitutes a dominant enhancement, exx. 4 (in the cadential treatment at bars 3 and 16) 6 (bars 3-4) and 7 (bar 3), although the submediant is particularly emphatic in the last.

The incidence of the submediant as a main melodic apex in the Group (b) E^b themes largely reflects the tendency to supertonic fifth emphasis in the melodic structure (itself a particular functioning of the supertonic tendency so notable in this tonality) but it is significant as a characteristic melodic feature independently of the supertonic fifth, which it in fact precedes in some instances.¹

ii the tonic as melodic apex

The tonic functions as a main melodic apex in four of the Group (b) E^b themes but is not the vehicle of thematic climax which becomes progressively more emphatic in relation to the tonic in the Group (a) context. The instances of the tonic as a main melodic apex occur in exx. 5, 6, 7 and 9 of the Group (b) themes.

In ex. 5 the tonic is established as a main apex in the closing stages of the thematic statement (bars 3-10), the highest point of the two successive descending arpeggios structuring this section of the theme. It is more prominent melodically in exx. 6, 7 and 8. Although less emphasised than the dominant in ex. 6 the tonic is nevertheless the highest point in the melody and generates the impetus of the second half of the thematic statement. The melody opens on the tonic in ex. 7, initiating the step-wise descent here. The similarity with ex. 6 has been indicated; the ensuing treatment in ex. 7 yields a more emphatic apex on the submediant (note the dynamic treatment) but the tonic remains the main apex of the first four bars of the thematic statement. The treatment in ex. 9 is continuous but the tonic is the goal of the opening bars and forms a "platform" prior to the rise to the higher mediant.

1 See exx. 3, 5, 7 and 8.

The tonic is thus significantly in evidence as a main melodic apex but is not as prominent or as emphatic in the Group (b) as in the Group (a) context.

iii the dominant as melodic apex

The dominant is a prominent main apex in two themes, exx. 4 and 10 (in which the emphasis of the tonic and the submediant in the descending step-wise treatment is of interest). It is the main apex in subsidiary phrases in exx. 6, 8 and 12 in the first, second and first phrases respectively. The dominant also occurs as a cadential apex in exx. 3, 5 and 12 although this emphasis is qualified by the preceding submediant in exx. 3 and 12. Ex. 2 focuses on the dominant at the beginning of the step-wise descent (bars 2-3), creating a subordinate apex, but more importantly focusing the beginning of the beautifully executed melodic fall.

Despite the difference in thematic type and mood generally pertaining in the respective Group (a) and (b) $E\flat$ contexts two features in particular remain characteristic in the thematic structure in both Groups and exert considerable influence in the thematic treatment. These are the incidence of the super-tonic, harmonically and melodically, which has emerged as consistently in evidence in both $E\flat$ contexts, and the preference in the thematic structure for the submediant, the tonic and the dominant as the focal degrees in the treatment of main melodic apices. (The emphasis of the submediant in particular in this respect emerges as peculiar to $E\flat$ usage, distinguishing the melodic structure in this tonality). The Group (b) themes are not tonic-triadically structured to the extent which so notably characterises the Group (a) context but evince a tendency to use a step-wise framework; this is flexibly treated however and is not a prominent structural feature. It thus differs from the treatment characterising the Group (a) and (b) D themes.

The mediant-centrality of the Group (b) $E\flat$ themes is not paralleled in extent in Group (a) although it is interesting to note that as indicated in the course of the tonal-thematic analyses, those Group (a) themes which are in slower tempi do tend to evince this thematic characteristic.

The subdominant tendency so prominent in the Group (a) themes does not emerge as a significant feature in the Group (b) context. Particular emphasis of the subdominant is however most characteristic of larger-scale levels than that of the thematic structure in relation to $E\flat$ usage.¹

There are therefore certain differences in the tonal-thematic complexes characterising the Group (a) and (b) $E\flat$ contexts. That these relate in part to the nature and formal context of the themes, to their function and rôle in the larger context of a movement or work, is suggested by some of the differing emphases, particularly the tonic-triadic emphasis characterising Group (a) and the mediant-centrality and step-wise emphasis relating to the slower, more lyrical and expressive Group (b) themes. Important structural features remain constant in the thematic treatment in both Groups however, and are evidence that a consistent tonal-thematic complex is functioning in relation to the tonality of $E\flat$.

It has again been relevant to correlate themes from both thematic contexts, Group (a) and Group (b), in the course of the $E\flat$ tonal-thematic analyses. In conclusion to this examination other common features to which reference has been made are considered. These relate to the tendency to particular chromatic emphasis in the themes (and indeed apparent on other levels) and to the similarity of four comparatively early $E\flat$ themes which are correlated and compared in the light of the features which have emerged as characterising the thematic structure in the tonality of $E\flat$.

1 This is in part discussed in earlier considerations. (See for example P. 241 and 242; also Pp. 244 and 257-8 in the Group (a) Category II examination of Subdominant Emphasis in the thematic structure, and P. 285 in the Group (c) treatment.) Subdominant emphasis thus relates most characteristically to the tonal complex rather than to the tonal-thematic complex functioning in relation to $E\flat$. (Cf. P. 257, Footnote 1.)

ADDENDA: I CHROMATICISM AS A COMMON FEATURE OF THE
GROUP (a) AND THE GROUP (b) E \flat THEMES
II FOUR THEMES CORRELATED COMPARATIVELY

I Chromaticism as a common feature of the Group (a)
and the Group (b) E \flat themes.

There is in the context of the thematic structure in E \flat a tendency to introduce chromaticism both in the melodic line and as a notable feature in the harmonic treatment. Chromatic inflection is in evidence in ascending and descending progressions in the melodic line. The former focus mainly on the dominant although there are a few instances which centre on the tonic. Rising chromatic emphasis in the melodic line is apparent, though not emphatically so, throughout the E \flat themes. Chromatic inflection in descending progressions characterises the Middle Period and later music and extends to notable harmonic emphasis. There is in addition particular use of chromaticism in a different structural context in two E \flat works. This relates to thematic resolution in the closing stages of three movements.¹ The incidence of chromaticism in this context is of particular interest in the light of the tendency to chromatic emphasis in the thematic structure in E \flat and is considered following examination of the incidence of chromaticism in the E \flat themes.

i rising chromatic emphasis

The instances of such shaping which stem from the tonic occur only in the Group (a) E \flat context, in exx. 15, (26), 28 and 30.² The supertonic tendency is of course relevant to

1 See P.47 Footnote 2 above concerning thematic resolution.

2 The enumeration refers to the main Group (a) E \flat Thematic Index (Supplementary Volume, P.61 et seq). Subsequent references relate to the relevant indexes in the Group (a) compilation. Ex. 26 is bracketed because the chromatic emphasis is initiated on the supertonic melodically, and there is no tonal resolution until bar 3. That this opening is however structured by tonally-related factors in an E \flat context emerged in the tonal-thematic analysis. (See P.245 and Pp.250-1 above for some consideration of these.) The instances of chromatic emphasis are marked in the themes as indicated in the Supplementary Volume. (P.57.)

exx. 15 and 23 (in which the chromatic inflection occurs in the texture); while it is also notable in ex. 26, this opening is structured by rising chromaticism, melodically and harmonically. That the bass-treatment is paralleled in earlier $E\flat$ themes was indicated above;¹ the overall chromaticism may now be noted both with respect to its structural prominence and to the tonal context of an \flat opening. This opening has a number of features in common with $E\flat$ themes in general but it exhibits a degree of chromaticism not previously as prominent in the thematic structure.²

Concerning ex. 30 it is interesting to note the change in the detailed treatment which occasions a rising chromatic scale (in bars 7-8). Threefold repetition is clearly functioning in this opening but the third statement of the melodic cell structuring bars 3-9 is entirely modified. The resultant chromatic scale leads to the restatement of the dominant apex. It may be that this modification is linked to the tendency to chromatic emphasis, particularly as it climaxes on the dominant, the degree which is most frequently the focus of chromatic emphasis in the melodic line in both rising and falling progressions.

Rising chromatic emphasis moving onto or through the dominant (melodically) occurs in both the Group (a) and the Group (b) $E\flat$ themes. In Group (a), instances occur in exx. 17t, 20t, 29t, exx. 11m, 12m, 15m (- of which exx. 17t and 12m are from one work, from the Minuet and Trio respectively of the Piano Sonata Op. 31/3; and exx. 29t and 15m are from the String Quartet Op. 127); exx. 19, 25 and 27. In the majority of these instances the chromaticism precedes a submediant melodic apex. That it is a tonally-related feature of $E\flat$ themes to focus on the submediant as a melodic apex has emerged in the tonal-thematic analyses; it is of interest now to observe the chromatic nuance in the melodic line which is also consistently in evidence in a significant number of the Group (a) themes, preceding such apex emphasis.

1 P. 245.

2 There is however a remarkably similar passage structuring the opening of the slow movement of the Second Piano Concerto. (See bars 3-7 of the movement).

The emphasis in ex. 19, from the first movement of the Third Symphony, relates to a tonal move onto the dominant via characteristic supertonic inflection, but the progression involves chromatic inflection shaping the melodic line comparably with the other more melodically-focused Group (a) instances correlated above.

The Group (b) instances occur in ex. 1¹ (a move into the dominant ensues, but this melodic shaping may be noted in the present context; similar chromatic emphasis shapes the move onto the dominant in the middle-section of the thematic paragraph in ex. 4 in which the submediant is again prominent) exx. 5 and 7. The instances in exx. 5 and 7 are particularly notable and emphatic. A number of tonally-related features have been discussed with reference to both themes; the rising chromaticism is an additional common feature and emerges as characteristic of an E \flat context when correlated with the Group (a) E \flat themes. Rising chromatic inflection is thus in evidence throughout the E \flat music in the context of the opening thematic treatment, occurring in about a quarter of the themes.

ii falling chromatic emphasis

It is an interesting fact that while there are instances of rising chromatic emphasis throughout the E \flat music, the converse tendency is as suggested above only notably in evidence from the Middle Period Works. The first emphatic occurrence is in the Piano Concerto No. 5. Including this work there are then instances in four of the last six E \flat works (the Group (a) context) and in Group (b), in two of the three items dating from the time of the Fifth Piano Concerto (1809). The most notable instances of falling chromatic emphasis are given as exx. 1c and 6c (two of which occur in contexts other than the initial thematic treatment) and are drawn from both the Group (a) and the Group (b) E \flat themes.² There is marked use

1 All references are to the main Group (b) E \flat Thematic Index. (Supplementary Volume P. 83-4.)

2 Examples 1c-6c comprise the index Additional Themes I following the main E \flat thematic indexes. (Supplementary Volume P. 89-91). Three extracts from the Bagatelle. Op. 126 No. 3 comprise ex. 6c.

of chromatic harmony in exx. 1c,3c and 4c. Exx. 1c,2c,4c,5c and 6c/ii are shaped by particular chromatic emphasis in the melodic line; this is followed by notable treatment harmonically and tonally in ex. 2c.

There are similarities in the melodic shaping of all six extracts. The thematic structure clearly varies, but the six themes (or other extracts) are all structured by an emphatic melodic descent in the course of the treatment. In ex. 1c this fall lays particular stress on the tonic and the dominant; in ex. 2c the dominant is emphasised; exx. 3c and 4c stress the subdominant, in ex. 5c the tonic, the submediant and particularly the dominant are emphasised degrees in the overall descent and ex. 6c stresses the subdominant, the tonic and the submediant.

Examples 1c,3c and 6c, which evince the most extensive chromatic emphasis, are particularly interesting when compared in some detail. The structural context of the chromaticism varies; thus exx. 3c and 6c are similarly shaped in terms of melodic outline, but this is expanded by chromatic harmony in ex. 3c. This chromaticism is in turn very similar to that structuring the descent from the dominant in the consequent treatment of ex. 1c (the melodic line also includes chromatic inflection). Exx. 1c and 6c are directly comparable with respect to the consequent of ex. 1c and the extract ex. 6c/ii, which is a very interesting development in the treatment of the initial melodic material of this Bagatelle (given as ex. 6c/i) when compared with exx. 1c and 3c. This is so especially in the case of ex. 1c; the mood and metre vary but the same thematic elements structure both contexts and give rise to remarkably similar treatment. Ex. 6c affords a further comparison with ex. 3c. The final bars of the Bagatelle comprise ex. 6c/iii; the motivic cell here clearly resembles the Op.81a context. An additional common factor linking exx. 1c,3c and 6c/ii concerns the overall thematic shape in the context of the chromatic emphasis. Each extract includes the emphatic melodic

fall (during which the chromatic inflection occurs) followed by a rise. This rise is least direct in ex. 6c/ii but nonetheless apparent.¹ It is with respect to this thematic shape, a fall followed by a rise melodically, that similarity with the Group (b) thematic context emerges. The tendency to a step-wise framework structuring the Group (b) E \flat themes becomes an explicit thematic shape in ex. 7 of the themes. Exx. 6 and 7 were correlated as evincing similar tendencies and in both a successive fall and rise melodically constitutes a considerable section of the thematic statement. The present exx. 1c, 3c and 6c/ii (which is from the Group (b) context) are similarly structured, with the introduction of chromatic inflection in exx. 1c and 6c/ii. (Ex. 7 introduces chromaticism in the melodic rise, as previously discussed). The fall begins on the subdominant in ex. 3c but the Op. 81a extract is exactly similar to ex. 7 in terms of the stress accorded to the lower tonic prior to the ensuing rise in each theme. The four extracts are correlated below:

The image displays four musical extracts. Ex. 7 is a single melodic line in G major, showing a fall from G4 to E4 followed by a rise to G4. Ex. 1c is a single melodic line in G major, showing a fall from G4 to E4 followed by a rise to G4 with chromatic inflection. Ex. 3c is a single melodic line in G major, showing a fall from G4 to E4 followed by a rise to G4 with chromatic inflection. Ex. 6c/ii is a piano extract in G major, showing a fall from G4 to E4 followed by a rise to G4 with chromatic inflection in the right hand, and a corresponding bass line with chromatic inflection.

1 The overall thematic contour of bars 3-6 of ex. 6c/ii is also remarkably similar to bars 5-7 of ex. 5c. The two are correlated below with two additional extracts from the themes comprising exx. 1c-6c. (Pp 306-7.)

The developing rôle of chromatic emphasis in the $E\flat$ themes as a whole, and the undoubted similarity in aspects of the melodic structure characterising the later themes in both Group (a) and Group (b) suggests that there are in relation to the tonality of $E\flat$ identifiable developments in the stylistic use of particular (and it seems tonally-related) thematic features which are consistently apparent from the Middle Period works.

Examples 4c and 5c are from the Violin Sonata Op.96 and the Song-cycle "An die ferne Geliebte", Op.98 respectively. Despite the brevity of the extract, ex. 4c is particularly notable as it occurs following extended emphasis of the home dominant in the $E\flat$ Adagio second movement of the Op.96 Sonata. Tonally these two bars (ex. 4c, that is bars 37-8 of the movement) are not "necessary" but that this chromaticism is introduced immediately before the reprise of the opening material (in $E\flat$) is the more significant in view of the unequivocal $E\flat$ tonality at this juncture. The two bars are directly comparable with the other examples in the present compilation. The melodic emphasis of the subdominant is paralleled in exx. 3c and 6c; there is a chromatic fall in the melodic line (also evident in exx. 1c, 2c, 5c and 6c/ii) and the harmonisation of this fall is not dissimilar to that in exx. 1c (bar 5) and 3c (bar 3). There is a direct parallel with ex. 2c (also a 2-bar extract, from the Introduction to the Piano Sonata Op. 81a) in the use of diminished harmony underpinning the mediant.

Ex. 2c is comparable with ex. 4c in that it too occurs following emphasis of the (home) dominant¹; the incidence of $C\flat$ harmony may be noted as a further tonally-related characteristic. In terms of melodic shaping, ex. 2c is nearer the consequent treatment of ex. 5c. The melodic figuration of bar 6 in ex. 2c is more 'incidental' to the overall musical statement than is the case in ex. 5c (bars 5-7) in which the chromatic descent is integral to this beautiful melody. Both contexts may be compared with extracts from exx. 1c and 6c/ii with respect to the elements structuring the melodic line:

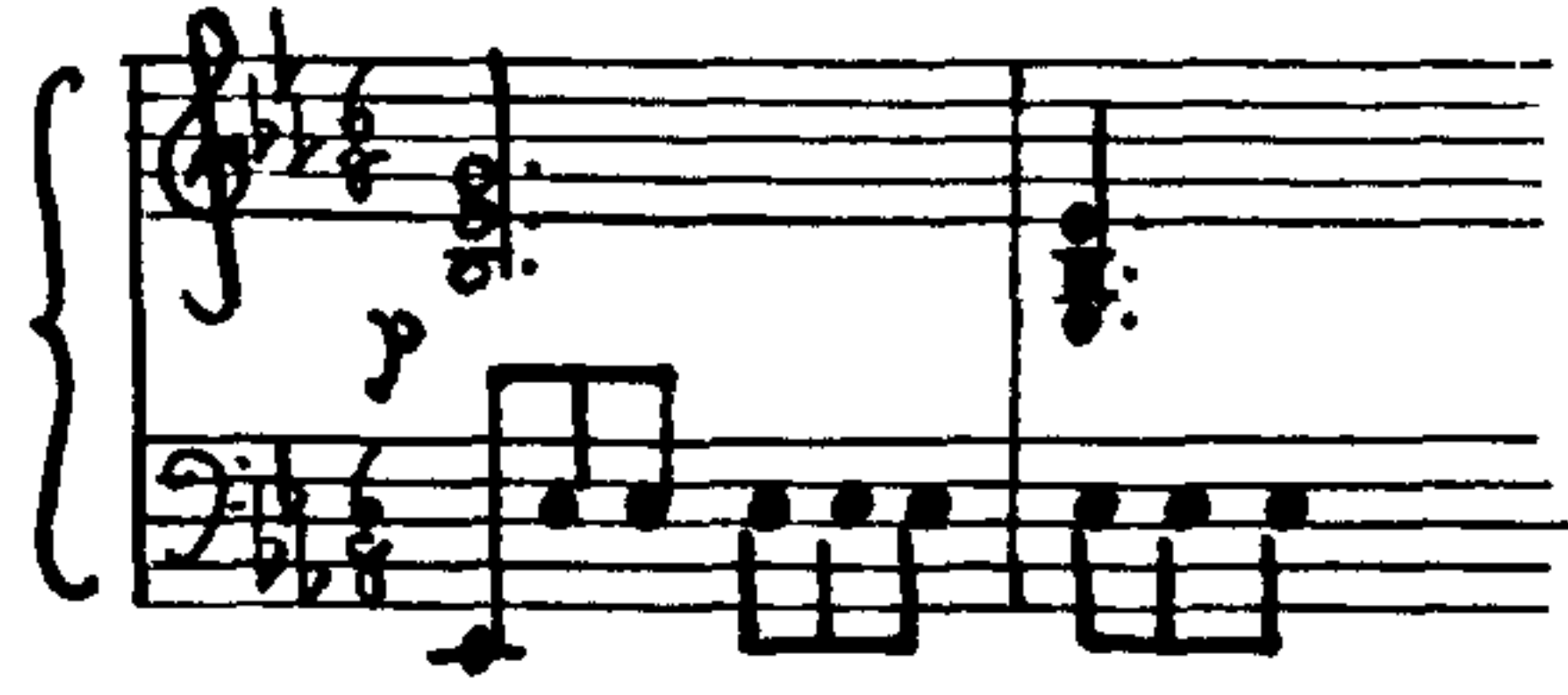
1 No definitive resolution of the tonality, has been stated at this point; various tonally-related features are functioning in this opening treatment however, and there is the clear sense of dominant emphasis at bar 6, whatever the interpretation of bars 1-5.



There is thus a complex of thematic features characterising the extracts exx. 1c-6c which are closely interrelated in their detailed structure. Examination of this indicates that tonally-related characteristics are apparently functioning in relation to the tonality of $E\flat$, and that with respect to chromatic emphasis in particular, an inherent tendency develops to the level of a prominent feature of the thematic structure in the later $E\flat$ music, in which it is consistently apparent. This particular development combines with other recurrent tendencies, giving rise to notable similarity and consistency of usage in the later $E\flat$ music as a whole.

iii chromatic emphasis in thematic resolution

The two works in which chromatic emphasis is a notable feature in the closing stages of individual movements as part of the tonal and thematic resolution are the Piano Sonata Op.7 and the Third Symphony, Op.55. It is only one aspect of the overall thematic resolution but it is interesting that chromatic emphasis, a feature which becomes progressively more apparent on the thematic level as the preceding sections indicate, should occur in the context of the concluding definition and resolution of the tonality in these $E\flat$ movements. The first such instance occurs in the first movement of Op.7. The opening of the work is:



In the final stages of the Coda treatment this cell is expanded chromatically in an emphatic cadential progression:¹



There are instances of extended chromatic emphasis in comparable contexts in keys other than E \flat . While detailed analysis of the structure of Coda-type sections is necessary to ascertain to what extent tonally-related factors influence other more general stylistic considerations, it does seem to be the case that chromatic emphasis functions in particular ways in this area in relation to D. There are for example, instances of chromaticism comparable with the Op.7 extract (but notably more extensive) in two movements of the Piano Sonata Op.10/3, in (i) bars 305-26 (the incidence of E \flat tonality here is of interest) and (iv) bars 101-6. The chromaticism is not directly related to a particular melodic cell in these

1 Preceding this, bars 339-351 may be compared to the parallel context in the finale of the (E \flat) Piano Sonata Op.31/3 (which is also in 8. See bars 322-230).

contexts however; both instances seem also to be evincing a characteristic tonally-related feature in D in introducing flat-tending tonal emphasis at this formal juncture, in which the G/E♭ tonal juxtaposition is notably prominent as a pivot.¹

The last movement of the Piano Sonata Op.7 also introduces notable chromatic emphasis in the final statement of the thematic paragraph comprising the main Rondo 'theme'. The treatment here, which includes chromatic harmony, seems to presage the tendencies which emerge on the thematic level in the later E♭ music:²

The Coda of the first movement of the Third Symphony, Op.55, is a monumental example of thematic resolution. This culminates in the powerful and climactic tonal resolution of bars 663-673 in which chromatic emphasis unexpectedly extends the tonal ambit, and structures the definitive resolution of the entire movement, which is accomplished in these bars. Diminished harmony is prominent in this progression; the chord which initiates the chromatic emphasis (at bars 663-4) is also common to exx. 2c and 4c and occurs in the course of the descending chromatic harmony in exx. 1c and 3c in the extracts correlated in the preceding section.³

1 Cf. the String Quartet Op.13/3(i) bars 235-255; the Piano Trio Op.70/1(iii) bars 370-386, and the Violin Concerto Op.61(iii) bars 341-349.

2 Examples 1c, 3c and 6c/ii, discussed in the preceding section, are most directly comparable with the present Op.7 extract. (Concerning the incidence of f♯ in this final statement, see P.247, Footnote 1 above.)

3 The chromatically ascending bass at this point in the Symphony is of interest. Cf. the opening treatment in the Piano Sonata Op.31/3(i) (bars 3-8) and bars 3-7 of the slow movement of the Second Piano Concerto. (See also P.245 and the earlier comments concerning such bass-structure in initial thematic treatment in E♭).

The incidence of chromaticism in the closing stages of individual movements cannot be accorded its true perspective without detailed comparative analysis of the music in relation to formal and tonal structure. Such analysis must precede an accurate assessment of the extent of the influence of tonally-related factors. Correlation of the instances of chromatic emphasis as a significant factor both melodically and harmonically in relation to $E\flat$ has indicated however that particular application of chromaticism apparently characterises this tonality and is progressively more influential in the thematic structure in the course of the $E\flat$ compositions, to an extent not paralleled in the preceding tonal categories. The evidence thus suggests the functioning of particular tonal references in the $E\flat$ tonal complex with respect to chromatic emphasis.

II Four themes correlated comparatively

The four themes which are the subject of this correlation are from relatively early works, the Trio for Piano, Clarinet and 'Cello Op.11 (1795), the Sonata for Violin and Piano Op.12/3 (1797-3), the Septet Op.20 (1800; the G treatment of bars 1-8 dates from 1796) and the Piano Sonata Op.31/3 (1801-2).¹ The themes have all been included in the tonal-thematic analyses with reference to the functioning of various tonally-related features in the thematic structure. They are brought together now with respect to the overall similarity which characterises the themes and which has not emerged in the detailed consideration of the tonal-thematic complex.

Example iv, from the Piano Sonata Op.31/3 is clearly the most developed in terms of melodic structure and the treatment generally; it is however nearer to the earliest theme, ex.i (treating the Op.20 theme, exx.iii in the $E\flat$ form) than to the other two in style and structure. Bars 1-4 of exx.i,iii and iv are directly comparable in terms of harmonic, melodic and phrase-structure. The repeated notes of the inner parts of ex.i become

1 The four themes are given as Additional Themes II in the Supplementary Volume (P. 89 and P. 92.).

in exx. iii and iv flowing, moving parts, but the opening treatment in exx. i, iii and iv is structured by the same thematic elements, including the basic rhythmic structure. Example iii, the first eight bars of the Minuet from the Septet, is structured by two 4-bar phrases, the second of which is a modified restatement of the first. While this is a simple tonic-triadically based melody, it is interesting to note the features it has in common with the three other themes, further indicating the integration of this theme into the tonality of $E\flat$ as a characteristic $E\flat$ thematic statement.¹

Example ii, a concise Rondo theme, effectively compresses bars 1-8 of ex. iv into bars 1-4 of the theme; the respective imperfect cadences are essentially similar. Moving inner parts also characterise this cadence in ex. ii but ex. iv introduces the "idiosyncratic" $C\sharp/D\flat$.² Bars 4-8 of ex. ii cadence via emphasis of the submediant and dominant which links this part of the theme with bars 4-8 of ex. i. Ex. i progresses comparably with ex. iv however. Compared with the Piano Sonata opening it appears a little stilted (although the sustaining qualities of the 'Cello are a relevant consideration here) but the overall melodic outline is similar; bars 4-8 of ex. i rise to the dominant and subsequently the submediant comparably with ex. iv although a tonic cadence ensues following what is the climax of the shorter thematic statement in ex. i, where ex. iv cadences imperfectly. The second part of the Minuet, ex. iv carries over the submediant/dominant climax however, thus focusing on basically similar thematic elements in the melodic line, the submediant here functioning as a direct dominant enhancement. The feminine cadence at bars 15-16a is almost identical with that at bars 7-8 of ex. i.

1 See Pp. 247-8 above.

2 Cf. Pp. 267-8 above.

A particularly interesting aspect of the four themes is the variety in tempo; ex. ii, the Rondo theme, is marked Allegro molto; exx. i,iii and iv are in a more lyrical vein, but each is individual in the matter of tempo. This also suggests that it is the functioning of a tonal complex which gives rise to the evident similarity in treatment characterising various aspects of all four contexts. This more general similarity has not emerged in the course of the tonal-thematic analysis as the themes give differing prominence to particular tonally-related features, but it is interesting to note the extent of the consistency of the thematic elements structuring these themes coupled with stylistic developments in some aspects of their use. Such development is most clearly seen in comparing exx. i and iv; ex. iv is a beautifully constructed thematic paragraph in which the flow and lyricism latent in ex. i are uninhibited. But the tonal-thematic elements which are the vehicle of this development remain remarkably consistent, running through all four themes.

PART III
CONCLUSION

CONCLUSION

The initial thematic treatment, which is the main focus of the tonal-thematic analyses comprising Part II of the thesis, is an area of fundamental importance in establishing the tonality of a work or movement. The Part II examination has thus considered a basic aspect of tonal functioning in Beethoven's music in relation to four major keys. The tonal-thematic analyses are not the product of the application of a fixed series of criteria but rather each analysis is the individual investigation of the tonal-thematic structure of the initial thematic treatment examined in relation to key-location and not primarily in terms of conventional harmonic analysis. The main criterion governing the approach to the analyses is the belief that the key-location is a fundamental stylistic determinant in Beethoven's music. The music has therefore been correlated according to tonal category, and the key-location has been the initial and basic reference-point. Conventional harmonic analysis has been applied within each tonal category and has served to elucidate the individuality of tonal functioning when used in this capacity. That there is individuality of tonal functioning in relation to specific key-location in Beethoven's music, characterising and differentiating tonal usage relative to tonal category is suggested by the identification of particular tonal-thematic complexes in relation to the four keys examined. While the investigation of the tonal structure of the initial thematic treatment has been the principal concern in each analysis, the scope has at times been enlarged to take account of some aspects of the larger-scale functioning of the tonal complex as a whole in each key.¹ Of the four tonalities examined, G and D are two in which features apparent in the tonal-thematic complex recur as significant agents of tonal structuring on the larger-scale levels; E \flat is a tonality in which the features most

1 Cf. P.257, Footnote 1 above concerning the tonal complex and the tonal-thematic complex.

characteristic of its tonal individuality emerge on the larger-scale structural levels and do not extensively influence the initial thematic treatment.

As stated in the Introduction, the present investigation is essentially a first step in the re-appraisal of the nature of tonal functioning in Beethoven's music;¹ but it has it is hoped demonstrated that there is validity in re-examining the music on the basis of a changed analytical premise. This is not to suggest that conventional harmonic analysis is invalid, but that it will serve as a more adequate tool in the study of tonal procedures in Beethoven's music when its application is modified. Analysis of the music in terms of degree-relationships alone cannot identify the existence and functioning of individual tonal complexes which relate to key-location. If however such analysis is applied to the music when correlated tonally it is indeed a useful tool in assessing the extent and nature of the influence of specific key-location in the musical structure. This modification in technique reveals a new perspective in the analysis of Beethoven's music and is perhaps a means to clarifying our understanding of the nature of tonal functioning in the music. Systematic analysis and comparison is evidently indispensable to a sound assessment and such investigation has been made by students of Beethoven's music in relation to formal and rhythmic structure. This has yielded interesting facts and statistical information and in particular evidence of changes in general tonal trends (measured in conventional analytical terms). In attempting statements concerning this aspect it would however seem to be the case that we have assumed an understanding which we do not in fact possess. McTwen states:

"The choice of key and key-contrasts presents the composer with problems of its own, but, although Beethoven experimented with this element of construction as with others, it is difficult to say that his experiments did much more than assert his desire for freedom of choice, limited only by his sense of what was expedient."²

1 See Pp.15-16 above.

2 Introduction to an unpublished edition of the Pianoforte Sonatas of Beethoven - John B. McTwen (Oxford University Press, 1932), P.41.

This statement (together with others such as those given in the Introduction¹) indicates a certain bewilderment concerning Beethoven's use of tonality which again springs from the comparison of tonal usage irrespective of key-location. The present approach qualifies the notion of Beethoven's "experimenting" as the evidence indicates the functioning in his music of inherent tonal references in relation to key-category. It seems that McEwen was aware that his assessment does not completely account for the tonal structure of the music for he comments that Beethoven's "desire for freedom of choice" was "limited by his sense of what was expedient", a qualification which in effect begs the question and indirectly points to the need for fundamental re-examination of the music and a new assessment of this aspect.

Lang makes a pertinent observation when he comments:

"When the theorists of the romantic age explain the harmonic practices of their movement, they cite Beethoven's great contributions to their art. They did notice in Beethoven's music the distant excursions from the tonal centre; what they did not understand was that this is a modulatory maximum.....they did not notice the brakes which Beethoven applied ceaselessly"²

However, earlier in this article he falls into the kind of "speculative intuition" with which the way of Beethoven Studies is strewn:

"the Beethoven of his last period attains to that degree of universality in which tendencies and forms lose their significance, melting into a vision that encompasses all that is human."³

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- 1 section V : "Some Unexplained Observations", Pp.16-22 above.
 - 2 P. K. Lang in the Introduction to the Beethoven Bicentenary Edition of the Musical Quarterly, December 1970; P.571.
 - 3 ibid, P.505.

Whatever one's analytical position, Beethoven's music demands some attempt to meet the problem of its expressive significance - its "content". But in making this statement Lang does not seem to acknowledge the supreme use of "forms and tendencies"; their unobtrusiveness is far from being the negation of their significance. As stated in the Introduction, tonality is of paramount importance in Beethoven's music; it is a fundamental stylistic determinant of far-reaching influence in the musical structure and is basic to its expressive significance. Technical factors alone do not account for the entire musical experience and a refusal to acknowledge the "supra-musical" facets of music inevitably limits our understanding of its expressive significance. Paradoxically however, it is in the area amenable to analysis by the musicologist that, it is suggested, further and fuller investigation is needed. The thesis enquiry has treated certain basic aspects of the subject and it is hoped has shown that to re-examine Beethoven's use of tonality does not lead immediately into speculation but rather, when approached on the basis of the analytical premise implemented in this enquiry, opens up a new dimension with respect to the technical factors structuring the music. Re-examination of the music in the light of a tonally-related analytical approach may perhaps contribute to a more precise understanding of these factors. The full extent of the functioning of individual tonal complexes remains to be discovered but its clarification must precede any competent attempt to penetrate the psychological aspects of the subject. It is therefore submitted that a new analytical premise which relates tonal structure to key-location is a relevant tool in the analysis of tonal procedures in Beethoven's music.

APPENDICES

APPENDIX I - B/G: A survey of this Relationship
in Beethoven's music.¹

In discussing the structure of the Classical Sonata Cycle with particular reference to Haydn, Mozart and Beethoven, William S. Newman adduces statistical information to suggest that in about one fifth of the opening Sonata Form movements in the Piano Sonatas, Beethoven's "goal" is the submediant or the mediant.² Presumably referring to the same source he also comments:

"statistical tabulations bear out distinct differences in the Sonata forms of Haydn, Mozart and Beethoven, with Beethoven's tonal plan being the least predictable and most experimental, and Haydn's next in order."³

With specific reference to Beethoven's use of tonality Newman earlier comments that:

"Beethoven's evident associations of particular moods and styles with particular keys and modes undoubtedly influenced these dispositions"

- that is the apparent preference for certain procedures which Newman attributes to the pursuit of "textural enrichment".⁴

This observation indicates an awareness of particular tonal relationships in Beethoven's music but remains on the level of general comment. While assessments such as that which Newman quotes as the source of the statistical data relating to tonal procedures in Beethoven's Piano Sonatas are of value and great interest, that they do not fully represent the nature of tonal functioning in Beethoven's music is a basic criterion governing the present thesis examination.

1 The Appendix makes detailed reference to the music up to and including the Piano Sonata Op.106 (the "Hammerklavier", 1818-19). Some account is taken of the later music in the course of the Appendix considerations.

2 Op. cit. (P.16, Footnote 1 above); Chpt. VI, P.148.

3 *ibid.*

4 *ibid.* P.130. This comment was in part quoted in the Introduction to the thesis (P.18) and it may be noted is very similar to that by Liles also given there. (See P.16 above).

It is the aim of this subsidiary investigation to look more deeply into the incidence and functioning of the tonal relationship B \flat /G in the music on the basis of a tonally-related approach, taking account of the relationship as a tonal juxtaposition and not primarily of its identity in conventional analytical terms, which obscure the recurrence of particular tonal relationships in Beethoven's music in varying formal contexts. The procedure adopted in the investigation is first to correlate and examine notable instances of the tonal juxtaposition of B \flat /G in the music (up to and including the "Hammerklavier" Piano Sonata, Op.106). The notable occurrences of B \flat /G are in the majority of cases in B \flat movements; four occur in relation to E \flat however and some consideration of the E \flat tonal complex is made. The B \flat and E \flat tonal complexes apparently bear a particular relationship, an aspect which is discussed in the conclusion to the Appendix. Preceding this however the relationships in the other major keys parallel with the B \flat /G relationship are considered. An exhaustive investigation of the B \flat /G relationship in Beethoven's music would require detailed analysis of usage in the tonalities of B \flat and E \flat at least. The present survey will it is hoped give some indication of the functioning of what is apparently a relationship of particular significance in Beethoven's tonal vocabulary.

Probably the two best known and most commented upon instances of B \flat /G tonal juxtaposition in Beethoven's music are those which occur in the exposition treatment in the respective first movements of the Archduke Trio, Op.97, and the "Hammerklavier" Sonata, Op.106. Philip Barford views the incidence of G as the contrasting key-area of the first movement exposition in Op. 106 as part of a sequence of interlinking thirds which to him forms the structural core of the work.¹

1 The Beethoven Companion - P. 156 et seq.

This assessment fails to take account of the recurrence of the specific tonal relationship, B \flat /G, of which there are notable instances throughout the B \flat music. The works in B \flat up to and including the Piano Sonata Op. 106 are:

- Op. 19 Piano Concerto No.2
- Op. 11 Trio for Piano, Clarinet and Cello
- Op. 15/6 String Quartet
- Op. 22 Piano Sonata
- Op. 60 Symphony No.4
- Op. 97 Archduke Trio
- Op.106 Piano Sonata ("Hammerklavier")

Of these, notable instances of B \flat /G juxtaposition occur in:

- Op. 19 (iii)
- Op. 11 (iii)
- Op. 60 (iv)
- Op. 97 (i)
- Op.106 (i)

In the two remaining works, there is an incidence of the juxtaposition used in an B \flat movement, as the vehicle of a tonally-related move in E \flat . There are in addition instances in the Prisoners' Chorus from "Fidelio", the Sixth Symphony, the Fifth Piano Concerto, the String Quartet Op.74 and the Overture "King Stephen" Op.117. Listed chronologically the instances occur in:

			KEY OF MOVEMENT	KEY OF WORK
1	Op. 19	(iii)	B \flat	B \flat
2	Op. 11	(iii)	B \flat	B \flat
3	Op. 726 - "Fidelio", No. 10		B \flat	
4	Op. 60	(iv)	E \flat	B \flat
5	Op. 68	(ii)	E \flat	F
6	Op. 73	(i)	E \flat	E \flat
7	Op. 74	(i)	B \flat	E \flat
8	Op. 97	(i)	B \flat	B \flat
9	Op. 117			
10	Op. 106	(i)	B \flat	B \flat

The instances may be divided into groups according to context and/or type of usage:

- GROUP i : Nos. 1 & 2
 ii : Nos. 4 & 5
 iii : Nos. 6, 7 & 9
 iv : Nos. 8 & 10
 v : Nos. (5) & 3

GROUP i:

- 1 Op. 19 Piano Concerto No.2 - (iii).
- 2 Op. 11 Trio for Piano, Clarinet & Cello - (iii).

1: The B \flat /G juxtaposition occurs in the final stages of this Sonata-Rondo movement. Formally and tonally the last statement of the 'B' Section is cadencing when (at bar 254) the anticipated cadence is diverted; an extended II-V-I progression is redirected by the "manipulation" of the intervening passage-work. F \sharp rises to F \sharp as the bass; in the Right Hand the E \flat drops to D and heralds the entry of the now rhythmically-displaced "A" theme, in the key of G. (It is almost as if Beethoven was at once nostalgic about this, the first intended version of the theme rhythmically, and perhaps even having fun at his own expense!) The return to the tonic is via II-V-I and the "A" theme occurs in its final statement, in B \flat , and in its original (in this movement) rhythmical form.

2: This juxtaposition occurs in a comparable context with the Piano Concerto instance. The movement in question here is a set of variations (on a theme by Weigl). Marion Scott says of this work that it "comes near to being a dud" and also that the "subject-matter" is formal.¹ However, the work does evince features of note tonally of which the present instance is one. At the end of Variation IX the Piano sustains a solo trill on B \flat ; this rises to B \natural and after two bars proceeds to passage-work outlining the scale of G, with dynamic emphasis of the dominant and tonic of G (D and G) in particular, finally pausing on D. The time-signature and key-signature change at this point (from C to $\frac{6}{8}$ and from B \flat to G respectively) initiating the Coda which is more loosely based on the theme. The return to the tonic is again via II-V-I.

1 Op. cit., P.233. Nigel Fortune's more accommodating opinion in the Beethoven Companion (P.205) is welcomed.

A further similarity in detailed treatment between these two works is of interest; this is that in both cases the incidence of thematic material in G is immediately prefaced by a decrescendo, and a *pp* marking.

GROUP ii:

4. Op. 60 Symphony No.4 - (iv)
5. Op. 68 Symphony No.6 - (ii)

The instances of B \flat /G in these two works are comparable in terms of context; G occurs early in the development of both B \flat movements, but there are also distinctions to be made.

4: The exposition of this Sonata Form finale is "regular" in that the contrasting key-area is the dominant; there is a notable momentary flat turn and strong diminished emphasis (bar 5 $\frac{1}{2}$ et seq.) which is important later in the development, but otherwise the coda carries on and into the development. The "scurrying" figure persists and a tonally disorientating rise in seconds moves from the dominant - F:g:A \flat :b \flat :c:d and onto the dominant of e. A fortissimo B \flat , with no harmony rings out; what follows is interesting indeed. The 'Cellos and Basses enter, piano, on C and lead to the dominant-seventh of G which sounds when the remaining Strings enter two bars later, with material from the first (B \flat) group. There is a resolution into G before the tonality turns to the minor, initiating sequential development. G is clearly focal in the early development, and is directly linked to B \flat by the incidence of first group thematic material in G.

5: The movement in question here is the slow movement of the Pastoral Symphony. The exposition follows usual procedure, moving to the dominant for the second-group material. There is a less complex move into the development than that characterising the previous example. Dominant tonality (F) is retained for one bar; the next bar sounds the dominant - seventh of G - the bass has moved onto D. This resolves into G, and again it is the first-group (B \flat) material which is stated. G remains the tonality of a considerable section of the development. It is interesting to note the comment made by Kerman in his examination of sketches for the movement. He states:

"a single G (major) plateau for a considerable time held the stage in Beethoven's ideas for the movement".¹

Kerman cites the other tonal moves which Beethoven considered for this juncture - F/D \flat : F/D : F/d : F/B \flat . The first two in particular have special 'connotations' for Beethoven; F/d is a very accessible means of achieving interim tonal moves in various contexts in his tonal vocabulary. It seems to be that the context of this B \flat slow movement lent most strongly to G as the location of the tonally contrasting 'plateau' of the early development.

Thus in both movements correlated here, G is the first main key of the development in a basic B \flat context, and the vehicle of first-group thematic material.

The subsequent progress of the development in the Pastoral Symphony slow movement is also worthy of comment concerning the tonal structure apparent, and a digression from the primary consideration of B \flat /G in this respect may be included here as it sheds light on other aspects of the B \flat tonal complex. The first tonal move from G is to E \flat , a relationship several times alluded to in the course of the main thesis examination. The cadence is diverted via minor (e \flat) inflection to G \flat . This is the key of the flattened submediant (bVI) and it also bears a particular relationship to B \flat ; however it does not function directly as an enhanced dominant approach but the tonality as it were "overbalances" into C \flat . A complex use of enharmonicism redirects the tonality succinctly into B \flat and the reprise. There are at least five comparable instances of such Neopolitan emphasis prefacing the incidence of B \flat tonality, one of which occurs at the close of a tonal sequence remarkably similar to the Pastoral Symphony treatment. This is in the slow movement (in B \flat) of the Ninth Symphony. Following the occurrence of the Second group material in G (which of course has to be viewed in a new light in the present context) the tonal sequence is

1 "Beethoven's Sketch books in the British Museum" - Joseph Kerman. (Proceedings of the Royal Musical Association, Volume 93 (1966/7) Pp. 77-96).

G:^b:e^b:C^b, the dominant-seventh of which is used as ^bV1 in securing the return to E^b. The incidence of ¹²/₅ at this point is also fascinating in comparison with the Sixth Symphony. The Ninth Symphony affords a second instance of Neapolitan emphasis in the context of E^b tonality; this is in the first movement and occurs in the course of the second-group treatment (bars 102-115). Subdominant emphasis (E^b in B^b) becomes minor (bar 107) and immediately C^b emphasis occurs.

The extensive Neapolitan emphasis preceding the Recapitulation in the first movement of the Fourth Symphony is legendary; the incidence of c^b and C^b preceding the E^b statement of the second group material in the first movement of the Fifth Piano Concerto has not it seems been related to these other instances. A less extensive "tonal sideslip" occurs in the finale of the Piano Sonata Op.22 (compare bars 18-20 with bars 65-67). C^b bears a particular relationship to E^b in Beethoven's tonal vocabulary; the ^b/_b/C^b/B^b "complex" seems to be a further dimension in which the "tonal interlinking" which apparently becomes characteristic in relation to the tonalities of E^b and B^b is functioning.¹

GROUP iii :

- 6 : Op. 73 Piano Concerto No.5 - (i)
- 7 : Op. 74 String Quartet - (i)
- 9 : Op.117 Overture "King Stephen"

These three works are in E^b; they are correlated with respect to the similar contexts for a1 and tonal of the ^b/_b/G juxtaposition. A particularly interesting aspect of the usage apparent here is the fact that while this tendency is not evident in the considerable number of works in E^b preceding these, from the Piano Trio Op.70/2 throughout the ensuing E^b works either the ^b/_b/G tonal juxtaposition occurs prominently or the key of G stands "instead" of E^b as the contrasting key-area of the exposition. The only exception is the Piano Sonata Op. 31a in which however particular tonally-related flat emphasis (in which G^b and C^b are prominent) is to the fore. The Piano

1 Other aspects of this interlinking are as previously indicated discussed in the Conclusion to Appendix I.

Trio Op. 70/2 offers an interesting "synthesis" of these two aspects of the $B\flat$ tonal complex. The first movement exposition includes a bVI approach to the dominant, and the development focuses (significantly) on $A\flat^1$ and subsequently $C\flat$ and $F\flat$ prior to an enharmonic change and an elliptical return to the Recapitulation characteristic of $E\flat$. Thus it is very similar to the Op. 81a tendencies. In the finale however the key of the second group material is G. The Song-Cycle Op. 98 commences in $E\flat$; the continuous treatment which makes this work a true cycle has been noted for its historical significance; the fact that the second song is in G with little concession to the "requirements" of modulation has not apparently caused comment. Its position between Op. 70/2 chronologically and Op. 127 indicates the functioning of consistent tendencies in the later $E\flat$ music. The key of the second group material in Op. 127 (i) is in fact g, but the exposition-development link establishes the tierce, and the *Maestoso*, preceded by dominant preparation, bursts in, in G.

It is in the context of these interacting tendencies that the occurrences of $B\flat/G$ juxtaposition in the three items comprising Group iii are now examined; the chronological order of the later $E\flat$ works precedes the individual commentaries as relevant to the overall considerations in question. It is:

- | | | |
|-----|----------|-------------------------------------|
| | Op. 70/2 | Piano Trio |
| (6) | Op. 73 | Piano Concerto No. 5 |
| (7) | Op. 74 | String Quartet |
| | Op. 81a | Piano Sonata |
| (9) | Op. 117 | Overture "King Stephen" |
| | Op. 98 | Song-Cycle: "An die ferne Geliebte" |
| | Op. 127 | String Quartet |

1 Cf. Pp. 254, 256-9 and 285 above.

6: The Fifth Piano Concerto is well known for its expansive structure; this gives rise to a notable complex of relationships, tonally. The Neapolitan treatment of the second group material in the second exposition (of the first movement) was referred to in the consideration of the Sixth Symphony slow movement.¹ The second exposition proceeds regularly following the B \flat occurrence of the second group material and the codetta moves through tonally parallel emphasis which however halts abruptly on the dominant of c. It is characteristic of E \flat movements in Beethoven's music that emphasis of c occurs early in the development, but it is soon apparent that this dominant of c is a key in its own right, the key of G, in which the thematic material of the codetta continues, and the key of G is formally resolved. The key of C does follow this incidence of G but the tonal juxtaposition B \flat /G is particularly direct prior to this. It is also notable that G recurs prominently in the closing stages of the development in a restatement of the same thematic material, and as the first clear tonality following the extended tonal instability of the preceding treatment.²

1 It is interesting to note the use of the dominant of C \flat as \flat VI of E \flat in the brusque turn to the dominant (bars 166-7). Cf. the Ninth Symphony incidence referred to above. (Pp. 324-5).

2 Reference may be made to the emphatic incidence of C \flat which is also particularly prominent, following a tonally unstable sequence. Comparable emphasis of C \flat in E \flat movements in a parallel formal context occurs in the Violin Sonata Op. 12/3 (i) bars 96-104; the Third Symphony, Op. 55 (i) bars 362-369; and numerous E \flat contexts include \flat 6 degree-emphasis at this point.

7: The String Quartet Op. 74 was also composed in 1809, the date of composition of the Fifth Piano Concerto. It was commented above that the key of G apparently acquires a new rôle in relation to a basic $E\flat$ from the Op. 70/2 Piano Trio throughout the subsequent $E\flat$ works. While G does not occur as a second-group key in Op. 74, a $B\flat/G$ juxtaposition does occur in a context comparable with the preceding instance from the Fifth Piano Concerto, both formally and tonally. The development of the first movement of Op. 74 closes in the dominant, $B\flat$ (and pianissimo). Following this close, the first group thematic material is stated, forte and in the key of G, in fact initiating the development. This thematic material is used as the vehicle of a tonal move, significantly into c. The key of C subsequently comprises the main tonal focus of the development, a further tonally-related feature. G is not 'established' as a key but for the opening bars of the development is simply taken as the key. The juxtaposition of $B\flat$ and G is thus immediate.

9: The "King Stephen" Overture dates from 1811 and evinces a number of features in common with the opening of the Fifth Piano Concerto. While not as grandiose the Overture is similarly structured tonally in its opening treatment. The initial $E\flat$ is not harmonised in Op. 117, but there is comparable emphasis of the subdominant prior to the move to the definitive home dominant-seventh. The dominant-tonic resolution is expanded in both works by elaboration of the dominant which in Op. 117 gives rise to a certain tonal ambiguity. The (written) $F\sharp$ in the bassoon sounds as $G\flat$ and retains its ambiguity despite the addition of dominant harmony, only committing itself to the sharp identity at the beginning of the Presto when at the statement of a full chord of $E\flat$ the note in question emerges as an appoggiatura ornamentation, rising onto the mediant.

The development begins (at bar 190) with a restatement of the opening sequence of falling fourths - $B\flat$: $B\flat$: F : C - now in $B\flat$; thus - $B\flat$: F : C : G. Tonally a subsequent move to $B\flat$ would be parallel with the opening treatment (and is indeed a juxtaposition characteristic of Beethoven in certain contexts) but there is a diminuendo at the incidence of G which heralds a surprise. This is the occurrence of G as the key of the ensuing treatment. The development is not long but G is the key of the most extended tonally stable area. As in previous instances a turn to the minor (g) initiates the remaining developmental process. Op. 117 is thus also comparable with the Piano Concerto in the tonal prominence of G in the development treatment.

GR UP iv:

8 Op. 97 : Archduke Trio - (i)

10 Op. 106 : Piano Sonata ("Hammerklavier") - (i)

These two works were cited above as containing probably the most noted examples of the key of G occurring as the main area of tonal contrast in the context of $B\flat$. They do not however appear to have been linked comparatively in this respect although G is the key of the second-group material and so of a substantial part of the exposition in both first movements, furnishing the area of tonal contrast with the tonic, $B\flat$.

8 : The opening thematic paragraph cadences via flat emphasis and uses the subdominant notably. At the cadence (bar 33) descending arpeggios in new triplet rhythm initiate the transition; this begins in $B\flat$ but the bass move onto A two bars later is not harmonised as the dominant of d which would be tonally characteristic of Beethoven, but is the bass of a $\frac{6}{4}$ statement of major (D)harmony. This striking occurrence of $B\flat$ and D harmony is enhanced by the incidence of the dominant of D prior to the change of key-signature and extensive preparation of the key of G. The emphasis of D is notable and is repeated in later music.¹

1 The second-group material of the $B\flat$ slow movement of the Ninth Symphony occurs first in D (and subsequently in G). It may be noted in the present connection that the key of the slow movement of the Archduke Trio is D. (A similar $B\flat$: D : G sequence structures the early development in the Symphony No. 6 first movement.)

Over half of this exposition is in the key of G; the return to flat tonality is accomplished via a G/ \flat juxtaposition, so accessible to Beethoven and particularly applicable in B \flat , a key which tends strongly to subdominant emphasis.¹

10 : This Sonata opens boldly, but lyricism similar to that characterising the Archduke opening ensues. The cadence at bars 15-16 initiates an extended paragraph which again incorporates notable subdominant emphasis (the alternation of f and p bars also parallels the Archduke treatment) with the tonic sustained as the bass until the beginning of the imposing two-octave descent (at bar 27); this subsides onto subdued treatment of the dominant. At bars 34-5 the restatement of the opening (in B \flat) apparently begins. Bar 37 is however a $\frac{6}{8}$ (not a $\frac{6}{4}$) which is the vehicle of a tonal change. On beat 3 octave D's alone sound, followed on beat 4 by full D harmony. The subsequent bars establish the rôle of D as dominant to G more directly than is the case in Op. 97. The key-signature changes and there is extensive G-centred treatment prior to the emergence of a 'theme' (which enters unobtrusively in the Left Hand at bars 62-3). A further parallel with the Piano Trio is in the G/E \flat link which opens the development in Op. 106 (i).

The move to G is thus comparably executed in the Archduke Trio and the Piano Sonata first movements and G is the key of the greater part of the exposition in both.

GROUP v:

(5 Op. 68 : Symphony No.6 - (ii))

3 Op. 72b: "Fidelio", No. 10 - The Prisoners' Chorus

Example 5 is included here in connection with the "Fidelio" example as the plateau-like occurrence of G in the Symphony is not unlike the present context. Clearly the formal structure varies, but the "Fidelio" instance may be compared with that in the Symphony and demonstrates the functioning of tonally-related factors irrespective of formal context.²

1 The last movement of the Archduke Trio exhibits a particularly notable such instance structuring the opening 'A' theme of the Sonata Rondo.

2 Reference may be made to the earlier commentary concerning the Sixth Symphony (P.323 et seq.)

3 : The Prisoners' Chorus opens the finale to Act I of "Fidelio". There is no tonal transition between the B \flat and G sections of the Chorus which is essentially a ternary structure. The middle-section is a tenor solo quite simply in G, following the B \flat close of the opening chorus section. Concerning this juxtaposition Tovey says:

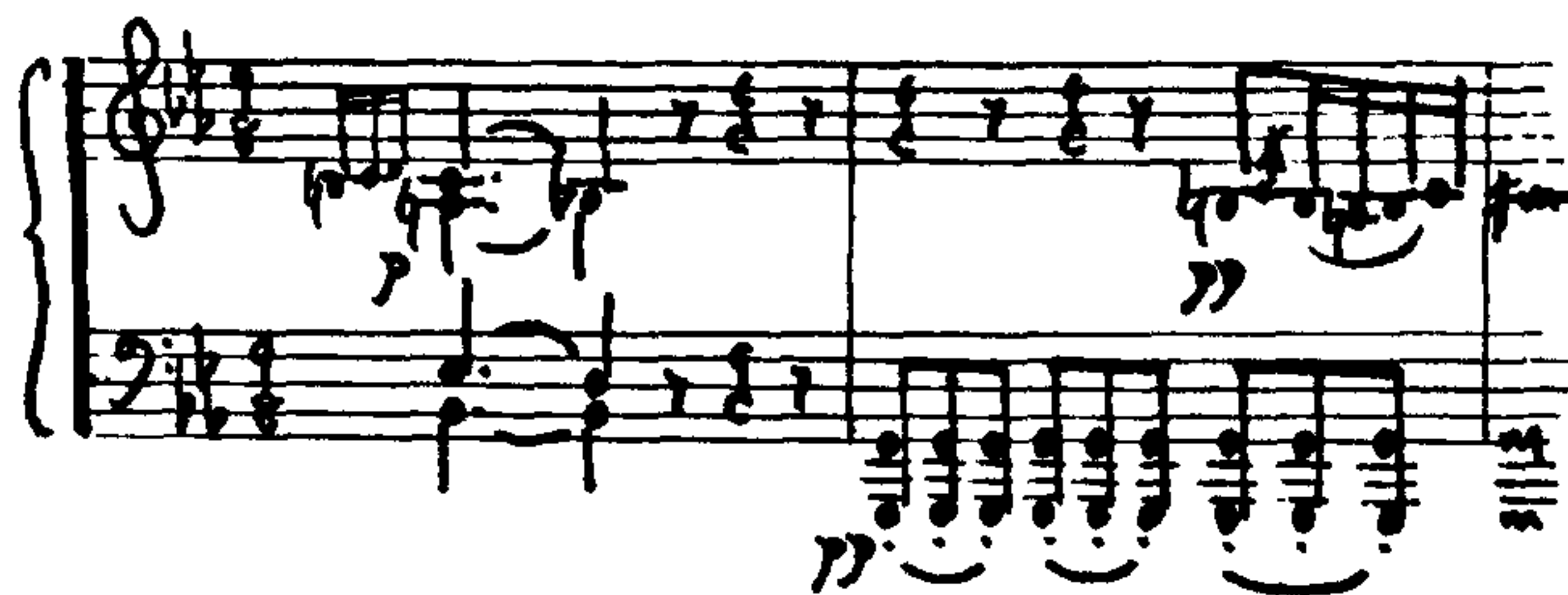
"To have modulated from B \flat to G would have been as infuriating as to preach to the prisoners a sermon on the blessings of liberty".¹

However he defines the relationship solely in terms of the juxtaposition of tonic and submediant and does not correlate instances of this particular relationship.

The examination of ten notable instances where B \flat and G stand in direct relationship has it is hoped indicated the relevance of adapting the normal concept of a tonic-submediant relationship to take account of the functioning of a tonal reference of particular significance in the music. Perhaps the most notable feature of the examples included above is that they do not occur in stereotyped contexts. These instances are not claimed as exhaustive; at least one further instance of note occurs in the later music, in the String Quartet Op. 130 (in B \flat) of which the Alla Tedesca is in G.

Of the seven works in B \flat composed up to and including the Piano Sonata Op. 106, five have been cited in some detail as evincing B \flat /G tonal juxtaposition of note. There is a further instance in one of the two remaining works which, while not an incidence of G as an established key nonetheless reflects the tendency to B \flat /G juxtaposition. This is in the slow movement (in B \flat) of the Piano Sonata Op. 22. Following the close in the dominant there is a momentary incidence of G which, comparably with the treatment in the development of the String Quartet Op. 74(i), is used in the tonal move to c. Bars 30-31 of Op. 22 (ii) are:

1 "Beethoven" - Tovey (O.U.P. Paperback, 1971)P.38.



Not all the $B\flat$ movements in these $B\flat$ works evince $B\flat/G$ tonal juxtaposition, but examination of these movements and of $E\flat$ movements in works in a basically different tonality reveals the functioning of a particular tonal hierarchy in relation to $B\flat$, and in which the key of g is consistently focal. As previously indicated, an exhaustive examination of the $B\flat/G$ relationship would necessitate the detailed comparative analysis of all $B\flat$ movements (and indeed of the $E\flat$ tonal complex). The scope of the present investigation does not take account of the detailed analysis of that corpus of material. However that definite tendencies are functioning in relation to the tonalities of $B\flat$ and $E\flat$ emerged in the close examination of the works in both keys which formed the background to the present Appendix. That the two tonal complexes are progressively more closely inter-linked has been suggested above and is further considered below. It is interesting to note how the $B\flat/G$ juxtaposition becomes in the context of $E\flat$, in a number of cases, the vehicle of the move to c early in development treatment which is a tonal characteristic of $E\flat$.¹

The second main area of examination relevant to the present

1 Analysis of the tonal structure of $E\flat$ movements in Sonata Form and allied structures made in investigation of the $B\flat/G$ relationship revealed that c is the first key early in the development treatment in over half of these movements. The $E\flat/c$ relationship is parallel in terms of degree relationships, with $B\flat/g$. In $B\flat$ movements however, g is not an early development key but is more focal in the tonal structure of such movements as indicated in the text. Further differentiation in terms of peculiar tonal usage thus becomes apparent in relation to the two tonalities.

considerations concerns the relationships parallel with $B\flat/C$ in other keys. In the (major) keys (excluding $B, F\#, G\flat, C\#$ and $D\flat$) these are:

$C/A : G/E : D/B : A/F\# : E/C\# : A\flat/F : E\flat/C : F/D$

Of these, $A/F\#, E/C\#$ and $A\flat/F$ may be discounted immediately. Whatever the concomitant 'awkwardness' of $F\#$ and $C\#$ as keys, these are the product of direct comparison in terms of degree-relationship, but do not occur comparably with $B\flat/G$ in tonal juxtaposition. This is perhaps most worthy of note in relation to $A\flat/F$, where there is a considerable number of movements, if not works, in $A\flat$, and yet this relationship does not notably result.

That the submediant minor stands in a particular relationship with the tonic in D emerged in the course of the D tonal-thematic analysis.¹ The D/B tonal link is not comparable with the high incidence of $B\flat/G$ tonal juxtaposition.

An interesting situation emerges in relation to G/E ; this is that there are two movements in E in early G works - the Piano Trio Op. 1/2 (ii) and the String Trio Op. 9/1 (ii). The String Quartet Op. 18/2(i) also incorporates a partial statement of the opening thematic material in the Recapitulation treatment of the first group. There is however a stronger tendency to focal emphasis of C in the G music and the G/E relationship is not a recurrent feature in the G tonal complex.

The three remaining pairs of relationships, $C/A, E\flat/C$ and F/D merit consideration in some detail. C/A is perhaps the weakest of the three; $E\flat/C$ and F/D are certainly relationships of significance in Beethoven's tonal vocabulary as has to some extent emerged in the course of the thesis examination.

1 That this tonal reference is at times enhanced by the use of the submediant major also emerged. (See above, P.163 Footnote 1. In both cases cited there, this "major enhancement" immediately precedes resolution into D and seems linked to the preference for focal emphasis of the submediant (minor) in developmental treatment.)

C/A: The first instance of this relationship occurs in the finale of the Piano Sonata Op. 2/3. Following (home) dominant emphasis, a triple trill narrows to a single trill on D, rising a semitone (bars 292-7). What this is in fact D[#] is confirmed following a pause-bar, when the Rondo theme enters in the key of A (with E uppermost in the right hand). The tonal return is accomplished via the relative minor, a.

In the first movement of the String Quintet Op. 29 (1801) and of the Triple Concerto Op. 56 (1805) A is the key of the second group. In both cases the key becomes a, by the close of the exposition (which is not so in relation to the instances of G as a second-group key in relation to E^b and F^b). Thus the tonal structure is apparently functioning with individuality in relation to tonal context and is not solely the application of uniform degree-relationships.

One further instance where A occurs in a particular relationship with C concerns "Fidelio". The finale of Act II opens with the jubilant C section ("Heil sei dem Tag!"). At the entry of Rocco (Poco vivace agitato) the tonality moves through minor emphasis (of c) to d (the Neapolitan emphasis of D^b is notable here) and subsequently moves through F which is treated as a tonal pivot, the augmented sixth resolving onto the dominant of A, although the major third is withheld until the Meno Allegro, which enhances the dramatic impact of Don Fernando's apprehension of what in fact happened to Florestan. A remains the basic key of a considerable section of the finale, itself giving way to a significant tonal juxtaposition (A/F) at the highly emotional juncture when Fernando invites Leonora to free her husband from his fetters, and thus the tonality is directly resolved into C.

E^b/C: That this relationship is of particular significance in the E^b tonal complex to some extent emerged in the course of the E^b tonal-thematic examination in Part II of the thesis. C stands as the key of subsidiary movements in four works, the Piano Sonata Op. 7 (ii), the Sonata for Violin and Piano, Op. 12/3 (ii), the Piano Sonata Op. 27/1 (as the key of the Allegro immediately following the opening Andante) and the Piano Trio Op. 70/2 (ii). It is interesting that the Presto third movement of the String Quartet Op. 74 is in c, with the contrasting Più presto in C.

This treatment is not normal tonal procedure in Beethoven's usage for such a scherzo-type movement; the incidence of C here is notable both with respect to the tendency to sectional emphasis of C characterising the four contexts cited but also in relation to the 'scherzo' key of c. The choice of c here is tonally-related to the basic E♭ tonality which tends to such emphasis of the relative minor, and there is in c a marked preference for C as a sectional contrast. The proportion of works in which the submediant major occurs as a sectionally contrasting key is however greatest in relation to the tonality of E♭.

The key of C also bears a particular relationship to E♭ 'internally' in the music. There is no instance of C as the key of the second group treatment in Sonata Form structures (thus differentiating certain aspects of this relationship from its parallels in B♭ and C) but C is a focal key in development sections in the context of a basic E♭. This is so in the Piano Sonata Op. 31/3 (i), the Symphony No. 3, Op. 55 (i), the String Quartets Op. 74 (i) and 127 (i) and (iv) (the Coda of this movement also begins in C). Reference may also be made to the slow movement of the Septet Op. 20, in A♭. Following a close in E♭, the dominant, the tonality moves directly into C. The main developmental section of the Fifth Piano Concerto finale also begins with a C statement of the Rondo theme. (The tonal chain E♭: C: A♭: F♭ is precisely that structuring the Op. 127 finale Coda, it may be noted).

The preference in E♭ for particular emphasis of C has emerged in the course of the thesis examination. That C is also the focus of particular tonal usage perhaps reflects the wide-ranging tonal spectrum which characterises this tonality. C is the preferred key in a significant number of instances for sectional contrast as the key of a subsidiary movement or as a key of structural importance internally in individual E♭ movements. The rôle of the E♭/C relationship thus differs from that pertaining to E♭/G and emerges as notable in its own right characterising and differentiating tonal usage in relation to the tonality of E♭.

F/D: The functioning of this relationship in the music occurs in a variety of formal contexts. There is one instance of an F/D juxtaposition between a scherzo and trio, in the Symphony

No.7. The incidence of F as the key of the third movement of this work is itself the functioning of a particular relationship of note in Beethoven's tonal vocabulary. Another outstanding instance of a sectional F/D juxtaposition occurs in the String Quartet Op.132, in a. Beethoven describes the Heiliger Dankgesang as "in der lydischen Tonart" (it follows a movement in A). That this use of "F Lydian" should alternate with D as the key of the Andante sections suggests the persisting influence of the F/D relationship. The earliest example of such a sectional juxtaposition between F and D occurs in the Six Variations for the Piano, Op. 34 (1302). The theme is in F, the first variation in D. The overall tonal structure of this work is particularly interesting and caused Bekker to comment that:

"Op. 34 expresses in miniature Beethoven's aesthetic theory of the key".¹

While the notion of "aesthetic theory" is somewhat intangible, that particular tonal relationships are in evidence in Op.34 is certainly the case, although Bekker does not seem to base his assessment on tonal correlation of the music at large. The keys are F : D : B \flat : G : E \flat : c : F.

The Bagatelle Op. 33 No.3, from the set of Seven Bagatelles (1802) introduces a direct F/D juxtaposition between the two opening 4-bar phrases. While Tovey agrees that there is nothing extraordinary about this it is not because he detects a tonally-related tendency here.²

The Trio for Piano, Clarinet and 'Cello Op.11 (1798) includes an earlier instance of such F/D juxtaposition. The work is in B \flat and the first movement exposition proceeds from the B \flat statement of the first group material onto the dominant, a characteristic move in the early music. Following the fortissimo F cadence however, F is not immediately taken as the key of the second group, but D harmony sounds. This is subsequently tonally reorientated through g as supertonic of the dominant 'proper', but the juxtaposition of F and D is direct.

1 Beethoven - P.J. Bekker (London, Dent; 1925, translated by H. I. Bozman). P. 118.

2 Op. cit., Pp. 34-35.

There are a number of other instances which are apparently linked to this tendency to F/D tonal juxtaposition, internally in the music. In the Piano Sonata Op.10/2 (i), normal dominant preparation at the end of the development does not cadence into F, the tonic, but the bass halts on A and the Right Hand is modified to herald the beginning of the motivic recapitulation in D. Thus D here stands instead of F, suggesting a close relationship between the two keys. The finale of the same work also focuses emphatically on D as the key of new developmental material which is stated in D, the tonality remaining stable (over a D pedal) for eight bars preceding a circle of fifths move onto the home dominant. The String Quartet Op. 18/1 (iv) also focuses on D centrally in the development. The occurrence of D here is the more notable as the home dominant has received characteristic and extended emphasis (bars 173-187) but this is diverted through a chromatic link (something of a "fingerprint" with Beethoven) and prepares the key of D.

The first movement of the Symphony No.4 in E \flat focuses on D early in the development. The exposition closes in F which is then sustained for a considerable time, opening the development, and a further F cadence is anticipated. However the bass rises from C \flat to C \sharp simultaneously with the incidence of A ($\frac{6}{3}$) harmony. The seventh is added only after a number of bars of suspense, and the first group material is stated by the Flute in a beautifully handled entry, in D.

There are numerous instances in D works where F occurs in particular relationship to the tonic, and this D/F link is closer to usage in A which tends to A/F and A/C juxtaposition (the latter is the reverse of the C/A relationship). Concerning F/D juxtaposition however that a particular tendency is in evidence is clear but this relationship seems to occur in various contexts, and in usage not paralleled in other keys. It is evident both sectionally and as a notable tonal focus internally in individual movements, but once again not in the area of the exposition. It is more frequently apparent than the parallel

C/A, but not in the same structural context; and its usage seems to be more varied than that relating to E♭/C. It clearly also differs from the E♭/G "complex" and may therefore be said to be a unique tonal reference.

Conclusion:

In extending comparison to several tonalities it has emerged that not only is the E♭/G relationship of particular significance but also that its direct parallels in terms of degree-relationships function differently according to key-location. That this is so further indicates the inadequacy of assessing such relationships solely in terms of a tonic-submediant link as such analysis does not identify the recurrence of specific key-relationships in various formal contexts.

Of the three parallel relationships significantly apparent in the music, the C/A association is perhaps the weakest. F/D is characterised by notable variety in its contextual occurrence; E♭/C evinces a tendency to structural, sectional contrasting of the two tonalities in plateau-like association. While there is a certain degree of overlap between the various tonal contexts, that individuality of usage characterises each pair of keys has also become apparent. Thus the E♭/G relationship itself emerges as a distinct tonal association in Beethoven's tonal vocabulary.

Examination of the incidence of E♭/G tonal juxtaposition indicated the apparent development of what was referred to above as "tonal interlinking" between the tonalities of E♭ and E♭. By correlating instances of E♭/G juxtaposition it emerged that beginning with the Piano Trio Op. 70/2 this relationship which is not notably evident in the earlier E♭ music, subsequently characterises the later E♭ works with consistency. E♭/G is significantly apparent throughout the E♭ music. It thus seems plausible that Beethoven's development in the handling of form is complemented by the combination (or "interlinking") of particular tonal complexes (in relation to E♭ and E♭ at least) as the vehicle of the tonal structure. This suggestion appears to be a reasonable one in the light of the consistency which characterises the tonality of E♭, in various ways, as the main thesis examination indicates, and in view of the recurrence of

B \flat /G tonal association in relation to the tonality of B \flat . Other aspects peculiar to the B \flat tonal complex have been referred to in the course of the present survey; notable among these are bVI and bIII emphasis prefacing B \flat . The emphatic use of C \flat frequently preceding the dominant in E \flat has also been indicated. Thus there is common ground between the tonalities in terms of the incidence of specific key relationships. With the development of the formal vehicle the interlinking of the individual B \flat and E \flat tonal complexes thus seems a logical development in the area of tonal structuring. That Op.70/2 introduces a G second group where B \flat is without exception the contrasting exposition key in preceding E \flat works and that comparable emphasis of G then recurs in the later E \flat music is additional evidence in favour of this interpretation. It is however important to note that in this "combining" of two tonal complexes, Beethoven does not implement new key-relationships as such.¹ The tonal vocabulary is consistent with tonal procedures in his earlier works in relation to key-location. The change which seems to occur in the later music is perhaps more accurately defined as a development in the application of the tonal references which, as the thesis examination and the present survey have it is hoped indicated, are inherently related to key-location in Beethoven's usage, and are thus consistently in evidence throughout his oeuvre. It seems to be the case that such development coincides with particular developments in the formal structure of the works..

Investigation of a particular relationship in Beethoven's music, the association of B \flat and G as a notable and recurrent 'tonal reference' has thus thrown a new light on the later E \flat music in particular while emerging as an individual tonal relationship in its own right. Further comparative analysis is needed to assess the accuracy of the suggestion that the tonal complexes characterising B \flat and E \flat are combined in the later music but in seeking to clarify the tendency to B \flat /G tonal juxtaposition, the present survey has indicated, it is hoped, that there are functioning in Beethoven's music particular tonal tendencies which can only be identified and elucidated by tonal correlation, by relating tonal procedure to key-location and by taking account of specific key-relationships, irrespective of formal context.

1 Cf. Pp.315-6 of the Conclusion to the main thesis examination.

APPENDIX II - The "Second Group" Key in Minor
Mode Movements

LIST I : Minor mode movements included in this study.¹

WORK	MOVEMENT	KEY	KEY OF WORK	RELATIVE KEY OF MOVEMENT	
Pre-opus	Piano Quartet	(ii)	ff	D	iii
Op. 1/3	Piano Trio	(i)	c	c	i
		(iv)	c		i
Op. 2/1	Piano Sonata	(i)	f	f	i
		(iv)	f		i
Op. 5/2	Sonata for 'Cello and Piano	(i)	g	g/G	i
Op. 9/2	String Trio	(ii)	d	D	i
Op. 9/3	String Trio	(i)	c	c	i
		(iv)	c		i
Op.12/2	Sonata for Violin and Piano	(ii)	a	A	i
Op.10/1	Piano Sonata	(i)	c	c	i
		(iii)	c		
Op.10/3	Piano Sonata	(ii)	d	D	i
Op.13	Piano Sonata	(i)	c	c	i
		(iii)	c		
Op.49/1	Piano Sonata	(i)	g	g/G	i
Op.13/1	String Quartet	(ii)	d	F	vi
Op.13/4	String Quartet	(i)	c	c	i
		(iv)	c		
Op.37	Piano Concerto No.3	(i)	c	c	i
		(iii)	c		
Op.23	Sonata for Violin and Piano	(i)	a	a	i
		(iii)	a		

1 That is, drawn from the cumulative list of works given in the Introduction to the thesis, Pp.23-32 (and including Cvertures. Minuet-type movements are not listed except where a Sonata Form structure pertains.)

	WORK	MOV. NO.	KEY	KEY OF WORK	RELATIVE KEY OF MOV. NO.
Op. 25	Piano Sonata	(ii)	d	D	i
Op. 26	Piano Sonata	(ii)	a \flat	A \flat	i
Op. 27/2	Piano Sonata	(i)	c \sharp	c \sharp	i
		(iii)	c \sharp		
Op. 30/2	Sonata for Violin and Piano	(i)	c	c	i
		(iv)	c		
Op. 31/2	Piano Sonata	(i)	d	d	i
		(iii)	d		
Op. 47	Sonata for Violin and Piano	(i)	a	A	i
Op. 55	Symphony No. 3	(ii)	c	E \flat	vi
Op. 57	Piano Sonata	(i)	f	f	i
		(iii)	f		
Op. 58	Piano Concerto No. 4	(ii)	e	G	vi
Op. 59/1	String Quartet	(iii)	f	F	i
Op. 59/2	String Quartet	(i)	e	e	i
		(iv)	e		
Op. 59/3	String Quartet	(ii)	a	C	vi
Op. 62	Overture to "Coriolan"			c	
Op. 67	Symphony No. 5	(i)	c	c	i
Op. 68	Symphony No. 6	(iv)	f	F	i
Op. 70/1	Piano Trio	(ii)	d	D	i
Op. 79	Piano Sonata	(ii)	g	G	i
Op. 81a	Piano Sonata	(ii)	c	B \flat	vi
Op. 95	String Quartet	(i)	f	f	i
		(iv)	f		
Op. 84	Overture to "Symphonie"			f	
Op. 92	Symphony No. 7	(ii)	a	A	i
Op. 90	Piano Sonata	(i)	e	e/ \flat	i
Op. 726	"Fidelio", Act II, No. 11.		f		
Op. 102/1	Sonata for 'Cello and Piano	(i)	a	C	vi
Op. 102/2	Sonata for 'Cello and Piano	(ii)	d	D	i
Op. 106	Piano Sonata	(ii)	f \sharp	B \flat	\sharp v
Op. 109	Piano Sonata	(ii)	e	E	i
Op. 110	Piano Sonata	(iii)	a \flat	A \flat	i

WORK	MOVEMENT	KEY	KEY OF WORK	RELATIVE KEY OF MOVEMENT	
Op.111	Piano Sonata	(i)	c	c/C	i
Op.125	Symphony No.9	(i)	d	d/D	i
		(ii)	(Scherzo) d		i
Op.133	String Quartet	(i)	a	a	i
		(iv)	a		
Op.131	String Quartet	(i)	c#	c#	i
		(iii)	b		bvii
		(vi)	g#		v
		(vii)	c#		i

LIST II : Minor mode movements correlated according to tonality.¹

KEY :	c	f			
Op.1/3	(i) : (iv)	Op.2/1	(i) : (iv)		
9/3	(i) : (iv)	57	(i) : (iii)		
10/1	(i) : (iii)	59/1	(iii)		
13	(i) : (iii)	68	(iv)		
13/4	(i) : (iv)	95	(i) : (iv)		
37	(i) : (iii)	84			
30/2	(i) : (iv)	72b	No.11		
25	(ii)				
62					
67	(i)				
61a	(ii)				
111	(i)				
KEY :	d	a	e		
Op.9/2	(ii)	Op.12/2	(ii)	Op.58	(ii)
10/3	(ii)	23	(i) : (iii)	59/2	(i) : (iv)
18/1	(ii)	47	(i)	90	(i)
28	(ii)	59/3	(ii)	109	(ii)
31/2	(i) : (iii)	92	(ii)		
70/1	(ii)	102/1	(i)		
102/2	(ii)	132	(i) : (iv)		
125	(i) : (ii) (Scherzo)				
KEY :	c#				
Op.27/2	(i) : (iii)				
131	(i) : (vii)				

1 This list includes only those tonalities which are examined in detail in the Appendix and thus omits g, f#, b, g#, and a/b which do not occur sufficiently often to afford meaningful comparison with the keys included in List II. (The number of items relating to these omitted tonalities are 3, 2, 1, 1 and 2 respectively.)

LIST III : Number of minor mode items relating to the tonalities comprising List II in order of volume.

KEY	NUMBER
c	19
f	10
d	10
a	9
e	5
cf	1

In the course of the Group (b) D tonal-thematic analysis reference was made to Joseph Kerman's remarks relating to the f String quartet, Op.95.¹ Concerning the tonal structure of the first movement exposition the implication of these remarks is that the key of the dominant minor would be the expected second group key, and that the actual occurrence of D \flat in this capacity is a "dominant enhancement". It is the aim of this Appendix to investigate the tonal structure of minor mode movements with respect to the key-location of second group material in relation to that of the basic tonality to ascertain whether or not tonally-related factors are functioning in this area and thus to assess the accuracy of these comments.

The preceding Lists I - III correlate the data relevant to this enquiry, focusing on Sonata Form based structures as being most directly comparable to the Op.95 context. Only ten of the sixty-six items comprising List I are not in some kind of tonic relationship to the basic tonality; the two Overtures and the example from "Fidelio" are tonally independent. The sixty-six items are drawn from forty-seven works and prior to detailed consideration of the tonal structure characterising individual contexts some reference to larger-scale tonal factors may be made.

1 See above, Pp. 219-20.

List III gives the number of items in each minor key in order of volume. The key of c is clearly the most frequently used as the key of individual minor mode items and indeed of minor mode works. There are ten c works (including the Piano Sonata Op.111). While there are ten minor items in both f and d, there are four works in f and only two in d (including the Ninth Symphony). The high incidence of d reflects a preference for emphasis of the tonic minor in a basic D, an apparently tonally-related phenomenon. The relative minor is not generally preferred as a sectionally-contrasting key, but List I indicates that this key occurs in relation to a basic E^b and C more frequently than to other major tonics.¹ It thus emerges on the level of comparison in terms of sectional relationships that distinct tonal preferences are functioning in the music as a whole concerning minor mode usage.²

The key-location of the second group is examined in relation to the six key-categories forming the basis of this investigation. Each key is treated individually in the sequence adopted in List III and each examination is prefaced by a table summarising the relevant data.³

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- 1 These instances (of the relative minor, in relation to E^b and C) account for almost half of the movements in List I which are not in tonic relationship with the basic tonality.
 - 2 The present comments may be correlated with the findings of Part I, Section II of the thesis; See Pp.48-51 above.
 - 3 This includes a record of the key of "third group", that is "C" - section material in Sonata Rondo structures where applicable, as relevant to the overall tonal preferences characterising a minor tonic. (It is correlated in the "C" group column.)

The key of c

TABLE I

WORK	KEY	MOVEMENT	KEY	RELATIVE KEY OF MOVEMENT	2ND GROUP KEY	RELATIVE KEY OF 2ND GROUP	"C" GROUP KEY
Op. 1/3 Piano Trio	c	(i)	c	i	E♭	III	
		(iv)	c	i	E♭	III	
Op. 9/3 String Trio	c	(i)	c	i	E♭	III	
		(iv)	c	i	e♭ : E♭	iii : III	
Op. 10/1 Piano Sonata	c	(i)	c	i	E♭	III	
		(iii)	c	i	E♭	III	
Op. 13 Piano Sonata	c	(i)	c	i	e♭ : E♭	iii : III	
		(iii)	c	i	E♭	III	A♭ : ♭VI
Op. 13/4 String Quartet	c	(i)	c	i	E♭	III	
		(iv)	c	i	A♭	♭VI	C : I
Op. 37 Piano Concerto No. 3	c	(i)	c	i	(e♭) E♭	III	
		(iii)	c	i	E♭	III	A♭ : ♭VI
Op. 30/2 Sonata for Violin & Piano	c	(i)	c	i	E♭	III	
		(iv)	c	i	E♭(e♭)	III	
Op. 55 Symphony No. 3	E♭	(ii)	c	vi	(E♭)C	(III)I	(A♭) : VI
Op. 62 Overture to "Coriolan"	c		c		E♭	III	
Op. 67 Symphony No. 5	c	(i)	c	i	E♭	III	
Op. 81a Piano Sonata	E♭	(ii)	c	vi	G(f)F	V(iv)IV	
Op. 111 Piano Sonata	c/C	(i)	c	i	A♭	♭VI	

This group, by far the largest relating to minor keys in Beethoven's usage, spans the whole of his published compositions up to 1822. The fact that the tonality of c is clearly the minor key most preferred by Beethoven has not gone unnoticed, but the significance which this choice implies concerning the functioning of tonally-related features in the music has not it seems been recognised.

The marked preference for this minor key ostensibly affords the greatest scope in the (minor mode) music for diversity of tonal structure; however, having preferred the key of c to such an extent Beethoven is extremely consistent in his use of tonality within that key. That this is so at least in relation to the key-location

of the second group emerges clearly in Table I. Only four times in the nineteen contexts does he use a key other than the relative major (which is sometimes combined with its own minor) as the second group key.

There is in the context of c a notable preference for the tonic major (C) to stand in sectional relationship with the tonic minor. The key of A \flat is next in order of preference and this key does bear a particular relationship to c in a variety of formal contexts. In the c movements it frequently occurs as the first tonal contrast to the tonic, initiating the tonal move to E \flat . It may be seen from Table I that A \flat occurs as a second group key in two works and as a "C" group key in two works. (The reference to A \flat in brackets in relation to Op. 55 indicates the notable emphasis of the flattened submediant effecting the return to the final full statement of the funeral march and initiating the Code.)

The tonal structure relating to the Op. 51a Piano Sonata is exceptional in comparison with the other c movements. Perhaps most surprising is the incidence of the dominant major. (It is interesting to note that following the c cadence at bar 3 A \flat harmony immediately follows - with subdominant enhancement - and gives rise to the A \flat /f juxtaposition, a relationship noted in the course of earlier considerations.¹) The subdominant (f) is subsequently emphasised but leads to an F statement of the material previously stated in G. Subdominant recapitulation even if tonally more regular (in terms of the usage identified here as characteristic in c) second group material is in fact a notable feature of c usage. Its incidence here may be related to this tendency, and also serves the tonally-related function of acting as a pivot into the home tonic, C, for the finale. While Tovey describes what happens in this movement, he does not recognise the functioning of tonally-related factors, nor the uniqueness of the incidence of G. He states that the movement is:

1 Cf. Pp. 251, 257-8, 259 (260), 285-6.

"dealing with a series of short themes in rotation, recapitulating the in another group of keys, and making as if to recapitulate again, but interrupted by change leading to the finale".¹

The tonal structure is atypical of Beethoven's own usage in relation to c, but that tonally-related features are also functioning becomes apparent in the light of comparison by tonal correlation.

The preferred key for the tonal location of the second group in the context of a basic c is therefore undoubtedly E \flat , the relative major. The consistency with which it occurs in this context indicates the functioning of tonal complexes in view of the fact that the large volume of music in c is not characterised by wide-ranging tonal structure, certainly with respect to the key-location of second group material.²

The key of f

TABLE II

WORK		KEY	MOVEMENT	KEY	RELATIVE KEY OF MOVEMENT	2ND GROUP KEY	RELATIVE KEY OF 2ND GROUP	"C" GROUP KEY
Op. 2/1	Piano Sonata	f	(i)	f	i	A \flat	III	
			(iv)	f	i	c	v	
Op. 57	Piano Sonata	f	(i)	f	i	A \flat :a \flat	III:iii	
			(iii)	f	i	c	v	
Op. 59/1	String Quartet	F	(iii)	f	i	c	v	
Op. 68	Symphony No. 6	F	(iv)	f	i	(c:D \flat)	(v: \flat VI)	
Op. 95	String Quartet	f	(i)	f	i	D \flat	\flat VI	
			(iv)	f	i	c	v	
Op. 84	Overture to "Egmont"	f				A \flat	III	
Op. 72b	"Fidelio", No. 11	f				A \flat	III	(F:I)

1 Tovey:- A Companion to Beethoven's Pianoforte Sonatas (Published by the Associated Board of the Royal Academy of Music and the Royal College of Music, 1931); P. 204.

2 Cf. the comments made in relation to E \flat in the Introduction to the E \flat tonal-thematic analyses in Part II of the thesis. (P. 239 above.)

The f movements number about half of the c group; of the ten items, seven are in the context of f as the basic key of a work, one (the "Fidelio" instance) may be similarly regarded, and the remaining two items occur in F works.¹

Although there is a considerably smaller number of f movements, Table II reveals far more diversity concerning the tonal location of the second group than is the case in c. There are four instances of the relative major (A \flat) in this context (followed by its minor in the Piano Sonata Op.57 (i)), four instances of the dominant minor (in two of which, the Piano Sonata Op.2/1 (iv) and the String Quartet Op.59/1 (ii) the relative major occurs immediately following the c close of the second group and thus of the exposition), and in the remaining two items the key of D \flat is prominent. In the first of these however the dominant minor precedes this occurrence of D \flat . The structure of this movement, "The Storm" from the Pastoral Symphony, No.6 is in effect an extended horizontalisation of \flat VI emphasis, finally resolving into the tonic major. In the course of the treatment (which is structured by descending bass progressions) thematically contrasting material occurs twice, first in the key of c and subsequently in D \flat . In a very real sense D \flat is a tonal and structural pivot throughout the movement.

An interesting aspect of the f music is that three instances have direct dramatic associations. The "Storm" from the Pastoral Symphony is one. The other two are the Overture to "Egmont" and Florestan's **Aria** from "Fidelio". The choice of f for the key of the last two in particular must be significant as neither context is dependent upon tonal coherence with preceding material as is the case with the Symphony, and the ensuing material in the Opera builds from the Aria tonally, as indicated. The "Egmont" Overture is in no way limited by tonal considerations and must represent a significant indicator of the particular associations which this key held for Beethoven.

1 Florestan's Aria, ("Fidelio", No.11) opens Act II. Act I ends in D \flat and the 'melodrama' following the aria takes its tonal location from the aria, initially.

The "Fidelio" Aria opens Act II and is the first scene in the dungeon, the first appearance of Florestan in the Opera. It is a juncture of great importance to the unfolding of the drama and of great emotional intensity. The key of f in this context and its treatment afford further material of interest tonally. That A \flat is the main contrasting key, the key of the aria "proper" has been indicated. The tonal move prefacing A \flat is however notable both for its extraordinary beauty (account must be taken of the words here) and for the incidence of F \sharp preceding A \flat .¹ The tonality moves from f, elliding subdominant emphasis into G \flat ; following diminished harmony over a G \flat pedal, a G \flat resolution occurs (at the Piú moto and written enharmonically but for the tenor B \flat). A further tonal move introduces C \flat followed (at the words "Doch gerecht ist Gottes Wille!") by a resolution into F \flat (written E). A \flat is finally established via a rise through the dominant of F \flat to D \flat and thus onto the dominant of A \flat which is formally resolved. It is in connection with the subsequent treatment that comparison with both the Pastoral Symphony and the "Egmont" Overture is also pertinent and indeed extends to one other f context.

Concerning Goethe's "Egmont", the lofty ideals of this play appealed strongly to Beethoven's own ideals as is well known. The Overture epitomises Egmont's moral courage and, in its closing stages, expresses his essential triumph in the jubilation of the tonic major climax. It is in this major tonal culmination that the further similarity both with the "storm" movement and with Florestan's aria occurs. The storm gradually subsides and as the \flat 6 finally settles on the home dominant, the major Hymn of Thanksgiving transforms the storm motif. In Florestan's aria the final cadence of the A \flat section is diverted through C harmony and as Florestan's hopes rise at his vision of Leonora the simple but beautifully elating oboe melody soars symbolically as the tonality of F is defined and resolved.

1 Cf. P.247, Footnote 1.

A final comparison is suggested in relation to the String Quartet Op.95. Kerman regards the close of the work as "a first attempt at the 'dissolving' conclusion",¹ but that this attempt first occurs in an f work is perhaps worthy of note tonally in view of the three comparable instances referred to here.

In conclusion to this consideration of minor mode usage relating to f, two instances of f-based sections not in Sonata Form and prefacing F movements in F works may be appended. These concern the Horn Sonata, Op.17 (1800) and the last String Quartet, Op.135 (1826). In both works the f section preceding the respective finales includes characteristic emphasis of $\flat 6$. The Op.17 context modulates to $E\flat$ in the first eight bars, and is certainly unusual in that respect. The f Grave of Op. 135 prefaces the finale thematically in the inclusion of the motif which is inverted and transformed into the major at the commencement of the Allegro.

Concerning the key-location of the second group in an f context, the present investigation indicates that the dominant minor and the relative major occur with equal incidence and that $D\flat$ while bearing a particular relationship to f internally in the music (and in various formal and tonal contexts) is only the key of the second group in two instances, one of which serves a tonal function other than that of the vehicle of second group material.

1 Op. cit., P.266.

The Key of d

TABLE III

WORK		KEY	MOVE	KEY	RELATIVE	2ND	GROUP	RELATIVE
			MENT		KEY OF	KEY		KEY OF
					MOVEMENT			2ND GROUP
Op. 9/2	String Trio	D	(ii)	d	i	(C)	a	v
Op.10/3	Piano Sonata	D	(ii)	d	i	(C)	a	v
Op.18/1	String Quartet	F	(ii)	d	vi		F	III
Op.28	Piano Sonata	D	(ii)	d	i		D	I
Op.31/2	Piano Sonata	d	(i)	d	i		a	v
			(iii)	d	i	(C)	a	v
Op.70/1	Piano Trio	D	(ii)	d	i		C	♭VII
Op.102/2	Sonata for Cello & Piano		(ii)	d	i		D	I
Op.125	Symphony No.9	d/D	(i)	d	i		B♭	♭VI
			(ii)	d	i		C	♭VII

The ten items comprising the d group evince greater variety again in the key-location of second group material. Included in this group is the Scherzo from the Ninth Symphony which is itself a Sonata Form structure, with development.

Prior to discussion of the preferred second group keys in relation to d some consideration may be given to the functioning of a particular tonally-related tendency in this tonality which emerges on a larger-scale level in the later music. In Table III above three second group keys are prefaced by the key of C in parenthesis. This indicates a modulation to the key of C (♭VII) prior to the incidence of second group material in the key of a (the dominant minor) in each case. The tendency to supertonic emphasis in the C tonal-thematic complex was discussed in the Part II thesis examination and reference was also made to the reverse tendency to C from d which is apparent in a wide variety of contexts, formal and tonal, in the music.¹

¹ See Pp. 57-63 above.

The present tendency to C early in d movements indicates an additional aspect of the functioning of a particular reference in Beethoven's tonal vocabulary.

There is one movement in which the second group key is also a, but in which this is not preceded by C emphasis, the first movement of the Piano Sonata, Op.31/2. It is however of interest to note the similarity of procedure, thematically and harmonically, which characterises this context (bars 21-34) when compared with that in Op.9/2 (ii) (bars 11-15) and in Op. 10/3 (ii) (bars 9-11).

Perhaps the most startling modulation into C prior to the second group in a is that characterising the finale of Op. 31/2. In the two earlier instances (Opp. 9/2 and 10/3) the modulation occurs in the course of melodic transition passages; in the Piano Sonata Op. 31/2 (iii) there is no such lyricism and the tonal contrast following the d cadence of the 32-bar opening thematic paragraph is abrupt:

This incidence of C is the most emphatic of the three prefacing second group material in a. The fact that C is itself the second group key in the next d movement thus takes on particular significance. The tendency to C in the context of d in Beethoven's tonal vocabulary seems to be a tonal reference which developed in expressive significance, a suggestion which the Piano Trio and Ninth Symphony instances in the present group seem to support.

The Piano Trio Op.70/1 has acquired the nickname of "Ghost" on account of the d second movement. This is a powerfully expressive Largo, (indeed it matches other d contexts in Beethoven's music in its profoundness of expression). It is extremely intense, somewhat elliptical formally and at times very enigmatic. Flanked by two such exuberant outer movements it constitutes an extreme contrast, perhaps reflecting those extremes of temperament to which Beethoven himself tended. The first main climax of the atmospheric slow movement occurs with the extended and powerful modulation to C. This outstanding instance of C in a d movement does not seem to have caused comment but it emerges as a notable and developed instance of a particularly accessible reference in Beethoven's tonal vocabulary when the d music is examined in terms of tonal correlation.

There is a second instance of C occurring as the second group key in the d music correlated in Table III. This is in the Scherzo of the Ninth Symphony. The move to C is direct and is comparable with Op.31/2 (iii) in this respect, but the key of C is sustained in the Symphony Scherzo. The ebullient C theme which constitutes the formal second theme caused Riezler to comment:

"It is extraordinary that throughout its sixteen bars it should keep to the tonic, C (major)."¹

Similarly, while he indicates tonal parallels between the Piano Sonata Op.31/2 and the Ninth Symphony, Basil Deane states concerning the Scherzo of the latter:

"the second group is in the unusual key of the flattened seventh (C major)."²

1 Op. cit., P.205. (Riezler is here referring to bars 93-109 of the Scherzo).

2 The Beethoven Companion - P.308.

While the choice of the key of the flattened seventh is indeed unusual in the context of the second group, the present investigation again suggests the functioning of tonally-related factors in the music and correlation of the d Sonata Form based structures reveals that d/C tonal juxtaposition is notably in evidence from early in the music. One further instance of C occurring as a contrasting key-area in relation to d may be referred to here. This concerns an Aria from "Fidelio", Pizarro's "rage" aria from Act I (No.7). This opens menacingly in d.¹ The Neapolitan emphasis is notable, but the B \flat at bar 13 is the first tonal "contradiction"; it is apparently absorbed into a chromatic descent onto the dominant, but the anticipated resolution into E \flat is directed instead onto the dominant-seventh of C, with B \flat having risen to B \sharp in the bass, and the key of C is established, fortissimo. It is subsequently extended into dominant emphasis preparatory to the F resolution. This incidence of C is thus directly comparable with those examples of second group material in C characterising Opp. 70/1 and 125 and the directness of the juxtaposition links the tonal procedure in the aria with the other instances of d/C juxtaposition indicated above.

That d/C juxtaposition occurs throughout his oeuvre suggests that this tonal reference is inherent in Beethoven's tonal vocabulary. Tonal correlation of the music also indicates consistent development in the rôle of the d/C tonal association which becomes the focus of the main formal and tonal contrast, thus acquiring particular prominence.²

1 As with the Piano Sonata Op.31/2 and the Ninth Symphony the aria commences on the dominant. (Cf. The Beethoven Companion, P.308).

2 Cf. the comments made above in conclusion to Appendix I concerning the interlinking of the B \sharp and E \flat tonal complexes. (Pp. 338-9).

Of the six d movements from Table III discussed above, four yield the dominant minor as the second group key, two the key of C. In the four remaining movements, three different keys occur in this context, the keys of F, D and B \flat .¹

There is therefore in the context of Sonata Form based movements in d, a preference for the dominant minor as the second group key. C occurs in this capacity in two instances, but d/C juxtaposition is also apparent in three of the four movements in which a is the second group key, prior to the establishing of the latter and is thus a notable tonal reference throughout the d music. There is not notable preference for either the relative major or the key of \flat VI as the second group key in relation to d.

The key of a

TABLE IV

WORK	KEY	MOVE MENT	KEY	RELATIVE KEY OF MOVEMENT	2ND GROUP KEY	RELATIVE KEY OF 2ND GROUP	'C' GROUP KEY
Op. 23 Sonata for Violin and Piano	a	(i)	a	i	e	v	
Op. 47 Sonata for Violin and Piano	A	(i)	a	i	E:e:e	V:v:v	
Op.102/1 Sonata for 'Cello and Piano	C	(i)	a	vi	(G)e	v	
Op.132 String Quartet	a	(i)	a	i	(f)F	\flat VI	
		(iv)	a	i	G:e	\flat VII:v	
<u>Additional a movements</u>							
Op.12/2 Sonata for Violin and Piano	A	(ii)	a	i	F	\flat VI	
Op.23 Sonata for Violin and Piano	a	(iii)	a	i	e	v	A(A)I(I)
Op.59/3 String Quartet	C	(ii)	a	vi	(f)C	III	F(B) \flat VI
Op.92 Symphony No.7	A	(ii)	a	i	A	I	

1 It may be noted here that the slow movement of the D Sonata for 'Cello and Piano Op.102/2 is in d and, a ternary structure formally, includes a tonic major central section. There are notable similarities in this movement with Op.70/1 (ii) in particular, of the present compilation, and the incidence of C prior to the establishing of a as the location of new melodic material in the Op.102/2 (ii) d context is also worthy of note.

The main focus of the present investigation concerns Sonata Form based minor mode movements as being most directly comparable with the Op.95 (i) f context with respect to clarifying the tonal procedure structuring the second group area in that Quartet's first movement. An interesting formal situation emerges in relation to the key of a however. While the key of a is directly comparable with d in terms of the incidence of movements in a, there are three and arguably four movements in a which are not Sonata Form based. They are listed separately above and comprise a ternary form and three rondo form movements. The slow movement of the Quartet Op. 59/3 is the movement which could be regarded as Sonata Form based although it is characteristic of Beethoven (and it seems notably in this key) to develop an individual formal vehicle of the rondo type.¹ It is an interesting fact that while the incidence of movements in a is directly comparable with that in d, none of the slow movements in a is Sonata Form based whereas all but one of the six such movements in d are cast in this form.

Concerning the second group key in the Sonata Form based movements in a, four of the five focus on the dominant minor; in one case, the Kreutzer Sonata, Op.47 (i), two minor themes are prefaced by a dominant major subject. There is a notable correspondence between Op.102/1 (i) and Op. 132 (iv) concerning the second group treatment. This is that in both cases the key of G is prominent prior to the establishing of e. In the 'Cello Sonata this emphasis is essentially part of the transition, but in the String Quartet the G material is integral to the contrasting second group area, tonally and thematically. (It is interesting to note the similarity of the G theme here with that of the second group in the e String Quartet Op.59/2 (i).) Clearly the a/G relationship is exactly parallel in terms of degree-relationship to that of d/C. It does not emerge as a prominent feature in relation to a usage in this

1 Concerning the formal structure of this movement, cf. Joseph Kerman's comments, Op. cit., P.150.

context however and is one of two tendencies evident in relation to a, which evinces a more even distribution of tonal preferences in the second group area than is the case in d. That there are similarities of usage between the two tonalities in certain notable respects is perhaps linked to their nearness in the spectrum of keys.

The second tonal tendency comparable with the incidence of G also characterises two contexts. The extremely remote key of f prefaces the second group treatment in the two String Quartets, in Op.59/3 (ii) and Op.132 (i). Formally the Op. 59/3 movement is rondo-based¹, but incorporates a clear second group area. This is in the key of C in its first appearance. Following the a cadence of the first group however, the tonality of f is introduced entirely without preparation. The emphasis is less stark in Op.132 and is used as a characteristic \flat VI approach to the key of F, although a tonally-related F/d juxtaposition interposes before the second group theme occurs, in F.

There is therefore in the context of Sonata Form based a movements a distinct preference for the dominant minor as the second group key; a tendency to preface this key with G emphasis is apparent. Including the Additional a movements, a further incidence of the dominant minor occurs and individual instances of the relative major and of the tonic major respectively. That the relative major is preceded by f emphasis links Op.59/3 (ii) with Op.132 (i) however, and suggests the functioning of a tonal reference. The remaining movement in the Second list (Op.12/2 (ii)) is a ternary form movement, the 'B' section of which is in the key of F, the key of \flat VI.

The overall preferences with respect to the second group key in relation to d and a irrespective of form are similar, but there is a stronger tendency to the dominant minor in a, counterbalanced by the stronger preference for the tonic major in d; the tendency to \flat VII emphasis is markedly more emphatic and consistently in evidence in relation to d, where a tends more strongly to \flat VI (and indeed \flat vi) emphasis. A distinct

1 In the present writer's opinion.

complex is therefore in evidence in relation to each tonality with respect to the second group key, although there are similarities which link these two minor keys more closely than is the case with the keys of f and c, keys which are also fifth-related. A particularly interesting reflection of this nearness in relation to d and a in Beethoven's tonal vocabulary is the fact that it was his original intention to use the opening theme of the Op.132 finale in the parallel context in the Ninth Symphony. The theme of the last movement of the Piano Sonata Op.31/2 (in d) is also notably similar, particularly with respect to the outline of the basic thematic cell.

The keys of e and c[♯]

TABLE V

WORK		KEY	MOVE	KEY	RELATIVE	2ND	RELATIVE
			MENT		KEY OF	GROUP	KEY OF
					MOVEMENT	KEY	2ND GROUP
Op. 59/2	String Quartet	e	(i)	e	i	G	III
			(iv)	e	i	b	v
Op. 90	Piano Sonata	e	(i)	e	i	b	v
Op.109	Piano Sonata	E	(ii)	e	i	(C)b(♭VI)	v
Op. 58	Piano Concerto	G	(ii)	e	vi		

TABLE VI

Op. 27/2	Piano Sonata	c [♯]	(iii)	c [♯]	i	g [♯]	v
Op.131	String Quartet	c [♯]	(vii)	c [♯]	i	E	III
Op. 27/2	Piano Sonata	c [♯]	(i)	c [♯]	i		
Op.131	String Quartet	c [♯]	(i)	c [♯]	i		

The tonalities of e and c[♯] evince a comparable incidence of movements but there are once again notable formal differences between the two key-contexts. There are five movements in e

relevant to this consideration, four of which are Sonata Form based.¹ The exception is the slow movement of the Fourth Piano Concerto which is comparable with the Pastoral Symphony Storm movement structurally in that a fixed bass progression, three times stated, comprises the main framework of the movement.

The second group key is the dominant minor in three of the four Sonata Form based e movements. The C emphasis in relation to the key of b in the Piano Sonata Op.109 is worthy of note and reflects a tendency evident in other formal contexts.² The key of G, the relative major occurs only in Op.59/2 (i); the similarity of this theme with that preceding the e treatment in the a String Quartet Op.132 was noted above.

Certain correspondences between the e movements may be indicated here and suggest the functioning of a particular tonal complex. Notable among these is the e/C tonal juxtaposition which is apparent in various formal contexts and is not confined to e tonality. The Op.14/2 Piano Sonata juxtaposes e and C sectionally as is the case in Op.59/2 between (iii) and (iv) and in the Fourth Piano Concerto, between (ii) and (iii). The Piano Concerto instance is particularly notable as it blends the e and G tonal complexes; the tendency to subdominant emphasis in G emerged in the G tonal-thematic analysis; the e/C juxtaposition is one which occurs in a variety of contexts and that it also functions in relation to a basic e is suggested by the present instances.

There are also interesting tonal-thematic resemblances between certain of the e openings under consideration here. Perhaps most outstanding is the similarity between Op.59/2 and Op. 109 (ii). Although the latter is Prestissimo, the metre of $\frac{6}{8}$

1 Minuet and Trio type movements are not included, that is in e, the Piano Sonata Op.14/2 (ii) and the String Quartet Op. 59/2 (iii).

2 See P.112 above, and also Footnote 1 there. The present e works afford a further instance. The finale of Op.59/2 makes use of this link to effect the return to the main theme following the second group in b. (The approach to the C-based opening of the main theme is then interestingly comparable with that in the finale of the C Piano Concerto No.1, bars 299-310 and in the Waldstein Sonata Op.53 (i), bars 146-156, also in C.)

is shared and the basic thematic cell is notably similar. The subsequent flat turn in Op. 59/2(i) is however more comparable with the treatment in the Piano Sonata Op.90(i) where e/C tonal juxtaposition occurs, emphasised by the dynamic treatment. Thematically Op.90(i) is comparable with the Allegretto Op. 14/2(ii). The metre and rhythmical treatment evince similarities, including the alternation of the dotted rhythm with a smooth, lyrical phrase. The phrases are longer in the Sonata Form opening, Op.90(i), but the same thematic complex underlies both contexts.

An interesting situation prevails in relation to the tonality of c#. There are two works in this key but c# is a notable tonal vehicle in a number of other contexts. Perhaps most interesting among these is the incidence of c# as the "goal" of the development treatment in two G works, in the first movement of the Fourth Piano Concerto and in that of the Sonata for Violin and Piano, Op.30/3.

Concerning the two works in c#, each contains one Sonata Form based movement. It is the finale in each case. The second group key is g# in the Piano Sonata Op.27/2 and E in the String Quartet Op. 131. Both movements are of particular interest however when coupled with their respective first movements. In Op. 131 this is a fugue which comprises a fascinating tonal exposition. As this is the first movement of a work the unity of which commentators frequently acclaim, it is of interest that the tonality should be e# and yet account does not appear to have been taken of the precedent, the c# Piano Sonata, Op.27/2. The first movement of this Sonata quasi una Fantasia departs from the Op. 27/1 treatment; indeed the whole Sonata is individual, formally and tonally. The first movement is not Sonata Form based but it does expound the tonality of c#, here without the 'device' of a fugue-subject. The c# Piano Sonata thus constitutes a precedent in relation to the Op.131 String Quartet, both tonally and formally, a similarity which does not appear to have been noted.¹ That the respective finales are both Sonata Form movements and that they share a similar intensity and passionate

1 Concerning Op.131 (i), see Kerman, Op. cit., Pp. 328-9.

restlessness further indicates the functioning of tonal references across so many years and unquestionable development.

Conclusion: The survey of minor mode usage with respect to the tonal location of the second group key conducted in this Appendix has indicated the functioning of individual complexes in relation to tonality. There is not an overall likelihood of the incidence of the relative major or of the dominant minor as the second group key in the minor mode. If any generalisation can be made it is that the dominant minor occurs in this context more frequently in the sharper keys (d,a,e) and that the relative major is more characteristic of the flatter keys (c,f). But clearly such generalisation does not reflect the particular tonal individuality which characterises specific minor mode tonalities. Perhaps the most outstanding fact to emerge from this investigation is the tonal situation pertaining to the second group key in c. The overriding preference is clearly for the relative major with the result that the minor mode key most often used by Beethoven as a (minor) movement key (and as the key of minor works) has the least variety of usage in the key-location of the second group.

Concerning the key of f and the Op.95(i) context, the starting-point of the Appendix, the dominant minor and the relative major are about equally preferred for the second group key. The incidence of D \flat in Op.95(i) reflects a particular tonal tendency characteristic in various contexts, formal and tonal, in Beethoven's music. To interpret this as an "enhanced dominant" is to overlook recurrent tendencies and does not take account of the fact that in Beethoven's usage the relative major is as likely to occur as the dominant minor, as the second group key in the tonality of f.

While this study does not investigate minor mode usage in depth, it nonetheless indicates that as with the major mode usage examined in the thesis, minor mode tonalities are characterised by individual tonal complexes, relative to specific key-location. It is therefore suggested that the comment made by Joseph Kerman concerning the second group key in Op.95(i) needs to be qualified as it does not accurately represent the tonal structure of minor mode movements viewed either as a whole, or in relation to the specific tonality of f, in Beethoven's usage. The present investigation further indicates the relevance of tonal correlation as a basic criterion in assessing the nature of tonal functioning in Beethoven's music.

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BIBLIOGRAPHY

There is no literature concerned with the analysis of the role of tonality in Beethoven's music as the subject of individual and systematic investigation. This aspect, the rôle of tonality in his music, is generally subsumed within more broadly-based considerations in Beethoven Studies, and is only partially examined in relation to the musico-historical significance of Beethoven's oeuvre in the studies of tonality in music which have been made. Although this is the situation relating to this specific aspect of the music, the Beethoven literature as a whole is of course immense. The primary source-material in the present investigation has been the music itself, but in addition to the examination of the music reference has been made to a variety of sources, and has proved an invaluable aid both in maintaining a balance between the concentration upon one aspect of the music which is essential to the present approach, and the larger context - apart from which the investigation of the rôle of tonality can ultimately have little validity, and as a stimulus to my own research, posing challenges and encouraging the verification of the initial intuition, in response to propositions or assumptions which I encountered in my reading and which seemed largely unsubstantiated. As indicated in the Introduction to the thesis, numerous commentators have remarked on notable tonal correspondences in the music, and their perceptions and intuitions, though not defined, have been a constant encouragement. The Beethoven literature has thus been for me an invaluable stimulus to my own investigation and has, albeit indirectly, frequently been a catalyst, an important element in the clarifying of my own approach. The following bibliographical compilation is therefore subordinate to the principal source-material, the music. It is not proposed to give a comprehensive list of the Beethoven literature; only those sources which have had the most direct bearing upon the present investigation are included. The first part of the compilation (I) lists the books which fall into this category; similarly the second part (II) comprises articles from journals and periodicals, and theses, to which detailed reference has been made.

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II

Abbreviations

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| M & L | Music and Letters |
| MQ | The Musical Quarterly ((BBE) Beethoven Bicentennial Edition) |
| MR | The Music Review |
| MT | The Musical Times |
| RMA | Proceedings of the Royal Musical Association |
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