

PERSPECTIVES ON THE NINE SYMPHONIES OF ANTON BRUCKNER

Aspects of thematic and harmonic compositional techniques,
with special reference to the first and final movements,
symphonies one to nine

Dissertation

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PREFACE

This thesis presents perspectives on Bruckner's compositional approach with regard to theme and harmony in the first and final movements of his symphonies one to nine.

It must be realised that a fully systematic and comprehensive discussion along these lines would run into volumes. So, salient examples and common tendencies have been extracted as representative of the overall approach. However, Bruckner being the composer he is, is not dogmatic in his approach to composition and so the reader must at all times see for himself how the general technique is adapted to the individual usage in those parts not referred to in this thesis. The thesis presents the subject features of the expositions, first movements, as these are found in various adaptations in all other movements: it also aims to present a comparative study of the structural tonal principles of the works, showing how these influence the thematic forms. Whenever necessary, in the text, definitions are repeated in their original format to avoid cumbersome cross references.

The most immediate source is the scores themselves, issued by the International Bruckner Society of Vienna, compiled by Dr. Leopold Nowak. All the analysis is based on these editions except for the third symphony which is based on the 2. Edition of 1878 (Wiesbaden G.M.B.H.)

I should like to express my very sincere gratitude to Mrs. Leith Kassier, Dr. Karin Heuschneider, Mr. Terry Logie, Mrs. Huibre Tomlinson who helped prepare this thesis for presentation; to Mr. David Kruger for writing out the musical examples and Mrs. Blanche Whitworth for typing out the manuscript.

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ABBREVIATIONS

- (a) When a stands in the text freely it is enclosed in brackets to clarify its non-article function. Otherwise it is presented Aa or a¹.
- A First subject group
- Aa First subject group, first theme
- Ab First subject group, second theme
- Ac First subject group, third theme
- Arr. Arranged
- Aug. Augmented
- ♯ Augmented sixth chord
- (b) When b stands in the text freely it is enclosed in brackets for clarity
- B Second subject group
- Ba Second subject group, first theme
- Bb Second subject group, second theme
- Bc Second subject group, third theme
- b. bar or bars
- (c) When c stands in the text freely it is enclosed in brackets for clarity
- C Third subject group
- Ca Third subject group, first theme
- Cb Third subject group, second theme
- Cc Third subject group, third theme

Ca ¹	Third subject group, first 'variation' of (a) theme (can be annexed with any subject group, eg: Aa ¹ , Bb ¹ , etc.)
cp	Counterpoint: resulting in cp.a, first counterpoint theme, cp.b, etc.
Cont.	continuation
Dev.	Development
d	diminished chord
dim	diminished
d ₇	diminished seven chord
Div.	division
D.	division (as in tables, D/I reads as Division One, etc)
V	dominant (all Roman numerals represent chords of the degrees of the scale)
V ₇	dominant seventh chord
V _{9/11/13}	dominant, ninth, eleventh and thirteenth chord
v	Interpret as minor dominant
Expo.	Exposition
Ext.	Extension
F	French sixth chord (coupled with appropriate chord symbol)
Fig.	Figurally
ff	following
frg	fragmented
G	German sixth chord (coupled with appropriate chord symbol)
♭	half diminished chord
♭ ₇	half diminished seventh chord

h/motive	head motive
Intro.	Introduction
I	Italian sixth chord (coupled with appropriate chord symbol)
inv.	inversion
(...)	In <u>tables</u> this represents a kinetic region
M	Major (Single capital letters generally signify the major scale unless otherwise coupled, eg: G equals G major)
Med.	Mediant
mig.	migrating
m	Minor (single small letters generally signify the minor scale eg: f-sharp equals f-sharp minor)
O	Original form
(i)	When coupled with Aa(i) represents the motive either first, or second (ii), etc.
mod.	modulating
N ⁶	Neapolitan Sixth
P/I	Part One
Prel.	Prelogue
Recap.	Recapitulation
Rest.	Restated
Sect.	Section
Sect.I	Section I etc.
IV	Subdominant
S	Symphony
SS	Symphonies

S8:i	Symphony Eight, first movement
S8:iv	Symphony Eight, final movement
S8:iAa ¹	Symphony Eight, first movement, first subject group, first theme varied
7	seventh chord
T.D.	Tertiary Dissonance
I	tonic
(o)	tonic key
Trad.	traditional
Trans.	transition
1.	When coupled with b ¹ etc represents a variation to the theme
var.	varied, variation

Standard chord symbols are used in diagram and tables.

Bar numbers are, at all times, guidelines and the exact beat of the opening of examples is not given.

For there are two ways in which men's minds want to 'understand' works of art; the first and primal, by the path of sensitive aesthetic apprehension: the second and cerebral, by the path of analysis.

Graham George

CHAPTER ONE

A kind of musical stream of consciousness wherein the thread of continuity is generated by momentary association. Microcosmic elements are transposed, internally recorded, temporally or spacially expanded or contracted, and otherwise revised in a fluctuating context¹ that constantly transforms the unifying motive itself.

1. General Introduction.

The end of the nineteenth century was a period of musical awareness when questionings and rebellions were perpetrated by composers with regard to the use of form and harmony.

The symphony and opera were in a state of ambivalence, the former caught between the symphonic poem, the ideals of programme music and the grande symphonia, the latter between the ideals of Wagner and the realism of Verdi. Traditional principles and musica futura were in irreconcilable opposition and no one composer was then acknowledged as capable of drawing the principles of all the revolutionaries into one coherent mainstream of musical development.

Bruckner takes his place, together with Gustav Mahler and Richard Strauss, at the end of the nineteenth century. He may be said to stand, rather as Monteverdi and Beethoven did in the past, between two great eras. Bruckner belongs among the first of the twentieth century harmonists.

1. Perle, George. Serial Composition and Atonality.
Faber and Faber, London 1968.

He belongs too, among the first of the motivic, linear melodic techniques of the later, second Viennese school.

This thesis deals with aspects of thematic and harmonic compositional techniques. Bruckner's concept of harmonic progression and modulation was based on chromatic relationships.¹ As he, and many other romantics suffer from the accusation that their works follow harmonic progressions of no defined, systemised or standardised order, the thesis hopes to prove, among other things, that in Bruckner at least, there exists a very consciously designed and cleverly balanced harmonic structure. This, while open to traditional harmonic interpretation, is startling in its anticipation of twentieth century principles of harmonic juxtaposition, progression and contrast.

1.1. The Importance of the romantic chord form

Romantic harmony is identical with chromatic harmony. The frequent use of chromatic progressions lessens the distinctions between major and minor tonalities and increases immensely the possibilities of varying cadences and modulations from one key to another. One may say that this sensitive new harmony is the principle achievement of the romantic movement in music, inasmuch as it added something that did not exist formerly in such intensity and richness.....²

The early romantics contributed much towards the formation of the harmonic idiom of the nineteenth century. Without their initial deviations from the norms of traditional harmony the later romantic

1. However, it can still be adequately defined and explained by Simon Sechter's diatonic system. Simon Sechter was born in Friedburg, Bohemia 11 October 1788 and was a famous composer and theoritian. Some of his better known pupils include Bibl, Otto Bach, Pohl and ANTON BRUCKNER. Throughout his life Bruckner maintained that all his harmonies could be interpreted according to Sechter's diatonic principles.

2. Liechtentritt, Hugo. Music History and Ideas. Harvard University Press. 1964.

school would not have and could not have reached fulfilment. In the early works of Beethoven and Schubert the richness of the new emerging chord forms was emphasized and the possibilities of the chord were exploited without overdue regard for, but without endangering the structure of, the piece. Whereas Beethoven subordinated the intensity of the single chord to the larger formal structure, Schubert was among the first to present the ideal in which the chord and consequently harmony, expression and content, were of at least equal and sometimes greater importance than formal outlines or traditional principles of organisation.

This emphasis on harmony led to an internal expansion of structure and form, for while the harmonic rhythm of each chord was slowed down to encompass a longer stretch of music, the thematic contours were simultaneously extended to cover this area. The chords were thus enlarged both vertically and horizontally.

Probably the most dramatic influence on the stylistic idiom of the late romantic period was the development of the piano. Composers such as Schumann, Chopin and Liszt were well acquainted with the resources of this instrument and it is most probable that the techniques they experimented with on the piano were transferred consciously and subconsciously to their orchestral compositions.

The piano introduced the use of the sustaining pedal which contributed to the increased resonance of the instrument. Beethoven, well aware of the effect of this mechanical device explored this ideal of sound

and colour in his Sonata Op 27 No 2, in c-sharp minor (Moonlight), marked *sensa sordini* (without damper), in which the aim to merge the harmonies one into the other is apparent. Chopin, in his exploitation of the sustaining pedal prolonged the sound and the resounding tone merged and blended the chords into each other, as found in his Preludes No 5, No 8, No 19.

The prolongation of the chord by figural means became one of the most important structural and compositional features of the later romantic school and the technique, initially developed on the piano, was transferred to larger orchestral and vocal composition.¹ It is found in the works of Berlioz, the symphonies of Schumann, the symphonic poems of Liszt and specifically in the mature works of Wagner. Each composer employed its potential in his individualistic way.

One could draw a chronological line of development from this original pianistic figuration possibly to the organ improvisations by Bruckner and thence to the orchestral figuration of certain parts of his symphonies. The effects of this device on the harmonic direction of the Bruckner symphony are self evident.

In essence the new harmonic sound was created by

- (i) Sustaining the chord in simple long notes, resulting in an extended duration of the individual sound above which thematic material could be thoroughly explored

1. This figural technique could be compared to the transference (during the baroque period) of the violin technique of playing to keyboard instruments.

- (ii) Sustaining the chord, with figural repetition of the chord, so that both harmonic and melodic material were explored simultaneously.

Such treatment was used in simple or complex forms, and evolved the highly sophisticated arrangements of the later romantic-chromatic compositions.

This dual expansion of chords is especially crucial to an understanding of Bruckner's tonal techniques as, structurally, each chord acts as a tonal point above which thematic material is explored - forming on one level a chain of interrelated points and on another, larger block structures of thematic-harmonic import. This technique is by no means peculiar to Bruckner but is rather, typical of the techniques of the time.

The internal expansion of the individual chord affected the duration and shape of nineteenth century formal structures. This was achieved in two ways:-

- (i) By the expansion of the individual chord in a non-modulatory situation: here the expansion of the chord is used to delay resolution and so to reinforce the tension between the immediate sound and the ensuing harmony. Such treatment of chords in Bruckner could be static over a pedal point or figural, viz. with a moving bass line that nevertheless circumscribes the notes of an underlying chord structure, eg. S4:ib.153-164

- (ii) By the use of the sustained chord in a modulatory situation: here entire structures are built over interrelated tonal points - although the tonal functions between these individual points may be defined, their actual function forms part of a bigger overall motion which builds up new tonal resolutions and suspensions in tonal areas far removed from the original. Thus the feeling for the actual tonal center is delayed. So the traditional cadence line is obscured by the considerably prolonged progression through the interrelated points.

The emancipation from standardised harmonic relationships, coupled with the expanded form and extended time-scale of their works, led romantic composers to the formulation of new concepts, viz.

- (i) the reorganisation of harmonic principles: inevitably a new hierarchical arrangement of relationships developed. This included, among others, the independence of tonal relationships affecting such progressions as the mediant, the neapolitan, semitone and tritone. These increased the flexibility and the possibilities of modulation, intensified the harmonic drive, and formed the hypertense, surging chromatic lines so suitable for the expression of the "spontaneous overflow of powerful feeling" peculiar to the romantic ideal.¹

1. Wordsworth, William. Preface to Lyrical Ballads. Quoted by O.J. Enright and Ernest Chickera in English Critical Texts Oxford University Press. London 1964 p.165.

- (ii) the reorganisation of form, particularly sonata form: the vertical and horizontal expansion of the individual chord affected the potential and duration of the thematic transformations and so extended melodic outlines which, in turn, expanded the formal divisions of standardised form. In this way traditional concepts especially of sonata form, had to be restructured to incorporate the ideals of depth, intensity, contrast and expansion (of theme, rhythm and harmony) expressed by late nineteenth century musicians. Naturally, each individual and each school of thought offered different conclusions and different methods in developing these expanded structures.

1.2. The expanded sonata form

Sonata form is the term coined to describe the structure used specifically for the organisation of material within a type of movement. This organisation is based primarily on key relationships, namely the systematic choice of different but related keys as a means of contrasting yet linking opposing portions of the movement. It incorporates, too, the use of thematic material which, after its initial presentation, unfolds its potential stage by stage throughout the movement. In the early stages of development, the concept of contrast embodied in sonata form relied exclusively on key dichotomy to express duality. Later classical sonata form turned to more complex structures such as groups of subjects and by the mid-romantic period the importance of thematic contrast for formal differentiation was as, if not more, important as tonal differentiation. The sonata

form of the late romantic era expanded those initial ideas of contrast by key and theme to new dimensions. Passing through the hands of Beethoven, Schubert, Berlioz, Mendelsohn and ultimately Bruckner it was enlarged, revolutionised, revitalised and naturally adapted to suit the specific idiosyncrasies of the individual composer.¹

The following diagram represents the structure of sonata form as found in Bruckner's symphonies, first and final movements.

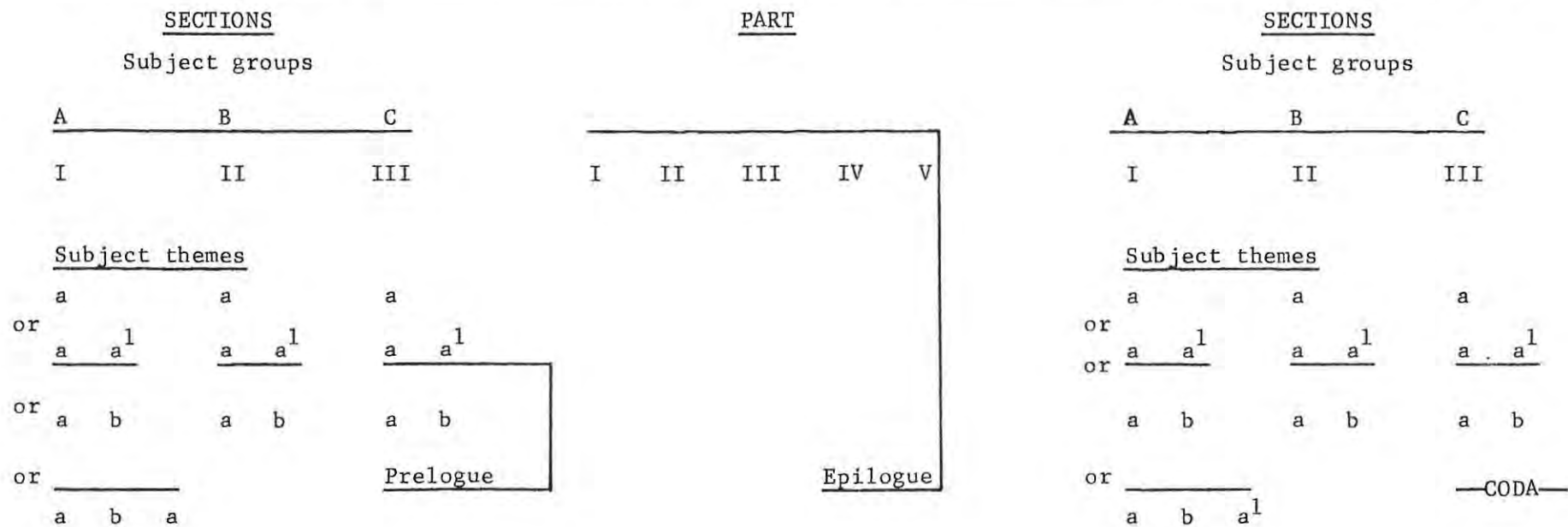
1. For further studies on sonata form refer to Boyden, David D. An Introduction to music. Faber, 1971 Chapt 5 p.55ff
Also Tovey, Donald F. A Companion to Beethoven Piano Sonatas. Associated Board, 1931. Sonata in D major Op 10, No 3 p.56-60
and Sonata in E major Op 14, No 1 p.70-72.

SONATA FORM: THEMATIC OUTLINE

DIVISION I - EXPOSITION

DIVISION II - DEVELOPMENT

DIVISION III - RECAPITULATION



NOTE

1. Div IA: Bruckner varies the structure and number of themes in each section. At times he favours two contrasting themes as well as a restatement, slightly varied, of the first theme; but more often he uses simply one theme, restated.

2. Div IC: Usually consists of a single theme, which is often clearly related to the Aa subject and could be defined as an Aa¹ statement. He also favours a variation treatment of the theme in the C division resulting in an a¹ a² a³ form. On occasion he uses two contrasting themes and sometimes a restatement of the initial theme.

3. Div II: Has an irregular number of subdivisions, varying from symphony to symphony, movement to movement. these range from two to five subdivisions.

4. Div III: Sometimes Bruckner omits the A section. This division is open to much irregularity and its form depends on the thematic material used, and the treatment received in the previous division. The C subgroup acts as an extended coda in most cases.

1.3. Compositional Designs

The design of Bruckner's symphonies is constructed on two levels; the first, the tonal level is described as the substructure, the second, the upper level made of thematic - harmonic and rhythmic material is defined as the superstructure.

1.3.1. The substructure

Each movement is based on a series of interrelated harmonic points, each of which may be defined as a key center.¹

The harmonic direction of the movements is created by successions, progressions, and modulations to a variety of centers until the ultimate return of the tonic key. As each movement goes through a number of key centers the harmonic line which this technique produces is called the substructure - the foundation upon which the movement rests. It provides the design which, together with the superstructure, establishes the formal outlines that give order and beauty to the movement.

These centers may be ESTABLISHED, TEMPORARY or TRANSIENT

- (i) established key centers: those centers which have been introduced or confirmed by a definite cadential progression; or those which have been established by thematic assertion; or by their position of structural importance at definitive periods during the movement.

1. This term is to be understood in the broadest sense of the word, as a classification of the harmony at a particular point, the predominant harmony being selected and isolated as the key center.

- (ii) temporary key centers: those centers which, usually due to an expanded time-scale and/or thematic - harmonic or rhythmic assertion, gain a sense of key; but which lack the structural importance and definitive formal functions of (i).

- (iii) transient key centers: those harmonic points which have been touched on during modulating passages which, although they are not truly developed tonalities take on a sense of key due to their expanded duration: these are not as greatly developed (structurally, thematically or harmonically) as either (i) or (ii). They form crucial links in the total tonal design.

1.3.2. The superstructure

The superstructure may be defined as all the musical material grouped above the tonal points forming the substructure. Thus the superstructure consists of thematic, harmonic and rhythmic material and the predominance of any one of these qualities will determine its essential character at any particular point of exploration.

In this way, Bruckner accumulates above the substructure on various levels -

- (a) motives, themes, subjects
- (b) single or series of harmonies
- (c) rhythmic patterns

and makes these pass through

- (a) transformation, repetition or fragmentation
- (b) successions, progressions, modulations
- (c) augmentation, diminution, repetition, ostinatos

thus arriving at the peculiar structural arrangement of the musical content of his symphonies.

1.3.2.i. The subject groups

In this structure the balance of musical importance lies on thematic units. Here the musical attention is focused on melodic lines, which may be single or consist of two or three counterpoint melodies to the main melody.

The harmonic line may consist of successions¹ and progressions, and intricate though it may be, is riveted around a single key center which is, of course, part of the substructure.

This combination of thematic and harmonic line creates the subject group which may be divided into three parts; the main group, the extensions thereof known as the continuatory groups, and the fragmentary groups.

An interesting feature of the subject groups is the use of different formats at different points in the formal divisions, viz. first movements - A sections are generally strongly assertive, tending to emphasize a clear triadic, thematic outline.²

1. Succession of chords: may be taken as a definition of those chords which follow one another in a pattern as the result of sequential treatment, or juxtaposition of key, and are not part of a hierarchical tonal arrangement.

2. S3:iA is an excellent example of such an opening, SS2: and 7: are exceptions.

The B sections however, follow a different format in which the subject is closely woven with a single or, on occasion, multiple counterpoint theme, so forming a quite different style, texture and dimension to the first.

The C section sometimes follows yet another arrangement which may be defined as a 'dual-unison' unit in which two layers of sound, each independent unison layers, are combined to form part of a total unison statement.

The continuatory groups vary greatly according to the transformation of thematic material. They usually consist of multilayered explorations of a facet or facets from the main subject unit. In some cases these thematic qualities are concentrated in a single horizontal line, but this is not common practice with Bruckner who, generally, distributes the units over various layers while they are subjected to development techniques of transformation.

1.3.2.ii. Subsidiary subject groups

These groups are formed from thematic material related to the original statements or secondary statements, and exist exiguously in the unfolding musical material. They are independent units which act as extensions, prolongations or links, and occur during transitional or developmental points of tension or relaxation throughout the movement as crucial facets in the structural design.

The subsidiary subject group is used, perhaps, to best advantage in the subgrouping defined, in this thesis, as the Prelogue - which is found at the end of the C subject before the entry of Division II - the development. Here, its very nature enables juxtaposition and contrast of independent, objectified sound which although related to, or possibly derived from, old material, is yet arranged in a "new" manner, so closing the first division and opening the way for the entry of the second.

1.3.2.iii. The harmonic groups

Also to be considered is the manner in which Bruckner arranges his harmonic material "above" the key center.

When musical attention is focused on the tonal features in the superstructure it is expressed by -

- (a) single chords
- (b) successions or progressions of chords which express the key center immediately or which
- (c) are arranged in various patterns to highlight the key center.

The tonal features of the superstructure can, therefore, be

- (1) Static:
 - in which a single chord is prolonged over an area of exploration
 - in which a progression of chords is so interrelated as to form a single key center.

- (2) Kinetic: - in which either a series of indeterminate chords (such as a diminished chord) prolong and suspend the search for a key center
- in which fleeting modulation through a series of transient chords takes place.
- (3) Diatonic: - in which Bruckner makes use of the traditional tonal patterns found in the folk music of his native province of Upper Austria, or where for purposes of musical interest he writes in the purely diatonic idiom.
- (4) Chromatic: - in which the harmony meanders freely through a series of chromatic points without effective modulation while remaining bound by a single key center.

As with the thematic features, the harmonic outlines vary from simple structures consisting of a single tone¹ or chord to complex, multilayered, multifaceted progressions extended over vast areas, contributing to the larger tonal areas and power of the superstructure.

1.3.3. Rhythmic features

In addition to thematic and harmonic features Bruckner consciously builds up levels of rhythmic patterns -

1. The fragmentation of harmony to a single tone, or chord created a certain ostinato-based form which contributed to the larger tonal areas peculiar not only to Bruckner but to composers of the romantic period. This device, used particularly by Bruckner in the C section of his expositions, culminated in a form of tonality by assertion, a concept which later became (perhaps not directly) the basis of the additive construction and tonal assertion Stravinsky was to use in his first and second period of composition.

blocks of sound and sound patterns often based on static ostinati and set against one another in repetitive alternating cycles which although assertive and unyielding in nature gain vitality and even a sense of motion by being constantly reinterpreted in shifting overlaps of accent, rhythm and phrase.¹

Such treatment creates passages which have been defined in this thesis as rhythm fields. They are used in juxtaposition, alternation, superimposition, continuation and contrast with the thematic and harmonic features.

An interesting aspect of the rhythmic pattern forming ostinati is that it can be of a relatively short duration (♪ ♫) or more extended (♪ ♪ ♪ ♪ ♪).

The rhythmic field appears at specific structural points in the total design -

- (i) at the end of the subject groups' transformation process
- (ii) at certain points within the development
- (iii) at points marking the end of a structural process of one form or another.

A conscious design emerges in which the rhythm field often acts as the tension peak in the overall exploration of thematic - harmonic ideas.

1. Saltzman, Eric. Twentieth Century Music: An Introduction. Prentice Hall Inc., 1967.

The conscious awareness of the structural potential of thematic, tonal and rhythmic qualities is particularly apparent in Bruckner's works in his juxtaposition of single or multilayer blocks of mass and void in dynamic, orchestral, thematic, tonal and rhythmic contrast and alternation. Treating his material in sequential block patterns he often creates tonal (and thematic) successions of apparent wide-ranging complexity - these should be viewed in the light of parallel treatment of material, creating, in a manner of speaking, construction 'free' from traditional patterns, based instead on parallelism and symmetry. The latter concepts are carried over to his treatment of rhythmical units. In this way, Bruckner handles, in the superstructure, blocks of musical material in much the same manner in which the cubist painters arranged their material in layers of alternating, contrasting and juxtaposed patterns.

Understanding this technique is the key to understanding Bruckner's compositional attitude as it led to the establishment of the definitive patterns of his tonal and formal design. It incorporates the concepts of cumulative, compounded material, as well as the idea of tonality by assertion, ideas which were to be more fully explored in the ensuing twentieth century.

In Bruckner then, the structural principles are on one level, the substructure, which traces the harmonic shape and direction of the movement and on another, the superstructure. The success of the technique lies in the expanded time scale of each movement as this enables the tonality potential of each point of the substructure to be explored fully (thematically, tonally and rhythmically) in the superstructure.

1.4. Axioms

1.4.1. The germ cell

The smallest possible element of musical proportions: one of the fundamental methods of organisation throughout the history of musical composition is the invention and subsequent treatment of a musical thought. This could be the most primitive euphonic or rhythmic suggestion expressed by either an interval or a rhythmic unit. It is realised by annexation to pitch or rhythm or both. From this microstructure would then arise, in relation, macrostructures - the combination of rhythmic and interval suggestions forming constructive intervals.¹ From these would evolve, in turn, the fragments, motives, themes and continuations, subjects and eventually the entire thematic material comprising the division. The exiguous form, defined as the germ cell, is so called as it is both a generative and an infinitesimal musical idea. As the germ cell is only realised in terms of the macrostructure it is seen equally as part of the constructive interval and again as part of the motive.

1.4.2. The constructive interval

An element smaller than the motive. It may become the fundamental element in the organisation of a movement, or of the entire work. This term refers to the interval which is the essential element making up the form of the head motive. Although the motive is the substance of any type of movement there are other elements of thematic importance such as the individual interval and intervals

1. This term was coined by Roswitha Traimer in "Bela Bartok's Kompositions Technik, Dargestellt an seinen Sechs Streich quartetten" (Gustav Bosse Verlag, Regensburg, 1956).

derived or subordinate to it. The interval can dominate horizontally and/or vertically and thereby help to shape the tonal structure. It can be used as part of the motive, or as a unit structurally independent of the motive.

In the former case the constructive interval is open to the variations of the motive and in the latter, it remains unalterable. In Bruckner's works the constructive interval is found as both an independent and a bound form.

1.4.3. The fragment

The shortest passage of music, which, having reached a relative point of rest, has expressed an incomplete musical idea: a number of which make up the motive.

1.4.4. The motive

The organisation of those elements of music formerly discussed, into melody, rhythm, cadence, timbre, texture and tempo. It is the shortest passage of music which, having reached a relative point of repose, has expressed a complete musical thought, containing definite harmonic movement. The motive is usually used as a constructional element and by definition should appear more than once, though its appearance need not be in its original form. The motive is characterised by its melodic contour, its harmonic implication and its rhythm.

The motive may be treated in various ways -

- (i) by repetition in the same voice at identical or different pitch levels
- (ii) intervallic alteration (due to transposition), not actual variation to the motive)
- (iii) ornamentation
- (iv) actual intervallic change
- (v) retrogression
- (vi) variation by augmentation or diminution
- (vii) variation by inversion

The motive plays an important role in imitation techniques.

It is used in -

- (i) real or exact imitation: the motive is unchanged by the imitating voice except for transposition to a new pitch level
- (ii) tonal imitation
- (iii) imitation by inversion
- (iv) imitation by augmentation or diminution
- (v) free imitation: when the imitating voice changes the motive rhythmically or intervallically
- (vi) imitation of rhythm only

In many cases the treatment of the motive determines the shape and the contour of the theme, which determine, in turn, the type of subject.

1.4.5. The theme

This term refers to the outlines of a larger unit which incorporates the tension and relaxation formed by motives, fragments, intervals and germ cells. In constructing a theme various methods are used -

- (i) introducing new material to the existing motive forming a head motive plus continuation, following the baroque method
- (ii) repetition of the motive forming a sequential extension
- (iii) interpolation, viz. expanding the motive internally
- (iv) additive extension whereby the preceding germ cell is immediately and successively used for the formation of new motives and ultimately the theme
- (v) derivative extension whereby the initial head motive forms the constructive unit generating ensuing material

The theme is thus a passage of music which expresses more than one complete musical thought and incorporates definite harmonic movement of quite an extended duration. Bruckner's themes consist of both consonant and dissonant endings,¹ using the latter to obscure or suspend the feeling of repose and fulfilment obtained in a consonant ending.² It is necessary to be aware that the theme can present in miniature the same basic tonal structures exhibited on a larger scale

-
1. Consonant ending: in which the melody runs a complete harmonic pattern and fulfils its implications and so sounds resolved or final at its close.
Dissonant ending: in which the melody is left unfulfilled, closing on an unresolved melodic cadence.
 2. This is also represented in Wagner's Tristan und Isolde in which the smaller melodic units underrate the harmonic stability of the theme-unit culminating in the atonality of the later expressionists.

by entire sections of the complete movement. The theme can be harmonically organised along a pseudo-modulatory succession of various chordal points, or according to standardised progressions. Both techniques will clearly influence the key orientation of the theme. The former, by definition, creating a flexible, moving sense of key, and the latter establishing a central key pivot.

1.4.6. Themes in combination: the subject group

Just as motives may combine to become themes so may a number of themes, or theme and continuation combine to become a larger unit - the subject group.

This consists of a series of themes which, aside from the question of resemblance in design are related by virtue of harmonic organisation or tonal structure.

- (i) two or more themes consisting of head motive, continuation and fragmentation usually comprise the Brucknerian subject group. The harmonic organisation is adapted to the thematic transformation and orientations of each of the subgroupings
- (ii) occasionally a single theme consisting of head motive and continuation may be regarded as a subject group, but this is not commonly found in Bruckner.

At this point it is necessary to define, briefly, the types of subjects¹ used by Bruckner.

1. The derivative subject (simple and complex)
2. The additive chain subject
3. The motivic subject
4. The ostinato-motivic subject

1.4.6.i. The derivative subject

The constructive interval is used as the generative unit in the creation of the thematic material. Techniques of repetition, imitation, variation are applied to the unit and each demands a varying approach to the harmonic organisation of the subject.

As an overall guide the derivative subject calls for subordinate harmonic treatment in which the succession of key centers does not detract from the thematic processes of transformation. So, the tendency is to create a permanent or 'established' key center. The strength and length of this must be flexible as it is established by the duration and the assertion of the subject type. It must, of necessity, vary from treatment to treatment.

1.4.6.ii. The additive chain subject

The subject is based on the concept of interlocking themes and thematic ideas. The idea of a definitive constructive interval is absent and the successive use of preceding material for the

1. See Chapter 3 for a detailed explanation of these subject types.

formulation of new continuations is predominant. A chain of successive material forms the head theme and as no theme has more importance than the other, they are all part of the same interlocking structure, the result is the type commonly referred to as the 'gesangsperiode' of Bruckner's slow movements, and many second subject groups of the first movements.

Such a subject type generates a progressive harmony in which the on-flowing chords function on two levels:

- (i) propelling the harmonic direction forward with each thematic innovation
- (ii) being so arranged as to form a hierarchical pattern relating to a central tonal point (or tonic) creating an overall established sense of key for the duration of the subject group. eg. S7:iAa b.1 - 24 the chord patterns formulating and supporting the motivic generation reinforce and relate to the dominant of E and do not, therefore, need to be considered individually, ie they do not form an independent succession of chords, but rather a feudal tonic-orientated progression).

When the subject is broken down into its fragmentary units during transformation periods, the harmony follows a similar process and in such cases chords must be considered individually, ie in their dislocated state.

1.4.6.iii. The motivic subject

Consists of a head motive which is not expanded by extension. The head motive itself has the ability to fulfil the function of a subject group and is thus subjected to alteration by -

- (i) augmentation or diminution to
 - (a) intervals
 - (b) rhythm

Such alteration is applied internally and the actual contour of the subject structure does not disintegrate and despite alteration may be easily recognised. By repetition of various kinds, a type of continuation by variation is evolved.

Sometimes the harmonic patterns play an integral part in determining the nature of the alteration to the subject, so demanding a volatile harmonic substructure. In such cases the sense of key after the initial statement of the motivic subject, would be temporary or transient.

1.4.6.iv. The ostinato subject

Is very similar to the motivic subject group as both involve internal alteration and variation of the motive without dissolving its outlines. The important difference between the two is the ostinato always retains its essential rhythmic contour. By omitting rhythm as an alternative for variation greater emphasis is laid on the repetition of this subject group on various tonal planes. After the initial iteration of the subject, this type demands a volatile harmony, during

the unfolding thematic variations. One should be aware that during the treatment of the ostinato subject group the emphasis on interval or harmonic structural variation will determine the subsequent stable or volatile harmonic patterns beneath.

1.4.6.v. Continuation groups

Mention must be made of the three types of continuation groups used to extend the actual thematic areas so forming the extensive subject groups. They are -

1. The derivative continuation
2. The additive continuation
3. The variation continuation

(i) the first is a continuation formed by thematic/motivic extensions to the original theme/motive. If the constructive interval of the head motive is used to formulate new material the extensions are defined as derivative.

(ii) the second (additive) continuation is an extension of the initial theme which involves the generation of an immediate new musical idea by a transformation of the essential characteristic of the preceding idea.

(iii) the variation continuation is concerned mainly with altered repetitions of the original motive-group resulting in continuously varied subordinate groups of thematic material.

1.4.6.vi. Fragmentation technique

After the creation of continuation groups Bruckner further extends the total area of the subject by breaking up the previously synthesised material. In this subgroup he leads the thematic material through a denouement resulting in the iteration of the smallest musical idea of the original theme/motive. These units may consist of thematic, harmonic or rhythmic suggestions or an amalgamation of one or more of these elements. Such a process is called the fragmentation technique and is in exact opposition to the continuation technique. Both of these form a substantial part of the entire subject group.

In the harmonic line a similar process of fragmentation is employed. Consequently the sense of key grows more and more transient as the thematic processes are broken down, until the key is conveyed through chords alone or, possibly, single tones. Such key tones often play a vital role in transmitting the sense of key from one center to another through the ambiguity of their interpretation. (eg. S5:iAb b.53-54).

1.4.7. The Section

The section is primarily a tonal subdivision. It forms one of the larger structural units of the total design. The section normally establishes a specific key center, thus isolating material from preceding and subsequent subdivisions. In addition the section presents -

(i) a single subject, consisting of the principal theme, continuatory group and fragmentary phase

or

(ii) the use of two or more themes each followed by its continuation, or variation, or variable extension and subsequent fragmentary phase.

Commonly found in Bruckner's works is the use of two themes, forming the opening section of the exposition, viz. the Aa and the Ab theme, followed by their respective subject extensions. The B sections, however, are often formed by an a-recurring thematic design, combined with a multilayered thematic structure, and the C sections by usually the single subject design described in (i). The recapitulations follow similar lines to the expositions. The development, in Bruckner's works is also divided into sections, determined on most occasions by their tonal orientation, in other instances by both tonal and thematic grouping and rarely by thematic structures.

The arrangement of thematic material around a central tonal pivot is derived from baroque techniques in which, originally, the statement of a thematic pattern, known as the head motive, was then developed by the "fortspinnung" or continuatory process: and the entire structure was isolated and defined by a cadence. In Bruckner's works the baroque technique is expanded to encompass vast thematic-rhythmic-harmonic fields.

1.4.8. The division

Applies to the largest areas of the movement, usually defined as the exposition, development and recapitulation. As Bruckner does not always fulfil the strict requirements of sonata form in its traditional shape, it is sometimes clearer to refer to these as divisions. One should be aware that Bruckner, although he conforms to an apparently consistent design, as shown in the initial diagram, yet invariably bends structures to expressive needs. He very rarely adopts the same procedure twice, so that his large designs make totally diverse use of their apparently similar features. For instance, following the schemata of his predecessors he further minimises the principle of tonic-dominant polarity and uses, instead, a wider and more daring choice of contrasting tonalities. In addition, his movement to various key centers creates a variety of tonal planes within a division. As this technique departs from the accepted definitions of sectional formal arrangement, he relies greatly on thematic grouping to clarify the structural differentiation found in his form.

CHAPTER TWO

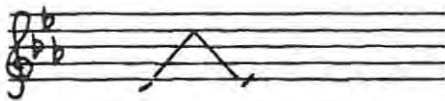
2. Germ Cell Technique and Thematic Transformation

One of the fundamental methods of organisation throughout the history of musical composition is the invention and the subsequent treatment of a musical thought.

This thought is the smallest possible element of musical proportions and is defined in this thesis as the germ cell. The germ cell is both a generative and infinitesimal idea which is usually realised by annexation to rhythm, or pitch and is consequently seen as part of the constructive interval, and in turn part of the motive.

Ex.1. S1:iA

(a) The germ cell is the semi-tone.



(b) The realisation of this would be expressed by affiliation to a specific rhythm.



- (c) The combination of pitch and rhythm forms the constructive interval, which could be used possibly in succession to form a fragment, motive, theme.

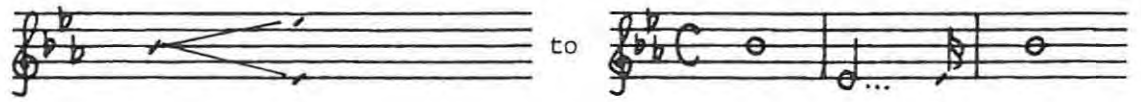


The germ cell exists in the composition as a freely migrating, freely moving and completely independent microcosm. It may be combined with the original rhythmic pattern or embedded in a new rhythmical realisation. It may be used in the structural organisation of any number of related or unrelated themes and consequently serves as the latent unifying element, the fundamental unit of the composition.

The germ cell as an independent microstructure cannot be altered or varied. When rhythmic definition is given to the germ cell it exists no longer as an unbound form. It is, therefore, then called the constructive interval as both pitch and rhythm are used in its realisation.

The constructive interval, in turn, becomes the fundamental element of the work as it carries, in its contour, the germ cell. It is used successively to form the structure of the head motive.

Ex.2. S4:iAa

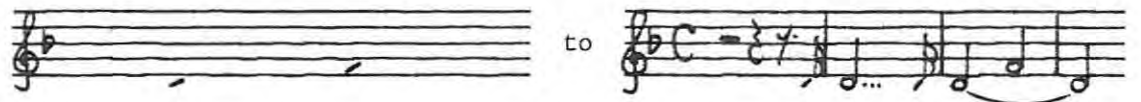


The following examples illustrate the successive use of the constructive interval -

Ex.3. S9:iAa

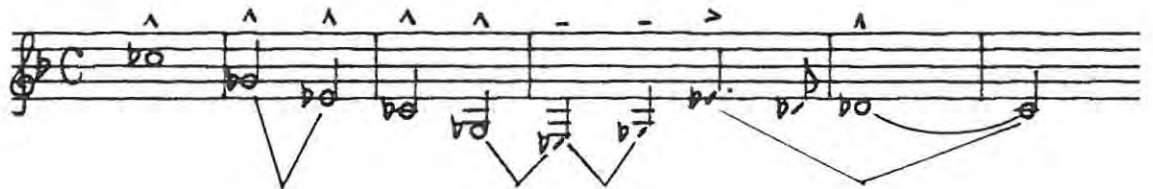
1.

2.



to

3.



The constructive interval, by definition, is always combined with a rhythmic pattern. However, it is not necessarily found in the same rhythmic pattern since the germ cell stands as the cognizable element in an anomaly of structures.

So, the constructive interval is NOT an entirely constant idea, but in its realisation (in different rhythmic patterns, pitch levels, and interval inversions) it is open to alteration. This process is called the transformation technique.

2.1. Transformation technique

This is an extended, not an immediate process and is achieved in various stages -

- (i) Alteration to the constructive interval
which is achieved by
 - (a) Rhythmic alteration
 - (b) Interval alteration

Rhythmic and interval alteration are in turn a result of

- (a) Diminution
 - (b) Elaboration
 - (c) Figuration
 - (d) Augmentation
- (ii) This step is followed by the formation of a new motive. This, depending on the balance of power between interval and rhythmic alteration is either melodically or rhythmically orientated.¹

1. The "gesangsperiode" subjects are melodically centralised, while, in contrast, the Ab and the Bb subjects are usually rhythmic motives, eg. SS1,2,5:Aa, Ab and Bb.

- (iii) The third stage of transformation is the arrangement of the motive, into longer thematic groups, resulting in head motive, secondary motives and episodic continuations. This rearrangement into formal lines of the original transformed material completes the transformation process.

In Bruckner's expositions, first movements, the following pattern of alteration is applied to the constructive interval within the motives -

- (i) The germ cell is realised rhythmically, forming the constructive interval unit
- (ii) The interval units, generally used to form the contour of the head motive, are presented
- (iii) The motive is subsequently restated in an altered form. The alteration may be intervallic/rhythmic by diminution/contraction/augmentation. The contour of the motive remains, as yet unchanged.
- (iv) The interval alteration is usually followed by a rhythmical elipse, ie. part of the rhythmic pattern is shortened or omitted. During this rhythmical alteration the interval structure may return to its original complex (which is usually the case) or retain its new arrangement.¹

1. At this point there exists a rhythmically and intervallically augmented or condensed motive. The motive is not confined to a single thematic layer, but is spread over a gradually increasing number of layers. Usually every layer has its own independent stage of transformation as the head motive is altered.

- (v) A new rhythm (derived from the original) is applied. As certain interval units of the structure are still apparent the character and the contour of the motive is changed but not the interval arrangement.
- (vi) Once the new structure is heard and the relationship to the original proved, interval and rhythmical alteration take place simultaneously. The structure is now condensed and a fragmentary unit, rather than the larger motive, is found. This fragment is repeated continuously until all thematic layers are at a point of parallel development.
- (vii) The interval unit at this point loses its standing and is omitted in most of the layers although it may be continued through in some single layer

The predominant element now is the rhythmic reiteration of the transformed pattern. Only the rhythmic contour exists. This pattern is the most reduced form of the initial structure and is usually related to the rhythmic pattern which contained the first realisation of the germ cell.

The prerequisite of the above process is the repetition, in some form or other, of the initial constructive interval. The manner in which the repetition of this unit is treated determines the type of development technique applied by Bruckner, ie. derivative,

variation or additive. This development, or as it has been previously defined, this continuation technique, is part of the total transformation process.

The transformation process develops from a microcosm, to a macrostructure, to a further macrostructure (consisting of superimposed layers of disintegrating patterns) to the final dissolution into the microcosm again.

Summary

- (i) The constructive interval is altered within the motive
- (ii) These alterations exist as separate variants to the original motive
- (iii) The final result of the alteration and the reorganisation of the rhythmic and interval unit is transformed thematic units of shorter or greater duration, containing the germ cell, which are arranged into formal patterns.
- (iv) The adaptation and arrangement of the variants of the initial motive result in different methods of continuation.

This transformation technique results in the formation of two structural arrangements of rhythm and theme.

- (i) the rhythm field
- (ii) the sound field

2.2. The rhythm field

By the transformation of the rhythmical realisation of the germ cell Bruckner evolves his highly developed technique, defined as the RHYTHM FIELD, which creates the tension and relaxation points of his overall formal outlines.

The technique is as follows -

- (a) The original motive is usually altered by contraction, and there exists the process whereby it becomes transformed into an ostinato
- (b) The ostinato may exist on various orchestral levels, eg. lower strings, upper strings, winds and brass
- (c) Each of these layers may be given a separate transformation of the rhythmic unit
- (d) The superimposition of these ostinati results in an ostinato mass which is defined in this thesis as the rhythm field
- (e) The field may be a multilayered complex, or have as little as two or three layers, it qualifies in terms of the definition if there is a superimposition of reiterated rhythmic fragments

Thus the rhythm field is determined by its predominant rhythmical character although, naturally, intervallic structures are present in the unit.

2.3. The sound field

When the balance between interval and rhythmic importance is inverted and the interval reiteration is of predominant importance, the resulting formation is defined as a SOUND FIELD.

This is characterised by -

- (a) The reiteration and repetition of a contracted form of a thematic motive forming a thematic ostinato.
- (b) The superimposition of these motives in various orchestral levels.
- (c) A reliance on the rhythmical units to support the thematic motives and to emphasize the ostinato-like qualities of the field.
- (d) The separate transformation of the motive on varying levels until each layer reaches a parallel point of development.
- (e) The use of a pedal point or key center as the epicenter around which thematic material is extensively presented, this acts as a solid foundation and as a unifying element since it constrains the activity of the thematic material by its own duration.

In both the rhythm field and the sound field the macrostructure emerges gradually as the transformation process unfolds. Although it is sometimes difficult to pinpoint the exact moment of completed transformation and the emergence of the field, the structure itself stands quite clearly in the formal contours of the movement.

For moments of great climax Bruckner combines the sound field and the rhythm field to form that which may be described as a block structure.

2.4. The block structure

Is characterised by welding both sound and rhythm fields into a multifaceted, multilayered macrostructure. Centered, by definition, around a tonal epicenter, (or if expanded, around a series of centers), until the entire mass reaches a point of stabilization. The block fulfils all the requirements defined in the sound and rhythm fields and will vary in character according to the balance of musical importance placed on either thematic or rhythmic units. In addition, the block structure may centralise around harmonic interest and may use either thematic or rhythmic units to emphasize and highlight the tonal features of the structure. In this way one may speak of a -

- (i) thematic block
- (ii) rhythmic block
- (iii) tonal block

Usually, however, all three elements are intrinsically bound together, forming the macrostructure, and to lay emphasis on one or the other facets detracts from the concept. When referring to the block structure in Bruckner's works then, it is important to bear in mind that it is an all encompassing term.

2.5, The application of the transformation technique

S5:i will be used to show the systematic emergence of the technique described in preceding subdivisions (2 to 2.4).

2.5.1, The transformation technique in S5:i

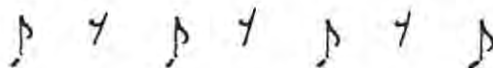
This will be discussed under stages i-vii, with reference to the emergence of the rhythm-sound field.

To clarify the latent appearance of the germ cell in the constructive interval it will be represented diagrammatically. In this way the rhythmic patterns will not disguise the interval structure. Rhythmic patterns will also be represented diagrammatically so that the interval structure does not interfere with the rhythmic relationships.

Stage (i) and (ii) interval unit 1

The interval unit consisting of both a definite rhythmic and intervallic structure is established. The rhythm pattern is -

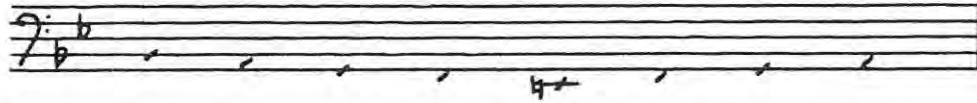
Diagram 1



This is not the characteristic arrangement of the rhythmical realisation of the germ cell.

The interval unit is -

Ex.4. S5:i Introduction



Example 4 is made up of successive statements of the germ cell which is the ascending-descending tone/semitone step. The germ cell here is not a single interval but the concept of the steps embodied in the scale unit which encompasses the tritone from b^b to e^{\sharp} .

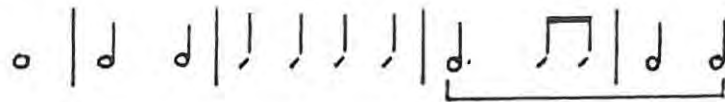
Example 4 is the realisation of the germ cells within the motivic unit. The arrangement into tones and semitones is not fixed but the contour realisation is established, the shape of the germ cell usually being contained in ascending or descending structures. These form the head motive of the Acp.a theme.

Stage (iii) Interval unit I(i)

A second statement is made of the head motive in an augmented form containing in it the initial realisation of the germ cell. In this step the contour of the motive is retained. However, its rhythm is changed and the interval arrangement is varied although it retains the whole tone/semitone units.

The overall rhythmical pattern is -

Diagram 2



presenting three rhythmical ideas. The dominating rhythmical contour of the germ cell is seen for the first time as -



The interval unit is -

- (i) comprised horizontally of whole tones and semitones
- (ii) comprised vertically of whole tone and semitone structures at the entry of each layer. It has, additionally, the 4/5 interval which will be seen to be of importance.

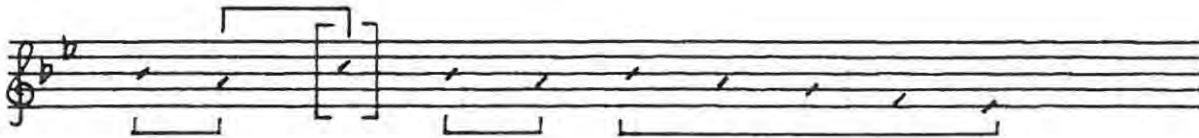
Ex.5. S5:i Introduction and Cp.a

The descending scale (interval unit 1) is augmented to form unit 1(i). Units 1 and 1(i) are horizontally constructed on the whole tone, which also affects, with some exceptions, the vertical arrangements of 1(i). The following examples illustrate the similarity in structural arrangement between the two units.

Ex.6. S5:i: Introduction and Cp,a



Ex.7. The main augmented motive



Example 7 is varied by the repetition of the semitone structure within the motive. This unit is 'melodically' orientated and contains the formation of a minor third, by the rearrangement of the whole tone interval. Two intervals are derived -

- (i) the minor third (Ex.7)
- (ii) the 4/5 interval (Ex.7) which constitutes the next interval unit which replaces the former tritonus one.

The following example shows the combination of these units as they appear in superimposed layers -

Ex.8. S5:i

b.2 ff

germ cell: scale step incorporating 4/5 diatonic unit

rhythmic and melodic realisation of Ex.7.

original presentation of scale, incorporating 4/5 tritonus unit

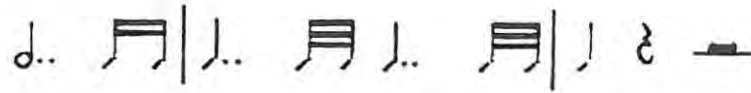
10

The musical score is a four-part setting of a hymn, numbered 10. It is written on four staves. The top staff is the soprano part, the second is the alto part, the third is the tenor part, and the bottom is the bass part. The music is in a key with two flats (B-flat and E-flat) and a common time signature. The piece consists of 12 measures. The soprano part features a melodic line with various intervals and rests. The alto part has a similar melodic line, often in parallel motion with the soprano. The tenor and bass parts provide harmonic support with chords and moving lines. The piece concludes with a final cadence in the last measure.

Stage (iv) Interval unit II

The rhythmical pattern is -

Diagram 3



This pattern is an intense diminution of the first part of the dominating rhythmic contour containing the germ cell, eg. Diagram 2.

The interval unit is -

Based on a triad (G-flat major). This contains the 4/5 interval unit (derived from the original tritone), and in turn generates the supporting interval of a third.

The original pattern -

Ex.9.



The newly formulated pattern¹

Ex.10.

1. Violin



1. This interval arrangement is presented in unison and does not entail further variation in the introduction.

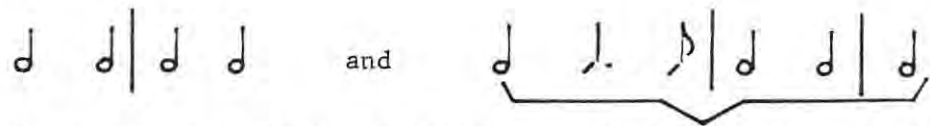
Diagram 3 and Example 10 represent the rhythmical alteration to the germ cell, while the ascending contour (and in this case the basic interval structure) is in affinity with the original statement. The rhythmical structure is elliptically presented, ie. the structure is diminished and shortened here. The motive is rhythmically orientated. In this example the motive is still confined to one thematic layer.

Stage (v) Interval unit III

A new rhythm (derived from the original) is applied which changes the character and the contour of the motive, creating a longer and more defined thematic group. The interval arrangement remains intact.

The rhythmic pattern is -

Diagram 4



ie. the second part of the dominating rhythmical contour of the germ cell is used to formulate a new rhythmic division.

The interval unit is -

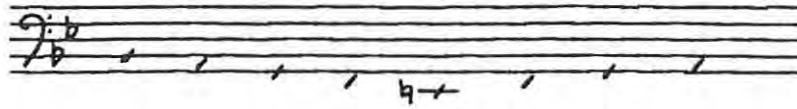
Ex.11.

Based on the initial structure

The image shows a handwritten musical score for five staves, all in the key of B-flat major (two flats) and common time (C). The score is divided into four measures by vertical bar lines. The first staff contains a melodic line with a half note, a dotted half note, and a half note. The second staff contains a melodic line with a quarter note, a dotted quarter note, an eighth note, and a quarter note, with a circled 'i' below the first note. The third staff contains a melodic line with a quarter note, a dotted quarter note, and a half note. The fourth staff contains a melodic line with a quarter note, a dotted quarter note, and a half note. The fifth staff contains a melodic line with a quarter note, a dotted quarter note, and a half note. Brackets and slurs are used to group notes across measures, indicating interval units and rhythmic alterations.

Example 11 is representative of a rhythmical alteration to the contour of the second part of interval unit I; and the 4/5 interval of unit II. This is seen in the following example -

Ex.12.



Interval unit I (ascending and descending)

Ex.13. S5:i Introduction



The entire unit, as an independent thematic section, is orientated to the whole tone/semitone and major third. The whole tone interval appears vertically during a suspension, but is not the predominating structural element. Vertically, the third and the 4/5, ie. the triad structure, are the constructive intervals of organisation.¹

The next example represents the original and derived interval units, and illustrates the rhythmical and interval transformations simultaneously.

1. Variants of the previously described interval unit II.

Ex.14.

The image displays two musical staves. The top staff, labeled '(original)', shows a single melodic line in bass clef with a key signature of one flat and a common time signature. It consists of two measures. The first measure is marked with '(i)' and the second with '(ii)'. Dashed lines with arrows connect the notes between the two measures, indicating intervallic relationships. The bottom staff, labeled '(interval unit III)', shows a two-staff system (treble and bass clefs) with a key signature of one flat and a common time signature. It contains four measures of music, with various intervallic units and accidentals (sharps and naturals) indicated by brackets and arrows connecting notes across the staves.

This concludes the description of the actual interval units and their structural arrangement, and shows the three prominent interval units which are the basis of future transformations in the exposition, and development.

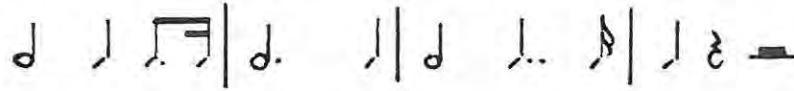
By this stage, the process of transforming the germ cell into a standard motive has been achieved, ie. by the establishment of interval units I - III. Unit III is now used as the motive for further transformation, eg. in the second part of the introduction, bars 31-50 and in the Aa subject section, bars 51-100. The B section is based on interval unit I and I(i), and the C section is derived from interval unit III.

Continuation of Stage (v)

This marks the beginning of the Aa subject section.

The rhythmic pattern is -

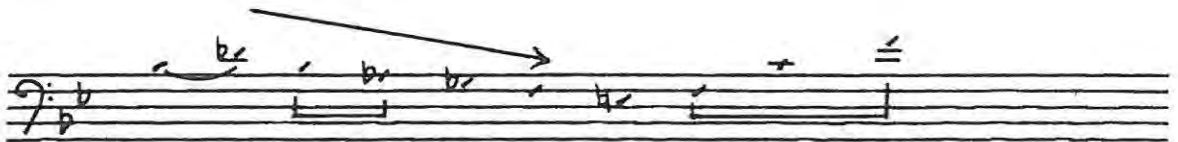
Diagram 5 b.55-58



This pattern is based on interval unit III with additional alteration.

The interval unit is -

Ex.15.



ie. the alteration is based on unit III (iii) and, secondly, unit II.

Stage (vi)

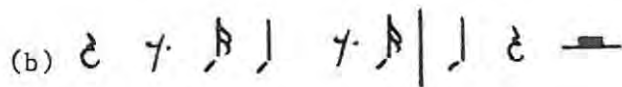
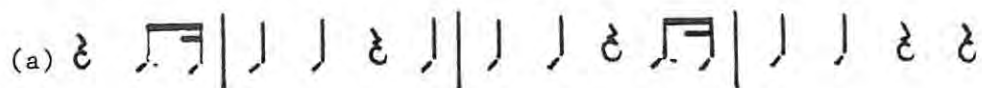
Once the structure has been established, and the derivation from the original confirmed, rhythmical and interval alteration take place simultaneously.¹

The rhythmical pattern is -

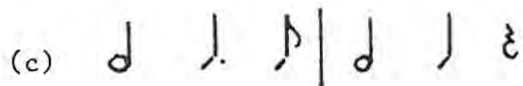
1. At this point the structure is again condensed and a fragment, rather than the motive, is found, the relationship of which to the original motive is obvious. (see b.58).

Diagram 6

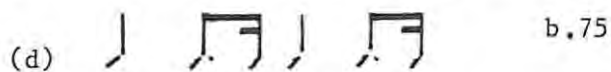
A contracted form of the original rhythmic statement,



The structure is then shortened,



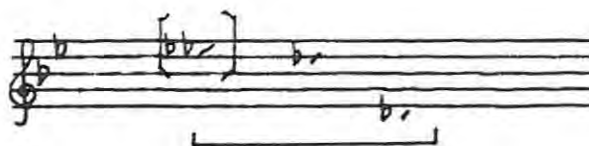
It is then condensed further, changing the character of the motive,



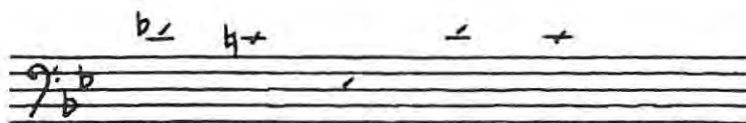
The interval pattern follows the process of alteration (see example 16) and through its rhythmical structure remains related to the standard interval pattern.

Ex.16.

(a) A combination of 4/5 to the octave



- (b) A rearrangement of the above elements
resulting in the expressive seventh.



This interval pattern remains static, but undergoes rhythmic intensification.

Stage (vi) marks the rise of the ostinato pattern, which is set into motion by the rhythmic reiteration and the reduction of the interval status. The momentum of the ostinato is achieved by concentrating the rhythmic pattern in each variation. Before stage (vii) is reached the transformation into the microstructure is interrupted by a double statement, (b.79ff), of the original subject which serves -

- (a) to recall the contour and character of its original structure
- (b) as a contrast between the macrostructure and the microstructure

After the double statement the same process of rhythmical and interval alteration is applied. This time the ostinato is intensified and the interval/thematic import is consequently diminished. Fragments rather than motives are found, and these

are repeated until all the thematic layers are at a point of parallel dissolution.

Stage (vii)

The interval unit at this point loses its standing, and is completely subordinate to the rhythmical pattern, forming a rhythm field (b.91-100).

The rhythm pattern is -

Diagram 7

(a)  b.91-92

(b)  b.93ff

(c)  b.98ff

This marks the end of the first section, and the end of the transformation process for these subject groups.

This process of transformation is applied throughout Bruckner's works. Using the above illustration as a guideline it is possible to trace the emergence of musical material of each subject. In addition to the above transformation, which is derivative, Bruckner uses additive or variation transformation techniques.¹

1. To be discussed in Chapter 3.

2.5.2. Sound-Rhythm field

The use of this form in the movement is determined by the transformation process.

In S5:iB the following pattern emerges:¹

- b. 101 - 104
105 - 108 form an introduction in F minor
anticipating the progressions of
b.109 - 116
- b. 109 - 116 form the main theme
(the melody beginning on the V/F)
117 - 126 form the sequential repetition of the
theme beginning on the V/G
- b. 127 - 130 form the fragmentation idea, on D-flat.

This is followed by the sound field b.131 - 144. This area is defined as a simple sound field as it fulfils the definitions laid down at the beginning of the chapter: viz,

- (i) it consists of (a) thematic motive, reiterated, and distributed on various pitches between the flute and clarinet. Note the relationship to the original interval unit II, example 9 and 10.

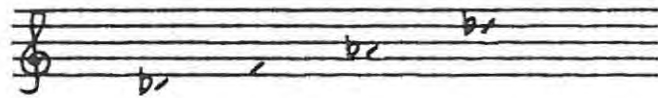
1. Only the overall stages will be given, not a detailed analysis of each transformation step.

Ex.17.

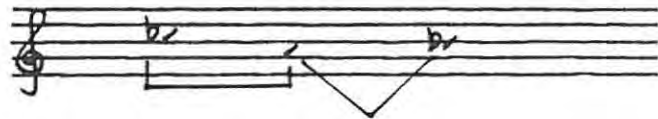


(ii) the following interval units are emphasized

Ex.18.



and



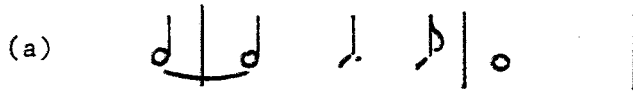
the latter providing the following motive -

Ex.19.

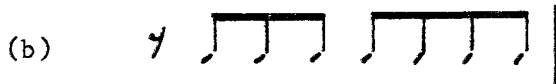


The rhythmical ostinato is derived from interval unit III, diagram 4, and consists of -

Diagram 8



and supporting rhythmic units of



(iii) the epicenter is D-flat, provided by the sustained pedal point of the tympani.

These bars provide a very simple example of a sound field, which in this instance functions as a short 'epilogue' to the first statement of the B theme before the restatement in F minor, at b.145.

This section ends with the fragmentation of the theme (b.154-160) on the V/F.

2.5.3. The block structure

The third section consists of the theme and continuation (b.161-168) and a sequential repeat and variation of the theme (b.169-176), this is followed by a block structure.

The block structure falls into five stages:

Stage 1: b. 177-180

(i) the rhythmic ostinato of this example is the concentrated motive -

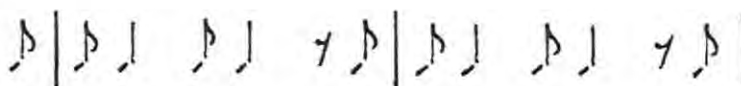
Diagram 9



Derived from the interval unit III, diagram 4 ()

(ii) a secondary rhythmic unit is -

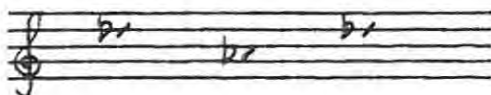
Diagram 10



(iii) the rhythmical ostinato is distributed throughout the full orchestra resulting in an ostinato mass, so forming a rhythm field. The ostinato is not presented canonically, but in a unitary rhythmic statement.

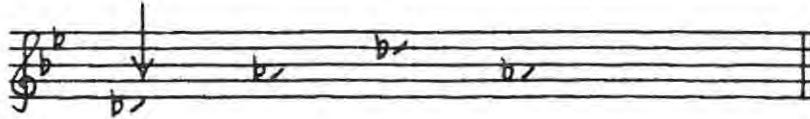
(iv) the following thematic motive is used as an ostinato -

Ex.20.



Viz. the 4/5 motive seen initially in unit I, example 5, and interval unit III, example 11. This is used with its octave variation -

Ex.21.



and is subject to other interval variation relying on the rhythmic motive to sustain the ostinato qualities.

The simultaneous occurrence of rhythm and sound field elements define these bars as a block structure.

Stage 2: b. 181-184

The block now shifts down, a diminished fourth from D-flat,¹ the initial epicenter, to A, in sequential repetition, forming the second stage of the structure. Minor orchestral variation takes place, but the organic material remains similar.

Stage 3: b. 185-188

At this point the internal contents of the block are rearranged, so increasing the tension line within the structure while maintaining the static peripheries of the ostinato.

- (i) the rhythmic ostinato which at this point assumes greater emphasis (through orchestral rearrangement) is now -

1. An enharmonic third relationship.

Diagram 11

Flute

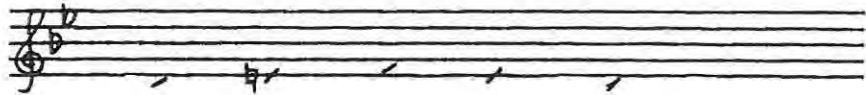


a close derivative of the secondary rhythmic unit of stage one (diagram 10)

- (ii) still operating is the rhythmic unit of diagram 9
- (iii) the epicenter D is provided by the violas
- (iv) the following interval units appear

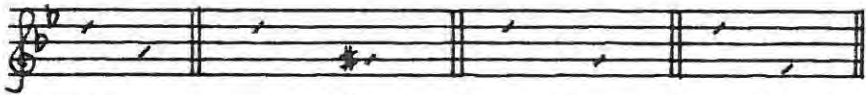
Ex.22.

(a)



and

(b)



4/5 4/5^o 5/4 3/6 intervals

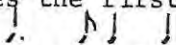
forming the motive¹

(c)



(a) derived from interval unit I, example 6 and 7,
now inverted

(b) derived from interval unit II, example 10 and 11,
now inverted

1. Ex.22c: The descending line also closely resembles the first part of the original interval unit I. At b.185 the  presents its relationship to the unit I most strongly, but at b.189 by its free inversions, its relationship to Unit II, is clearly emphasized.

Stage 4: b. 189-192

Again the emphasis of the internal material shifts and a 'new' ostinato rhythm is introduced

Diagram 12



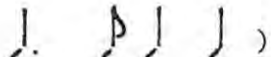
- (i) the rhythmic ostinato of diagram 9 () is reduced to -

Diagram 13



so intensifying the forward propulsion

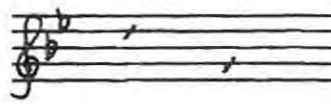
- (ii) the epicenter, still D, is reinforced by the horns
- (iii) on one layer the interval units are reduced to whole tone and semitone movement (see strings)
- (iv) various intervals are presented fragmentarily

Ex.23.

(1)

(2)

(3)



- (v) the motive seen in example 22c, is energised by a harmonic progression of a transient chord, limited by the epicenter, D.

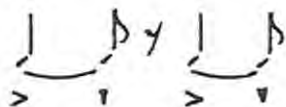
The fragmentation of rhythm and theme, at this point, creates an immense build up of tension within the overall structural movement.

Stage 5: b. 193-198

Once again the internal material of the block is revitalised.

- (i) the rhythmical unit of diagram 12 is moved from the woodwinds to the brass and diminished to -

Diagram 14 (b.195)



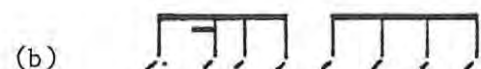
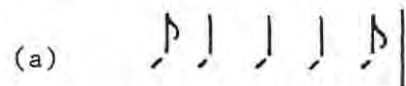
- (ii) simultaneously on a different level the variation of the above is given

Diagram 15



- (iii) these units are presented simultaneously with the following ostinato patterns -

Diagram 16

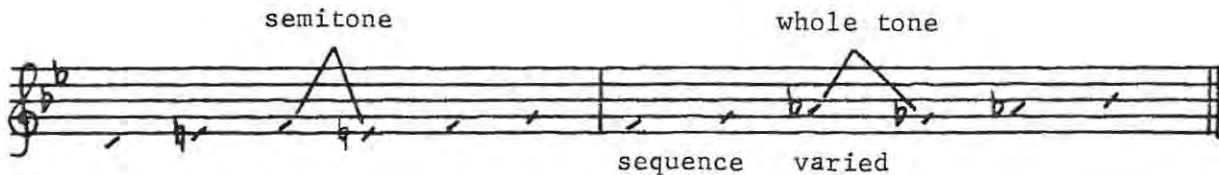


So, in this final stage the original motive, from the introduction of this movement's exposition, is finally seen, altered - by contraction; transformed into an ostinato on various orchestral levels; having a separate transformation for each rhythmical unit, forming a multilayered complex in this instance of four stratas of reiterated rhythmic fragments.

Parallel to the rhythmic transformation is the thematic. The interval resources of this final stage comprise all the main interval units stated at the outset of the movement, eg -

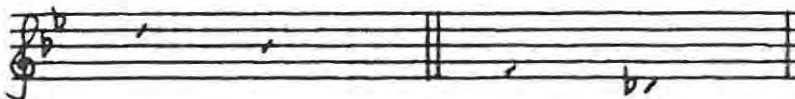
Ex.24.

This motive is the inversion of the original structure given in example 4



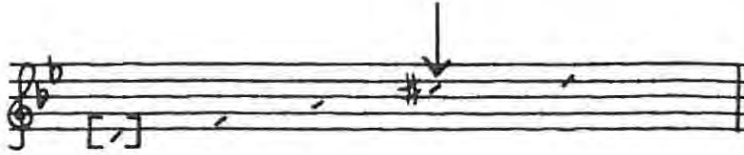
The second interval unit (see examples 9 and 10) based on the major triad is represented by the fragments -

Ex.25.



The third interval unit, now derived from the minor triad (see example 11) is varied by the addition of the leading tone.

Ex.26.



The minor seventh interval (see examples 16 and 23) is given emphasis by orchestral and rhythmic assertion.

The epicenter, at this point, falls away, the harmony is volatile as the block depends on its rhythmic and thematic assertions for stability; the previous unfolding of transformed material making the close relationship between the five stages quite obvious.

Consequently, the epicenter is abandoned in favour of kinetic chords moving through d, g, f, G-flat, c^d7 to C-flat, which acts as the Neapolitan sixth to B-flat, the opening key of the Ca theme.

Conclusion: b.177-198 form an overall static block, delineated by the predominant epicenter - D, welding both sound and rhythm fields into a multilayered, multifaceted macrostructure. It stands, the block structure, as the culmination of the transformation process: in this symphony, at the end of the Bb section, prior to the Ca statement. It is followed by a brief unison statement of the Ca theme, which dissolves into a sound field leading into the prelogue of the development, Division II. In this way the exposition is propelled forward into a rhythmic, harmonic and thematic climax of the utmost structural perfection.

2.5.4. Other examples (from S5:i)

These have been used as, while complex, they are yet relatively simple in structural superimposition and transformation.¹ An example of a block structure of much great complexity, in this symphony, (S5), can be seen in the development section b.297-324. One of the most exciting and vital development sections ever written!

Here the macrostructure emerges from the second part of the development (b.267ff). At this point the Aa theme is presented in canon, in original and inverted form, leading through transient keys D-flat, E-flat, E, to a statement of grand proportions, of two themes:-

Ex.27. b.283ff

(a)



(b)



Here the entire theme is used as an ostinato type motive in a series of sequential statements (b.287, b.291 and 295). These bars provide the resources for the block proper, and although it is difficult to

1. Other examples can be found in all Bruckner's symphonies, particularly in the C divisions of the Final movements, eg. SS:2, 4, 5, 6, 7, 8.

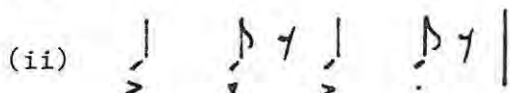
pinpoint the moment of the exact emergence of the block, it is probably from b.297, although it could be argued that the transformation elements are in use from b.283.

The rhythmical and interval units described in the initial illustration are again transformed with even more intensity, resulting in the diminutive rhythmical unit

Diagram 17



and



An interesting feature of this structure is Bruckner's interruption of the block by a thematic statement of the theme (Ba cp.a)legato b.325, by the horns, a return to the block ostinato for two bars and a further interruption, by the woodwinds, before the final statement of the theme¹ Aa interval unit III, extended by the brass, leading to the epilogue. This is an example of a complex rhythm field, to build the tension for the recapitulation Division III, in the ambiguous B-flat major/minor tonality.

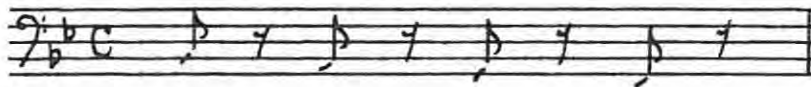
1. Refer to Example 11.

2.5.5. Recapitulation S5:i

In the recapitulation Bruckner does not use the same structural procedures at all, so although the thematic material is similar to the exposition the structural arrangement of the material is totally different providing a contrasting and divergent character in the recapitulation without sacrificing musical unity or coherence. In the recapitulation the A section is shortened, the sound field omitted from the B section, and the block structure omitted from the Bb group, but placed after sequential repetitions of the Ca group, emerging from the sound field is the (b.453) coda, to stabilise on the epicenter B-flat (major tonality) at b.493, ending the movement with a thematic ostinato on precisely the same fragment with which the movement began.

Ex.28.

(a) Original motive

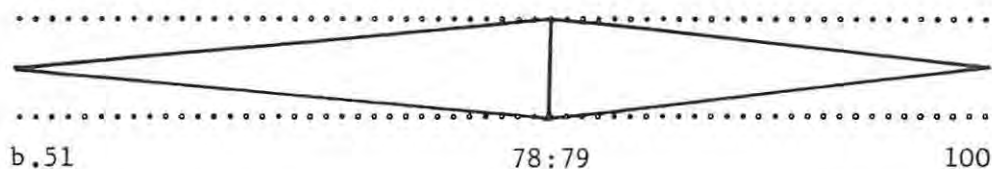


(b) Final motive



The rhythm field preceding b.100 acting here as a relaxation point. In contrast the tension line of the movement may be seen as -

Diagram 19



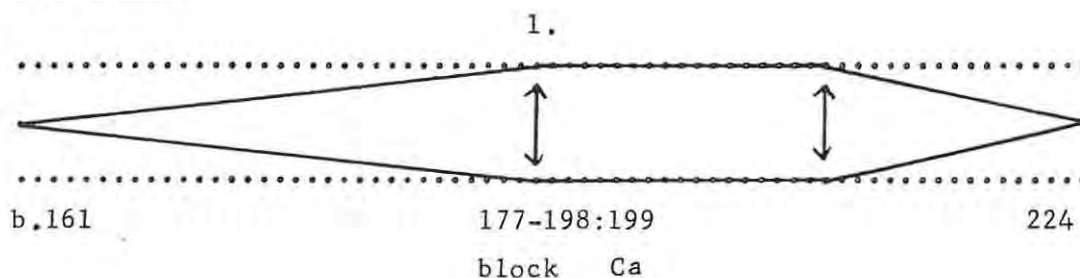
The tension line is reinforced by the harmonic line which opens at b.51 on an ambiguous note, as the initial A (b.51-52) seen as the V/D is followed by the pivot tone D open to interpretation as I/D or as the third of B-flat major. The B-flat, however, is momentarily felt as the harmony turns to B-flat minor, and thence to transient progressions through the key centers A, A-flat, G, G-flat, F and D-flat, resting on diminished chords (b.71ff) moving downwards to V/B-flat (b.78) before the asserted tonic B-flat minor b.80.

The following diagram represents the construction and position of the sound fields in Aa -

Diagram 20

b.51	62	71	75	79	91-100
Aa	frg	ostinato sound field	ostinato	Aa ¹	ostinato rhythm field

Diagram 24



The climax of the tension lines is sustained by the transformation processes within the block.

It is also sustained by the movement from the epicenter D-flat through A to d (minor), and into kinetic chords, stabilising momentarily on B-flat, with the unison statement of the Ca theme. The harmonic denouement follows the thematic/rhythmic fragmentation as the keys move through C-flat (acting in a Neapolitan relationship to V/B^b) and closing finally on F V/B^b marking the end of the exposition, division I.

S5:i has been used exclusively as an illustration of the transformation technique, although the process is found throughout his symphonies.

Diagrams 19, 22 and 24, show that although Bruckner arrives at a similar tension contour in each section, each is achieved by disparate means. The first by a restatement of the untransformed

1. In SS1, 2, 3, 9, C section, first movements, this tension peak is assisted by the interpolation of a chorale-type arrangement of thematic material.

main theme, the second by a harmonically orientated sound field in the second B group, the most dramatic of this division, and the third by the block structure containing the ultimate transformation processes, culminating in b.199ff, Section C. This illustration serves to highlight Bruckner's compositional techniques and illustrates his deep awareness of form and structure, balance, unity and expression. Using the above example as a model it is possible to trace similar approaches in the other symphonies, first and final movements, bearing in mind that each division, of each movement is individually conceived and the overall principle is moulded to fulfil the requirements of the specific division.

CHAPTER THREE

3. A Discussion of the Exposition, Section A, Thematic Aspects

This chapter will be presented under the following headings:-

- I The External structure of the subject group
- II The Internal structure of the subject group

3.1. The External Structure of the Subject Group

In the A divisions of the expositions of the first movements of Bruckner's Symphonies there are three different arrangements of the subject structure.

The first arrangement forms a group based on a simple ternary idea, $a + b + a^1$. This is found in S1:iA, S3:iA and S9:iA.

The second arrangement forms a group based on a simple binary idea, $a + b$. This is found in S2:iA and in S4:iA.

The third arrangement is based on a monothematic principle, $a + a$, in S5:iA, S6:iA, S7:iA and S8:iA.

3.1.1. Explanation of the external ternary arrangement

In this structure the first subdivision falls into three subgroups. The first subject contains the head motive. The group is defined by the following treatment, viz. after the head motive is stated in its entirety, it is altered. Achieved as some of the essential intervallic or motivic ideas are spun out by repetition or sequence. When this dissolution process is completed the second group of phrases is stated, ie. the Ab group. The Ab subject is normally based on a subsidiary motive from the Aa group. It may be monothematic or monomotivic. It is preferably monomotivic as it then lends itself to extensive continuation. This continuation leads to the complete dissolution of the Ab motive, the fragmentation of a melodic interval to a rhythmical reference of the original motive. After the Ab subject there is the restatement of the head motive (and sometimes the continuation) of the Aa group, and occasionally the Ab group. This restatement is also dissolved into fragments, usually a rhythmical reference to the closing fragment of the Aa head motive. The structure of the restatement differs in all three symphonies of this group. Essentially the structure of the restatement will be seen to depend on the type of head motive.

To summarise diagrammatically -

Diagram 25

A		
a	b	a ¹
Head motive - cont. - frg.	Monomotivic - cont. - frg.	Head motive - cont. - frg.

One inter-relating factor between S1:iA, S3:iA and S9:iA is the fact that the ternary divisions are characterised by a strongly developed Ab subject group.

In S1:iA the external grouping is into ten bars which constitute the head motive of the Aa subject group, four bars continuation to the head motive and three bars fragmentation before the Ab subject group S1:iA, the second subject group Ab is monomotivic and consists of a single bar idea. It is differentiated from the Aa group by a distinctive octave leap and different rhythm, and following compositional principles is immediately subject to continuation and dissolution (b.20). The restatement of Aa appears at bar 28, in S1:iA. This is undeveloped and only the initial nine bars of the head motive are restated with some variation (b.31).

S3:iA must be seen as an enormous enlargement of the principles found in the S1:iA. Externally the first Aa group consists of thirty bars. The head motive consists of twelve bars followed by ten bars continuation. This is followed by eight bars fragmentation.

Ex. 29. S3:iAa

The musical score for Ex. 29, S3:iAa, is presented in five staves. The first staff begins with a treble clef and a common time signature. It features a series of notes with stems pointing upwards, some marked with '+' signs. A bracket labeled 'cpa' spans the first few notes, and another bracket labeled 'etc' with an arrow points to the right. A dynamic marking 'P' is placed below the staff. The second staff continues the melodic line with notes and stems, including a measure marked '13.' with a 'pp' dynamic. The third staff shows a melodic phrase with a slur over it and a 'v' marking below. The fourth staff contains notes with stems and slurs, marked '21.' below. The fifth staff is a dense, rhythmic passage with many notes and stems, marked with '>' above each note.

The Ab group is now greatly expanded. It is differentiated tonally from the Aa group ((a) had been over a tonic pedal point on d). It is not monomotivic, but monothematic, and consists of a three bar phrase and four bar inversion of the initial phrase plus one bar rest, resulting in an eight bar phrase. The importance of the

second group is increased by the double statement of the Ab theme, b.39, followed by thirteen bars of continuation b.46-58, and eight bars of fragmentation. In this Bruckner fragments the head motive of the (b) group and as a counterpoint he augments the same head motive around the fragmented phrases. Unlike S1:iA there is an expanded restatement in S3:iA.

The head motive (now in A major) dominates, nearly exclusively, the restatement. It is diminished gradually into an ostinato fragment, eg: at bar 85 the head motive is merely a rhythmic ostinato. The Aa structure in the restatement consists now of nineteen bars, and only the head motive is restated. The former Aa continuation is omitted as the head motive is used in its entirety as a type of continuation by repetition. The Ab group, however, is also restated, it now consists of fourteen bars instead of twenty-four. This means that the Ab subject is stated once only, and the fragmentation of the phrase is relatively mild, compared to the extensive fragmentation of the Aa group. In the external format this results in a ternary structure, of 30: 36: 34 bars forming a - b - a¹, while internally a binary grouping a - b, a¹ - b¹, is suggested.

In S9:iA the process found in S3:iA is reversed, ie. S9:iA is still divided into an a - b - a¹ structure but within the subject divisions it is unlike either S1:iA or S3:iA. In the following diagram the external arrangement of S9:iA structure is shown.

Diagram 26

A

b. 1 - 26		b. 27 - 76	
frg. + frg. + frg. + a	:	+ frg.(i) + frg. (ii) +	
7 + 4 + 6 + 9	:	+ 6 + 6 +	

A (continued)

(b. 40)		b.77 - 96
frg. + frg. + frg. + b + cadence	:	+ a ¹ _{1.}
3+5 + 12 + 4 + 8 + 4+2	:	4+4+8+3+1

In S9:iA the Aa subject is preceded by fragments which are later used to comprise the head motive, ie. these fragments anticipate the triadic structure of the A subject proper. So the usual structural arrangement of the subject group has been reversed. Normally, as in S1:iA and S3:iA, the Aa group is most dominant thematically as its head motive provides the basis for further continuation techniques. In both S1:ia and S3:iA the second subject is directly derived from one of the motives of the Aa group, and in this sense can be said to be "subsidiary" (especially in S1:iA). As the Ab group is monomotivic or monothematic it consists of a strong rhythmic character so as to facilitate its conversion into the fragmented sound group before the restatement. In S9:iA, however, the Ab group is given thematic predominance in two ways :-

1. a¹ is based on fragments from (a).

- (i) the Aa theme is merely nine bars,
- (ii) the fragmentation leading into the Aa group is relatively undeveloped.

On the other hand the Ab subject group is preceded by an extended fragmented group. As the "continuation" preceded the statement of the main subjects in both Aa and Ab groups, there is naturally no on-following continuation to either of these. After the Ab subject there is a five bar cadence point.

After the Ab subject group there is a restatement, but not of the type peculiar to S1:iA and S3:iA. In this restatement the head motives of Aa and Ab do not reappear, instead the fragmented continuation which precedes the Aa group forms the material which makes up the a¹ group, forming a transition-type section. This appears over a structurally rearranged bass line of the Aa section. Similarly to the S1:iA, it is only the Aa ideas which are restated in S9:iA before the entry of the B section.

3.1.2. Explanation of the external binary arrangement

Structurally the Aa and Ab subjects provide the two main groups of the A section. Examples of this can be found in S2:iA and S4:iA. Although both have a binary outline, they differ widely.

In S4:iA the Aa subject is not subjected to the continuation technique found in the other arrangements of the Aa subject

structure . The main feature of this subject is that it is not externally developed. Being monothematic it is "developed" in the sense of variation and not derivation, eg: by the augmentation or diminution of a fifth and not by the derivation of new material. The Aa subject may be said to consist of a head motive which is used in an ostinato-like manner. Consequently there is no need for the typical fragmentation before the entry of the Ab group which follows directly after a short link of 8 bars.

The Ab group follows the same principles as were peculiar to SS:iA, ternary subdivisions. That is; the Ab group in S4:iA is based on a subsidiary motive introduced in the 8 bar link.¹ It is monothematic and the theme becomes absorbed into a modulatory continuation and is finally fragmented before the entry of the B section. This modulatory continuation takes the motive in its entirety through various tonal planes and in this respect follows the principle found in S4:iA. In Aa however, phrase durations remain unchanged, while in the Ab group they are subjected to rhythmic diminution, although the melodic contour remains the same.

The structure of the A section is as follows -

1. In turn this motive could be considered as the "filling-in" of the octave area of the 4/5 germ cell.

Diagram 27 S4:iA, bars 1 ff.

A

Head Motive		Head	Cont.	Frg.
a		b		
14	+	16	+	12
2 + 3 + 1; 3 + 1; 3 + 1;		etc		etc
Intro Motive		Motive		Motive

In structure, the Ab group of S4:iA closely resembles the Ab group of the ternary subdivisions in S3:iA. Therefore, one would say that the essential difference in the principles governing the binary and ternary structures is -

- (i) that the binary omits the restatement,
- and (ii) that the main structural difference lies in the arrangement of the Aa group rather than the Ab group.

In S1:iA, S3:iA, S9:iA and S4:iA all the b subjects follow the same fundamental principles regarding structure and function.

S2:iA also consists of two divisions formed by the Aa group and the Ab group. However, the external structure is greatly expanded by the internal thematic material which constitutes these two sections. In this symphony, the arrangement is the result of

1. 8 - statement
6 - double statement
8 - original and inversion alternatively
6 - inversion
4 - fragment

the extensive use of a derivation continuation technique. In S4:iA the binary arrangement was determined by the clear differentiation of the a-group which employed no continuation technique and the b-group which employed a simple continuation technique. In S2:iA, however, a complex continuation principle is found in both the a and b groups. There is, therefore, no distinct separation between the Aa and the Ab groups as was found in the ternary subdivisions discussed earlier.

In S2:iA the subject is constructed on an additive chain idea. This technique involves the expansion of the initial head motive by the derivation of new material from preceding ideas. The following diagram shows the arrangement of the thematic ideas.

Diagram 28 S2:iA, b. 1 - 26

A				
a	cont.	b	Var. of Cont. of a	Cont.
4 + 2 + 5	+	4	+	4 + 2 + 1

S2:iA also has a relationship to the third classification group in that it is endowed with a double statement idea. It is nevertheless classed with the binary groups as the overriding criterion of the double statement is its monothematicism. The above structure is restated from bar 27. The Aa group is regular but the Ab group

is greatly expanded internally, ie. by diminution. Externally it retains approximately the same structure, ie. 8 + 15, of, respectively, continuation and fragmentation. This group forms the double statement, concluded by a 13 bar cadential extension on G.

3.1.3. Explanation of the external double statement arrangement

S5:iA, S6:iA, S7:iA and S8:iA presents the double statement principle.¹ These A sections are monothematic, there is only one subject group - Aa. The group is then restated in tutti. The second statement is usually very similar in structure to the first. In the double statement structure, S5:iA, S6:iA and S8:iA are related as, in all three, the arrangement of the external structure follows one principle. The exception to this external structure is S7:iA.

S8:iA consists of a simple motivic subject. Once the subject is stated it remains initially static in shape and is subsequently repeated on different key centers. The subject is then altered internally; by rhythmic diminution of the subject structure and possible interval alteration and variation. The actual shape of the subject never disintegrates. The head motive which constitutes the entire subject, can be used to form the fragmented groups into which the phrases dissolve. In this instance the entire head motive is diminished rhythmically until reduced to a fragment.

1. This structure is closely related to the a-recurring subject of the B sections.

Additionally, fragments of the head motive appear independently. The important difference from the continuation techniques of Section A ternary and binary subdivisions is that the fragmented motives which constitute the head motive are not regrouped to form new ideas, such as an independent continuation phrase or new subjects. These fragments exist independently without losing their initial identity, as first seen by their position and structure in the head motive. A slightly different arrangement occurs in S6:iA where, on account of their repetition, they become ostinato modulatory groups, and as such could be referred to as rhythmical extensions to the head motive.

In conclusion, the subject exists in toto, and, although it is subjected in itself to variation, it does not lose its essential character.

A general diagram defining S5:iA, S6:iA and S8:iA is as follows:-

Diagram 29 General

A		
Head Motive		Second Statement
a	+ Var. + Frg. of head motive	similar

In S5:iA the following outline occurs :-

Diagram 30 S5:iA, b.51 - 100

A

<p>a</p> <p>4 + 4 + 4 + 8 + 8 +</p> <p>4 = intro 4 = head motive 4 = full head motive ie. two frg. - phrases 8 = variation on frg. - phrase 8 = var. on head motive phrase ie. augmented</p>	<p>a second statement</p> <p>4 + 2 + 4 + 12</p> <p>4 = head motive in tutti 2 = head motive frg. - phrase rhythmically diminished 4 = head motive transposed 12 = frg. of head motive frg. of phrase</p>
--	--

From the preceding diagram one can see that the additional phrase to the head motive consists of rhythmical variation of the head motive and as such can hardly be called continuation in the true sense.

The same principle applies in S6:iA and S8:iA as is shown in the following two diagrams.

Diagram 31 S6:iA, b. 1ff


A

<p>a</p> <p>6 + 2 + 4 + 2 + 4 + 6</p> <p>6 = headmotive 2 = frg. - phrase of head motive 4 = head motive 2 = frg. - phrase of head motive 4 = rhythmic var. of frg. - phrase of head motive 6 = frg. - phrase of head motive</p>	<p>a second statement</p> <p>4 + 2 + 4 + 2 + 4 + 2 + 6</p> <p>4 = head motive in tutti 2 = frg. - phrase of head motive 4 = head motive 4 = frg. - phrase of head motive 2 + 2 = rhythmic variation of head frg. 6 = frg. of head motive</p>
--	--

Diagram 32 S8:iA, b. 1ff

A

<p>a</p> <p>1 + 4 + 4 + 4 + 4 + 5</p> <p>.....</p> <p>1 + 4 = head motive</p> <p>4 = head motive</p> <p>4 = head motive</p> <p>4 = head motive</p> <p>5 = rhythmic var. of head motive</p>	<p>a second statement</p> <p>1 + 4 + 4 + 4 + 4 + 4 + 7</p> <p>.....</p> <p>1 + 4 = head motive</p> <p>4 = head motive</p> <p>4 = head motive</p> <p>4 = head motive</p> <p>4 + 7 = rhythmic variation of head motive</p>
--	--

In S8:iA it is important to note that in the second statement the initial five bar variation of the head motive is expanded into a four plus seven bar group. The expansion of the motive could lead one to define this as an independent subject group. This cannot be done since the group is not a compilation of derived fragments joined together to form a new phrase. It is rather a rhythmical augmentation of the  idea found in the head motive. It must be seen, therefore, as a rhythmic variation which still belongs thematically to the head motive and which does not have enough thematic strength to exist independently.

S7:iA is constructed along the principle of an additive chain idea which, as has been mentioned, results in the expansion of the head motive by the addition of new ideas derived from preceding fragments. The following external arrangement is the result :-

Diagram 33 S7:iA, b. 1ff

A

a	a second statement
11 + 4 + 4 + 5	9 + 4 + 4 + 9
.....
head motive plus cont.	head motive plus cont. plus fragmentation of the cont.

There is not an exhaustive use of the complete fragmentation of the phrase at the end of the continuation as is peculiar to those symphonies with first movements in ternary subdivisions. The use of extensive fragmentation seems to be necessitated by the fact that a sharp contrast is needed before the entry of the a¹ idea in the expositions with ternary subdivisions. In monothematically divided expositions the B sections provide sufficient contrast to the Aa subject group and so the fragmentation of the subject is undeveloped. In those expositions which are based on a double statement, Bruckner tends rather to augment a motive rhythmically and repeat it through various pitches before the entry of a new idea.

In conclusion, one can see Bruckner following the baroque traditions in his thematic structure as both the ternary and binary subdivisions of the iA are based on the head motive and continuation technique peculiar to the baroque period. In the double statement subdivisions of the SS:iA he follows the classical outline of external regular

phrase grouping. This is seen in the larger structure as a double statement which is one of the characteristic preferences of the classic period.

Sections A defined externally by the three structural divisions

- (i) ternary subdivisions
- (ii) binary subdivisions
- (iii) double statement structure

These, considered internally, fall into five different structural types.

3.2. The internal structure of the subject

These subject types are determined by the internal structure and also by the external arrangement of the material.

Diagram 34 The parallels between the external and the internal structures

(i)	a - b - a ¹	...	contains the Simple Derivative Subject.
(ii)	a - b - a ¹	...	contains the Complex Derivative Subject.
(iii)	a - b - and double statement	...	contains the Additive Chain Subject. ¹
(iv)	double statement	...	contains the Simple Motivic Subject.
(v)	a - b	...	contains the Ostinato Motivic Subject

1. The term Additive Chain was coined by Korte, Werne E. in "Bruckner and Brahms" (Hans Schneider). In his terminology a melodic line consists internally of an a - b - c - d structure, ie. a contains the germ cell for b and b for c, resulting in endless melody. In this structure he maintains that the rhythm remains constant and so acts as a unifying course. I have used Korte's terminology, but have adapted his explanation to my own interpretation and definition.

The A sections fall into the following groups :-

- S1:iA ... Simple Derivative Subject
- S3:iA and S9:iA ... Complex Derivative Subject
- S2:iA and S7:iA ... Additive Chain Subject
- S5:iA, S6:iA and S8:iA ... Simple Motivic Subject
- S4:iA ... Ostinato Motivic Subject

3.2.1. Explanation of the Simple Derivative Subject

The internal structure of a simple derivative subject is based on two principles of organisation; viz. the idea of a constructive interval and the application of a derivation technique.

The first principle:- The constructive interval¹ is an element smaller than the motive. It can become the fundamental element of organisation of the work. In Bruckner the term constructive interval is used when one predominant interval is found in a motive. This one interval then forms the essential element which makes up the structure of the head motive. In this way the use of the constructive interval in various pitches and inversions constitutes the motive intself. If there is one predominant constructive interval then the subject is defined as a Simple Subject.

1. This term was coined by Roswitha Traimer, see earlier reference, p.20. "Bela Bartok's Kompositionen Technik, Dargestellt und seinen Sechs Streichquartetten" (Gustav Boss Verlag, Regensburg), 1956. She maintained (to translate freely) that a motive was the substance of any type of movement, but that there were other elements of thematic importance, eg: the interval. Traimer proved that the interval could dominate horizontally and vertically, and thereby helped to shape the total structure. She called this the constructive interval. According to her definition the constructive interval could be used as part of the motive, or as a unit structurally independent of the motive. In the former case the constructive interval was open to the variations of the motive, and in the latter it remained unalterable. In Bartok's works the interval was usually part of the motive.

Once the constructive interval is incorporated into, or constitutes the motive, it is subject to the variations of the motive. However, it can exist independently of the motive and as such is not capable of alteration.

Ex. 30. S1:iA, b. lff

The constructive interval is the semitone, found in the head motive.



Once the motive has been stated and the constructive interval is established, the motive is subjected to alteration or "development".

Alteration can be achieved by the methods described in Chapter 2, now shown as applied to S1:iA.

- (i) There is an interval change to the fragments of the motive, but the original rhythm remains unaltered.
- (ii) There may be a return to the original interval structure and rhythm is now altered, ie. by augmentation or diminution.
- (iii) Once the new structure has been heard and the logical derivation from the original has been stated, the two methods mentioned are combined, ie. an interval and rhythmical change take place simultaneously.

(iv) Finally, only the rhythmical element is used. This usually occurs at the end of a subject group before the entry of a new subject group. It is used in its independent structure as the motive has been dissolved into its basic element. At this point, therefore, the constructive interval is found in its primitive unalterable form. The following example is a very simple illustration of the principles of arrangement.

Ex.31 S1:iAa

The transformation of the constructive interval

(i) Original



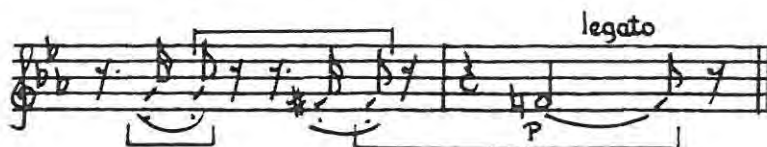
(ii) Interval change



(iii) Interval and rhythm change



(iv) Rhythmical element



The second principle:- The application of the derivation technique occurs after the above process has taken place. As has been described, there are alterations applied to the constructive interval. This rearrangement of the constructive interval is used to form new phrases and new groups, ie. derivative continuation. The following diagram will help to clarify the process.

Diagram 35

-
- (i) - a constructive interval
 - (ii) - alteration to the internal structure of the interval
ie. new arrangement of the interval
 - (iii) - the process described in (ii) is now used as the basis
for the derivation of new arrangements of the altered
interval to form continuations.

Thus:-

0 (original) - (i) - (ii) - (iii) - (iv) etc. (These numbers represent derived fragments/phrases/motives)

In conclusion, therefore, the two principles described, the constructive interval and the derivation technique, result in a Simple Derivation Subject, ie. one constructive unit and continuations to the subject formed by the alteration to the constructive interval.

The $S1:iA$ is the only example of this technique. The Ab group of $S1:i:$ is a further derivation of the Aa group and need not be discussed in this chapter.

The complete simple derivative subject as found in $S1:iA$ is as follows :-

Ex. 32
Violin I

SI : 1Aa

mf

poco a poco crescendo

3.2.2. Explanation of the Complex Derivative Subject

S3:iA and S9:iA belong to this group. Similar to the Simple Derivative Subject, the Complex Derivative Subject is based on two principles of organisation, viz. the application of the constructive interval and the application of the derivation technique. The definition, Complex Derivative Subject, is derived from the fact that besides one predominant interval the subject group consists of subsidiary supporting intervals, eg: in S3:iAa the subject group is formed from the Acp.a theme. This theme defines the intervals which constitute the structure of the Aa group.

Ex.33. S3:iAa

Defining interval for Acp.a for Aa

The diagram illustrates the defining interval for Acp.a for Aa. It consists of two musical staves. The top staff shows a melodic line with several intervals marked by vertical double-headed arrows. The bottom staff shows a bass line with intervals marked by brackets and labeled (i) through (vi). A triplet of eighth notes is marked with a '3' above it.

The Aa subject may, therefore, be seen to consist of the following intervals:-

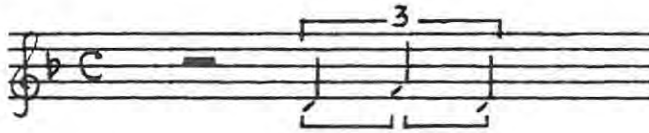
- (i) the descending fourth
- (ii) the descending fifth

The descending fourth and fifth must be seen as inversions of each other and therefore they may be grouped as one interval unit. The fourth/fifth arrangement forms the head motive of the Aa subject group, and the constructive interval of the A section.

The following intervals can be seen to be brought about by the filling-in and juxtapositioning of the constructive interval:-

- (iii) the minor third (three crochet idea - Aa(iii))

Ex.34.



- (iv) the ascending fifth (Aa(iv) is the inversion of Aa(ii))

Ex.35.



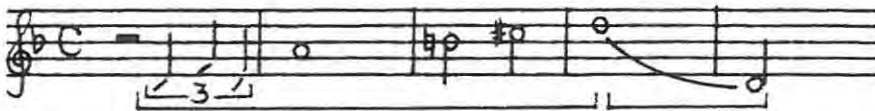
(v) the whole tone plus semitone step. (Aa(v))

Ex.36.



(vi) the octave leap. (Aa(vi))

Ex.37.



In the head phrase of the S3:iAa there is a constructive interval, the fourth/fifth, and secondary supporting intervals, the minor third, the whole tone plus semitone and the octave leap.

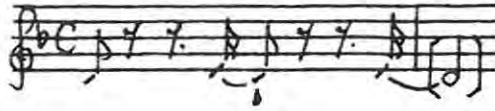
One would, therefore, class this as a Complex Subject. In S3:iA the derivation of the (a) subject from the cp takes place before transformation of the (a) subject is possible.

Internally the head phrase consists of a 3 + 2 + 3 + 2 structure.
The last two bars consist of fragments Aa(vii).

Ex.38. S3:iAa(vii)

and

Ex.39. S3:iAa(viii)



After this, the head phrase, the material stated is used to derive a new group or the continuation of the Aa group.

3.2.3. Explanation of the Derivation Technique

Ex.40. Aa(ix)



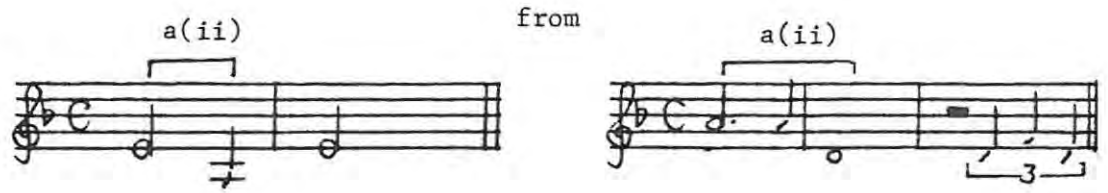
from



Aa(ix) can be seen to be directly related to the Aa(iv) motive.

Ex.41. Aa(x)

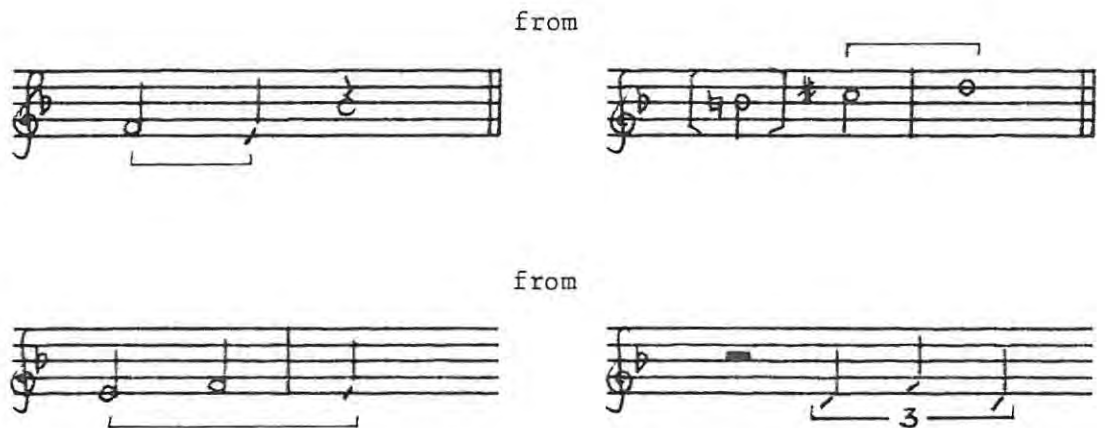
a(ii) from a(ii)



Aa(x) is obviously derived from Aa and Aa(ii), and a(vi).

Ex.42. Aa(xi)

from



This fragment seen independently is related to the semitone of the Aa(v) fragment in inversion. Its position in both fragments is at the end of the phrase. If, however, it is seen as part of the following fragment it is related to Aa(iii). Both examples have a rhythmic similarity although the interval structure is altered.

Briefly, the internal structure consists of six fragments centered around a constructive interval and three supporting intervals. These six fragments comprise the head phrase, the first two intervals, the head motive. From intervals (i) and (ii) are derived further arrangements. This results in a regrouping of previous material to form new groups, ie. the continuation to the head phrase, consisting of fragments (vii) - (xi). The subject group is determined by the principle of fragmentation. The Aa(xi) is used as a motivic ostinato and is dissolved into the repetition of a single semitone interval (f - e), eg: bars 29-30.

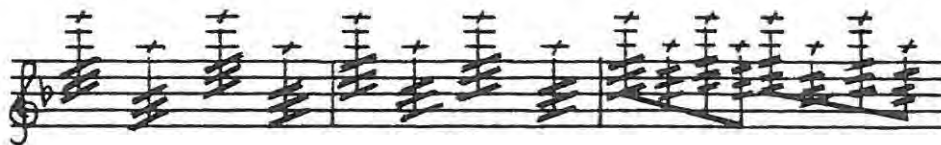
Diagram 36

Summary of internal arrangement of S3:iAa and Ab

Aa	Ab
a(i)-(vi)	
4+3+2+3	(4 + 8) + 6
head phrase	cont. frg.of cont.
cont.	cont frg
	ff by counterstatement b.67

As soon as the constructive interval assumes a motivic function it is subject to various treatments. Some methods of treating the head group are :-

Ex.45. S3:iA



The above treatments can be seen (in b.27ff) and in bars 19 - 30 of S3:iA.

In S3:iA, the fourth/fifth interval constituting the head motive is subjected to rhythmic and interval diminution. The above process can be referred to as the fragmentation of a motive. This fragmentation or dissolution of the motive is always occurrent in a - b - a¹ structures.¹ There exists, therefore, a definite relationship between internal and external structures. All derivative subjects, whether simple or complex, are enclosed by the ternary frame.

1. The Ab group is based on the same principles but has been discussed in detail under the chapter dealing with the transformation of the germ cell.

3.2.4. Explanation of the Additive Chain Subject

S2:iA and S7:iA express this subject structure,¹ which is based on the concept of interlocking themes and thematic ideas. The difference between the additive chain subject and the derivative subject clearly emerges by a comparison between Example 46 and Diagram 38.

Ex.46. S7:iAa

The musical score for Example 46, S7:iAa, is written in G major (one sharp) and consists of four staves. The first staff begins with a mezzo-forte (mf) dynamic. The second staff includes the instruction "poco a poco cresc." (poco a poco crescendo). The third staff is marked "gezogen" (drawn out). The fourth staff concludes the piece with a double bar line.

1. This will be discussed in more detail in Chapter 4.

Diagram 37

Diagram 38

The difference between the Additive Chain and Derivative Subjects

Additive Chain Subject Aa (i) + (ii) + (iii) + (iv)	Derivative Subject Aa (i) = (ii) = (iii) = (iv)
---	---

A "less-perfect" chain structure underlies S2:iA where bi-thematic elements interfere with the continuity of the musical thought and the monothematic principle essential for the genuine additive chain structure. It is for this reason that S2:iA is not included in the double statement category which demands, usually, strict monothematicism.

3.2.5. Explanation of the Simple Motivic Subject

S5:iA, S6:iA and S8:iA fall under this principle.

The characteristic governing the structure of this subject is that it is monomotivic. The simple motivic subject consists of a head motive which is not expanded to form a head phrase by the application of either derivative or additive continuation. The head motive in itself has the ability to fulfil the function of a subject group.

Additionally, the head motive has the ability to function along the same lines as a constructive interval. Therefore, as is usual with both the head motive and the constructive interval, the simple motivic subject may undergo alteration by augmentation or diminution both intervallically and rhythmically.

In the simple motivic subject such alteration is applied internally, therefore, the actual shape of the subject structure never disintegrates and, despite variation, can easily be recognised. By the repetition on different tonal planes, a type of continuation by variation is evolved.

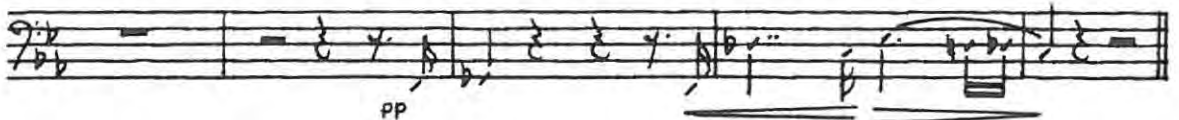
Diagram 39

Structure of the internal Simple Motivic Subject

a ff a¹ ff a² etc

Ex.47. S8:iA¹, b.1 - 22

Original Head Motive :-

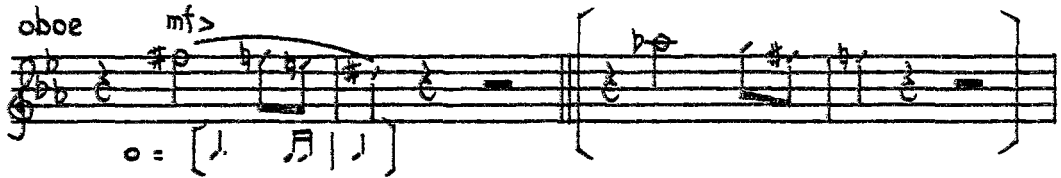


1. This Aa subject group is structurally related (identical) to the Ab subject group of S3:iA.

Aa¹, first variation of original head motive :-



Aa², First rhythmic variation of original, i.e. by augmentation of original rhythmic structure :-



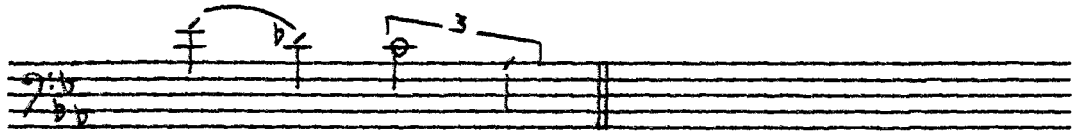
Aa³, a rhythmic and interval variation, combining direction of both (a) and a² and continues a² idea of rhythmic aug. :-



Aa⁴, a fragmentation of variation a³ and used in directional inversion :-



Aa^5 , an augmentation of a^4 :-



The internal arrangement of the Simple Motivic Subject is demonstrated in -

Diagram 40 S8:iA, b.1 - 22

A											
a	a^1	:	a^2	$a^2 i$	$a^2 ii$	$a^2 iii$	$a^2 iv$	$a^2 v$	$a^2 vi$	$a^2 vii$	
5	+	4	:	+	4	+	4	+	4	+	5
1+4	+	4	:	+	4	+	4	+	4	+	5

After the above structure the entire group is repeated to form the double statement :-

Diagram 41 S8:iA, b.23 - 50

A													
a	a^1	:	a^2	$a^2 i$	$a^2 ii$	$a^2 iii$	$a^2 iv$	$a^2 v$	$a^2 vi$	$a^2 vii$			
1+4	+	4	:	+	4	+	4	+	2	+	2	+	7

From the above diagram, it can be seen that the internal structure consists of an (a) group and an a^2 group, the variation

1. ie. variation continuation based on a^2 .

continuation is essentially part of the a^2 group. Therefore it is bipartite. It follows logically that if the internal arrangement is of a bipartite design, the external structure would also follow the same principle, and so, externally is defined into a double statement.^{1.}

The following parallel can therefore be drawn:-

The first overall statement of the Aa group corresponds to the internal (a) and A^1 phrase groups. The repeated statement of the Aa group corresponds to the internal a^2 variation continuation.

In conclusion, the use of a monothematic Simple Motivic Subject results in the internal and external double statement formal outline.

SUMMARY: At this point it is possible to summarise the types of continuation which have been used in the internal construction of Bruckner's various subject groups.

1. The Derivative Continuation. This was characterised by two methods of application :-
 - (i) the Simple Derivative technique which involved the use of a single constructive interval, and the

1. The same principle was found in the S1:iA ternary subdivisions.

arrangement of transformations of this interval into continuations.

- (ii) the Complex Derivative technique which involved the use of a constructive interval unit as well as supporting interval units. This technique proposed that either the constructive interval or the supporting interval could be used immediately in the formation of new continuations, whether they underwent individual alteration or not.

- 2. The Additive Continuation. This involved the generation of an immediate new phrase by the transformation of an essential characteristic of the preceding phrase.
- 3. The Variation Continuation. This consisted of internal alteration to a head motive and the subsequent repetition of variations to this motive without dissolving the structural outlines of the motive, which result in continuation groups.

The final type of subject structure to be discussed is the Ostinato Motivic Subject.

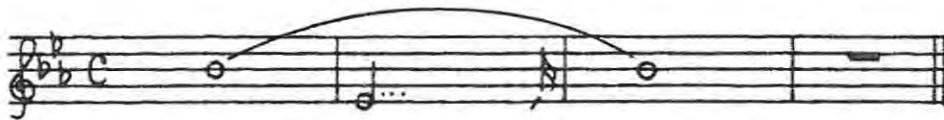
3.2.6. Explanation of the Simple Ostinato Subject

The Simple Motivic is closely associated with the Simple Ostinato Subject as both involve the internal alteration to the head motive and the subsequent repetitive variations without dissolving the structural outlines of the motive. There are, however, two important differences between the simple motivic and the simple ostinato subjects :-

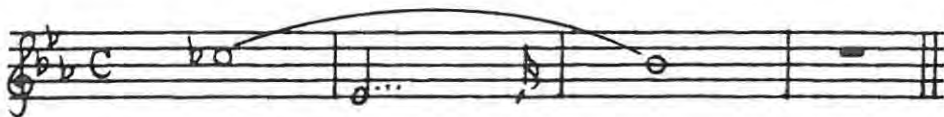
- (i) The Simple Motivic Subject is subject to interval and rhythmic alteration whereas the Ostinato Subject always retains its rhythmical structure.¹
- (ii) The variations to the head motive are not fragmented and do NOT consequently result in continuations to the head motive. Thus the entire motive may be seen as a constructive unit.

Ex.48 S4:iA, b.lff

(a)



(a¹) aug. of 5th interval



1. A minor alteration rhythmically is the substitution of a minim for a semibreve at the end of the motive in one of the repetition groups, eg: S4:iA, b.23ff.

(a²) a new transposition of pitch



(a³) octave transposition



(a⁴) internal expansion



(a⁵)



(a⁶) 5th descending = 4th



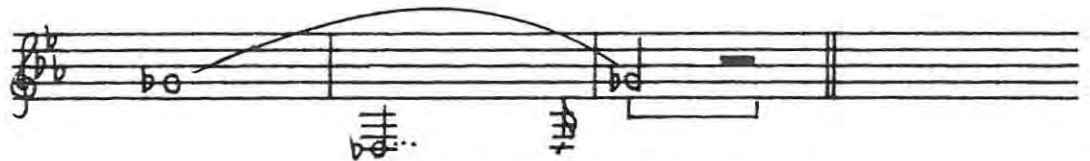
(a⁷)



(a⁸)



Acp.a : Rhythmic variation



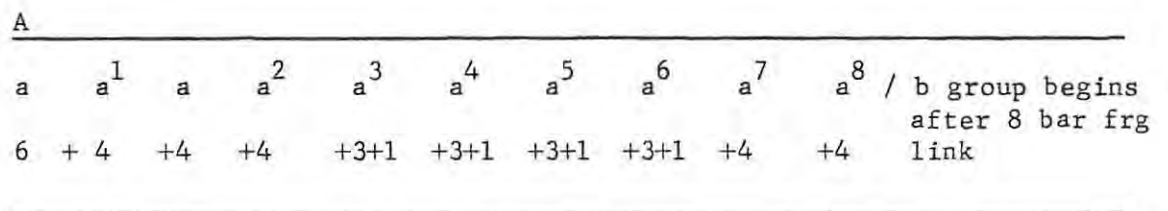
The main feature of this subject is that it is not expanded by the use of either derivative variation or additive continuation. The subject is heard in its entirety and is then subjected to internal intensification, augmentation, diminution of the intervals forming the outline of the motive. This process results in :-

- (i) the structure of the head motive may be extended or diminished regarding its interval shape but always retains its rhythmical shape.

- (ii) the subject is repeated in its entirety on various tonal planes and in various orchestral arrangements
- (iii) the use of the techniques mentioned above results in the generation of a rhythmic ostinato, hence the classification of this subject as a simple ostinato group.

Unlike the expositions which are divided into a double statement S4:iA is bi-motivic, ie. it consists of an Aa and an Ab subject group. The following diagram represents the internal arrangement of the Aa subject group.

Diagram 42 S4:iA, b.1 - 42



Exactly the same principles are found in the Ab group of S4:iA, although very irregularly applied. The Ab subject group consists of one central motivic unit which is found in the various forms of :-

- (i) ascending 2+1 phrase
- (ii) ascending 1+1 phrase
- (iii) descending 1+1 phrase
- (iv) descending 1+2 phrase
- (v) rhythmical representation only of the motive

Ex.48(a) S4:iAb

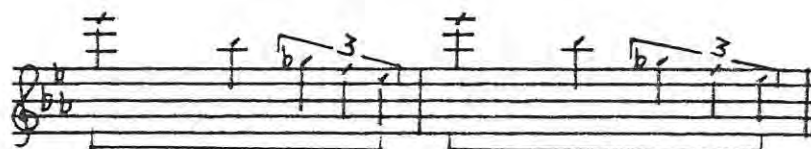
- (i) ascending 2+1 phrase



- (ii) ascending 1+2 phrase

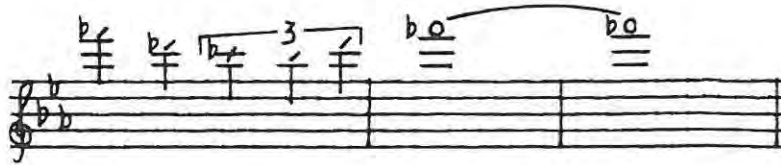


- (iii) descending 1+1 phrase



followed by ascending and descending phrases b.59-61

(iv) descending 1+2 phrase



(v) rhythmical representation only



Diagram 43 S4:iAb, b.51 - 74

A

$b^1 + b^2 + b^3 + \frac{1}{2}b^1 + \frac{1}{2}b^3 + \frac{1}{2}b^1 + b^4 + b^3 + b^3 + \text{frg.}$
 $2+1 + 1+2 + 1+1 + 1 + 1 + 1 + 1+2 + 2 + 2 + 6$

After the Aa group there are 8 bars of anticipatory fragments of the Ab group, eg: bars 42 - 50.

The simple ostinato is contained in an a - b structure so one would again draw the parallel between the bi-motivic internal structure and the binary external structure.

This concludes the discussion of the A divisions of the Exposition, first movements of Bruckner Symphonies.

CHAPTER FOUR

4. A Discussion of the Exposition, Section B, Thematic Aspects

In this division the external structure and the internal arrangement will be referred to concurrently.

External structures found in the B division are :-

- (i) The simple a-recurring group
- (ii) The complex a-recurring group
- (iii) The binary group
- (iv) The ternary group
- (v) The double statement
- (vi) The variation structure

Internal arrangements found in the B division are :-

- (i) The additive chain
- (ii) The simple derivative
- (iii) The complex derivative
- (iv) The variation structure

4.1. The principles common to the simple and the complex a-recurring group

In the Ba division of this structure the main theme is built on the additive chain idea. In addition, the units with which the composer deals are thematic and not motivic groups. The additive theme is based on the concept of interlocking germ cells, each germ cell containing the elements which can generate a new idea in the succeeding phrase. Naturally, the head motive is superceded by an "initial" phrase, as each subsequent cell/phrase is of equal importance in the overall structure. The design of the additive chain allows, therefore, for the extensive use of alteration and addition to the general structure of the subject. Alteration can be applied internally without interrupting the general structure of the entire group, as each cell can be transformed, substituted, or extended individually, without dissolving the contour of the successive fragment/phrase/motive. This technique results in the irregular external shape of the components of the subject group, the extent of the irregularity being determined by the amount of alteration applied. The importance of such a technique is that although the alteration is applied to the subject group, the initial phrase, in most cases, remains unchanged. The irregularity in contour, if extended over a greater rhythmic area,¹ results in additive phrases/continuation.

1. Defining rhythmic area: if, for example, the following rhythm is considered, (i) ♩ ♩ ♩ (ii) then the rhythmic area extends from (i) - (ii). Occasionally, Bruckner extends this area, for example, (i) ♩ ♩ ♩ | ♩ ♩ ♩ (ii). The distance between (i) and (ii) is greater than in the first example. The contour and shape of the melody and the rhythm, however, remains unaltered.

Furthermore, the continuations are merely substitutions of the original, and, in the overall structure, contribute to the maintenance of the static external frame.

The B section has two structural ideas :-

- (i) the repetition of a monothematic idea
- (ii) the repetition of the layered arrangement of thematic material.

As the repetition of the Ba 'gesangsperiode' results in a relatively static structure, variation is achieved by altering the Ba theme and also by reorganising the counterpoint themes by tonal or orchestral transpositions. Although internally each repetition of the structure is open to change, externally the shape remains relatively constant.

In the B section, the Ba theme is usually the dominating theme, but it is not the only relevant theme. The Bcp themes are also necessary for the formation of the B subject group. Often the external shape of the subject determines thematic significance of the counterpoint subjects. These subordinate themes form the multilayered structure which characterises the Ba subject organisation. The structure of the B group is determined by the following arrangement of the thematic material :-

- (a) One main theme consisting of an initial phrase and continuation
- (b) A subordinate melodic cp theme
- (c) A subordinate counterpoint theme usually fulfilling a harmonic function.

Ex.49. S7:iBa and Bcp, b.51-59 and 59-66

Ba:

Bcp.a

mf

dim

Bcp.b b.59ff

2nd Violin



The counterpoint theme is built out along the same melodic structure and direction as the Ba theme, as it is really acting as an enriching and supporting theme and not as an independent contrasting theme. The same treatment of the Bcp themes is found in the S2:iB and S6:iB. Thus the B sections thematic structure consists of the superimposition of concurrent thematic layers.

The extent to which the Ba group is varied results in the differentiation between the simple and the complex a-recurring group, eg: S2:ib.

4.2.i. The simple a-recurring subject

Diagram 44 S2:iB, b.63-96 (b.63-65 form a short introduction)

B.

a + a + cont. + a + cont.^{1.}
8 + 8 + 2 + 14

b.66

The above diagram consists of three recurring appearances of the (a) group. The diagram illustrates the clear, unvaried statement of the initial (a) phrase/theme with contrast in the repetition obtained by :-

- (i) the addition of a two bar continuation
- (ii) the extension of the (a) theme internally,
ie. Diagram 44 a = 14

The contour remains static although (i) and (ii) alter the arrangement of the (a) theme.

4.2.ii. The complex a-recurring subject

This is characterised by the irregular application of continuation :-

- (i) after the (a) theme of the Ba subject group
- (ii) within the frame of the Ba subject group; either

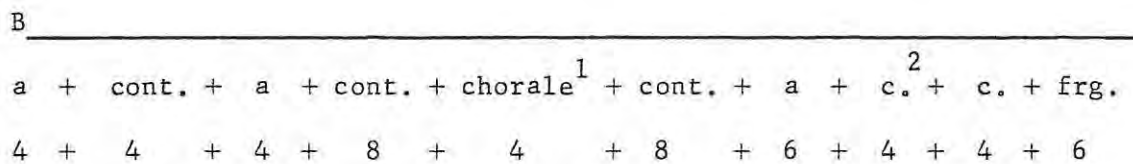
1. The final (a) is internally expanded.

1. to the Ba theme itself, or
2. to the Bcp themes,

(iii) after the Ba group, forming a new subordinate and independent group.

This technique may, therefore, be regarded as an extensive use of the additive continuation technique, as far as the arrangement of thematic material is concerned. As such, the continuations sometimes bear very little resemblance to the initial theme. The relationship can only be traced by working in retrograde through each variation of the germ cell to the point of origin. An example of this is found in S6:iB.

Diagram 45 S6:iB, b.49-100



There are three recurring statements of the (a) group. The extensions to the second and third statements enlarge the Ba group thematically by the formation of related, but independent, continuation groups. The (a) group usually appears in its original shape. In the final appearance of the (a) group, the two bar

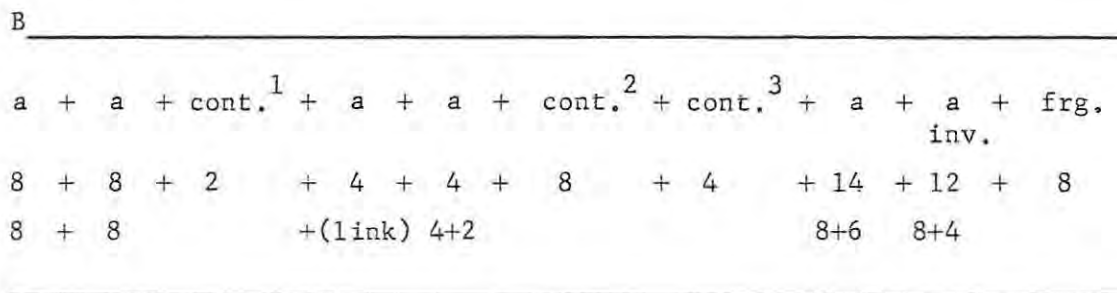
-
1. The chorale is a continuation of Ba as it is based on certain defining characteristics of the Ba theme.
 2. C. here equals continuation.

addition to the original four bar form is the result of the
rhythmical alteration of the external structure of the theme.
The internal interval arrangement is unchanged.

S7:iB has a more complex arrangement of the a-recurring theme.
Because of the excessive use of the additive continuation
technique, both externally and internally, the (a) group is
completely irregular in external outline. In this example of the
a-recurring group the theme is treated in various ways :-

- (i) a unit of the Ba theme is used as a link
between a continuation and the re-appearance
of the entire Ba group
- (ii) alteration by longer counterpoint themes after
the (a) theme within the (a) group.

Diagram 46 S7:iB, B.51-122



The above diagram shows the following :-

- (i) two exact statements of the (a) group, eg: a + 8
- (ii) an interpolated 2 bar continuation
- (iii) two statements which, although they are initially exact repetitions of the a+8 group, are altered by contraction to 4 bars each, followed by an 8 bar continuation¹ and a third continuation of 4 bars. These two interpolated continuations are then followed by Ba¹ restatement lengthened to 14 bars. An entry of Ba¹ inverted of 12 bars is concluded by a fragmentation process lasting 8 bars.

One would hardly call this a variation technique as in each repetition the initial (a) structure is retained.

4.3. The binary subject groups

In this structure the B section is divided into two groups, the Ba group and the Bb group, eg: S1:iB and S5:iB.²

Two different treatments characterise the Ba and Bb subject groups -

- 1. Ba: Here the structure is based on the same principles of organisation found in the a-recurring subdivision with the following adaptations -

-
- 1. During the first 4 bars of continuation (2) b.77ff, Ba¹ appears in 1st clarinet, 2 horn as a counterpoint.
 - 2. The B section follows the same treatment found in the S2:iAa section.

- (i) externally the rotative repetition of the Ba theme is retained
- (ii) internally, extension by continuation is omitted.

2. Bb: is based on the usual characteristics found in Bb groups in the A section, viz. the head motive/theme and continuation, followed by the subsequent fragmentation of the continuation.

The Ba groups

The principle of the a-recurring group is found in the Ba subdivision of S5:iB and, to a lesser extent, that of S1:iB. S1:iB is defined as a simple a-recurring subject and S5:iB as a complex a-recurring subject. The following diagrams summarise the simple and complex structures of the Ba-recurring group.

Diagram 47 S1:iBa, b.45-66

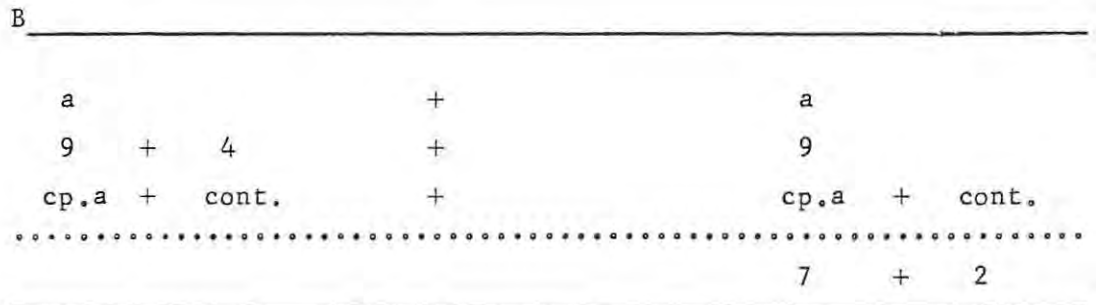
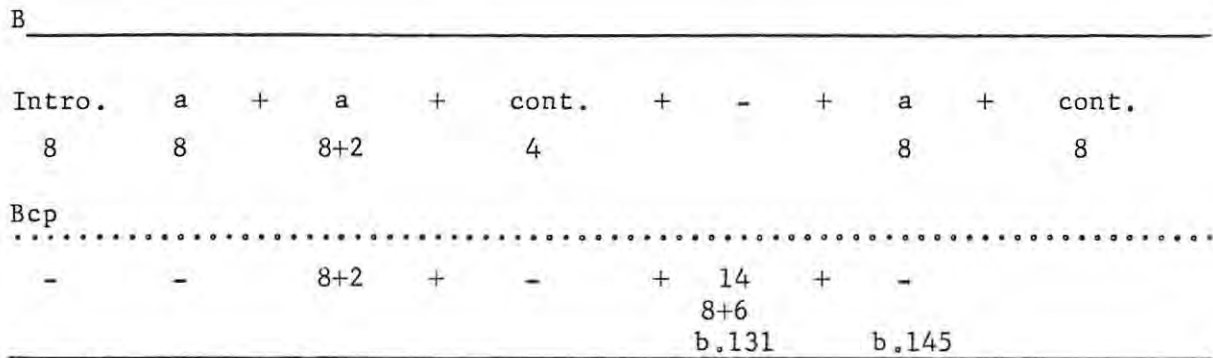


Diagram 48 S5:iBa, b.101-160. Complex a-recurring subject



In Diagram 48 (a) = main theme

cont. = continuation to the (a)

cp.a cont. = counterpoint theme continued, ie. cp.a + 14 equals an expanded interlude based on a counterpoint theme but still fulfilling a modulatory function, ie. from D flat to F major, see b.131-144.

Other than these Bcp interpolations the Ba-recurring group follows the principle of repetition of the entire a-recurring group.

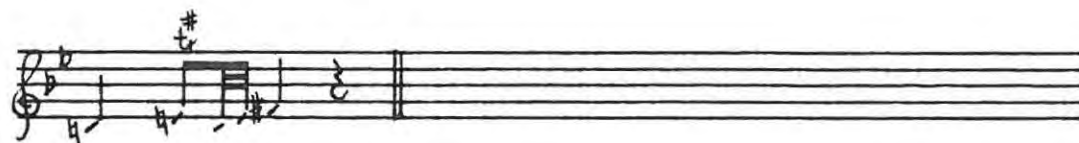
The Bb groups

This regular group consists of three characteristics found in both S5:iBb and S2:iBb.

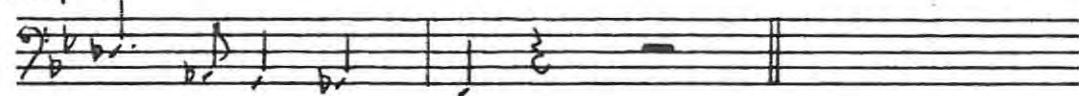
- (i) The Bb is derived from one of the main ideas of the Ba group, eg -

Ex.50. S5:iBa/b Main Phrase, b.117-120, b.161-163

Ba



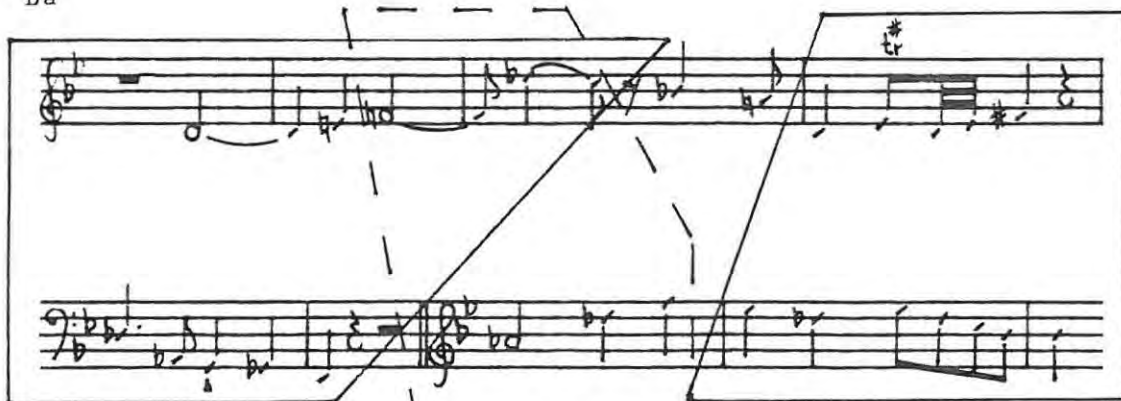
Bcp.b



oboe b.161.

Ex.51. S5:iBb Derived from main idea of Ba.

Ba



Bcp.b

Bb

- (ii) The Bb is monomotivic and has a strong rhythmical character.
- (iii) The Bb is subjected to intense fragmentation before the entry of the C section, especially in S5:iBb, eg -

Ex.52. S5:iBb

(1) b.161



(2) b.163

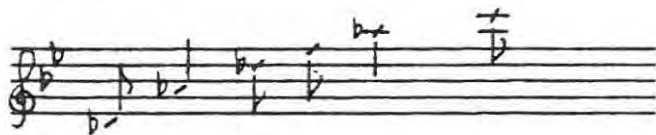


(3) b.161



and

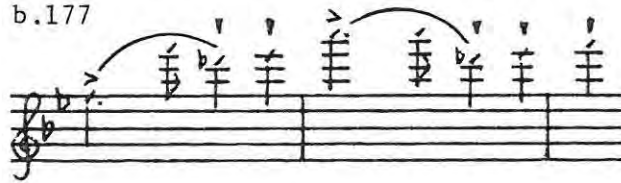
b.165.



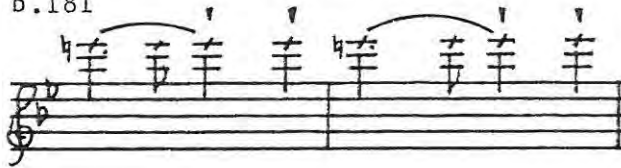
(4) b.162



(5) b.177



(6) b.181

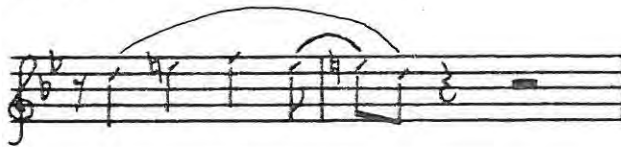


Additionally :-

(i) b.165



(ii) b.185

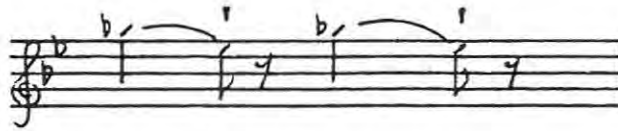


(iii) b.189

b.193



(iv) b.195



(v) b.195



The above fragmentation results in the following structure :-

Diagram 49 S5:iBb, b.161-198

B				
b	+	cont.	+	frg.
4+4+4+4	+	4+4	+	4+6+4
b.161		b.177		b.185

In the above diagram the continuation may be taken as the beginning of the fragmentation process. Finally, the full structure of the binary division of S5:iB is as follows :-

Diagram 50 S5:iBa/b

B																			
Intro.	+	a	+	a	+	cont.	+	cp.a	cont.	+	a	+	cont.	+	b	+	c.	+	frg.
8	+	8	+	10	+	4	+	14	+	8	+	8	+	16	+	8	+	4+6+4	

4.4. The Ternary subject groups

In this subdivision, as in the ternary subdivisions of the A division, the form is broken into three parts based on an a - b - a¹ idea. In the B division the Ba group is NOT based on the usual structure of a head motive and continuation, as was seen in the Aa ternary subdivisions.

The Ba group is centralised around the idea of :-

1. The expansion of a single phrase by repetition.
2. Unification of the treatment by the use of a continuous counterpoint melody.

An example of the Ba phrase repetition¹ can be seen in S4:iBa.

Ex.53. S4:iBa, b.75ff. A single phrase melody subsequently expanded



-
1. In the a-recurring structure the rotative repetition of the material is the treatment of an entire thematic block, not just a phrase. There exists, however, a relationship between the two.

Ex.54. S4:iBcp.a b.75ff Continuous unifying counter-theme
of the Ba division

Handwritten musical notation for Ex.54, consisting of four staves. The first staff begins with a treble clef, a key signature of two flats (B-flat and E-flat), and a common time signature. It contains a few notes, including a half note with a 'p' dynamic marking and a quarter note with an accent (>). The second staff continues the melody with similar dynamics and includes a note with a '(h)' marking. The third and fourth staves show a more active melodic line with slurs and a 'cresc.' marking below the staff.

Furthermore, there is a supporting melodic Bcp.a based on the
Ba phrase :-

Ex.54(a) S4:iBcp.b

Handwritten musical notation for Ex.54(a), a single staff in treble clef with a key signature of two flats. It features a series of notes with slurs and a 'p' dynamic marking at the beginning. Below the staff, there are four trapezoidal shapes pointing outwards, likely representing a performance technique or a specific dynamic contour.

Obviously in this group the counterpoint themes have a greater importance than in groups (i) and (ii), ie. the a-recurring divisions: it is impossible to separate the Ba theme from the Bcp.a theme because both are dependent on one another, and so form the thematic texture of the B section.

The Bb group falls into the regular type of rhythmic monothematic subjects. In this subdivision the counterpoint themes once again lose their importance and are reduced to pedal points or rhythmic ostinatos. As is usual in the Bb group, the subject consists of a head motive which is immediately fragmented.

The Ba¹ group. The ternary subdivisions are usually characterised by some form of restatement of the Ba theme. In the S4:iBa¹ the head phrase and fragments of the counterpoint melody dominate. The Ba¹ follows the normal procedure of the dissolution of the initial phrase and the formation of a rhythmic representation of the original interval structure. Consequently, the S4:iBa¹ dissolves into a rhythmic ostinato before the entry of the C section.

The following diagram summarises the structure of the ternary subject group.

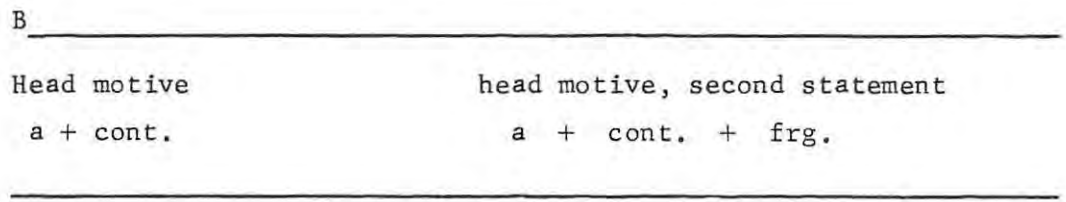
Diagram 51 S4:iB b.75

B										
a	+	a	+	b	+	intro	+	a ¹	+	a + frg
8	+	4	+	5+5	+	2	+	4+2+2	+	4 + 8

4.5. The double statement subject group

Together with its continuation the monomotivic subject is restated to form a double statement¹. This form appears in the B sections of S3:i and S8:i. In the former it is combined with a developed counterpoint in the latter with a subordinate counterline.

Diagram 52 General double statement of B division



In S3:iB the Bcp.a theme undergoes a parallel continuation and fragmentation with the Ba theme.

Ex.55. S3:iBa, b.10lff

(i) Bcp.a theme



(ii) Ba theme



1. Compare this structure with the double statement discussed earlier in 3.1.3. ff. p. 85.

It is based on a derivative structure, ie. it centers around the generation of subject material from one constructive interval. The main Ba theme, on the other hand, is based on the 8ve and the 3/6 supporting interval unit and is, therefore, a complex derivative subject. The external structure of the S3:iB is as follows :-

Diagram 53 S3:iB

B		double statement	
a + a + cont	cont + fig;	a + cont + frg.	
8+4 6 + 4 + 2 + 2 + 12		10 + 4 + 7 + 3 + 8	
b.101		b.139	b.170

In S8:iB, the total shape is based on the head, continuation and restatement technique. The counterpoint theme, however, though subordinate to the main theme, still has more thematic relevance than given in the a-recurring group. The (a) and the cp.a themes are both internally based on the simple derivative type structure. The Ba is centered around an ascending scale pattern, which is also found in Bcp.a extended over a larger rhythmic area.

Ex.56. S8:iB¹ b.51ff



1. The cp.a whole tone principle cannot be clearly seen because the cp.a is built over a larger rhythmic space than the Ba theme.

Diagram 54 S8:iB, b.51ff

B												
								frg.				
a	+	cont.	+	cont.	+	cont.	+	a	+	cont.	+	cont.
4	+	8	+	4	+	6	+	8	+	8	+	8

In the initial statement of the Ba group (of main and counterpoint themes) the structure resembles the "gesangsperiode" subject, generally attributed to the B section. As soon as the derivative technique is used in the formation of new but related subject groups, the lyrical character typified by the "gesangsperiode" is lost in the motivic exploitation of the subject phrase.

4.6. The variation structure

This form is based on the structure of the Ba subject as a simple motivic subject, which is, in itself, immediately open to alteration.

Ex.57. S9:iB, b.97ff



The simple motivic subject may be altered internally :-

- (i) by interval and/or rhythmic augmentation
or diminution
- (ii) by the filling of the interval unit

Each internal alteration is contained in a relatively static external frame, and is subject to repetition. The following external arrangement is formulated by the varied repetition of the motive-subject group :-

Diagram 55 S9:iBa, b.97ff

B

a + a¹ + a² + a³ + a⁴ + a invert.⁵ + a invert.⁶ +
 4 + 4 + 4 + 4 + 2 + 4 + 4 +

.....
 Bcp.a

8 + 4 + 4 + 2 + 4 + 4 +

B (continued)

+ a⁷ + a⁸ + a + a¹ + a⁹ + Transition
 + 4 + 4 + 4 + 6 + 12 + frg. + frg.
 + 4 + 10

.....
 Bcp.a

+ 8 10 + 4+5 + 3

b.123

In the variation subject type, the main theme and the counterpoint theme have equal importance and together form the Ba.

The structure is arranged so that the Ba and the Bcp.a themes interchange, ie. they form a variation contrast to each other vertically and horizontally.¹ Diagram 55 shows the subsequent variation to the Ba theme but does not illustrate the interspersion of the Bcp.a theme with the Ba theme. Example 58 is an illustration of variations to the head motive showing the internal alteration to the interval unit -

Ex.58. S9:iB

Ba b.97



Ba¹ b.101



Ba² b.105



Ba³ b.109



-
1. Consider Theme a a¹ a² etc
 Theme Cp.a
- This becomes Theme a cp.a a¹ cp.a a² etc.
 Cp.a a cp.a a¹ cp.a a² etc.

Ba⁴ b.114

Musical notation for Ba⁴ b.114. The staff is in treble clef with a key signature of two sharps (F# and C#). It features a single melodic line starting with a half note, followed by a quarter note, and then a half note, all under a long slur. The word "cresc." is written below the staff.

Ba⁵ b.115

Musical notation for Ba⁵ b.115. The staff is in treble clef with a key signature of two sharps. It features a melodic line with a half note, a quarter note, and a half note, all under a slur. There are some handwritten annotations above the notes.

Ba⁶ b.119

Musical notation for Ba⁶ b.119. The staff is in treble clef with a key signature of two sharps. It features a melodic line with a half note, a quarter note, and a half note, all under a slur. There are some handwritten annotations above the notes.

Ba⁷ b.123

Musical notation for Ba⁷ b.123. The staff is in treble clef with a key signature of two sharps. It features a melodic line with a half note, a quarter note, and a half note, all under a slur. There are some handwritten annotations above the notes.

b.127

Musical notation for Ba⁸ b.127. The staff is in treble clef with a key signature of two sharps. It features a complex melodic line with many notes, some under slurs, and some with handwritten annotations.

Ba⁹ b.141

Musical notation for Ba⁹ b.141. The staff is in treble clef with a key signature of two sharps. It features a complex melodic line with many notes, some under slurs, and some with handwritten annotations. There are some handwritten annotations above the notes.

Ba⁹ (continued)

Musical notation for Ba⁹ (continued). The staff is in treble clef with a key signature of two sharps. It features a complex melodic line with many notes, some under slurs, and some with handwritten annotations.

At this point it is possible to summarise the relationship between the internal and external structures of Bruckner's subject structures in the B section.

- (i) When using the external structure of a simple a-recurring subdivision, Bruckner uses the additive chain arrangement (internal) of the subject material. In the a-recurring subject group, the same technique applied in the main subject is used in the counterpoint themes, eg: S2:iB.
- (ii) When using the complex a-recurring group, the same principle applies and the additive chain arrangement is employed, eg: S6:iB and S7:iB.
- (iii) The simple Binary structure is used concurrently with two forms of the continuation technique. The Ba group contains the derivative continuation. The counterpoint themes of the Ba group are treated concurrently with the Ba theme. In the Bb group the derivative continuation is applied to the main Bb theme as the counterpoint themes are neglected in this subdivision, eg: S1:iB and S5:iB.
- (iv) The Ternary external arrangements follow regular treatment and contain the usual derivative technique. Unusually, however, the counterpoint theme, which in

this division has equal importance to the main theme, is not treated in parallel with the Ba b and a¹ themes. In this case the cp.a contains, in contrast to the main theme, the additive chain subject, eg: S4:iB.

(v) The double statement uses the complex derivative subject structure, eg: S3:iB and S8:iB.

(vi) The variation, external arrangement, is paralleled by the internal use of the variation continuation technique, S9:iB.

Finally, the internal subject structure of the additive chain and its relationship to the external structure of the various subdivisions should be considered.

In the A section the additive chain was connected to different external forms, and is never attached to a specific external arrangement. This idiosyncrasy is due to its very loose internal construction which makes it easily adaptable to a variety of formal arrangements.¹

1. In this respect it differs from the derivative and the motivic subject as both these subject types are found usually annexed to respectively bi- tri-partite or uni-partite forms.

In the B section this adaptability of the additive chain is more distinctly used. From the previous discussion of the B section it is seen that the additive chain is the dominating subject type used, either as a main theme or as a counterpoint theme, eg: S4:iB.¹

It could even be stated that, initially, B sections incorporate the additive chain in the opening statement although this may change into a derivative or other subject type in either the Bb or subsequent subdivisions. Lastly, it is responsible for contributing to the typical character of the "gesangsperiode" of so many of the B sections despite the variety of other structures used therein.

1. Except for S3:iB, S8:iB and S9:iB.

CHAPTER FIVE

5. A Discussion of the Exposition: Section C Thematic Aspects

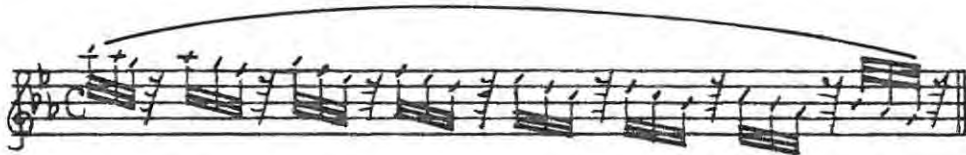
5.1. Features of Section C

There are four features which characterise the C section -

1. These subjects are constructed on an ostinato principle, which may feature as a main theme, Ca, or as a counterpoint theme, Cp.a. In the C division there are various types of ostinati :-

- (a) The rhythmic ostinato

Ex.59. S1:iC



The rhythmic ostinato is predominated by a distinguishing rhythmic pattern, which consequently subordinates the melodic or motivic aspects latent in it.

- (b) The thematic ostinato

Ex.60. S7:iC



The thematic ostinato is a combination of a defining rhythmic pattern with a definite thematic/melodic substance, in this case the thematic aspect is more dominant.

(c) The motivic ostinato

Ex.61. S4:iC



The motivic ostinato is characterised by the fragmentary presentation of a thematic-rhythmic ostinato.

(d) The migrant ostinato

Ex.62. S5:iC



The migrating ostinato is the use of two alternating rhythmic-thematic segments between the various sound layers. The ostinati (a)-(c) do not usually migrate to different sound layers as is found in group(d).

2. The extensive use of the ostinati, which is itself a unifying device and technique of structural organisation minimises the necessity for more defined formal orientation, consequently the relationship between external and internal form is completely irregular.

3. The formation of a sound-rhythm field and block structure.

The external structure is irregular and results in seven principles of organisation -

- | | | |
|-------|-------------------------------|-------------------------|
| (i) | Simple (a) structure | eg: S5:iC, S8:iC, S4:iC |
| (ii) | a + a-recurring | eg: S3:iC |
| (iii) | a + cont. | eg: S1:iC |
| (iv) | a + cont. + a + cont. | eg: S2:iC |
| (v) | a + a + cont. + frg. | eg: S7:iC |
| (vi) | $a + a^1 + a^2 + \text{etc.}$ | eg: S9:iC |
| (vii) | a + b + c | eg: S6:iC |

In contrast the internal arrangement follows four different internal structures.

- (i) The simple motivic subject. This may be combined with
 - (a) a rhythmic ostinato counterpoint S1:iC
 - (b) a thematic ostinato counterpoint S7:iC

- (ii) The ostinato motivic subject (simple) S5:iC

- (iii) The ostinato motivic subject (complex)
 - 1. without an independent counterpoint
 - (a) migrating strictly eg: S6:iC
 - (b) migrating freely eg: S8:iC

 - 2. with systematic ostinato superimpositioning
 - (a) combined with a rhythmic
ostinato S2:iC and S3:iC
 - (b) combined with a rhythmic ostinato
and a thematic ostinato S4:iC

- (iv) The variation subject
 - (a) combined with a rhythmic ostinato S9:iC

5.1.1. The simple motivic subject

- (i) Combined with rhythmic ostinato

The main internal characteristic of the simple motivic subject is its monothematicism. As the simple motivic subject is not expanded by derivational or additive continuation, the head motive itself has the ability to fulfil the function of a subject group. The simple motivic subject, therefore, undergoes repetitive alteration by augmentation and diminution intervallically and rhythmically.

The continuatory groups are established by this variation technique.

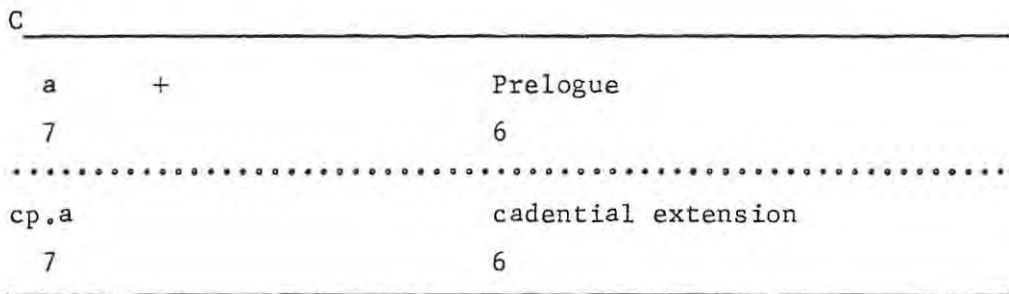
An example of the simple motivic subject used in the C section is -

Ex.63. S1:iC



In the above example the entire section is constructed on the single statement of the Ca theme (in this pattern the internal and external shape correspond).

Diagram 56 S1:iC



The tension and climax of the division is built by the countertheme based on a rhythmic ostinato.

Ex.64. S1:iCp.a

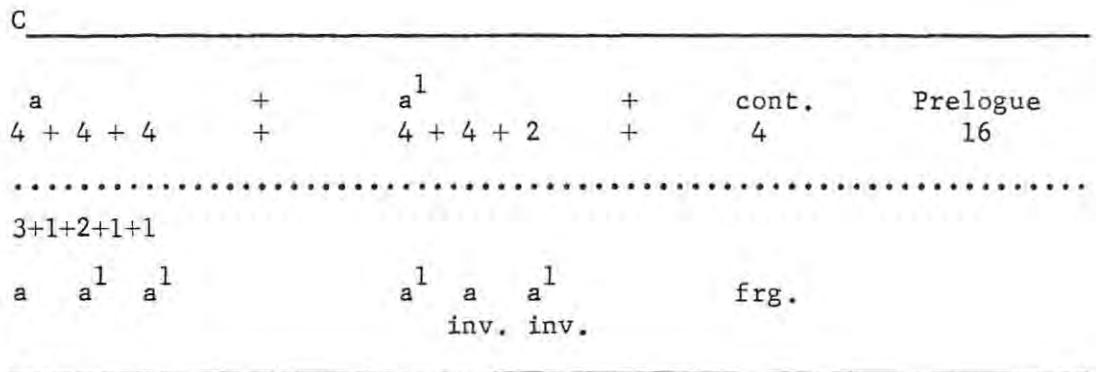


The superimposition of the two themes, ie. the simple motivic subject and the rhythmic ostinato, results in the characteristic arrangement of material of the C sections of Bruckner's first movements, ie. the dual unison structure. This involves the use of two different sound layers which are heard concurrently and which generate an extended sound field.¹

(ii) Combined with thematic ostinato

In S7:iC, the simple motive, varied by expansion and interval alteration, is combined with a thematic ostinato.

Diagram 57 S7:iC



This combination emphasizes two characteristics :-

(i) the melodic substance of the line

1. The term dual is applied as two layers are superimposed, and the term unison as each layer is built on a unison tutti presentation.

- (ii) the retention of both the rhythmic and the thematic structure during the use of the theme as an ostinato. This, however, does not prevent the thematic ostinato from being subject to transposition or inversion, as long as the thematic structure is retained.

Ex.65. S7:iC



In S7:iC Bruckner again uses the dual-unison structure, created by the density of thematic ostinato layers.

5.1.2.i. The ostinato motivic subject (simple)

In S5:iC the ostinato subject (simple) always retains its initial rhythmical shape during cyclic repetitions. The variations to the head motive are not fragmented and so do not result in continuations. Moreover, the ostinato motives consist of ONE sound layer only which generates a sound field of even larger proportions than the double layered structure.

Ex.66. S5:iC Ostinato motive



5.1.2.ii. The ostinato motivic subject (complex

This subject-type is based on the characteristics of the simple ostinato subject presenting the following principles -

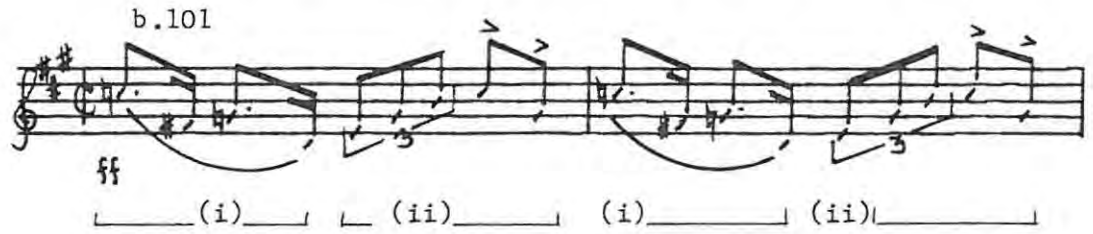
- (i) the creation of the dual-unison structure by the use of superimposed themes or by the peculiar arrangement of the migrant ostinato motives,
- (ii) the combination of TWO motives which, together, form the complex ostinato motivic subject. These may be used vertically (superimposed), horizontally in alteration, or in other arrangements,
- (iii) the migrant ostinato is usually superimposed on a static harmonic pedal point, at some point in the section,
- (iv) the complex ostinato motivic subject may be combined with a rhythmic or thematic ostinato.

5.1.2.ii(a) The ostinato motivic subject (complex) without an independent counterpoint migrating strictly

Ex.67. S6:iC

(a) The initial (alternating) ostinato motive

b.101



ff

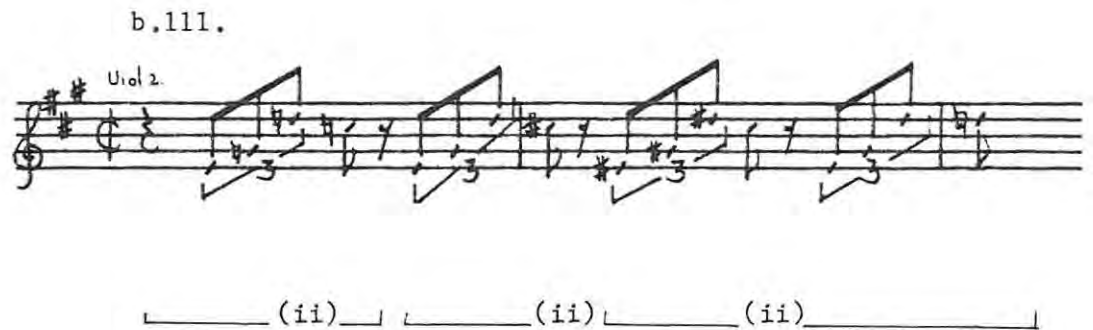
(i) (ii) (i) (ii)

a thematic ostinato

(b) The second (alternating) ostinato motive

b.111.

Uol 2.



(ii) (ii) (ii)

a rhythmic ostinato

(c) The (vertically) superimposed ostinato on eg.(a)

b.101

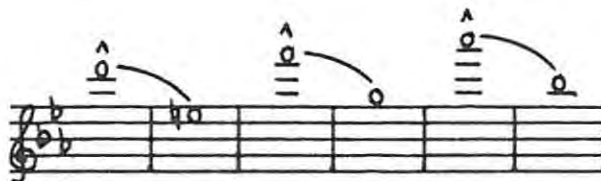


(i) + (ii) (i) + (ii)

a derivative ostinato (from Ex.67(a)) where the thematic quality is subordinate to the rhythmic impetus.

Ex.68. S8:iC Ostinato motivic: without an independent counterpoint migrating freely

(a) Ostinato 1



(b) Ostinato 2



(c) Ostinato 3



5.1.2.iii. The ostinato subject with systematic ostinato superimpositioning

In this section the two ostinati layers are superimposed systematically and do not migrate or interchange layers as in S8:iC.

The superimpositions consist of

1. the combination of the ostinato motivic subject with a rhythmic ostinato, eg: S2:iC and S3:iC

Ex.68(a) S2:iC The ostinato motivic subject combined
with a rhythmical ostinato

Ostinato Motivic Subject

The musical score is arranged in a system with ten staves. The top two staves are for Flutes I and II (fl), the third for Oboe (Ob.), the next two for Clarinets I and II (Cl), the sixth for Violin I (VI I), the seventh for Violin II (VI II), the eighth for Viola (Vla.), the ninth for Violoncello (Vc.), and the tenth for Kontrabaß (Kb.). The key signature has two flats (B-flat and E-flat), and the time signature is common time (C). The lower strings (VI I, VI II, Vla., Vc., Kb.) play a rhythmic ostinato of eighth notes with a dynamic marking of *p*. The upper woodwinds (fl, Ob., Cl) play a motivic subject starting in the third measure, with dynamics ranging from *p* to *f*. The woodwinds play in unison with each other.

Rhythmical ostinato

Note dual-unison structure.

S3:iC also includes the superimposition of the ostinato motivic subject and the rhythmical ostinato, creating the large sound field before the entry of the prelogue.

Ex.69. S3:iC

(i) An example of a rhythmic and motivic superimposition of ostinati patterns

motivic ostinato

The musical score consists of two staves. The upper staff, labeled 'motivic ostinato', is in treble clef and contains a sequence of notes: G4, A4, Bb4, G4, F4, E4, D4, C4. The first four notes are grouped by a slur, and the last three notes are also grouped by a slur. The lower staff, labeled 'rhythmic ostinato', is in bass clef and contains a sequence of notes: G2, A2, Bb2, G2, F2, E2, D2, C2. The first four notes are grouped by a slur with a '3' above it, and the last three notes are also grouped by a slur with a '3' below it. The score is divided into four measures by vertical bar lines. The first measure contains the notes G4, A4, Bb4, G4, F4, E4, D4, C4 in the upper staff and G2, A2, Bb2, G2, F2, E2, D2, C2 in the lower staff. The second measure contains the notes G4, A4, Bb4, G4, F4, E4, D4, C4 in the upper staff and G2, A2, Bb2, G2, F2, E2, D2, C2 in the lower staff. The third measure contains the notes G4, A4, Bb4, G4, F4, E4, D4, C4 in the upper staff and G2, A2, Bb2, G2, F2, E2, D2, C2 in the lower staff. The fourth measure contains the notes G4, A4, Bb4, G4, F4, E4, D4, C4 in the upper staff and G2, A2, Bb2, G2, F2, E2, D2, C2 in the lower staff. The dynamic markings 'ff' and 'pp' are placed in the first and second measures respectively.

rhythmic ostinato

2. The second superimposition consists of the ostinato motivic subject combined with, at some point, a rhythmic and thematic ostinato: in this combination a richer texture is presented eg: S4:iC

Ex.70. S4:iC

Repeated three times in a different key center (B^b , c , E^b)

In this example the multiple layer commences at b.119, appears intermittently (at b.123 and b.127) and is omitted after b.129.

The main difference between the ostinato motivic subject (simple) and the ostinato motivic subject (complex) is that the latter results in the formation of independent, horizontal thematic lines which may either interchange or remain within their independent layer frame.

To summarise:

The simple motivic subject, the ostinato motivic subject (simple) and the ostinato motivic subject (complex) are representative of the unison characteristics of the C section.

1. From this it emerges that the simple motivic subject combines with the (i) rhythmic ostinato pattern and (ii) the thematic ostinato pattern to form the dual-unison pattern.
2. The ostinato motivic subject (simple) establishes one thematic layer which forms the unison structure.
3. The ostinato motivic subject (complex) presents two means of establishing the dual-unison structure :-
 - (i) the superimposition of two or more motives of the same type; or the horizontal alteration of ostinato motives (of a similar type) on two independent layers, or the random juxtaposition and the alteration of ostinato motives (of similar type) between the two thematic layers.
 - (ii) the use of the complex free ostinati combined with a rhythmical ostinato or the combination of two independent systematic ostinati.

5.1.3. The variation structure combined with
the rhythmic ostinato

Here a single theme is heard and is then open to variation,
eg: S9:iC. Additionally, it is combined with a rhythmic ostinato.

Ex.71. S9:iC

The variation subject :-

Ca



The rhythmic ostinato :-



Rhythmic, pitch and tonal variation treatment Ca

Ca¹



Pitch variation

Ca²



Tonal and rhythmic variation

Ca³



Tonal variation

Ca⁴



In S9:iC a tri-partite layer is formed by the superimposed presentation by the brass section of derivations from Aa/b thematic material within the ostinati layers.

The C section forms by its very nature, and adept use of subject type, one of the most vibrant subdivisions within Bruckner's 'sonata-form'.

CHAPTER SIX

6. A New Concept of Tonality

A major contribution to the development of the large tonal structures of the eighteenth and nineteenth centuries was the expansion of the use and meaning of chromatic inflection. A basic characteristic of traditional tonality in its fully developed form was the structural use of modulation, out of which grew the large symphonic forms which are its great intellectual achievement

Chromaticism predates classical tonality, of course, but it came to play a particular structural role - through the technique of modulation - in the growth of tonal forms in the seventeenth century.¹

The music of the classic-romantic era was based on seven tones selected from a possible twelve. When seven tones were chosen to form a key the other five tones remained foreign to that particular tonality. These five tones were not, however, excluded from the overall key-tonality, but were used as embellishments and enriching or contrasting sections to the original tonality. The extraneous tones were used in modulatory passages or as pivot centres to new tonalities.

As the harmonic direction accelerated, the balance between the seven 'diatonic' and the five 'extraneous' tones was weakened. This weakening was caused by the extensive use, and the complex forms, of modulation. The five extraneous tones were used more

1. Salzman, Eric. Twentieth-Century Music: An Introduction. Prentice Hall Inc., 1967, p.7.

conspicuously, more frequently, and more equally with the seven-tone scale. In this way a new 'chromatic tonality' was created, but unlike the concept, evolved by Schoenberg, of absolute equality between each chromatic note, the initial chromatic theory proposed that each tone possess a clearly defined hierarchical position in the system based on ACOUSTICAL LAWS. Thus, the distinct relations between tones were still maintained, and according to the nature of these relations the notes assumed different melodic and harmonic values, which, in turn determined their position and function in the system.

There exists today a war of controversy as to which tones are part of the diatonic and which tones are part of the chromatic system.¹ Any analysis of Bruckner's work necessitates a definitive statement on the extents and limits of chromaticism.

One of the most recent treatises on the classification of the diatonic/chromatic tonal system, and perhaps, one of the most comprehensive was put forward by Wilhelm Keller in his 'Handbuch der Tonsatzlehre (Tonsatzanalytik)'. Here, to explain very briefly and freely, he proposed a number of axioms for the use of certain tones, the ordering and use of which contributed to the establishment of a new chromatic tonal system based on acoustical

1. Refer to treatise by Bartok, Hindemith, Riemann, Schoenberg, and others, all of whom propose different answers to the problem and who have worked out 'new' tonal systems.

laws which discarded the major-minor concepts of the diatonic system.¹ I have specifically chosen this approach to tonality as it gives both a modernistic twentieth century appreciation of tonality, which enables the listener to free himself from the chains of 'conventional' tonal expectation, and it has at its root the fundamental fifth relationships expounded in Sechter's tonal system. The combination of these aspects makes the appropriation of this theory, for a tonal analysis of Bruckner, ideal.

6.1. Keller's theory of tone relationships
(Freely translated²)

The most mellifluous, harmonic sound in music is the unisonance as this sounding has the greatest agreement between superimposed tones.

eg: c - c¹

This unisonance is followed by a consonance - in fact a primary or fundamental consonance, which hardly disturbs or disrupts the unisonance of the previous example.

eg: the fifth interval and its inversion and
complimentary interval

the perfect fourth (ie. 4/5 interval) c - G - c¹

1. Consequently the definitive terms - major or minor were redundant and were replaced by the term x-tonality, ie. c-tonality or tonality-c, instead of major or minor. Where essential I shall, for great clarification, include reference to traditional modes.

2. Keller, Wilhelm, Handbuch Der Tonsatzlehre (Tonsatzanalytik)
Bk.II, p.1 - 136. Gustav Bosse. Regensburg. 1957.

The third consonance is that which may be sounded with the unisonance and the primary consonance without interrupting, disturbing or breaking the tone quality presented by these soundings. This is the 3rd interval (and its complimentary interval the minor sixth, ie. 3/-6).

eg: c - E - g - c¹

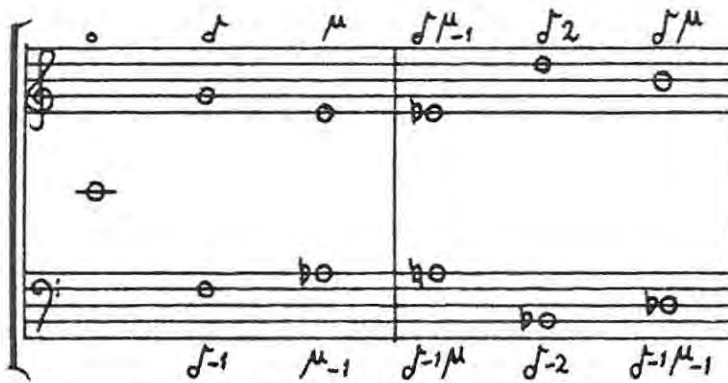
However, this 3/-6 interval is rivalled (in sound) by the minor third (-3) major sixth tone-quality. The 3/-6 interval takes precedence over the -3/6 consonance for various reasons. The first is based on sound and tone quality alone. Here, the 3/-6 has a closer identification with the unisonance than has the -3/6. Secondly, the 3/-6 is formed from the unisonance, whereas the -3/6 interval is derived from the minor third interval between the major third and the perfect interval. The -3/6 interval is, therefore, a derivative of a 'derivative' and as such forms a secondary relationship to the original unisonance. Thirdly, the minor third structure (and its complementary interval) is the first interval in this series which has NO TONE in common with the original unisonance.

To conclude, all intervals, based on the 4/5 relationship and the MAJOR third (3/-6) relationship, are primary consonances and subsequently form basic, tonal relationships. Those based on the minor third interval form secondary consonances and secondary

tonal relationships. Primary consonances are, therefore, based on one step derivations from the central tone, whereas secondary consonances (and relationships) are based on two step derivations from the central tone. Obviously, primary consonance relationships are more harmonious and are the most consonant of all relationships.

The use of secondary and primary tones results in the following arrangement of tones :-

Ex.72.



This diagram represents a tonality consisting of 11-tones which, according to the axioms stated previously, are all consonant to a single definitive tonality. In this case c-tonality.

Furthermore, these tones are made up of only 4/5 (delta relationships) but no superimposed 3 (mediant) relationships ($m\mu$). This is because :-

- (i) According to the principles established on sound quality the 4/5 and 3/6 relationships are those which best connect two tones. The superimposition then of two major mediants results in a dissonant (or far removed) relationship to the central tone, ie. it forms an augmented interval with the original tone and is therefore, discarded as being a non-consonant relationship.

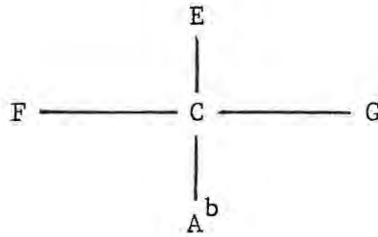
- (ii) Thus, the tones are best related by primary or secondary steps. The use of the superimposed mediant steps usually requires third degree relationships which may be as easily found by the use of 1st or 2nd degree derivations.

Consequently, Keller derives the tones (belonging to a single tonality) by using ONLY PRIMARY AND SECONDARY STEPS and their combinations.

These tonal relationships could be expressed in the following diagram :-

6.2. Primary consonances

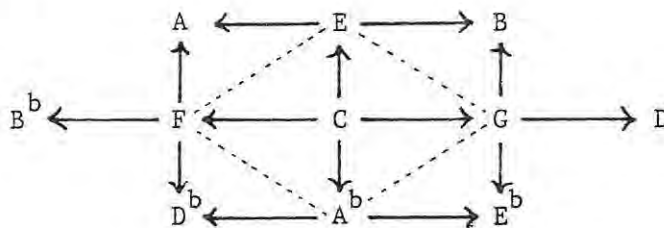
Diagram 58



- (i) C = the original tonic abbreviated as \circ
- (ii) G = the delta or 4/5 relationship, abbreviated as δ
- (iii) F = the subdelta or subdominant relationship, abbreviated as δ^{-1}
- (iv) E = the mth or mediant relationship, abbreviated as μ
- (v) A^b = the sub-mth or submediant relationship, abbreviated as μ^{-1}

6.3. Secondary consonances (two step derivatives)

Diagram 59



This chart illustrates that primary and secondary relationships establish an 11-tone scale. Within this framework all tones are

consonant and there are no dissonances. This forms the new chromatic tonal system. If a piece is composed with these 11-tones as its fundamental skeleton then it is defined as being within an "x-tonality". Obviously this system allows more 'chromatic' freedom than the diatonic system, and proves an invaluable means of determining the centripetal and centrifugal points of Bruckner's tonality.

As yet, only 11 of a possible twelve chromatic tones have been discussed. Although Keller gives the harmonic argument which provides the necessary basis and principles for an analysis of the position and relationship of all the tones and their enharmonic variations - and although he allows for the differentiation between such keys as f sharp and g flat and others, his dissertation goes beyond the enharmonic principles expressed and used by the composers of the nineteenth century. Keller's theory up to this point is, therefore, more than sufficient as a definitive statement on a new concept of chromaticism as found in the nineteenth century. However, the complete theory, as proposed by Keller can be found from pages 1-136 in his book "Tonsatzlehre II".

Applying the principles used by Keller, one can explain the 'Twelfth tone' which is, of course, found in Bruckner, as a Tertiary Dissonance.¹

1. The definition of the primary and secondary tertiary dissonances are based on my own observations of the use of the raised fourth/flattened fifth relationship, by Bruckner, in his symphonies. Although I have borrowed Keller's term, "tertiary dissonance" the definitions are now based on the principles, not the actual discussion by Keller.

6.4. Tertiary dissonance

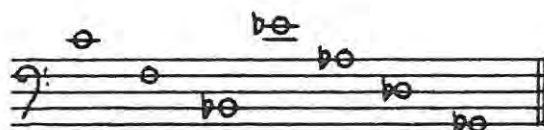
Tertiary dissonances are so called because they are derived in three steps and are subsequently three stages removed from the original tonic. This distance from the original tone makes these tones the least harmonious when sounded with the unisonance; in fact the tone quality does not agree with the unisonance and the third related tone is hence known and defined as a dissonance.

eg: c - e - F[#] - g - c¹

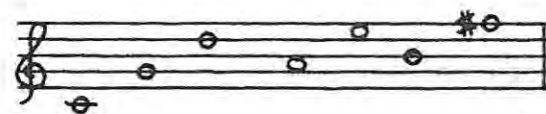
Secondly, the tritonous interval involves a meeting of the full cycle of the chromatic system as it is at this point that the enharmonic possibilities of a note reach a full stop - F sharp/g flat.

Ex.73.

(i)



(ii)

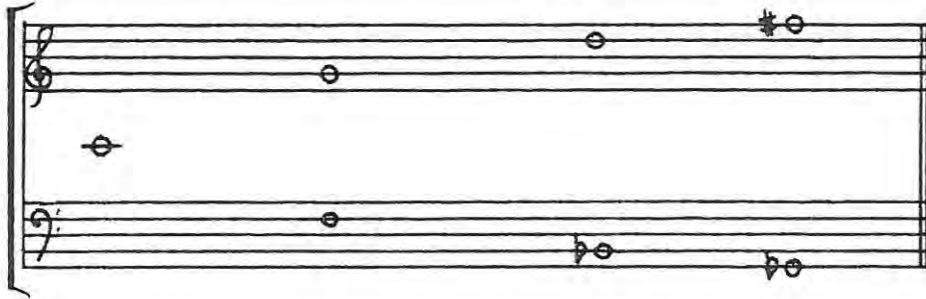


6.4.1. The primary tertiary dissonance

The primary tertiary dissonance is the raised fourth or flattened fifth degree. This is found (using the 4/5 and major third combinations) from the following relationships :

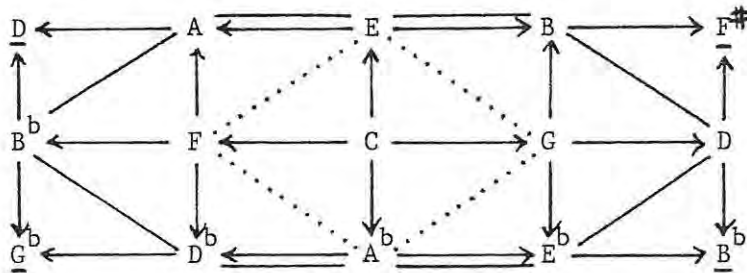
- (i) The second dominant's mediant = $\sqrt[2]{\mu}$
 or
 (ii) The second subdominant's submediant = $\sqrt[2]{\mu^{-1}}$

Ex.74.



The diagram of 1st, 2nd and 3rd primary dissonant relationships would be as follows :-

Diagram 60

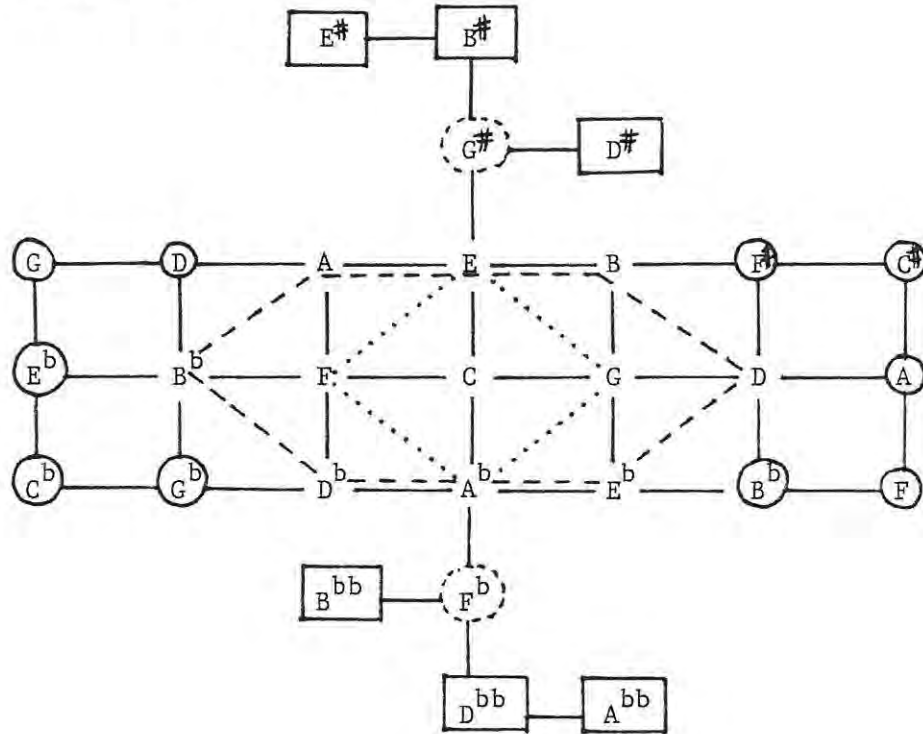


6.4.2. The secondary tertiary dissonance

These dissonant tones consist of the more remotely derived tones. However, these may be as easily found, in a different enharmonic form, in the primary or secondary consonances - and as such it is not necessary (especially in the works of Bruckner) to distinguish and categorise the enharmonic forms as separate, remotely related tones.

For argument's sake, however, the full representation of all possibilities of the 11-tone chromatic system is shown in the following diagram -

Diagram 61



- = dissonance (from σ)
- = dissonance (from μ)
- (dashed) = not related to C (11-tone) field
- = Primary Consonances
- = Consonant heptagon which constitutes the 11-tone "x-tonality"

6.5. 11-Tone tonality relationships

Further discussion of the 11-tone theory shows that the principle of tone relationships may be equally applied to tonality relationships. In such cases each tone is considered as a key center, with subordinate

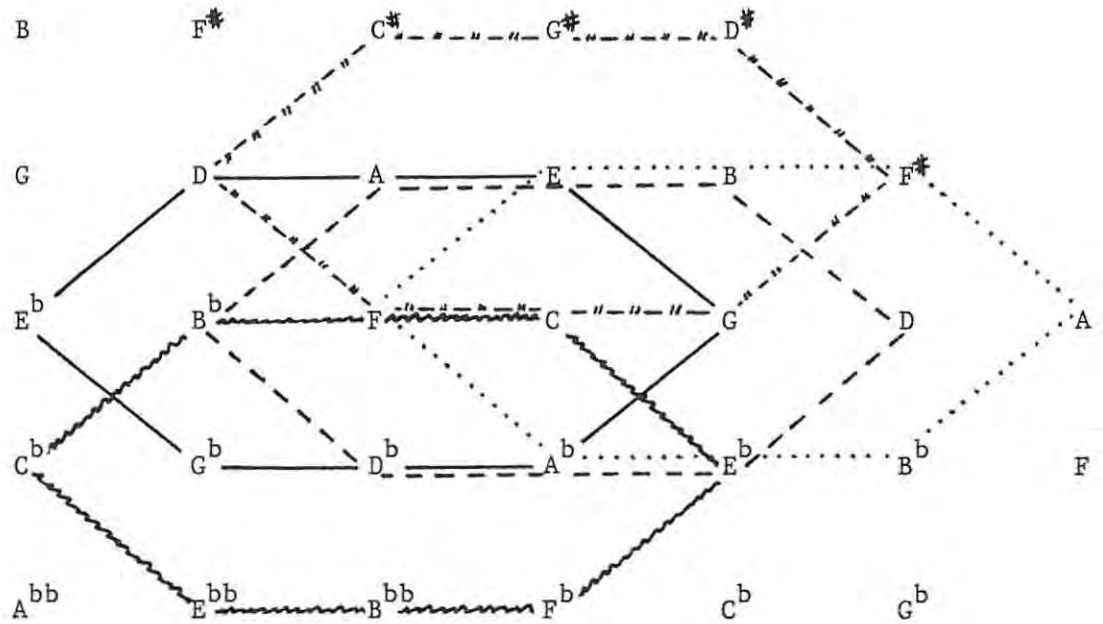
centers acting in relation to it. This concept is further expanded - by simply constructing an 11-tone row around each center, the close relationship between tone rows as fulfilled tonalities will be obvious especially as certain rows have many common tones.

There is one way to see the 'tones-in-common' of each tonality,¹ based on Keller's theory of tone fields. This is shown in the diagram 62:-

1. A second way of showing tones in common, with closely related tonalities is by the following scale chart. Tonics of the transposed scale are underlined, but the scales are arranged to show the number of tones in common :-

<u>Tones in common</u>	<u>Scale Row</u>										
	<u>c</u>	d ^b	d	e ^b	e	f	g	a ^b	a	b ^b	b
10	c	d	e ^b	e	f	f [#]	<u>g</u>	a ^b	a	b ^b	b
10	c	d ^b	d	e ^b	e	<u>f</u>	g ^b	g	a ^b	a	b ^b
7	c	c [#]	d	d [#]	<u>e</u>	f	f [#]	g	g [#]	a	b
7	c	d ^b	e ^b	f ^b	f	g ^b	g	<u>a^b</u>	b ^{bb}	b ^b	b
8	c	d ^b	d	<u>e^b</u>	f ^b	f	g ^b	g	a ^b	b ^b	c ^b
8	c	d ^b	d	e	f	f [#]	g	g [#]	<u>a</u>	b ^b	b
9	c	c [#]	<u>d</u>	e ^b	e	f	f [#]	g	a	b ^b	b
9	c	c [#]	d	e ^b	f	g ^b	g	a ^b	a	<u>b^b</u>	c ^b
6	c	c [#]	d	d [#]	e	f [#]	g	g [#]	a	a [#]	<u>b</u>
6	c	<u>d^b</u>	e ^{bb}	e ^b	f ^b	f	g ^b	a ^b	b ^{bb}	b ^b	c ^b

Diagram 62 Tone fields



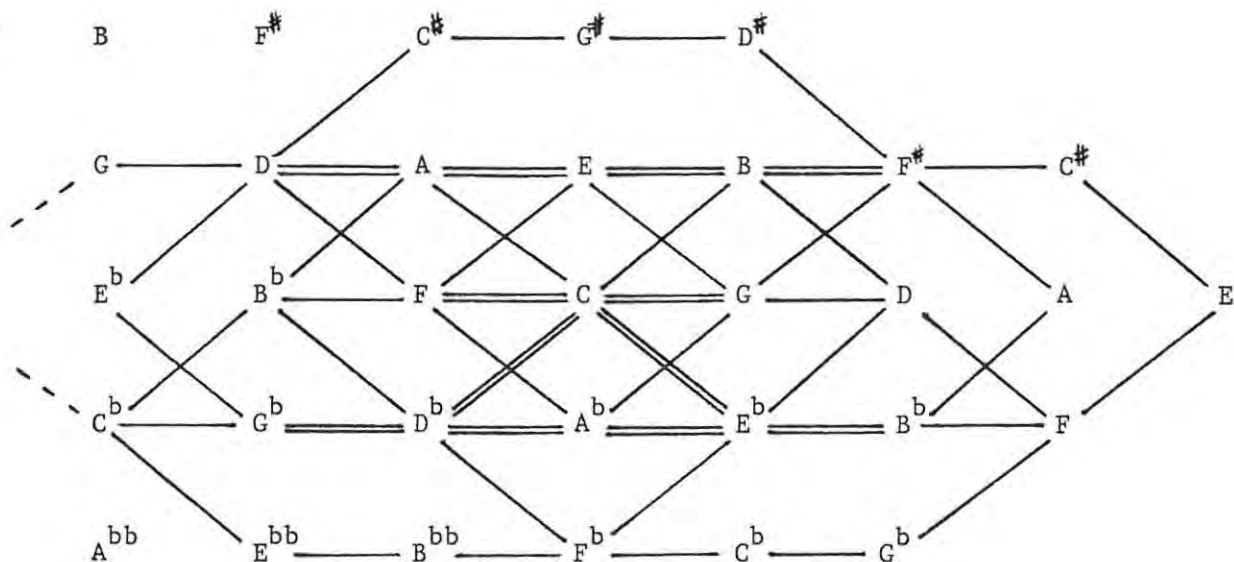
- E = e - tonality
- F = f - tonality
- C = c - tonality
- ...G... = g - tonality
- D^b = d^b - tonality

In this diagram the hexagonal figure defines the eleven tones consonant to, and definitive of, an "x-tonality". If the tonal center is shifted, the hexagonal figure, similarly, moves over and establishes a new tonal field around the new tonal center - in this way the tones common to both tonalities are quite clearly seen and the relationship between keys and key centers defined.

(See diagram 63).

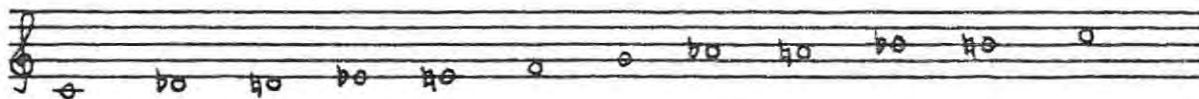
Diagram 63

Tonal fields

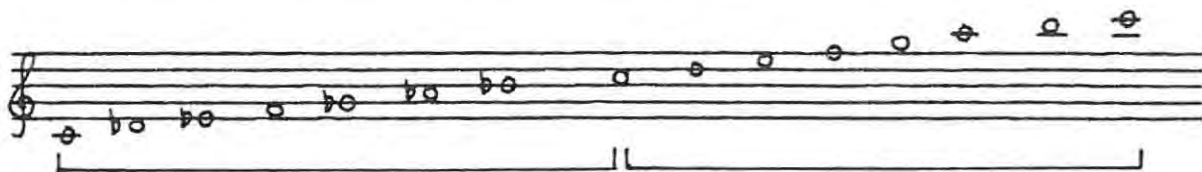


G and F have eight tones in common with C; E and A have six tones in common with C; B and D have six; and D and B^b have five tones in common with C. In this way a field is formed of closely interrelated, consonant tonalities.¹

1. Keller suggests the following "scale" as an easy way to obtain and remember the 11-tone chromatic scale. However, he emphasizes that the chromatic tonalities are not derived from this scale, but rather that the scale is arranged from the methods described previously.



This scale is actually the major scale and its "inversion" :-



Inversion of major scale

major scale

As the system provides a simple and clear principle for the organisation of tonal relationships, Bruckner's tonal structures will be defined in terms of this consonant 11-tone chromatic system which treats the tonality of the raised fourth/flattened fifth as one dissonant to the original tonic.

CHAPTER SEVEN

7. A Discussion of the Substructure, the Established Key, and its Realisation in the Tonal-Thematic Features of the Superstructure.

Although Bruckner's concept of modulation was based on chromatic relationships, it can still be adequately defined and explained by Simon Sechter's diatonic system.¹ However, the purpose of the following analysis is to provide an easy and graphic discussion of the tonal design of each movement based on a twentieth century, rather than a nineteenth century, assessment of harmonic relationships.

The substructure, as explained, consists of the three key centers - established, temporary, and transient.² These centers are linked by chords which carry the harmony to new regions, so maintaining the coherency and the pattern of the scheme, while remaining outside the orbit of the key center. These may be defined as -

- (i) Passing chords: those chords which stand outside, and between key centers, carrying the harmonic movement onwards,
- (ii) Pivot chords: static chords whose multiple interpretation provide the onward harmonic movement,

1. Ibid, p.2.

2. Defined in Chapter 1, p.11 of this thesis.

- (iii) Kinetic chords: consisting of a series of quickly moving chords which passes through a number of harmonic points without establishing a key center. These form kinetic regions and may also consist of chords which have no definitive tonality, ie. diminished or augmented chords.¹

When necessary, to clarify the harmonic direction, other methods such as embellishing chords and pivot notes are used.

Bruckner's technique of expansion leads to certain classification difficulties in an harmonic analysis: these will be resolved in the following ways :-

- (i) the extended dominant region: Bruckner figurally expanded the dominant chord thematically, rhythmically and harmonically to establish, by assertion and length, a dominant region independent of its tonic. Because of -
 - (a) the expanded timescale
 - (b) intense thematic, rhythmic and harmonic assertions (despite obvious seventh, ninth, eleventh or thirteenth structures) and despite

1. The term kinetic implies harmony which roves freely. used by A. Schoenberg when discussing roving harmony in Theory of Harmony, New York. 1948.

possible resolutions to the tonic, the dominant should, in this case, be regarded as a transient key center, rather than be incorporated as a dependent chord of the ultimate tonic key,

- (ii) the non-resolved dominant region: similarly, other dominant regions which do not resolve to their tonic keys, but which are thematically, rhythmically or harmonically expanded, will also be classified as transient, or temporary key centers, especially as their independence from their tonic key is emphasized by its omission.
- (iii) dominant chords: those dominant chords which are not expanded and which progress normally to the tonic, or false tonic, will be included in the overall key and will not be given an independent key center status.

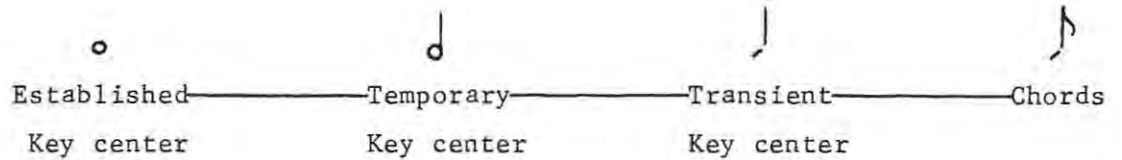
In the illustrations and diagrams the dominant regions will be indicated by the numeral V, and the different key centers may be represented graphically as :

- (i) established key - by a semibreve
- (ii) temporary key - by a minim
- (iii) transient key - by a crotchet
- (iv) chords - by a quaver
- (v) notes - by a semiquaver

Kinetic regions will be marked as such.

Note: the key centers in Bruckner's work usually follow the ensuing pattern -

Diagram 64



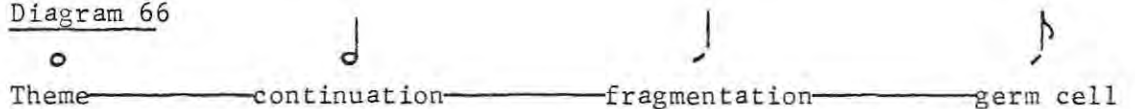
If this is compared to the following thematic structure the parallel design is quite apparent :-

Diagram 65



In Bruckner's subjects the combination of these techniques provides, possibly, the most common subject treatment. The structure, however, will vary from subject type to subject type. So, while the following diagram presents the overall coupling of theme and tonality -

Diagram 66



yet it is absolutely necessary to consider the key centers with regard to realisation in the -

- (i) structural thematic type
- (ii) structural thematic position
- (iii) cadential position.

During the ensuing analysis the established key center will be considered, mainly from these aspects.

7.1. The established key center realised in the additive chain subject

Ex.75. b.3-11 (+2 bars Intro) S7:iA

Aa

The musical score consists of four staves of music in a key with three sharps (F#, C#, G#). The notation includes notes, rests, and various chord symbols and annotations.

Staff 1: E/I (o) C/VI or ^bII of V/B

Staff 2: B/V or B/I $G\#/III$ or VI of B/V or as I $g\#/iii$

Staff 3: E/I or VI $a\#d7$ B/V $g\#$ $v/g\#$ or vii/e E $g\#$ B/V

Staff 4: $C\#$ B/V $F\#/II$ or V of B/V $F\#/V$ b/i E/I
= v =

The theme consists of the following external shape

Diagram 67

A

(a)	(a)
11 + 4 + 4 + 5	9 + 4 + 4 + 9
.....	
Head motive plus continuation	Head motive plus continuation plus fragmentation of the continuation.

Example 75 shows the harmony centralising around the E - key center; arranged in a hierarchical pattern, relating to the central tonal point E; and creating an established sense of key for the length of the subject group. The theme, belonging as it does to an additive chain subject type, cannot be considered in smaller shapes, but should be seen in its totality, ie. from b.1 to b.24, with an awareness of the respective transformations taking place within the totality. Similarly, the harmony is based on dependent and supporting chords, which cadentially establish the tonality. In this way cadence, structure and theme create an established key center.

The center continues till b.40, before turning to unbound embellishing chords, which result from the fragmentation of the melody, as it moves out of the limits imposed by the subject type.¹

1. Although in these bars (b.40-50) the melody is fragmented, it could be argued that the chords (unbound embellishing) still direct the harmonic interest to the E key center, as they consist of the subdominant (A) and its dominant, the augmented six-five of E, and the enharmonic forms of E's mediant and submediant, all of which contribute to the ensuing key center on the dominant key, or in Keller's terminology, the forthcoming delta key center - B, while moving the focus away from the tonic center - E.

7.2. The established key center with the motivic subject

An established key center of similar length to the first illustration can be achieved by the combination with a simple motivic subject, eg: SS5, 6 and 8:iA, fall within this definition.

While SS5 and 6 fall into this group, quite clearly, S8:iA is a particularly interesting example of the ambiguous masking of an established key center - Example 76.

1. Musical notation for measures 1-6. The staff is in bass clef with a key signature of two flats. Above the staff, a bracket labeled 'Aa' spans measures 2-6. Above measure 6, a bracket labeled 'Aa¹' spans the final measure. Below the staff, the text 'Ref, Ex 77a-h' is under measures 1-6, and 'c/C i/I' is under measures 5-6.

7. Musical notation for measures 7-12. The staff is in bass clef with a key signature of two flats. Above the staff, a bracket labeled 'Aa²' spans measures 8-11, and a bracket labeled 'Aa³' spans measures 11-12. Below the staff, 'c/i' is under measure 7, 'C^b7/B7/VII' is under measures 8-11, and 'V/B/I' is under measure 12.

13. Musical notation for measures 13-18. The staff is in bass clef with a key signature of two flats. Above the staff, a bracket labeled 'Aa⁴' spans measures 14-18. Below the staff, 'V/F#7/Split root' with an arrow is under measures 13-14, and 'G7/V of c/i' is under measures 17-18.

19. Musical notation for measures 19-24. The staff is in bass clef with a key signature of two flats. Above the staff, a bracket labeled 'Aa⁵' spans measures 20-23. Below the staff, 'c/i' is under measure 19, 'C/I' is under measure 20, 'c/i' is under measure 21, 'V' is under measure 23, and 'F/iv' is under measure 24.

- Aa - the original head motive
- Aa¹ - the first variation of the original head motive
- Aa² - the first rhythmic variation of the original head motive by augmentation
- Aa³ - rhythmic and interval alteration, combining direction of both (a) and a², and continuing the a² idea of augmented rhythm
- Aa⁴ - a fragmentation of variation a³ and used in directional inversion
- Aa⁵ - an augmentation of a⁴

The characteristic governing the simple motivic subject is its monothematicism. In this example the head motive is not expanded to form an independent continuation. Rather the head motive itself is subject to alteration by augmentation or diminution, intervallically and rhythmically, and thus has the ability to function as a subject group. This alteration is applied internally, so the actual shape of the subject never disintegrates and, despite variation, can easily be recognised.

The tonality of the opening bars appears indistinct, suggesting b-flat minor, or even D-flat major, or c minor. Consider the following interpretations -

Ex.77. (a) and (b)

- (a) The f tone can be interpreted as a tonic with a Neapolitan inflection -

Harmonic analysis for Ex. 77 (a): | i N⁶ i V/N⁶/G^b → V V of C/V, N⁶ → V |

- (b) The f tone as the dominant of b-flat minor, with G-flat as the flattened sixth.

- (c) The f tone as the subdominant of c minor, forming part of the following chord -

Ex.77. (c)

Harmonic analysis for Ex. 77 (c): #iv₉, 5, 6, 4, or, V of F, i of c : note absence of identifying 3rd

In Ex. 77 (c) the f tone is regarded as the diminished fifth of the raised iv of the key of F, and resolves to C which, on one level, acts as the dominant of F and on another as the tonic to the opening bar

Other ambiguous interpretations are :-

Ex.77. (d)

#V₃ III₇ V

Treat Ex.77 (d) as a German sixth on the raised dominant of i/F in turn the dominant of g^b/f[#]

Ex.77. (e)

⁶bII i/c

Ex.77. (f)

i bII #iv^d₇ V

Ex.77. (g)

The musical notation for Ex. 77(g) consists of two staves. The top staff is in treble clef with a key signature of two flats (Bb, Eb) and a common time signature. The bottom staff is in bass clef with the same key signature and time signature. The first measure shows a whole note chord in the bass clef, labeled 'i'. The second measure shows a whole note chord in the bass clef, labeled with a figured bass '4 2 V' and 'F 9'. The third measure shows a whole note chord in the bass clef, labeled '6 4 i'. The fourth measure shows a whole note chord in the bass clef, labeled 'V'. The top staff contains notes corresponding to these chords: a whole rest in the first measure, a half note G4 and a half note Bb4 in the second measure, a half note G4 and a half note Bb4 in the third measure, and a half note G4 and a half note Bb4 in the fourth measure. A bracket groups the notes in the second and third measures.

Ex.77.(g) Interpret this as a French sixth chord resolving to the dominant of F. Here the French sixth chord is on the V (rather than $\sharp ii$ or $\sharp iv$) and is in a third rather than the conventional second inversion

$\left[\begin{array}{c} 4 \\ 3 \end{array} \right]$

Ex.77. (h)

The musical notation for Ex. 77(h) consists of two staves. The top staff is in treble clef with a key signature of two flats (Bb, Eb) and a common time signature. The bottom staff is in bass clef with the same key signature and time signature. The first measure shows a whole note chord in the bass clef, labeled 'i'. The second measure shows a whole note chord in the bass clef, labeled with a figured bass '4 2' and 'vii^I'. The third measure shows a whole note chord in the bass clef, labeled 'V'. The top staff contains notes corresponding to these chords: a whole rest in the first measure, a half note G4 and a half note Bb4 in the second measure, and a half note G4 and a half note Bb4 in the third measure.

Ex.77.(h) Here an Italian, augmented sixth is built on the leading tone of F major, resolving to the dominant of F.

To summarise: in examples, (a) - F = i
(b) - F = V of b^b minor

In examples (c), (d), (f), - the progression ends on C which
(g), (h) acts as the dominant reinforcing
the f tone as the tonic minor

In example (e) and (c) - the f tone acts as the subdominant
minor to the tonic C.

Ultimately the 'feel' of these opening bars is a plagal cadence, (f minor to C major). If one considers the multiple interpretation possible in these bars, one gains an idea of the rich tonal ambiguity of the harmonic-chromatic idiom. Perhaps, though, in a concluding assessment, while not wishing in any way to limit the vocabulary by definition, it is possible to draw on Bruckner for a final analysis. Remembering his own statement that all his works could be justified by conventional rules, perhaps the clue to an harmonic analysis lies in settling on the simplest structure, which is masked by the complexities of the nineteenth century idiom.

The first true orientation of the tonic is heard at b.7 as a definite c minor chord. The expected close in c minor at b.22 ff is arrested by the key tone F b.23/24, now clearly the iv of c. At which stage the listener can settle on the opening key as c minor, beginning on the minor subdominant F, leaving the varying uses of the possible augmented sixth chord open to multiple interpretation.

During the course of this analysis, it is seen that this method is a fundamental composition technique peculiar to Bruckner's harmonic approach, viz. to present an essentially traditional, simplistic progression in an incomplete form, so creating flexible interpretations and harmonic nuance, then resolving these with a definitive restatement at a later stage.

Thus, throughout the initial statement the overall tonality is implied, and through the astute positioning of dependent chords Bruckner achieves an internal tonal ambiguity, which gradually emerges as a stable key center, established in this example as C, when considered in its entirety.

As none of the variations of the head motive stand as independent continuation groups, but form, rather, a single entity, the harmonic progressions too must be considered bound within the confines of the single established key center and each chord need not be individually considered.

7.3. The established key center with the simple ostinato subject

An example of such a combination is found in the first movement of the fourth symphony. This subject type is closely related to the simple motivic subject but in the subsequent repetitive variations the structural outline (rhythm) remains almost unaltered.

Ex.78. S4:iA

(a)



(a¹) augmentation of fifth interval



(a⁹) pitch, interval and rhythmic variation



The key center, as in former examples, is established within the confines of the subject structure.

Once the transformation process is completed the subject is repeated (usually in its entirety) on various tonal planes, and in various orchestral arrangements. The emphasis then

falls on tonal variation so the sense of key must obviously lose its established character and turn to temporary or transient centers, and in some cases, to embellishing chords.
(eg: S4:i: b.31 - 42).

7.4. The established key center with the derivative subject (simple or complex)

An example of this combination is found in the first movement, third symphony.

Ex.79. S3:iA (complex)

A musical staff in treble clef with a key signature of one flat and a common time signature. The notes are: A4, Bb4, C5, D5, E5, F5, G5, Ab5, Bb5, C6, D6, E6, F6, G6, Ab6, Bb6, C7. Above the staff, interval markings are placed: (i) between A4 and Bb4, (ii) between Bb4 and C5, (iii) between C5 and D5, (iv) between D5 and E5, (v) between E5 and F5, and (vi) between F5 and G5. A '5.' marking is above the first note. There are also some markings below the staff, including '>' and '(iii)'.

4/5 constructive interval

(iii) minor 3rd unit from filling in 4/5 Secondary supporting interval derived from (i)
 (iv) inversion of (ii)

(v) whole tone and semitone unit from filling in -3 unit

(vi) The 8^{ve} unit from 4/5 unit

	d/i	A/V	d/i		A/V	G/IV	A/V	d/i
ped.point d/A			ped.point d/A		ped.point d			
	d = o				ped.point d/A			

A musical staff in treble clef with a key signature of one flat and a common time signature. The notes are: A4, Bb4, C5, D5, E5, F5, G5, Ab5, Bb5, C6, D6, E6, F6, G6, Ab6, Bb6, C7. Above the staff, 'Aa cont.' is written. Measure numbers 13, 15, and 17 are indicated. Below the staff, there are two brackets with text: 'Derivative continuation based on previous interval assertions' and 'fragmentation process'. There are also some markings below the staff, including a vertical line and a horizontal line.

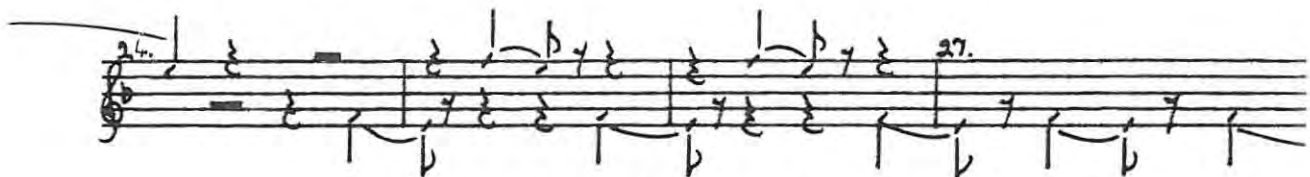
d/i	A/V	A/V alternation of V and i follows
ped.point d	ped.point d	
	ped.point f ped.point d/A	superimposition of melody-alternation of V/i and pedal points of d/i, follows



(vii)
 Derived from (v) which
 is derived from (iii)
 in inversion

ped.point d/
 ped.point d/A }
 ped.point F } → d

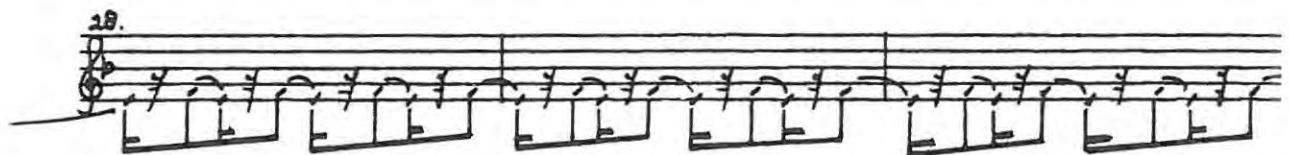
ped.point d
 ped.point A }
 ped.point F }



Intensified fragmentation

→ d

ped.point d
 ped.point A }
 ped.point d/A }



ped.point d
 ped. point A }
 ped. point d/A }

The harmonic line is static creating, by the sustained pedal point on D and superimposed subordinate dominant harmonies, an established key center lasting from b.1 - 30 which covers both derivative, continuation and fragmentary transformation of the theme.¹

To summarise, it seems that whatever subject type is used at the opening of each section, (whether A, B or C), the established key is used to present the tonality of the head theme before it undergoes subsequent transformations.

7.5. Other uses of the established key center

Include effective positioning -

- (i) as an opposing tonal center
- (ii) in sequential repetition
- (iii) as a double statement
- (iv) as a structural climax
- (v) as a cadential region
- (vi) as the basis for the presentation of an entire theme in the development.

1. After this initial statement Bruckner uses a clearly defined Ab subject b.31- 66 in which the harmony, paralleled by the subordinate thematic position is flexible. An incomplete counterstatement begins at b.67 in which further transformation of the subject group takes place, and in the following variables of this transformation process, the harmony is fluid forming the next established key center - F at sect.IIB. 101ff, through a G6 b.97-100/b-chord.

7.5.1. The established key center as an opposing
 tonal center

Here the established key is used as an opposing tonal center delaying an anticipated resolution/progression, so retarding and thus heightening harmonic expectation. eg: S4:i b.119-169.

Illustration:

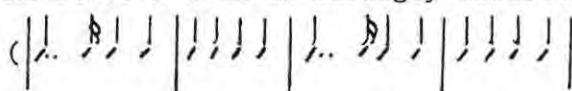
Section C opens on the established key center B-flat, introduced briefly by a four bar phrase on the dominant. It is important to remember that the B section opened on the established key center of D-flat major (which, at the time, usurped the expected resolution to B-flat major, after a similar dominant preparation).

The C section revolves around the ambivalent situation in which resolution to either D flat or B flat, the two assertive keys and two clearly established key centers, is possible.

Consequently, b.119-130 including the supertonic and subdominant, are quite clearly orientated to B-flat major. The ambiguity arises from b.131, in which the G major appears as a transient key, forming part of the fragmentation group of the thematic transformation. It appears initially, to be the submediant major of B flat, but the turn to D-flat major's dominant key at b.139 (A-flat) offers an alternative assessment, viz. that this be interpreted as a dominant

seventh chord on the raised fourth, D-flat major,¹ which key is established at b.141. At this point the thematic contours offer no help in determining the established key center as the transformation is in its final stages before the development. In addition the key (G) is obscured by diminished and minor/major chords above its pedal point. Structurally the tonality is asserted, but before the ear realizes the D-flat major certainty, the thematic fragmentary processes move the harmonic progressions onward and the D-flat center is obscured by diminished seventh chords, forming a kinetic region from b.145-150.

Two bars (151-152) attempt to reinstate the B-flat major key center by an asserted pivot note on F in the strings (V) but the progression moves again onto the transient key center on G, much obscured by intense chromatic figurations which yet delineate the G⁷ center, still the raised fourth of D^b, so emphasizing this as the established key center.

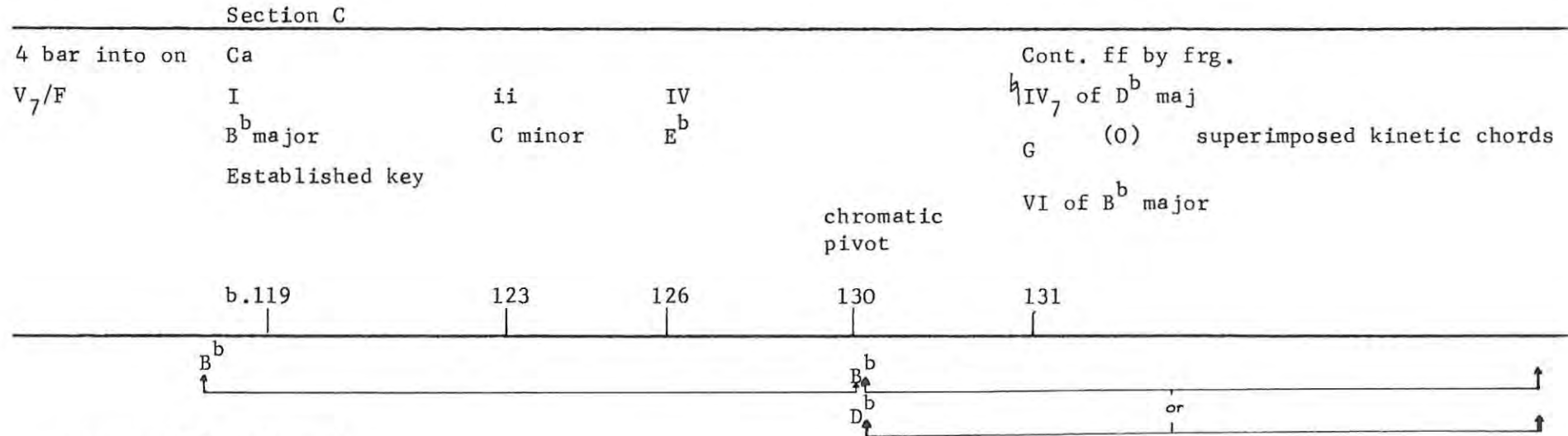
At b.165 D-flat is strongly asserted by the brass in a definite
() pattern, before passing to the dominant of B-flat, b.169, via E, the German sixth chord of B-flat.

The prelogue (beginning b.169) moves to B-flat as the final established key (b.173) before the development, resolving the

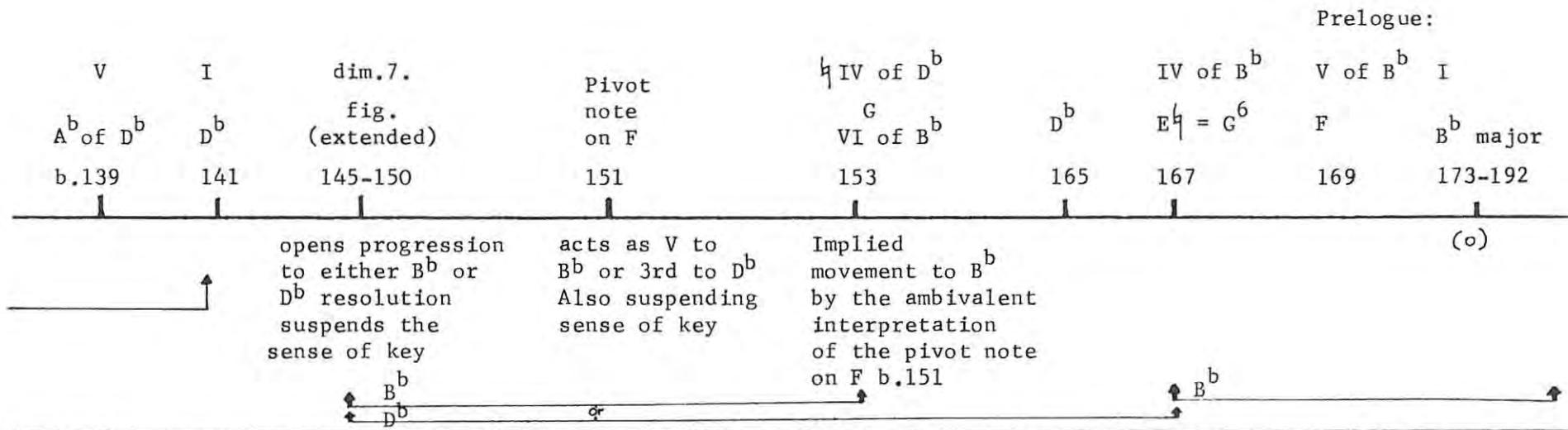
1. This example particularly highlights Bruckner's use of the tritonus relationship, in which the raised fourth in actual fact substitutes for the tonic, D^b. Later this becomes a structural feature, eg: S8:ivAa.

conflict between the two established tonalities.

This is yet one example of a technique used frequently by Bruckner throughout his works. Once again it is imperative to consider the totality and not the partial structures when assessing the harmonic progressions. For, if one were to consider b.141-144 in isolation, they could quite clearly NOT be defined as an established center. Considered as part of the chain forming the chromatic substructure these bars do form an established key. Bruckner's harmonic progressions can be likened to the plaiting of a rope: each thread is used to form the whole, each strand independent yet intertwined with the other.



Section C (continued)



FN.1. D^b is established by its structural position and assertion in Section B.

Taking the same principle on a vastly expanded scale in S6:iv one can trace the opposing tonal conflicts between the A and the F and the B key center ambivalence.

Briefly this can be highlighted by a diagram presenting formal and harmonic outlines -

I = A				II = B			III = C			Development		
a	a ¹	b	c	b ¹	a	b	a	cont.	a ¹	a ²	a ³	Prelogue
phrygian	phrygian	A major	b ^b minor	E major	C major	C major	B		B major	E major		F major -
-e-	-a-		F/V	B/V +	V/F or	frg.to	V/E	ending on				Moving to-
of	of		+B ^b /i	E/V ^I _{*1}	ml to A	chord on		6				
Amin	Dmin					C ⁷		4				
								E	B/I			
								IV [*] ₃				
b.1	b.19	b.29	b.37	b.47	b.65-96	b.97-124	b.125			b.139	b.141	b.145-150
					* ₂							

Phrygian - E - b.176

- *1. Ends on δ = E of tonic A, expect an A but moves instead to C major. Ref.to S5:(iv), similar progression.
- *2. Note migrating harmonies in this section.
- *3. Note ambiguity as now the ear interprets B as a V to E. (For the purpose of this example the V region will be separated from its tonic region, because of its structural/thematic position: as it consists of both a main theme and secondary theme - forming a continuatory extension, so raising its status from that of a similar example (b.47-52) in which the introductory theme of 6 bars on the δ was included in the tonic region and granted only transient key status.

Part I	Part II					Part III	(False 'Recap')
Aa	Aa inverted	Ab		Ac		Ab ¹	frg E-phrygian
b.177-196	b.197-242	b.215	b.225	b.227	b.229	b.235-238	b.246 passes through
	(F)	(E ^b)	(E)	(F)	(f)	(C [#])	d minor, C major, A ^b major to E - phrygian b.265
				to B ^b	to B ^b		including transient keys b.265-298
E phrygian	F major (with progressions through A ^b , C, E ^b , E, F, B ^b)					G ⁶ = A ^b ₇ b.241 to	A major
<p>Throughout the development F functions as both tonic and/or in a \hat{d} relationship to B^b. Just as in the exposition E fluctuates from a \hat{d} role with A to a tonic relationship with B.</p>							

The Recap is shortened due to extensive use of A thematic material in the development and begins with Section II (b.299) in A major.

Finally, in the Recapitulation, B emerges as the predominant tonal center b.333 contested still by F (via a long \hat{d} build up on C beginning b.359) emerging as the established key of the Coda b.371 before a penultimate resolution on A b.385 and final resolution on b.399.

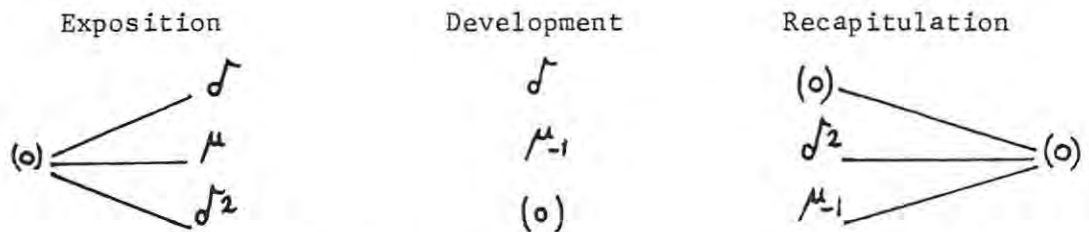
Conclusions

So, in this finale Bruckner uses the established key centers, reinforced by thematic structures on occasion, to create an area of opposing tonalities within the various sections of the movement,

Exposition	Development	Recapitulation
E	E	A
A C	F	B A
B	A	F

further complicating the tonal issues by using the phrygian mode (usually on V/E).

If these are considered within the Keller soundfield system the following interesting relationships emerge -



Showing, despite the tension of conflicting tonalities, a remarkably conventional obeisance to the requirements of traditional harmonic form: exposition moving to the dominant, and the recapitulation centralising around tonic keys: Bruckner's example of genius within rules !

7.5.2. The established key center in Sequential Repetition

Examples of this device are found in S5:ivC bars 460ff and 468ff in respectively b-flat minor and c minor. Also seen in S6:i b.195ff and b.209ff.

Illustration:

An extract from S5:iv Recapitulation b.460 and 469 has been chosen as a representative example of this technique and it is interesting to compare the structure as it appears in the exposition. Such a comparison will elucidate the analysis of the chosen example,

If one considers b.125, exposition, Bruckner is in F major, centralising on the dominant, moving to b-flat minor (b.129) and settling on a closing cadence of F major, from b.131 to 136. Structurally, this marks the end of the second large section.

The C section opens with a 'new' theme -

Ex.81. b.137ff



This theme was first heard in b.11 in a split root (chromatic) context.

Ex.82.



Now it is diatonically represented I - V. It consists of six bars plus a two bar countersubject extension. It begins in f minor, after the careful anticipatory build up in the second section, and ends on F before moving, in the counter theme, through various passing chords to a sequential repetition, now in g minor. This is followed by the fragmentation/transformation process b.151 in d minor.

Consider the structure as it appears in the recapitulation. From b.456 the key settles on F (anticipated at b.444), moving to a seventh chord on F forming the dominant in a perfect cadence to B-flat minor. In this iteration, the theme has been expanded melodically, and carries with it its completed transformation from the development section.

Ex.83.



Example 81 presents the C theme, exposition. It is shifted sequentially to g minor, an established statement of the C subject.

The above example (Ex.83) is a completely established theme. Containing an amalgamation of various motives from various preceding subjects (eg. theme from first movement, the octaves from the fourth movement and the chromatic scale from the second section, third subject).

The first example (81) is a less developed presentation of the sequential use of established keys, as the thematic structures of this particular C section are very much part of an overall transformation process. Whereas at b.468 there is no transformation

in process; the theme, in its fulfilled entirety is repeated sequentially in c minor before fragmentation (b.476ff) to introduce the final subject group at b.496; thus defined, as an established key in sequential repetition. If one compares the recapitulations and expositions, third subject groups of Bruckner's first and finale movements, this technique appears with enough regularity for one to safely make the assumption that this is a conscious compositional technique, which greatly contributes to the climactic energy and structural tension of his movements. It is also a highly effective way of invigorating the contrast on various subtle levels, between the exposition and the recapitulation.

Illustration: S6:i b.195 and 208

B.195-208 mark the closing of the development section, and use the fully explored theme of the first subject to end the development in the established key of E-flat major, the furthest removed key from the original tonic, A. The theme follows the normal outline of this subject, but is shortened to only fourteen bars, ending on the chord of E-seven before plunging into the counterstatement (which has been exchanged with the statement, appearing later at b.229,pp) in the established key of A major, so forming the opening of the recapitulation. In this example structurally, harmonically and thematically the prerequisites of an established key center are fulfilled.

Ex.84. S6:i b.195



Musical notation for Ex.84. The staff is in treble clef with a key signature of two sharps (F# and C#). The melody begins with a half note G4 (marked with an accent ^), followed by a quarter note B4 (marked with an accent ^). This is followed by a triplet of eighth notes: A4, G4, F#4. The next triplet consists of eighth notes: E4, D4, C#4. The melody then continues with a half note G4, followed by a quarter note A4 (marked with an accent ^), and a quarter note B4 (marked with an accent ^). A slur covers the final two notes, A4 and G4, which are marked with accents (^). Below the staff, a horizontal line is labeled 'E^b:' and spans the duration of the first two notes.

Ex.85. S6:i b.209



Musical notation for Ex.85. The staff is in treble clef with a key signature of two sharps (F# and C#). The melody begins with a half note G4, followed by a quarter note A4, and a quarter note B4. This is followed by a triplet of eighth notes: A4, G4, F#4. The next triplet consists of eighth notes: E4, D4, C#4. The melody then continues with a half note G4, followed by a quarter note A4 (marked with an accent ^), and a quarter note B4 (marked with an accent ^). A slur covers the final two notes, A4 and G4, which are marked with accents (^). Below the staff, a horizontal line is labeled 'A:' and spans the duration of the first two notes.

7.5.3. The established key center in double statement

Illustration:

In many movements one sees Bruckner following the baroque traditions in the arrangement of his thematic structures as his internal subdivisions are based on the head motive and continuation techniques peculiar to this period. In SS5, 6, 7 and 8, tendency is towards classical characteristics in the overall use of the double statement structure.¹

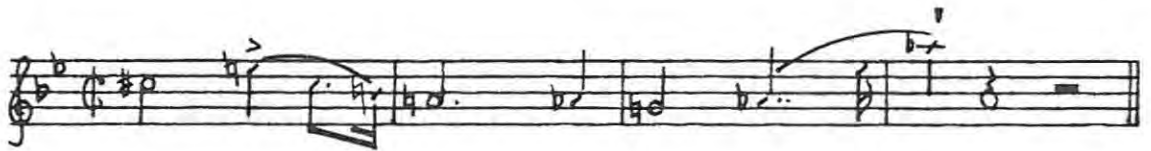
In the double statement structures there is only one subject group - Aa, this is restated in tutti.

1. I feel that the terms double statement and restatement are synonymous and may be interchanged freely.

Ex.86. S5:iA b.55-58 and 59-62



B^b/b^b minor: 1st tonal level



D^b/d^b minor : 2nd tonal level

Ex.87. S6:i b.3-6 and b.9-12



A major : 1st tonal level



C# major : 2nd tonal level

Notice interval alteration, by inversion, to the subject while rhythm remains intact.

Ex.88. S8:i b.2-5 and 6-9

c minor : 1st tonal level

C/i
(Eb/I)

E^b

C^b7/B7

c minor : 2nd tonal level : ending on an open harmonic progression.
E^b major :

Note internal interval contraction.

Once the subject is explored on a second tonal level, the head motive which in this type constitutes the entire subject, dissolves into fragmented phrases, which are further diminished until reduced to their smallest components, eg -

Ex.89. S5:i

(Note initial semitone descent as chords follow thematic fragmentation)
Finally, (5) asserted rhythmic pattern.

These fragments appear independently but are not regrouped to form a new subject, or a secondary continuation subject. The compositional emphasis is on the sound, character and tension created by their fragmentary nature. These appear independently throughout the movement without losing the initial identity established by their position and structure in the original head motive. Thus these are annexed to chords or chordal progressions and do not present an established center.

Notice in these simple motivic subjects the parallel structures exist on both internal and external levels.

Diagram 69

General

Diagram 70

Statement		Restatement	
Subject	Subject Varied, Frg.	Subject	Subject Varied
1st tonal level	2nd tonal level	1st tonal level	2nd tonal level

Harmonically each complete statement is presented in an established key center within which are various flexible chord progressions.

The harmony of and within each restatement emerges from the sequential repetition of the subject on a secondary tonal plain,

resulting in the systematic use of the mediant relationship in this type of structure.

Ex. S5:iAa B-flat major/min - D-flat major/minor,
similarly in the restatement

S6:iAa A major - C-sharp major

S8:iAa C major - E-flat/C

The established key center is obviously used during the restatement, complete with fragmentation, of the subject.

It is interesting to compare the internal harmonic lines within each complete statement, to show Bruckner's compositional approach/attitude towards harmonic direction, viz. moving from initial harmonic ambiguity, within the smaller structure to clarity in the restatement :-

1st Statement :

6	+ 2	+	4	+	2	+	4	+	6
Head motive A major with notes foreign to the key	frg of h/motive c# ass. phrase	head motive c# /V c# 2 4 Incomplete V ₇ 6	frg./h.motive E major/I	frg.head motive using rhythmic variation E major:includes	frg. of h/motive F major to				
N ⁶ inflection + 47	V ₇ harmony implied by assertion	mod. to B/V of E major	G suspension to F# C suspension to B N implication	C chord, mod. to	E/I = V of A for Second Statement				

2nd Statement:

4	+ 2	+4	+ 2	2 + 2	+ 8
Head motive in tutti	frg.of h/motive	h/motive	frg.of h/motive	rhythm var. of head motive	frg.of head motive
A major	C [#] /V ₇ F [#] min.	c [#] /I	C [#] - D chords* b.35	B ^b F major on b.41	B ^b /IV to C/V ₇ of F major b.43
	Clearly defined by full chord in 2nd bar. F [#] minor chord <u>is given</u> , unlike the 1st state- ment. Here acts as a subdominant and C [#] = tonic.	<u>Note:</u> new function clearly heard in the restatement moving to E/III ₇ , still within C [#] key center		iv - V - i progression	The C ₇ /V is treated as a G ⁶ to E minor of the Dev.

* From this point, paralleling the transformation of thematic material, the harmonic lines move quickly through short cadential fragments to pause on E/V of A.

Bruckner, in the double statement, subtly changes the harmonic interpretation of the progression by altering inflections or including new material successfully achieving diversity in uniformity.

Notice -

- (i) the changing function of the c-sharp key center between the two statements
- (ii) the included f-sharp chord in the restatement
- (iii) the same harmonic relationships on different key centers in the second fragmentary statement of the head motive
- (iv) the emergence of f minor as a clear key center in the restatement cadentially confirmed, in contrast to the single chord (b.20) of the first statement
- (v) the use of C, dominant seventh as a German sixth of E. In the initial statements the emphasis is laid on the E key center (reinforcing its dominant function for the restatement in the tonic, A major) while in the restatement the emphasis is on the C key center, so heightening the expectancy of modulation before the entrance of the second section. Thus, what is overtly implied in the first statement is fulfilled with unexpected interpretation in the restatement.

The more one analyses Bruckner, the stronger the realisation that nothing is as it seems. He uses the simplest structures, progressions, phrases to please and satisfy the listener, yet within these he creates masterpieces of intricately laced designs of shifting tonal functions, changing harmonies, ambiguous assertions, implied but unfulfilled progressions, so idiomatic of the rich romantic language with which he was conversant.

7.5.4. The established key center as a structural climax

Bruckner uses the established key center to highlight a structural, thematic or tonal feature of the movement. Apart from combinations with initial statements of thematic matter, he uses this technique to emphasize -

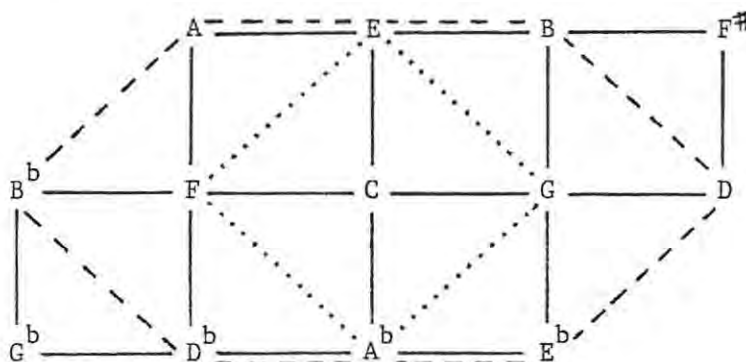
- (i) the extent of tonal development within the second division
- (ii) the climactic statement of the opening recapitulatory division, and the return to the tonic key as a point of resolution after an extended suspension, avoidance of polarisation of the tonic key center.

Here Bruckner simply uses the subm \sharp (b.232 ff) related key center to highlight the tonal development in this division. Thus remaining within the consonant primary area.¹

In S7:iv he presents the Aa theme² (in this case) in firstly the delta key center, then polarising this with a m \sharp statement, followed by the tonic minor (b minor, A-flat major and e minor) b.191ff. (cf Diagram 71 of S7:i for chart of key center relationships).

In S8:iv however, Bruckner rather creates the structural climax by thematic emphasis using a triple statement highlighted by the successive use of three divergent established keys. The key center relationships of this movement are -

Diagram 72



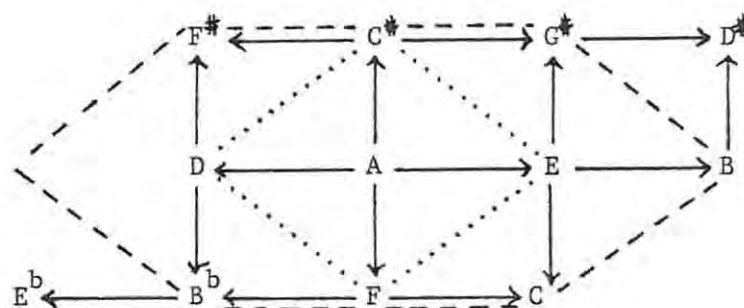
The development, Part II (b.301) presents the triple statement of the

-
1. In other examples the established key is used to present the thematic peak of the development, but Bruckner remains well within the primary consonant field, using the original tonic in the major or minor form as his main divergent feature and concentrating on thematic arrangement for structural effect. eg: S3:i, S4:i, S6:iv.
 2. Also found in S8:i & iv.

Aa theme, moving through the delta submlü key center, the subdelta key center and the delta key center, (e-flat, f and G). The E-flat center presents thus the most removed and structurally climactic point of the tonal evolution, while the other two centers fall again within the consonant field of the original tonic, the C-tonality. Although forming quite divergent tonal levels within themselves, these do not present as wide a tonal development as that experienced in S6:i.

The key relationships of S6:i are

Diagram 73



Given A as the central tonality, the other key centers act in relation to it. In this movement Bruckner follows the chromatic substructure through all these tonalities/key centers, reaching the structural climax in the development, Part II b.195ff where he presents the Aa theme, in its entirety in the tertiary dissonant key center E-flat. Structurally the furthest removed center from

the original tonic center A.¹ This very relationship is emphasized by the juxtaposition of the tonality of the tertiary dissonance A, at b.208ff.

7.5.4.ii. The established key as the climactic statement of the opening recapitulatory division and the return of the tonic key as a point of resolution after a suspension, avoidance and polarisation of the tonic key center.

This occurs chiefly in the earlier symphonies, as later Bruckner restructured the opening of the third division to suit his formal requirements. Consequently S:i and iv, S2:i and iv, S3:i, S5:iv, S6:iv, are examples of this technique. The general principle in these movements is to present transient and temporary movements throughout the development section in a tonal acceleration towards the resolution of these key centers in the tonic statement of the main theme at the opening of the recapitulation. (S5:iv and S6:iv do not exactly follow this format cf Chapter 8)

eg: S1:iv The chromatic substructure of the development, showing the progression to the structural climax at the opening of the recapitulation.

1. The emphasis here is on the tritone relationship as a structural tonal feature.

Diagram 74

Dev. P/I

E-flat	a-flat	F-flat on V	F	A	B-flat	D	B	C ¹	E
b.87ff	91-	95-	99-	120-	122-	125-	130-	134-	144-
est. from prelude	sequence	sequence	dev. of sequence	frg.of sequence		epi-centers of closing block structure			
♩	♪	♪	♩	♯	♯	♪	♪	♪	♪

modulating chords connect those key centers not immediately juxtaposed. Bar numbers are approximate indications of the start of the key center. Please identify which beat within the bar.

Dev. P/II

B	F-sharp	(B-flat)	C	(A-flat)	A	dim and 7th chords	kinetic region	A
b.151	154	162	163	165	175			
Theme on B subject	sequence & frg.	frg.	dev.of theme	sequence of dev.of theme	Theme & cont.& frg.& dev.		Sound field	epi- cente
♩	♩	♪	♪	♪	♩			♪
		kinetic area an asserted key center						

Dev. P/III

d	B-flat	G	C	A-flat	f
208-	213-	215-	224-	226-	230-
Theme	sequence	sequence extension	Inv. of sequence		extension of inversion of sequence
♩	♪	♪	♪	♩	♩

Epilogue

A cadential section consisting of the following chords -

F/V ₇	F/V ₉	G/V ₇	e ^d ₇	f-sharp ^d ₇	G/V ₉	C/I TONIC Recapitulation
234-	235-	236-	238-	240-	242-	273

The example illustrates that Bruckner throughout the development section omits the established or even temporary sounding of the tonic center, polarising it by emphasis on contrasting key centers and keeping these too in a state of flexibility by concentrating on transient or temporary forms. The progressions in this way are directed towards some form of resolution and propulsion to the central tonic, which is given at the point of recapitulation, in its established form.

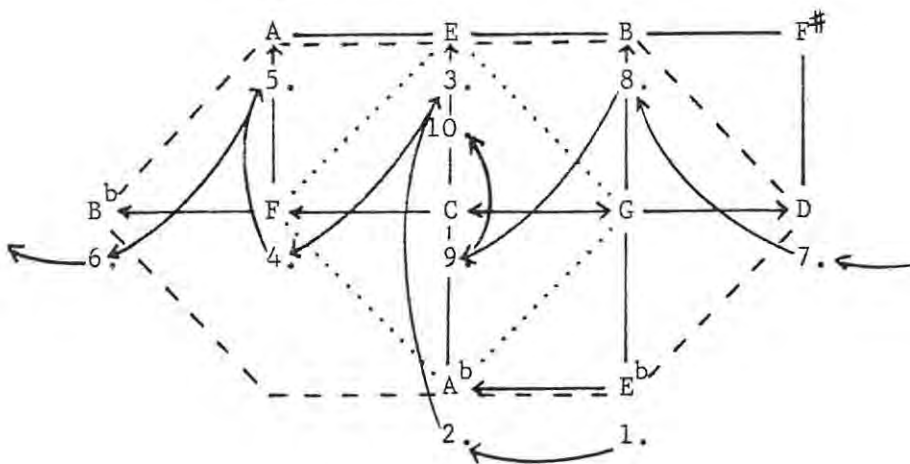
This principle, of tonal polarisation between second and third divisions, seen on smaller scale, eventually underlies the design of an entire finale movement, where the tonic center is avoided or polarised throughout all three divisions, to be ultimately and forcefully used in its resolution in the coda.

This is not the continuous suspension of theme and harmony applied by Wagner, as typified by his opera Tristan und Isolde, in which each expected harmonic resolution is avoided, masked or suspended resulting in a type of endless harmony; for when one listens to Bruckner the ear is satisfied by many diatonic passages, complete with

cadence and resolution. There are points of consonance, dissonance, cadence, suspension, resolution and kineticism within the movements which make Bruckner's approach quite dissimilar to Wagner's. It is rather as if Bruckner has taken the principles (heard in the chordal progression) of Wagner's music, and expended these, incorporating them as part of a tonal scheme, the substructure. In this way creating yet another paradox which so enriches his music, of chromatic principles expressed diatonically - perhaps Bruckner's own idiosyncratic solution to the dichotomy of his musical inheritance.

By analysing the substructure and the movement between each of these tonal points, one can trace the extremely balanced and rational relationships which present the tonally satisfying progressions of the movement. The development section only of S1:iv will be used as a representative example as, being Bruckner's first 'true' symphony, it presents his most spontaneous approach to tonality and formal structure, before his inhibitions developed due to contemporary criticism.

Diagram 75 S1:iv b.87-144

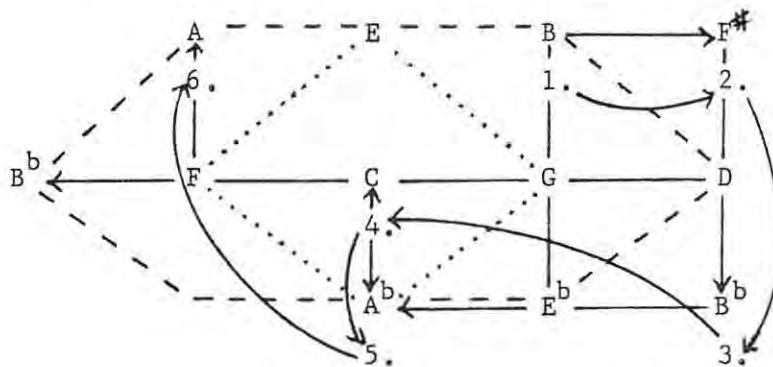


By comparing Diagram 75 with those to follow one can see how Bruckner unifies the development by juxtaposition and alternation of key centers within certain tonal fields, eg -

Moving in Part I from the opening delta region (1.) to a polarisation of the tonic center between the subm \flat and m \flat regions (2. and 3.), to the subdelta key centers on subdelta, subdelta m \flat and subdelta two, before culminating on a substitute tonic region, the m \flat key center (10.) via delta centers (7. and 8.), to close Part I.

This represents his internally balanced organisation, rather in the line of Hindemith's principles, viz. an area with a primary consonant field, (2.3.4.) moving to a secondary consonant area (5.6.7.8.) and returning to the tonic primary consonant area (9. and 10.). This forms the 'A' part of the development's substructure. Followed in Part II of the development by -

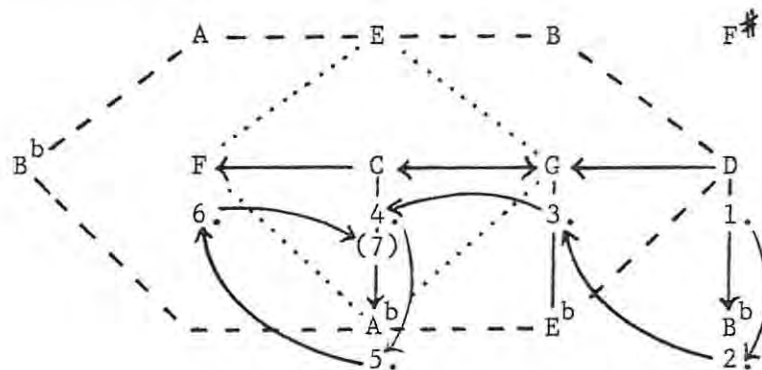
Diagram 76



In this section the tonal path moves away from the consonant framework of the primary tonal fields, still intensifying the progressions (including a progression to the tertiary dissonances - $F^\# + B^b$)¹ from the tonic thereby creating the required tonal tension, by the use of secondary key centers. In relation to Part I of the development this forms the contrasting area of the section - the 'B' part of the substructure, on a dissonant plane.

The third part of the development is -

Diagram 77

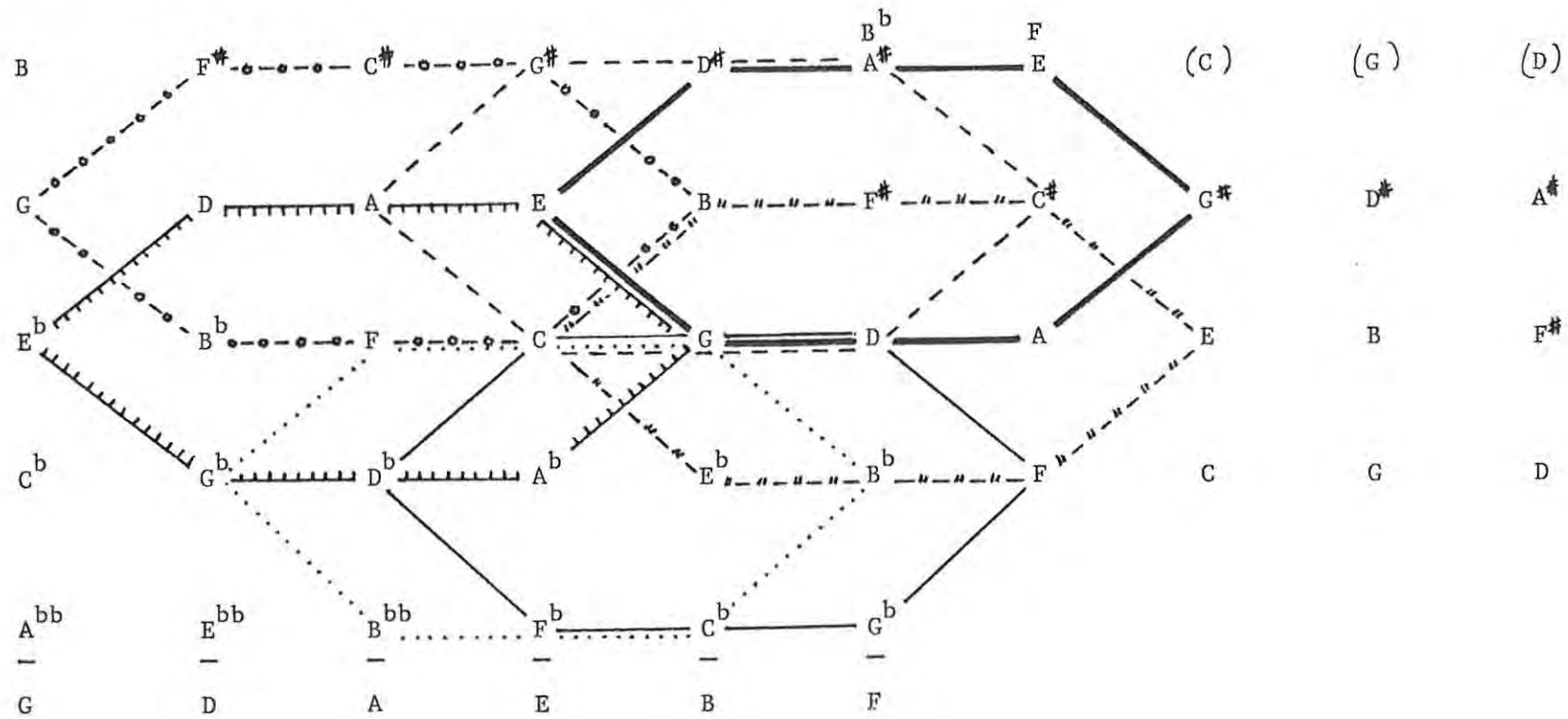


Here, opening on a secondary key center (1.) the progression moves back within the primary consonant fields,² to close the development section, forming in relation to the first two parts the 'C' section of the chromatic substructure.

-
1. This progression results in B^b , approached via D as a tertiary dissonance rather than as a δ^{-2} .
 2. The return to C, represented by the numeral 7, marks the opening of the epilogue.

The overall shape of the development shows a balanced consonant - dissonant - consonant arrangement of tonality, within shifting, but related tonal centers, creating a proportioned and balanced tonal structure within a division. The epilogue, leads the harmony, in its cadential structure to the structural climax: the first true presentation of the most consonant, original tonic center, in its established key of C as the peak of recapitulation.

The following diagram shows the overall key centers of the development section tracing the intimate relationship of each key center to the other and showing, by the heptagonal figure, how the tonal center is shifted, within the section, to establish new fluctuations around the temporary centers, and the key centers acting in relation to them.



Key: Temporary centers are:

E-flat	—————	A	—●—●—●—
F		D	—''''''—
B	- - - -	A-flat
F-sharp	—————		

among others, in S2:iv b.348-388: S4:iv b.1-43, S7:i b.103-123. As Bruckner became more assured in his handling of keys, the necessity to firmly establish a key center was avoided, except for those structural points described earlier.

7.5.6. The basis for an entire theme in the development Whenever the entire theme appears in the development it is annexed to an established key eg: S2:i b.221 which uses the Ca theme, S2:iv b.231 in which the theme is presented for further development not as a structural peak; S3:iv b.233 and S7:i b.165ff, in which the Aa theme is presented for further development.

On occasion the established key is restated a semitone higher resulting in a shifting tonality. This is far more common in the transient keys but an example of this is found in S3:iv b.251 which forms the introduction to 259 presenting the theme, which is then moved from the established center C up to D-flat to present the introduction again, b.293 and the theme b.301ff, ending in f minor. In this way the expanded restatement structure, so favoured by Bruckner in his shifting of large structures around tonal centers, is formed. Thus the established key, with its multiple functions and its realisation in the musical texture emerges as the stabilising center of both sub- and superstructures.

CHAPTER EIGHT

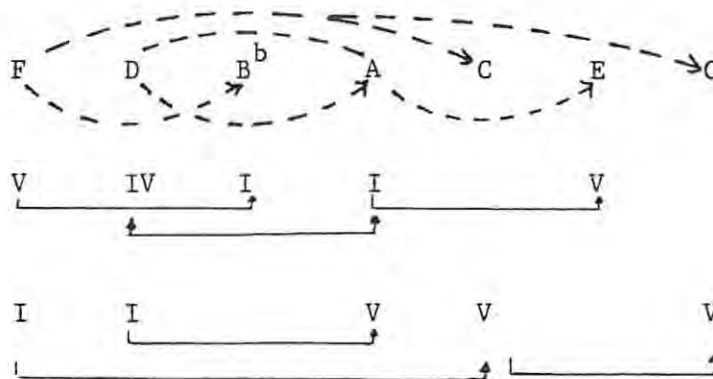
8. A Discussion of the Substructure; the Temporary Key, and its Realisation in the Tonal-Thematic Features of the Superstructure

The temporary key center is that which normally, due to an extended time scale, gains a sense of key by thematic or rhythmic or harmonic assertion and prolongation, but which lacks the structural prominence and functional independence of an established center.

Bruckner favours the idea of conflicting tonality expressed through polarised key centers, creating a series of different keys in an interrupted chain structure. Consequently, the temporary key center, which can assert a conflicting tonality, strongly and yet not so thoroughly as to impede the harmonic flow or interrupt the tension line is obviously vitally important.

The following example demonstrates the use of the temporary key centers in a hypothetical chain structure -

Ex.91.



8.1. The temporary key in the development section

8.1.1. As the opening key of a subsection

In S1:i b.106 it is used to present the opening key of the development having emerged in the preceding six bars of the prelogue.

In S3:i b.298 it is used to present the opening of Part II of the development.

In both these examples the temporary key is used in conjunction with a fragmented statement of the theme. As in both these symphonies the respective stages of the development are used for thematic exploration, the temporary key center is the most effective means of presenting a semi-fulfilled thematic statement without grounding the harmonic direction.

8.1.2. In sequential repetition

It is used in sequential repetition in the development in instances where the theme is explored/developed by tonal transformation, eg: S6:i b.159 on the temporary key of G and sequentially repeated b.167 on a minor

and at b.175 on c minor, also S6:iv b.197 in F major and b.203 in A-flat. This technique is more common to the transient key centers, but its use is generated by the broader emphasis of development required, in particular, by this division.

8.1.3. As an extended dominant region

The temporary key is used as an extended dominant region, as in the epilogue S1:i b.177-198.¹ From b.181 the timpani establishes a pedal point of G over which the winds explore thematic material from the prelude -

Ex.92. b.103



This is fragmented and combined with Aa iterations of the opening rhythmic fragment and the Aa head motive, to form, because of its very fragmented nature, a temporary center on G/V of C.

1. Note the difference in this situation and the previous discussion of S1:iv. There the prolonged extension on the dominant chord establishes the actual tonic center C; here, the fragmented thematic material creates a temporary center on the dominant chord itself.

8.1.4. As the basis for a new theme

In S2:iv b.275-289 the temporary key center is used to present a new theme (in C-flat major) distantly related to iAa for development purposes, the only occasion that it is used in this way.

8.2. The temporary key in the exposition and recapitulation

The most effective use of the temporary key is in this division as here the tonality is still being expounded, the perimeters of the substructure are being set, and the points of departure for future development and polarisation are being created. Examples are particularly found in the C sections of movements, eg: S3:iC, S4:iC, S2:iC, S9:iC, and S2:ivC Recap, S3:ivC Recap, S3:ivC, S5:ivC, S8:ivC and may also be found in the B sections - S2:iB, S2:ivB, S3:ivB, S5:ivB, S7:ivB, S8:ivB.

Within these sections the temporary key is used in various ways:

- (i) As part of the ongoing harmonic drive after an established key center, eg: as part of the continuation, after the main theme statement, eg: S4:iAb, S8:iB, b.55ff and again in the recapitulation; S5:ivB b.71ff and in S5:ivC b.145ff S4:ivB b.51ff and S3:ivB b.461ff.

(ii) As temporarily usurping and interrupting an underlying established key center, in a pivotal function -

(a) in the prelude to the development
S3:i and S7:iv

(b) before the coda S6:i

(c) as an opposing center, delaying the final tonic appearance in the coda S6:i

(d) forming a shortened tonal area in a restatement situation S8:iB b.73ff.

8.2.1. The temporary key center as part of the continuation after the main theme and the established key

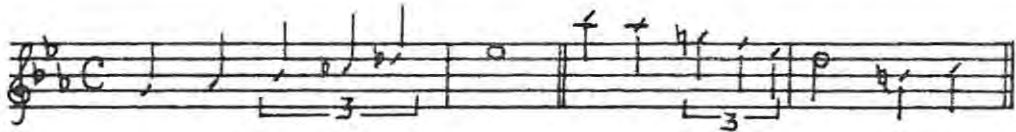
The following example from S4:i uses the second theme Ab of the first subject, first movement b.51ff.

Preceded by anticipatory fragments (b.43-50) it opens on the key center, E-flat. Initially, this is an established key center, cadentially formed by the introductory bars, b.43-50, and supported by submediant and subdominant chords.

From b.59, the transformation techniques, lead the theme and the harmony away from their stable centers towards the new tonalities of the unfolding movement.

eg: The second theme opens on the key center E-flat, created by the anticipatory fragments -

Ex.93.



- and consisting of one central motivic unit, found in

- (i) an ascending 2+1 phrase
- (ii) an ascending 1+2 phrase
- (iii) a descending 1+1 phrase (repeated)
- (iv) a descending 1+2 phrase
- (v) a rhythmical representation only of the motive

These are arranged in four bar phrases of interwoven, overlapping structures, substantiated by their harmonic foundation -

Ex. 94.

- 1. Motivic Unit: Ascending 2+1 phrase unit
- 2. Ascending 1+2 phrase unit

51 fl/viol

$E^b/I=0$

- and overlapping with descending 1+1 phrase unit
- Descending 1+1 phrase unit

54

c/vi

A^b/IV

\flat^d pivot to →

57 Viol/fl.

desc 1+1

$e^b(\text{minor})$ ♪

$C^b/I = d$

- 4. ascending & descending 1+1 phrase unit
- 5. Descending 1+2 phrase unit

60 (Viol 2)

v/c^b

C^b/I

v/of C^b

- 6. overlapping with descending 1+1 unit

63 Tramp

$F^b_7/E_7 = \flat$

$E_7 = \flat$

$a^b = \flat$

67 68

$G^b_7 = \text{[chord symbol]}$ | $F/V \text{ of } B^b = V/E^b$

69 71 73

v

harmony moves via the
pivot note F to D^b major

Ex.94. illustrates the phrase structure combined with the movement from the established key center of $b.51-58$ to a temporary center at $b.59$. The E-flat center is maintained by supportive chords till $b.56$, where a pivot chord on a-diminished moves the progression through e-flat minor to C-flat major. This is paralleled, thematically, by the close of the first 8 bar phrase. Notice the use of the tonic minor (e-flat) to minimise the sense of tonal stability.

The ensuing bars form the continuation of the thematic transformation, ($b.59-66$) and are followed by the fragmentation ($b.67-74$). This process is paralleled in the harmony as the temporary key center, taking its status from the thematic position, is set up at $b.59$.

Here the thematic line (the original Ab statement) is reiterated while the harmonic progressions differ, as the center is supported by a V-I juxtaposition (b.59-62) on C-flat. Obviously, these supportive chords increase the stability of the key center, and though lacking the assertive duration of an established center, yet together with the thematic prominence, they define the center as temporary, rather than transient,¹ or established.

8.2.2. The temporary key in which it provisionally usurps and consequently suspends the underlying established center, eg: S5:iB b.100ff.

These bars form the B section of the exposition.

As many of the subjects of this section are built along the lines of the additive chain subject type, this allows for an harmonic duality presenting on one level the constant key center and on another, within this, a flexible pattern of chords either contributing to, or disguising the key center in each additive continuation. Consequently each continuation (and possible varied restatements thereof) would, depending on its internal variations -

1. Once again Bruckner uses a pivot chord to change the harmonic direction in this case moving to F-flat seventh chord, the subdominant interdominant, written as E7 then a-flat minor to G^b seventh chord, the Neapolitan of F (b.67) the dominant of the dominant of this movement, so closing the first subject group. It is interesting to see that the Second Subject group begins not on the expected B-flat, but on the D-flat - an example of Bruckner's enharmonic mediant relationships, b.67-74 form the fragmentation section of the theme, paralleled by a transient key center.

determine its own key center type. These harmonic key centers are often, repetitive, cyclic, sequential, depending on the arrangement of thematic structure (subject theme) and may, therefore vacillate between established, temporary or transient harmonic duration.

The following example (95) S5:iB b.100ff illustrates uses of the temporary key:

- (i) usurping for a time the established tonality
- (ii) in a restatement where the security-stability of the established center is minimised by preceding pivot chords and modulatory additive extensions; further obscured by ambiguous fluctuations between major and minor tonalities (b.109ff to 118).

Ex.95. Temporary key: provisionally usurping the underlying established center
the additive chain subject in the B division

eg: S5:B b.100ff

b.101 Bcp.a continues under the Ba theme as an accompanying counter theme

Handwritten musical notation for measures 101-104. The top staff shows a melodic line with notes and rests. The bottom staff shows a bass line with chords and notes. Chord labels include f minor, A^b, C^b, F^b, E^b, and C major. Handwritten annotations include "f minor¹", "(o)", "μ-1", "f-2 μ-1 = T.D.", and "(o)".

Handwritten musical notation for measures 109-112. The top staff shows a melodic line with notes and rests. The bottom staff shows a bass line with chords and notes. Chord labels include C major, c minor, and C major. Handwritten annotations include "b.109 Ba theme", "extension to Ba", and "tr.".

1. Heard as dominant of previous B^b key of prelude: then tonic function asserts itself due to the V chord b.102, however, possible subdominant function of preceding B^b key also echoes in the ear, reinforced by the chord progression of b.101-104 as the plagal cadence of b.104 f — to C overshadows the other functions; and C emerges as the tonic with f acting as its subdominant minor key.

113 *1

A^b / B^b A^b / B^b C^b / D^b E^b / F^b
 pivot chords
 ritard.

*2 *3

117 Ba¹

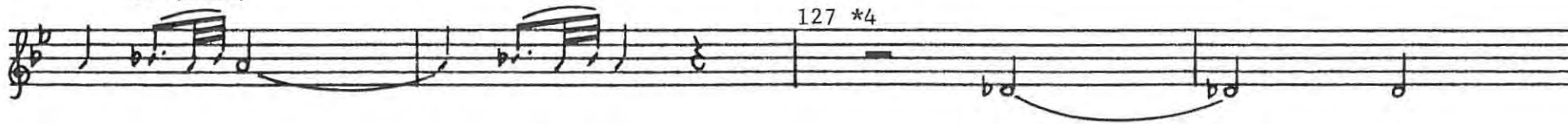
D/V_7 of g minor D B^b / A D^b G / F D / V
 = (iv of D)
 = p
 = (i) + (ii)
 p

121

F / V_7 B^b A / V of D / I

Ba (cont)

Cont. of Ba



d minor

D^b / May be seen as N^6 to C/V of f
 = d →
 (i) + (iii)



D^b →

D^b
 Sound field →



ped.point on D^b →

137*6

C^d

141

D^b V I/C

145 Ba²

C/V E/V/

Note Fmajor used as the opening chord not fminor as in b.109.

F now clearly the established key (by the long cadential section on N⁶/D^b of V/C of sound field b.127ff)

This technique of moving from tonal ambiguity to clarify between the initial statement and subsequent statements becomes a favourite compositional feature.

149

Musical staff 149: A single staff of music in G major with a treble clef and a key signature of one sharp (F#). The staff contains several measures of music, including a whole note chord labeled 'c/V' and a final measure with a fermata over a whole note chord.

C major / V

153

Musical staff 153: A single staff of music in G major with a treble clef and a key signature of one sharp (F#). The staff contains several measures of music, including a whole note chord labeled '157*9' and a final measure with a fermata over a whole note chord.

C/V/I
emergent center

158

Musical staff 158: A single staff of music in G major with a treble clef and a key signature of one sharp (F#). The staff contains several measures of music, including a whole note chord labeled 'C/V of F' and a final measure with a fermata over a whole note chord.

C/I

Key: Ex.95.

- *1. b.113: At this point the ^bVI redirects the harmony and the V/C is interpreted as an independent temporary key center as the progression moves to D via its N^6/E^b .

- *2. b.117: Initially minor, turns to major and returns to minor. Restatement of main theme, which is exact repetition. Classed here as a temporary key center.

- *3. b.117. In the initial statement the section opened on the V of f. On hearing the sequential repetition beginning b.117 one correctly assumes the d to be V, of g minor.

- *4. b.127. Continuation of the Ba theme. Based on first cell of Ba including -3 interval now in inversion and rhythmically augmented.

- *5. b.131. Accompanying figures over short motives in horns, creates a harmonic sound field here. (b.127-141) on D^b , as an anticipation of the imminent N^6 , D^b/C juxtaposition to follow.

- *6. b.137. Over d^b pedal point used as a preparation in redirecting harmonic progression - now, to C the V of F.

*7. b.142. Uses a semitone shift to move to C. May interpret these bars as N^6 of the V/C of F.

*8.b.143-144. Cadential preparation over silent pedal point.

*9. b.157. Closes on V/C of F/I to close the Ba section. The Cb section begins, interestingly enough, on D^b , an expected relationship (N^6) for which the listener has been prepared by the chord progressions in the Ba section.

This illustration provides opportunity to examine Bruckner's multiplicity of interpretation regarding the tonal centers. (cf to 4.1.5.4ii) eg: 101-112 shows a clear movement from the tonic F to Delta (dominant) C. At b.109, however, the main Ba theme begins, in the delta key center, and a 4 bar additive extension over a slightly varied rhythmic pattern carries the harmony via pivot chords (A^b and C^b to E^b). This can, of course, be seen as an interdominant (III) tonic $m\sharp$, of the delta C or as a modulating progression. When the D major tonality (b.117) is heard, the E-flat assumes a Neapolitan relationship.

However, if the original relationship of theme and harmony is considered, this d/D key center could well be interpreted as a

delta of G, the implied tonic. (The E-flat becoming thus a pivot chord, being the flattened sixth of subm \ddot{u} in G major). However, the G tonic is scarcely presented (b.120) before the harmony turns to A (b.124) implying the delta relationship to the D of b.117. Hardly has this been heard, than the harmony returns to d minor (b.125) at which point it again moves to F major (b.126) which may be seen as the m \ddot{u} (mediant/III) of d, or as a return to the initial key, now in the major form. The ambiguity continues as, at b.127, the harmony hovers between chords of G-flat and D-flat, the former standing in a Neapolitan relationship to F and the latter acting either as a delta or a temporary tonic. The ambivalence is resolved at b.131 when D-flat asserts its 'tonic' status until, in turn, it reveals its Neapolitan function (b.142) to C (b.143-144) which is now the delta (dominant) of F the initial tonic, heard again with the restatement of the main theme, b.145, Ba.

The dangers inherent in interpreting Bruckner's progressions is to 'pigeon-hole' them, without examining the full range of the harmonic directions: Bruckner frequently uses the method (just described) which may be defined as 'ambiguous anticipation' - as the true purpose of each key center is disguised until the onfollowing center is revealed.

In such a multiple choice situation one must choose the 'most correct' interpretation. That D-flat as a Neapolitan to C seems most accurate as the smaller key interrelationship is paralleled by the key progression between the B and the C section. It is quite apparent how vital a role the temporary key center plays in creating these ambiguous and flexible progressions.

CHAPTER NINE

9. A Discussion of the Substructure, Transient Centers, and their Realisation, Combination and Interaction with other Designs in the Tonal-Thematic Features of the Superstructure.

9.1. The transient key centers

Those harmonic points which have been touched on during a harmonic passage, which, although they are not truly developed tonalities, take on a sense of key due to their expanded duration. The transient center is in fact the directing force of the substructure.

Transient key centers can be diatonic or chromatic, but their function is to mask, interject, ornament, substitute or extend the musical contour for a set period. If one considers the melodic figuration Chopin used to create the chromatic lines and meandering figurations of his compositions, one can see in essence the principle lying behind the use of transient key centers. Such use resulted in the tremendous expansion of the harmonic frame (as discussed in Chapter One), and in many cases disrupts any feeling for audible tonality as the ear cannot hold on the extended time scale of the romantic composer the individual relationships of the migrating/ chromatic harmonies, to the initial center. When the tonal center is totally obscure one may speak of the dissolution of tonality. In Bruckner's music one finds the transient centers, used with such craftsmanship as to draw the harmonic line to its maximum potential, but structured in such a way as to keep the relationships to the initial center intact. One is not consciously aware of the

centrifugal pull to the tonic, the extreme driving force lying in the harmonic progressions, presented through the transient key centers. The movement to the tonic becomes a subconscious binding force, and one is caught in the tremendous continuity of the music. This harmonic technique, found not only in Bruckner, but in Chopin and of course Wagner, emerged as an independent, nineteenth century harmonic language,¹ dependent on the emphasis of certain criteria, viz:

- (i) abandoning permanent relationships between single notes, chords and key centers
- (ii) disguising tonality by the free use of certain chords and chordal relationships -
 - i. the mediant chord and relationship
 - ii. the Neapolitan chord and relationship
 - iii. the tritone relationship
 - iv. the augmented chord
 - v. the diminished chord
 - vi. the semitone shift

1. By the end of the nineteenth century, chord progressions were chosen for their specific sound colour, and not for their specific tonality. Debussy, considered it unnecessary to link the chord with either melodic or harmonic elements, but rather with tone colour and sound. (eg: Submerged Cathedral). Thus, there is the movement to the concept that, not the construction and components of notes, but the sound and its colour is important. Bruckner does not progress to these extents, but the stirrings of these ideas can be found in some parts of his symphonies, eg: S5:iv b.315ff.

9.1.1. The transient key expressed in various forms :-

1. as the sustained and thus extended chord in simple long notes, in which thematic material is explored, eg: S8:iv b.323ff (in strings and woodwinds)
- ii. as a chord repeated in dissimilar figural patterns in which harmonic and melodic material is explored simultaneously, eg: S1:iv b.242-272 and S4:i b.153ff, the music circumscribes the degrees of the chord on uneven beats of each ensuing bar, while asserting the G-B-D-F structure. See also S3:iv b.573-587 moving from diminished chordal figurations to the dominant chord, on E.
- iii. as a figurally extended chord consisting of ostinato layers of similar repeated thematic and rhythmic patterns, eg:S2:ivb.508-512, a dominant preparation to I/C b.513ff (which perpetuates the techniques of Cf. S2:iv b.348ff and b.680ff,) S5:iv b.362ff, S8:iv b.183-214.
- iv. As a figurally extended thematic chord¹ eg: S6:i b.101ff.

1. Consider all the layers, not only string presentation.

Ex.96. S6:i b.101



Example 96 presents a transient center on C, the minor submediant of E, sequentially repeated to form a transient center on D, the mediant to B, the center emerging from b.108. The movement from D to B is achieved through the 'rhythmic crescendo' viz. the intensification of tempo by the fragmentation of the duration of the key center, in this case moving from a two bar rhythmic area to a half bar utterance. Thus creating the difference between the transient key center and simple chord forms. eg -

Ex.97. b.105



B then becomes the emergent key center by its comparative extension, over a rhythmic field of four bars, now also taking on a dominant

function, referring back to the opening bars (101), and creating the overall tonality of E by asserting this function. In which case the transient centers would be C, D and B, establishing a transient region on E

- v. a figurally extended transient region (Cf Ex.97) S6:i b.101-110
- vi. as a figurally extended dominant region, eg: S5:i b.31-50 which presents thematic material and transformations on V/A resolving to its tonic D b.53, which is presented as a key-note of dual function, ie, the tonic to V/A or the third to B-flat major/minor tonality to follow.
- vii. as a transient area of more than one chord form, lacking the thematic assertions of the temporary or established key, but yet bound by a single or migrating assertive center, eg: S7:ivb.267-270, consist of chord forms on E, C-sharp, A, b diminished seven, all of which through phrase assertion contribute to the E key center. In S9:i b.381ff. initial assertions describe a transient region on B moving to f minor (tritonous relation) which is sustained figurally and rhythmically till b.397, while changing chord form, position, structure. Key note assertions emphasize individual notes of the key center, eg: tonic F, b.393ff in the upper winds.
- viii. as kinetic regions, which are generated by using chord forms of indeterminate tonality, such as diminished or augmented

chords spread over a larger rhythmic area. A simple example is in S4:i b.145 in which the diminished seven chord on f circumscribes a transient kinetic region, ending b.152: as opposed to the asserted kinetic chord center, S8:iv b.535-539 on g-sharp diminished 7.

Examples i-viii illustrate the forms of the transient center, already its multiplicity of shape shows its potential, implying a multiplicity of application. The transient key center may function, therefore,

- (a) as a figurally extended chord form, presenting the typical chordal progressions used by the romantics
- (b) as a thematically extended chord form
- (c) as an extended region (a less common procedure) where, with other chords, it presents the typical tonal relationships found in Bruckner's symphonies.

Within the transient field of either chord form or region, the key center is asserted in various ways:-

- (i) by the assertive key-note/tone
- (ii) by the assertive key-phrase

The transient key center may be expressed:-

thematically -

- (i) in sequence
- (ii) in imitation
- (iii) in ostinato thematic patterns

and rhythmically by -

- (i) augmentation of its key center through sustaining, repetition or elongation
- (ii) diminution of its key center by shortening or omitting features of its initial presentation.

9.2. Transient sound centers in the superstructure

9.2.1. The sound center: presenting the assertive key note, phrase, chord, and region.

The principle expressed by the key center is to create, for a certain duration, a sound center; established by the emergence from the musical texture of an emphatic and dominating sound.¹

- i. This sound may consist of an isolated note, called the key note, or of two notes, called double key-notes.²
- ii. The sound may emerge from that peculiar to a group of notes, such as an ostinato phrase, or motive or fragment, and is then called the assertive phrase.

The emergence of the sound center may be caused and confirmed by reiteration, or suspension, duration or prolongation and/or rhythmic emphasis, isolation or other peculiarities. A sound center is

1. A technique which ultimately altered relationships between single notes, chords and keys.

2. More than two notes would result in a chord form. A chord may be defined as any "simultaneous combination of not less than three notes. Whether the notes form a concord or discord is irrelevant: the term chord is not related to these."
Jacob, Arthur. A New Dictionary of Music.
Penguin. Harmondsworth. 1967.

further characterised by the fact that its particular sound character permeates the surrounding texture and dominates the tonal actions continuing around it, eg: the assertive major third and perfect fifth center of the horns in S6:iv 407ff, (the first really intense presentation of the major key A throughout the movement), set up, from the harmony structure, A-C-sharp-E, a dual sound center through its intense reiteration on an aural C-sharp -A center. The key note may assert any center in relation to the harmonic structure from which it emerges, viz. the root, third, fifth and other notes of the vertical harmonic structure. eg: S6:i b.lff asserts C-sharp, the third of A major (in the strings), changing to the assertion of B, the tonic degree of the vertical chord b.12 and 13. The key note becomes a migrant assertion while following the thematic preambulations, and settles on E, a tonic assertion of the dominant chord. This leads the harmony back to the counterstatement in A, the key note now asserting the tonic of the vertical chord, not the third, as it did in the opening, thus making the tonal pattern more explicit.

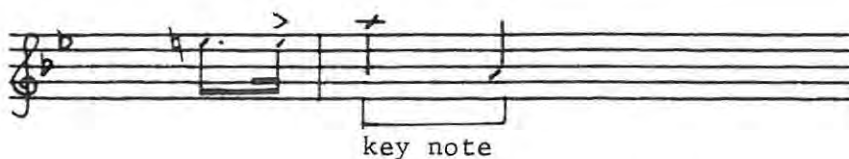
One has already encountered this progress, in Bruckner's music, from ambiguity to clarity. In the structure of his thematic-tonal relationships (S8:i) one sees the same principle applied, in miniature as it were, with the use of the key note. In this way the key note asserts the transient quality of the aural tonality, while featuring, or not featuring, the key center of the substructure. Thus, the

aural tonality can be disassociated from the text and becomes a sound center over and above the substructure as it asserts on one level its own transient "tonality". One can speak, therefore, of transient sound centers of, in S6:i (opening bars) C-sharp, B, F, and E contained in this case by the established key center of A major. If the key note is acting in isolation, as in the first two bars of S6:i, the dominating sound of the sound center causes the listener to associate it with a tonal function, and the sound center may, in this case, be said to carry its own latent tonality. This latent tonality may be brought to the surface, or contradicted by an unexpected annexation (as in S5:i b.53-55, in which the tonic key note D emerges as, in actual fact, the third of B-flat major). In this way the sound center is not independent, ultimately, of other tonal functions as it either expresses its own harmonic vibrations or it doubles or contradicts the tonal structures from which it has emerged and is so dependent on and related to its parent tonality.

Further examples of the use of the key note may be found in all first and final movements of Bruckner's symphonies as he uses this technique extensively. In S5:iv b.153, the emergent key note on A reinforces the tonic note of the chord of a minor, followed by the key notes B^b, C and E[♯]

Ex.98.

(a)



reiterated, in all wind parts over, in the strings -

(b)



In S5:i b.297 the strings assert the third and fifth as a sustained pedal point around which harmonic material fluctuates, creating the A major transient region leading to the block structure which closes Part II of the development. The A major key center is shifted sequentially to B-flat major, with a new arrangement of material and the key note assertions are discontinued.

Also in S5:i b.347, in the development Part IV, a transient region is formed on b-flat minor, the vertical structure being a six four chord on the tonic. Here F, the fifth of the chord is the strongly asserted key note (in violas, tympani, horns and basses) emphasizing the dominant function of the key center, and creating an aural tonality on the dominant key center which resolves to the tonic at b.362 even as these assertions change the chord structure to a true dominant on F before the final resolution.

These examples from the fifth and sixth symphonies demonstrate how the assertive key note establishes its own sound center within the structures from which it emerges. It is used to quickly and efficiently describe the tonal center of the passage, highlighting the particular juxtaposition of key centers and emphasizing their contrasted, similar or fluctuating character. The quality of the key center is thus enhanced by this pointilistic technique expressed within it. The transient centers especially, by their nature, benefit from the application of the key note technique, which is, however, expressed in all the key centers, temporary and established.

Further uses of key notes to emphasize the transient qualities of the harmonic direction, are

- (i) as an assertive pivot note, chord or region
- (ii) as a kinetic note, chord or region

(i) A typical example of the assertive pivot note can be seen in S8:iv b.345ff. Here emerging from the key center on G, the clarinets perpetuate, in isolation, the key note on G, this being incorporated into the texture as the third of E-flat and as the opening of the next thematic phrase, forming Part III of the development. The same procedure is repeated in subsequent sequential shifts and settles briefly (two bars) on C major. The key note is delineated by its distinguishing double triplet rhythm

($\underbrace{\downarrow \downarrow \downarrow}_{3} \underbrace{\downarrow \downarrow \downarrow}_{3}$).

In S9:i b.96, the drums and viola present the key tone of D, which acts as a confirmatory tonic to the preceding area of d minor and to the German sixth chord immediately preceding it on G-sharp, which suggests a key center on E-flat, which, however, is omitted as Division II opens in A, the new tonic, (but the dominant of the preceding d minor key center). This is an example of a single tone, single bar-pivot, which, by asserting a particular function, directs the harmonic progression.

ii. the assertive pivot chord

Less common but still frequently employed, is the use of the pivot chord: an example of which is found in S9:i b.215-218 in which, in the fragmentation process to the transition section of the first movement, Bruckner uses the chord of C major, followed by thematic sequence on the chord of b-flat minor, to form the pivotal minor subdominant to F major, opening b.219.

The most common use of the pivotal chord is the chord form with indeterminate tonality such as the diminished seventh chord. The structure makes it ideal to move to a new center through its multiple interpretation, eg: S9:i b.366-367, from c-sharp diminished seven to c. Other uses include the key phrase which forms a link between the statements of the Ab theme, in the third division of the first movement S9:i b.333ff. eg: b.338 the horizontal representation of the assertive a minor phrase directs the statement to the E-flat

key center, the b-flat minor phrase b.344 to g-flat, and to g-minor b.350.

Still in S9:i, further examples of the pivot chord may be found in Section II b.429, in which, moving from the key center of IV/G, Bruckner progresses to the major sixth chord of B, which pivots from this to g minor at b.430, to a transient center in C major, which forms the Ba continuation of Section II.

iii. the assertive pivot region

This is, of the three possibilities, the least commonly used, but may be found in S7:iv b.117ff in which, during the fragmentary processes which close the C section, the C major is presented, emerging from transient centers of the pre-section at b.117, and together with chords on A-flat, B-flat, and D-flat, inflections and b diminished, settles on the fragmentary center of the Aa motive, emerging as a temporary center from the short sound field in the prelogue before turning the rest of the section to the third tone of the A-flat major center, b.147 develops in this way Bruckner extends the concepts first exemplified in the prelogue to larger areas, yet fulfilling the same function. Another example of this technique can be found in S4:iv b.50ff in which, after the main statement of the Aa tonic theme in E-flat major, a horizontal chord on G-flat directs the progression to the D-flat minor/Dmajor area in a type of accumulative vertical

thematically extended structure. This moves from its root, to a six four position with added notes and to finally a seventh chord b.54, before confirming its D major structure at b.55; forming a transient region on D/d key center. This is subsequently disguised by superimposed chords and merges into a German sixth chord on F-sharp (of c minor) before settling on D b.67-70, to move via e-flat minor to another transient center to E-flat b.79 to close this section in this key, asserted by both chord and key note centers, b.85ff.

9.2.2. The sound center presenting the kinetic
 notes, phrase and region

1.

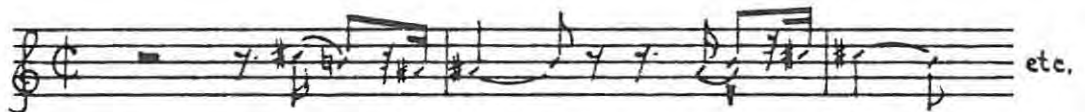
When a sound center is created which does not display a distinctive tonality it may be defined as a kinetic center. This is possible in various ways: the key note may be embellished by a temporary chromatic inflection, or the key note may move chromatically in an ascending or descending path asserting, by its rhythmic duration, a transient sound center, eg: S4:i b.518ff, the kinetic note, asserted rhythmically isolated by quaver rests, rises in semitones in the bass, here creating the transient chord block as part of the fragmentation of the harmonic line before the resolution to the Coda and the E major key center b.525ff. The kinetic note is more frequently combined with others to form a phrase structure, which may be made solely from notes;

- (i) derived from various transient kinetic chords
- (ii) which constitute a chord of indeterminate tonality and/or be built up from the notes of a chord which may form the basic skeleton but using notes other than those which constitute the initial chord.

In the first example, the phrase is not disassociated from the harmonic structure but is, rather, built on the note of the chords which belong to the harmonic progression. So, the underlying harmonic progressions are subdued as the phrase derived from them subordinates these progressions to its own tonal force.¹

An example of the kinetic use of the assertive phrase is found in S6:iv b.333ff in which the phrase -

Ex.99.



leads the harmony through chordal key centers, from B major through A, f-sharp minor, D major, b minor, G major, e minor, F, G major, a minor, B-flat major, G-flat major and finally e-flat minor, b.356, thus creating a kinetic region before settling on the dominant chord C7,

1. An example of which was seen in the assertive vein in S4:i b.71ff.

via B major in an accumulative vertical structure V/C₇₋₁₁ resolving to F b.371 in the coda. See also S8:i b.109-116 moving through e^b, E^b7, f^{min}₅⁶, F₇major, $\frac{4}{3}$ inversion on e^b_{7min}, E^b_{7maj}, f_{7min}, F_{7maj} settling on B^b/V to E^b b.125.

2.

In the second example, a kinetic phrase, derived from notes which constitute a chord of indeterminate tonality, can be found in S8:i b.205ff. The G seventh chord has superimposed on it kinetic phrases of notes foreign to its tonal center, such as an a-flat inflection, and a diminished triad. It subsequently moves in an ascending chromatic bass line to form volatile chords which settle on F, b.217ff, in an unresolved dominant preparation to the third part of the development. Possibly, the best example of this technique is found in the scherzo of the ninth symphony in which the initial subject structure lends itself to the distorting of the tonal center of the phrase, eg: b.22-34.

Another example of this structure occurs in S1:i b.85ff in which the diminished seven chord on d is extended by its phrase assertion to b.93 where it resolves into a six four chord on E-flat, the key center of Section C of the exposition. Here the kinetic phrase is used to suspend the tonic E-flat for a certain duration and to move the harmony from the preceding Cminor/major center, to the new key center of the third section. The chord uses notes in addition

to the d-f-a^b-b tones of its original structure.

A final example is S4:i in which the kinetic region on the diminished chord b.145 to 150 creates the ambivalent situation in which the resolution to either D-flat or B-flat, the two assertive keys of this section, is possible. The pivot tone on F, described earlier, attempts to direct the tonal area to F the dominant of B-flat but a kinetic region, which uses the seventh chord on G (the raised fourth of D-flat) as the skeleton, incorporates other notes to obscure the tonal center and directs the harmony to D-flat b.165, the asserted chord is moved to E, the raised fourth of B-flat and the harmony settles on F/ the dominant of B-flat, the emergent center and key center of the ensuing prelude.

Bruckner in his use of sound centers, generated by assertive and kinetic key notes, phrases and chords, creates transient centers contained in transient chords, keys, regions, and so forms the flexible romantic-chromatic quality of his compositional technique. By abandoning conventional commitments and permanent relationships between notes and chords and key centers he expands the sense of key rhythmically, thematically and tonally to create new tonal relationships pertinent to his idiosyncratic harmonic language.

9.3. The interaction between the sub- and superstructures

9.3.1. Expressed in micro and macro tonal relationships

Initially the tonal relationships of the nineteenth century were expressed through the more predominant use of the mediant, the Neapolitan, the diminished, the augmented chords, as well as by the use of these and the semitone and tritone as the basis of structural tonal relationship between sections of their compositions. The use of these progressions and relationships brought about the disguising of tonality, and obscured the tonal functions of one chord, one key area to another, so weakening the forward drive to the tonic key which characterised pre-romantic compositions. The freer use of chordal relationships, obviously contributed to the chromatic format of many of the composition of this time. In the work of Wagner, and in *Tristan und Isolde* in particular, the music obeys laws, follows an imposed order, even though this is subordinated to the expression of emotions. The emotions are dictated by the sense of the words which do not obey musical laws but only aim at strengthening the tensions created by the chord progressions and dissonant chord, nearly all of which are ordered in some way to the formation of the 'cadence'. This is a sequence of chords which stands in a certain relationship of tension to a fulcrum, or tonic. How the cadence is presented, distorted, elongated, disguised, extended is up to the individual composer. Every deviation from the audible conventional understanding of the cadence enlarged the inherent tension

of the music. The 'Tristan' harmony appears in the micro form (as in the opening Tristan chord structure) and in the macro form, enlarged to the greatest extent, in the tonal relations of the entire structure. The same parallel is found in Bruckner, and in the works of most of the composers of this era, in which the micro form of the cadence is in actual fact the guiding principle of the tonal relationships which dominate the entire composition, in Bruckner's symphonies, in both internal forms of the movements and in the relationships between the individual movements themselves. Consequently it is necessary to examine on the micro level, the development and origins of the chordal relationships of the contemporary idiom of the nineteenth century, noticing how these are applied by Bruckner in his own works, first and final movements, and then to trace similar parallels in the overall relationships of the sections and divisions of the symphony itself.

The cadence began to take shape in the dominant tonic progressions of the sixteenth century. Around the time of Bach the formula was enlarged functionally and chromaticized by the incorporation of auxillary dominants and other chromatic notes. This enlarged the inherent tension of the harmonic direction. This formula remained the constant to the end of the nineteenth century and the change over to a new harmonic system of equality, as put forward by Schoenberg in his serialisation and twelve tone technique. As more and more chords were built into the cadence so did the bounds of tonality widen, and in many cases weaken. The following chord progressions and tonal

relationships especially, were used to intensify these principles :-

- (1) The mediant chord and relationship
- (2) The Neapolitan chord and relationship
- (3) The tritone chord and relationship
- (4) The augmented chord
- (5) The diminished chord
- (6) The semitone progression relationship

9.3.1.1.i. The mediant relationships

There are four forms of the median relationship. These are :-

- (i) the diatonic median relationship between major and minor chords
- (ii) the chromatic mediant relationships between two major chords
- (iii) the chromatic mediant relationship between two minor chords
- (iv) the chromatic mediant relationship between major and minor chords.

(i) The diatonic mediant chords

Are an integral part of the diatonic idiom where they frequently appear in cadential progressions. The most common movement of this type is from the minor to relative major, eg: S2:i b.20-26 in f minor to b.27-28 in A^b major, still within the diatonic framework.

In similar vein, from S8:iv b.167-169 d minor to F major b.170 - 174

Ex.100. S8:iv

d minor: transient key center F major: transient key center

A typical run of mediant progressions can be seen in S9:i in which both minor-major and major-major principles are combined to give a chord progression (reduced format) -

Ex.101.

207 209 210 211 215

b minor G major g minor G major e minor C major

 ┌──────────┐ ┌──┐ ┌──┐

 M3 m3 M3

b.207ff which forms the closing section of C subject group before the prelude to the development, (closing on pivot chord iv/b^b).

The diatonic mediant structure laid a very firm foundation for third relationships and the next stage in the exploitation of the mediant possibilities was the chromatic not diatonic, third progression.

9.3.1.1.ii. The chromatic mediant relationship between
two major chords

This chordal effect is used to best advantage when two harmonies are directly juxtaposed. These chords, moving from major to major are connected by only one common tone, and no longer progress within the initial tonality. Consequently, modulation, in the traditional sense takes place.

However, in Bruckner, one does not necessarily consider these chromatically altered chords as modulations to new tonal areas, hence the definition, at the beginning of the thesis, of these progressions as turns to transient centers within the overall tonality as defined by Keller. Examples of such chromatic colouristic treatment can be found, among many others, in S2:i b.496-499, E^b - juxtaposed with G-flat b.500-503 in the coda of the movement in a straightforward chordal contrast. S8:i b.321-327 illustrates the use of a series of major sounding mediants eg: D- F- A-flat major, and S4:i presents the chord juxtaposition of F and D^b major, b.69 ff and b.74.

A further example of the major-major mediant relationship in Bruckner is found in S8:i b.63/4 - 65/6, which presents the G-flat major - A major juxtaposition, presenting in a later presentation, the same format, now enharmonically written as F-sharp - A major b.81ff.

A small illustration showing that Bruckner was not concerned with the theoretical but rather the aural qualities of his relationships.

Alternatively, the mediant relationship of two major key centers may be used for tonal polarisation beyond the parameters of mere colouristic effect, as in the interesting example appearing in S5:i Introduction, in which the tonality B^b of b.1-14 is juxtaposed with G^b major of b.15-18. This juxtapositioning of these two key centers in the introduction forms part of the structural tonal concept of the symphony and is also present in the micro structures of individual sections (cf. b.199ff). Bruckner uses the mediant relationship in the juxtaposition of two major tonalities of sections and/or divisions in S4:i where the first section, A, ends on V/of B^b (b.74) and Section B opens in D^b major.

Similarly in S6:iv, the A section ends on E major, and Section B opens in C major two juxtaposed, established key centers. In S8:iv, Section A ends on C major and Section B begins on A^b major. In S3:iv Section A ends in D and Section B begins in F sharp major with the famous polka-chorale themes.

9.3.1.1.iii. The chromatic mediant relationship between
two minor chords

One of the few occasions Bruckner makes use of this device can be seen in the following example from S5:i b.55ff in which the chord

structures and the relationship between the opening of B cont b.71 present this relationship B^b/b^b of the opening to d-flat minor.

Ex.102.

d^b minor/d[#] minor through d chord

b.55 b.71

I/i V

Here the abstract idea of the major-minor conflict, and the ensuing struggle of the major tonality to assert itself over the two minor tonalities forms the basic structural element of the symphony, an element built into the substructure as well as the micro structures, eg: b.83-85.

Ex.103.

M/C m/c M/A^b m/a^b M/E M/C

m/c m/a^b

b. 428

Ba Cont.

(C Major)

B Major

g minor

B Major

g minor

The 'langsamer' character of Section II, S9:i enables each chord to assert a substantial, though transient, sense of key, and this, enforced by the thematic character of the horizontal elongation of each chord, sets up transient key centers in each of these successive bars, creating beautifully sustained contrasts of tonality.

Further examples can be found in S8:iv b.3-5 from D-major to b.6ff in b-flat minor, (to G-flat major b.9-10 in a short run); this diverse relationship again presenting, in the micro form, the structural relationships of the entire work. Later in the same movement (b.162-163) the chorale's first phrase (Cb) closes on C-sharp major and continues in a secondary phrase in a minor. In subsequent transformation, through sequences and so on, the same relationship is retained and so becomes an integral feature of the subject.

Ex.105. S8:iv b.162ff

end of Cb Cb Cont.

C# a F d A

9.3.1.2. The Neapolitan chord

Since the inception of the monodic style which formed the basis of modern diatonicism the Neapolitan chord has been part of the harmonic language of music. It is a major chord built on the lowered second degree of the scale and, as it is found in first inversion, (originally), it is known as a sixth chord. The derivation of the term Neapolitan is uncertain. It probably derived from Naples where the works of Alessandro and Domenico Scarlatti, with their frequent use of this chord, were so popular. The Neapolitan was an expressive and dramatic chord because of its peculiar construction involving the 'sigh motive' and the tritone, (formed by its resolution).

An excellent example of the complex and ambiguous use of this progression occurs in the famous chorale melody of S5:iv, eg: b.211ff.

Ex.106.



This is harmonised¹ in the ensuing development section, and the relationship explored and exploited in vertical forms and in lateral relationships between the various phrases, themes and sections of

1. In the prelogue the outer mediant keys are clearly stated and harmonise and the Neapolitan, too. Hence the automatic substitution by the listener of the latent harmony of the single line, eg: S5:iv b.175 C^b - B^b, b.181 D^b - F^b

the movement. In Part I of the development, it forms the integral part of the double fugue subject cf b.211ff/270 giving many examples in different key centers of this use.

The fifth symphony has often been called the symphony of the Neapolitan. Here Bruckner uses this relationship (first heard as part of the main subject of the first movement in b.56), as the fundamental structural principle of the symphony. The Neapolitan, its internal, rather than overall structure, can be found in a cadential format in the finale, development section, b. 223 in G-flat resolving to F b.226.

Perhaps the most dramatic appearance of the Neapolitan in this symphony is in the coda of the finale at the start of the double fugue, b.564, where the B-flat, C-flat and the E-F confrontation lead the tonal progression to the chorale and the ultimate resolution of the symphony and the Neapolitan relationship at b.614.

Further examples of the chordal use of the Neapolitan are found throughout the works of Bruckner, eg: S3:iv the opening bars begin on B^b, the V of E^b which acts as the Neapolitan to d.

Ex.107. S3:iv b.lff

8^{ve}

V

I/b II vii°

i

Bruckner uses this relationship for extensions within the cadential framework, interpolations in the substructural pattern, to suspend the tonal drive or for confirmation of an initially suspended key center. However, he makes effective use of the tritonous quality built into the cadential progression Neapolitan chord, for structural effect.¹

1. For further readings on the Neapolitan see The Neapolitan in the Romantic Period, Music Review Vol.30, 1969 by Wilfred Levick Simpson.

9.3.1.3. Tritone relationships

Mi contra fa est diabolus in musica

In its purest and simplest form the tritone appears in many alpine folk songs based on alternating dominant seventh and tonic chords where it features as part of the melody.

It is exactly in this form that the tritone permeates a number of Bruckner's melodies, eg: S3:iv b.65 violins.

Ex.108. (a) Alpine Melody



Ex.109. (b) Bruckner



Similar melodic use features in S5:iv and S9:i. However in the nineteenth century the tritone, incorporated into harmonic progressions,¹ became part of the tonal design.

1. With the introduction of the dominant's dominant into the cadential structure, from as early a period as Bach's music, this chord, preceding in a first inversion the dominant seventh chord presented the raised fourth as part of the bass progression.

The systematic opening up of the harmonic potential of the tritone relation, the last of the chromatic relationships to be used before the ultimate dissolution of tonality is found throughout Bruckner's compositions featuring in its melodic, harmonic and structural format. This usage is possibly his greatest harmonic innovation. It is seen in essence in Bruckner's works in the splitting of the tone¹ (often the root of the chord), giving rise to a dominant seventh chord in third inversion -

Ex.110.

The diagram shows a musical staff with four chords. The first chord is labeled 'I'. The second chord is labeled 'Split Root' and has a flat symbol above it. An equals sign follows. The third chord is labeled '4 2 V7' and has a sharp symbol above it. The fourth chord is labeled '#IV' and has a sharp symbol above it. A line connects the first and second chords, and another line connects the second and third chords, illustrating the transformation of the root.

eg: in Bruckner -

Ex.111. S5:iv b.11-12

The diagram shows a musical staff with a sequence of notes. A bracket underlines a specific interval, with the text 'i = split' below it. To the right, the chord is identified as $D^b = C^\# = \frac{4}{2} V_7/E^b$.

Tonic omitted till b.23, so initially the tritonous relationship is implied, then stated b.23 in A^b which is again split presenting a second implied progression.

1. The term split root was coined by Alfred Orel in his book Anton Bruckner, Ed. Hartleben, Vienna 1925.

Ex.112. S9:i b.19-26

i $\left\{ \begin{array}{l} (D^b) \\ E^b \end{array} \right.$ - in harmonic accompaniment
 V_7
 Resolution omitted

i $\left\{ \begin{array}{l} (D^b) \\ E^b \end{array} \right.$ - in harmonic accompaniment
 i Resolves irregularly in a mediant relationship to C^b

$V_{E^b_7}$ I V A^b 1.

The last three bars clearly presenting the tritonus relation with the opening in d minor.

Other formats of the tritonus progression can be seen in S2:ix b.197, on the tonic C to the opening of the prelude in G-flat/V of C-flat, which directs the progression to E-flat b.220. Also in the transient key relationships of S5:i Introduction, in which the theme at b.23 is presented in B-flat, followed by its continuation b.24 in E.

An example of the tritone's key relationship on a smaller scale can be found in S3:iv(b.125) in which the emergent key centers are b.65 Ba/F-sharp: b.87 Ba cont/c minor: resolving to Ba restated in F. These progressions are 'smoothed' by transient chords redirecting the harmony.

1. Note how the next bar was the root G^{\sharp}/A^b as an enharmonic pivot tone to form the third degree of E major, the chord of the ensuing two bars.

Bruckner's use of the structural potential of the tritone (and Neapolitan format) is well represented in his eighth symphony, eg:

In S8:i b.1-4 the movement opens on a pedal point of F, with G-flat key tone inflections in the bass, suggesting a Neapolitan relationship to F, and acting on a second level in a tritonus progression to c the eventual key center of the period. In the Finale of the movement, the suggestions of the opening movement are fulfilled as Bruckner presents here as an opening the key note on F-sharp, standing quite obviously as the raised fourth to c minor the overall tonality, but not so obviously as the minor subdominant to D-flat, which in turn acts as the Neapolitan to C which is, at this stage, omitted. Thus setting the structural balance and arrangement, as the entire movement explores the tensions of this dual tonal field (tritone and Neapolitan), finally resolved in an extended diatonic IV/F, V/G, I/C progression in the coda.

9.3.1.4. The augmented chord

Initially the augmented chord was treated in harmony as 'ma bete noire', and so was applied with great discretion. It was left to the romantic composer to free this chord from the harmonic position in which it had been confined.

Bruckner uses the augmented chord mainly for colourisation to heighten the harmonic tension at a particular point. The most obvious example

of this, found in S9:ii in b.89ff, the unison passage, and later in b.202 to 218. It may be seen on a smaller scale in S7:i in the micro-structure in which the augmented chord is used at the peak of the phrase for its colouristic potential and to redirect the harmony to a new key center at b.121 and first half of 122 in which the augmented harmony combined with the dominant seventh as a passing harmony -

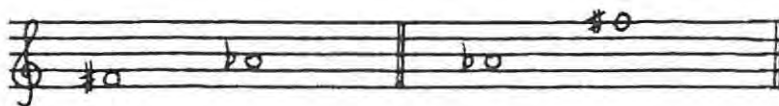
Ex.113.

The musical score for Ex.113 consists of three staves: Horns (top), Trombones (middle), and a lower staff (likely Bass Trombone or Eb Trombone). The key signature is three sharps (F#, C#, G#) and the time signature is common time (C). The Horns part features a melodic line with a slur over the first two measures, marked with a fermata. The Trombones part provides harmonic support with chords. Below the staves, a bracket indicates a progression from a dominant seventh chord, $v_7 \div 95 (d^{\sharp})$, to a minor chord, i/b minor b.123.

9.3.1.4.i. The German sixth in Bruckner

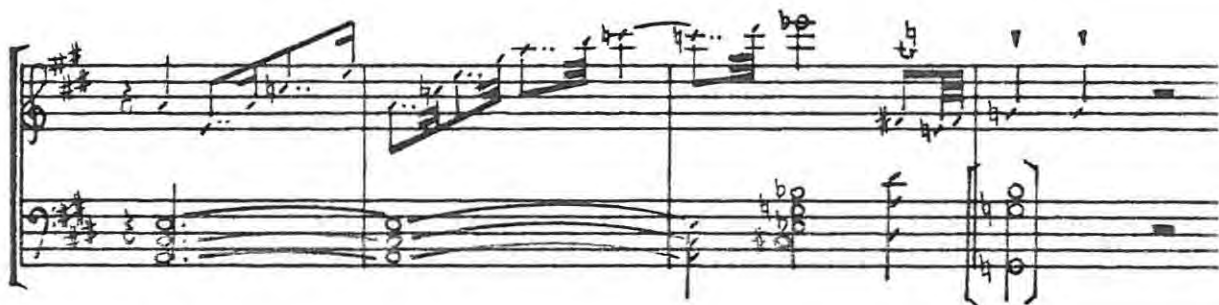
The German sixth chord is characterised by the interval of a diminished third, found in inversion so that the interval appears as an augmented sixth -

Ex.114.



These triad are conventionally built on the raised fourth scale step, and as they are neither major or minor, are extremely suited to the colouristic or ambiguous role they play in respectively embellishing or directing the harmonic patterns found in Bruckner's music.

Ex.115. S7:iv b.93-96 Implied harmony: a minor: vertical presentation



Here the German sixth chord is used at the peak of the phrase (as found with the augmented chord) for its embellishing colouristic potential and to direct the progression to G major.

Unusual usage of the chord is found in its appearance on steps other than the raised fourth. It is also frequently found in Bruckner's

music written in its dominant seventh form -

Ex.116. S7:iv b.187ff

C₇ = 5 of E major — #iv 5 a# — E

Examples of the various uses Bruckner made of the chordal use of the German sixth can be seen in all his works, all the movements. These include S7:i in which the German sixth of B major on e-sharp is presented after a kinetic section of migrating harmony (b.139 e-flat seven, f minor, G-flat major, b-flat diminished seven) to confirm Bmajor b.145 in a cadential type progression subsequently closing the section on F-sharp/V to /IB b.149ff of the Prelogue.

Similar use may be seen in S9:i b.301 in which a transient region is created on b.291 on the A-flat seven chord, till b.301, which in the ensuing key center of C is retrospectively seen as the German sixth of C, in its enharmonic form.

S7:i b.47 presents a simple chordal structure in which the German sixth of E re-orientates the progressions after an indeterminate fragmentary period preparing for the dominant entry on B major-minor of the second section, a frequent means of transition from one key

center to another¹.

Ex.117. S7:i b.47ff

5
#IV of E/I

Ba
B major b minor
V/I i

9.3.1.5. The diminished chord

Bruckner too uses this device on both a simple and complex level. In its simplest form it can be seen in S4:i b.145 in which it suspends for a period, the D-flat key center, which is subsequently asserted by the figurations (of the raised fourth G) b.154. In a slightly more extended form in S8:iv, the g-sharp diminished seven chord of b.435

1. The most effective use of this harmony appears in S7:ii b.176-177, an example which falls outside the parameters of this thesis.

delays the resolution to A-flat the key center of Section B of the recapitulation.

At times the chord is used to create larger tonal areas, where its 'non-resolution' helps to disguise and weaken the harmonic pull to a definitive tonic, establishing a high anticipation on the part of the listener regarding the ultimate outcome of the kinetic preambulations, eg: S3:iv b.197-205. Also the fifth symphony, first movement in which the development section, Part III, the diminished chord emerges, by virtue of its rhythmic assertion as a kinetic region in its own right, passing through b and c-sharp before the key settles on g minor.

Bruckner also uses a series of diminished chords, in a fast moving succession to temporarily disorientate the tonal center before the introduction of the new key center of a particular point, eg: S8:iv b.383 moves through diminished chords from D-flat major to e-diminished, a-diminished, b-diminished to end the third part of the development before opening in C major for the epilogue b.387. There are innumerable examples of this particular use of the diminished chord, and its use for quick movement within the chordal progression to a new key center, and for its colouristic potential in effective positioning as the peak of the phrase (eg: S9:i b.366 on C-sharp) in all movements of Bruckner's symphonies.

9.3.1.6. The semitone shift

The most exciting parts of the symphony had come to be ... where the music surged on in ever changing modulations ... these ... shapes derived their great expressive power from their departure and especially their arrivals at clear keys: but these were presented by increasingly fragmentary arrangements and momentary harmonic functions ... until finally expression itself seemed synonymous with modulation or key¹

One of the most subtle and fragmentary means of changing tonality was by shifting the key center a semitone above or below the original 'tonic'. The preference for and frequent use of the semitone shift was perpetuated by the romantics in their development techniques as here, in their need to contrast by the sequential juxtaposition of blocks of subject material, the parallelism often took the form of simply a tonal shift above or below the initial key center. This technique results in an even greater concentration of chromatic harmonies because of the smaller more intense interval. It is a mark of Bruckner's compositional genius that in his use of these semitone (and tone) shifts he was always apparently aware of the tonal relationships involved in such juxtapositioning, and these do not appear, in the overall assessment of the tonal balance of the work, to have been indiscriminately applied.

Bruckner uses the semitone shift in the chordal succession, between transient key centers and as a structural feature of the work. An example of a transient key semitone shift is found in S3:i b.393 in which a-flat minor interrupts the final stages of Part III of the

Crocker, Richard A History of Musical Style
McGraw-Hill Inc. New York 1966. p.483.

development and the continuation of the i/Aa theme is given in A major b.396ff. Structural use of this device is found in S3:i b.101 in which the first statement of Ba is given in F major, followed after its continuation and fragmentation by a restatement in E major, b.139ff. In S5:i b.117 the restatement of the Ba theme is presented in V/D/d, and its continuation b.127 in D-flat major - the whole section being balanced within two f-minor key centers. The Neapolitan relationship often presents the semitone shift both on a chordal and a structural level, eg: S5:iv development section (chordal) and S8:iA as already demonstrated. Many other examples of this technique are found, in all sections of Bruckner's first and final movements. In S7:iv b.211 which ends the development section on a B major chord (after a diminished chord build-up) the chordal-key contrast is used as the ensuing Section B immediately follows on a C major chord, thematically presented, which soon moves out of the key center. Similarly, in S8:iv b.29ff Bruckner presents the Ab theme in A major, the A'c' theme in b-flat minor, and the Ab¹ theme, b.47 in B major acting as the dominant to E. Three ascending semitone shifts forming the structural pattern of this section. The B section of the movement is contrasted on the overall scale with the C section, the former using C major as the emergent center and shifting to B major for Section C. The latter is turned into a dominant function to E major which subsequently acts in a semitone relationship to the prelogue in F.

An excellent example of the semitone shift within a section is in S4:iv b.295, Part IV of the development, which opens on C major, moves to D-flat b.299 and then to D b.303, then E-flat b.305 to E b.308. The first two key centers are connected by chords and the harmonic acceleration intensifies, as these are omitted for direct semitone shifts.

Considering these and the techniques described in previous chapters, Bruckner embellishes the cadence, extends cadential formulae, intensifies relationships between harmonies, combines and exploits tonalities, and creates the formulae by which the micro form was expanded to the macro concepts governing the tonal framework of his compositions. It is through this idiom that Bruckner presents the tonalities, transient, temporary and established key centers, which form the basic compositional elements of his style.

His works are based on the hypertense surging chromatic elements which are examples of some of the most moving, most perfect forms of expression, creating that 'spontaneous overflow of powerful feeling' so idiosyncratic to the era.¹

1. Wordsworth, William. Preface to Lyrical Ballads. O.U.P. London. 1964. p.165.

CHAPTER TEN

10. Tonal relations within the first and final movements
of symphonies one to nine

The following discussions are based on Keller's theory showing the tonal balance within each movement.¹ The term region will be used to define all keys which are derived through and related to the tonic, delta or subdelta, ie:-

- (i) Keys of $m\bar{1}$ (μ) and $subm\bar{1}$ (μ_{-1}) belong to the tonic region.
- (ii) Keys of delta (δ) $deltam\bar{1}$ ($\delta\mu$) and $deltasubm\bar{1}$ ($\delta\mu_{-1}$) belong to the first delta region and both delta two, (δ_2) delta two submu" ($\delta_2\mu_{-1}$) belong to the second delta region
- (iii) Keys of subdelta one $m\bar{1}$, ($\delta_{-1}\mu$) and subdelta $subm\bar{1}$ ($\delta_{-1}\mu_{-1}$) belong to the first subdelta region and both subdelta two, and subdelta two $subm\bar{1}$ ($\delta_{-2}\mu_{-1}$) to the second subdelta region.

1. The aim of the ensuing diagrams is to present to the reader an immediate VISUAL view of the total tonal direction traced by the emergent key centers of the first and final movements. Bar numbers have therefore, for the sake of visual clarity, been omitted but may be found in the explanatory text or by consulting the relevant table at the end of this thesis. In these tables one may correlate theme, tonality and form with the specific bar numbers of each movement discussed.

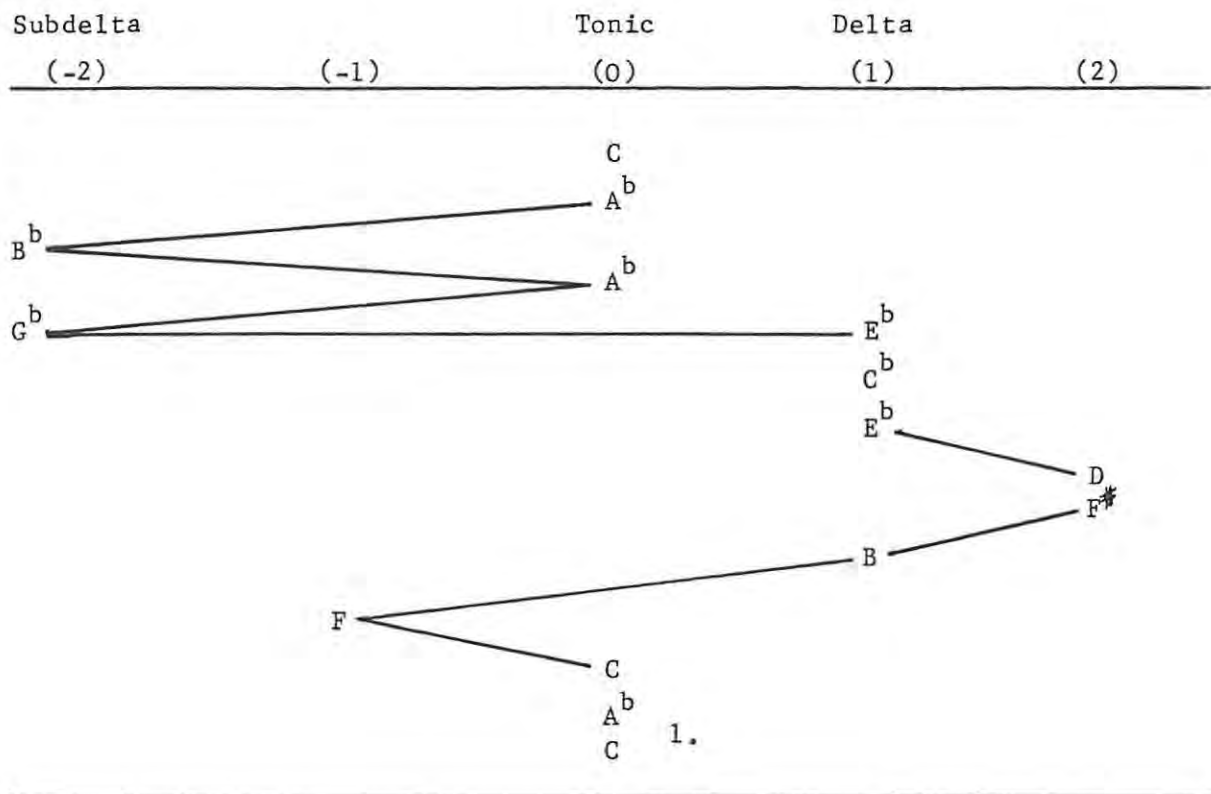
Each region exerts its own 'ethos'¹. In Contrast to the tonic norm, the subdelta region expresses a darker ethos, moving progressively from δ^{-1} to δ^{-2}/μ_1 the most intense $\delta^{2/\mu-1}$ and the delta regions express a lighter more brilliant ethos, moving similarly, from the δ to δ^2/μ . Bruckner's tonal structures show an intricate ambivalence between the three regions (represented in traditional terms by the tonic, subdominant and dominant) and an adroit manipulation of light and shade which becomes more and more subtle in the later symphonies. His awareness of the fundamental compatibility and interrelationships of certain keys is already seen in his careful and obviously conscious grouping of, and progressions between, key centers; these same principles are now applied on a tonal-sectional level.

10.1. The first movement

The first movement is based on a simple tonic-subdelta-delta-tonic design -

1. Ethos: means habitual character and disposition. Dr. Curt Sachs discusses 'Ethos' in his book, The Rise of Music in the Ancient Worlds East and West, 1943. p.248-252. In discussing the "emotional power" of a scale he says, "Pitch was doubtless indispensable in creating an ethos. The pseudo-Aristotelian Problem 19:49 expressly calls a low note, 'soft calm, and a high note exciting'. The most direct evidence of the emotional power of pitch is Ptolemy's statement that 'the same melody has an activating effect in the higher keys because a high pitch stretches the soul, while a low pitch slackens it...." Modern science has now proved that not only does pitch have ethos, but it also emits its own particular light colour and energy wave.

Diagram 79 S1:i Showing the emergent key centers of the first movement



The tension of the movement is increased by two devices -

- (i) tonic expectation: after the initial announcement of the tonic key it is substituted, avoided or used as a transient key. The exposition and development are built on an expectation of the appearance of this tonic. This is only resolved at b.199 where it is presented as the key of the recapitulation. The tonic expectation is reinforced by the strong delta assertions of the exposition and development.

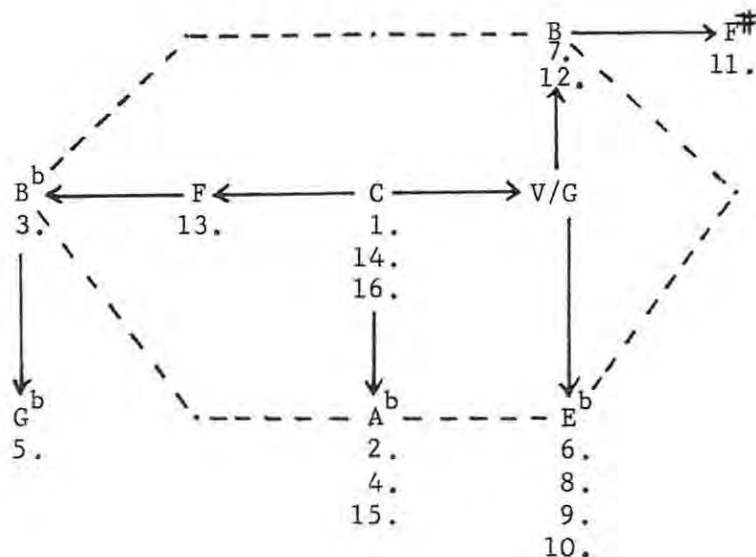
1. The key centers referred to in the text are not necessarily reflected in the graphic designs which concentrate on showing the predominant, emergent key centers.

After b.199 (the start of the recapitulation) there is a very balanced reaction of tonic, delta and subdelta regions (in the transient key centers) with some predominance of the tonic region, (as expressed in the diagram). The coda (b.324-351) is built exclusively on the C key center and acts as the final resolution of the tonic expectations of the movement.

- (ii) the tertiary dissonance: the most dissonant relationship in the c-tonality is F-sharp b.144, and is found in the development, forming the most deviant point, of the harmonic substructure, from the initial tonic. It represents both the search for the tonic and emphasizes the movement away from the tonic. After this appearance of the dissonant key the harmony relaxes gradually, to the C center at the opening of the recapitulation. The second half of the movement consists of the rehabilitation of the tonic which, even in the coda, is suspended and masked till the final point of the movement. In this symphony, first movement, the structural use of the tertiary dissonance is, as yet tentative.

Graphically, the emergent asserting key centers of the first movement, first symphony, would read -

Diagram 80 S1:i Chromatic substructure, pattern of independent key centers



By examining the above structure it becomes quite clear that Bruckner used the mediant/mediant relationship (with A-flat) as a tonic substitution fairly frequently in this movement. Similarly, the mediant relationship to E-flat, the delta submediant is also a recurring progression within the initial tonality.

Tracing the progressions, by the numbers given below each point of the substructure, one can see the preference for median relationships on a structural position; tonal shifts (cf 2-3, 4-5); followed by delta relationships. Obviously key centers are not directly juxtaposed, but form the framework of the key alteration of the movement.

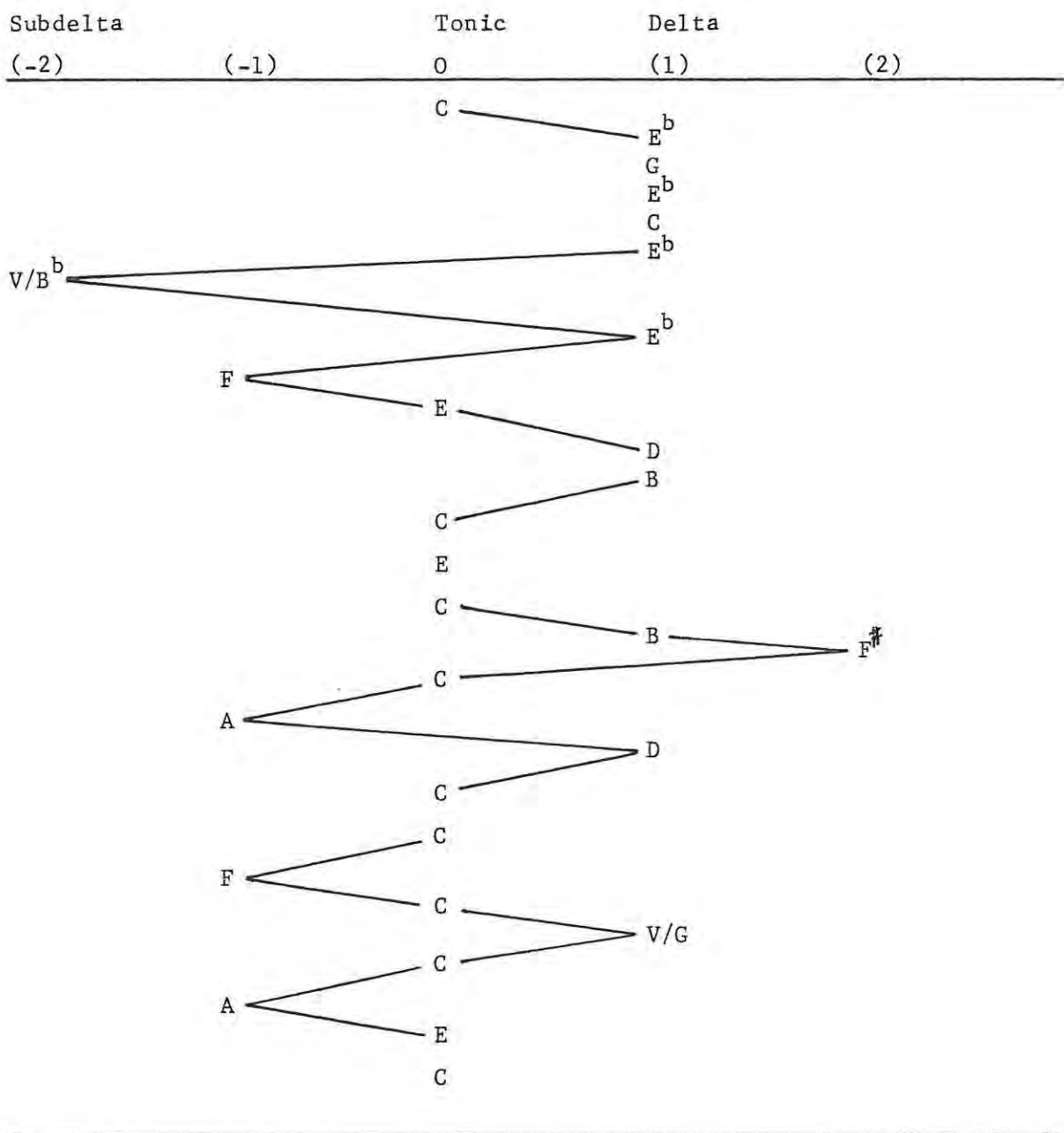
The final movement

The final movement is based on a tonic-delta-tonic outline. However, the assertions of the individual keys are stronger than those of the first movement and so E-flat, F, B, E, A and D emerge as strong key centers, all of which polarise the tonic. This polarisation of the

tonic is one of the fundamental principles of the tonal design of Bruckner's finales.

As in the first movement, the tertiary dissonance is used in the development, this time 'cushioned' as a dominant key center, b.153, following its tonic B major b.151, and presenting the climax of the substructure at this point. Thereafter the denouement commences on a delta tonic structure, which forms the recapitulation, eg -

Diagram 81 Sl:iv Showing the emergent key centers of the finale



The predominant movement turns to the delta regions, using delta substitute keys and sharply contrasting these by a movement to the subdelta to return again to the tonic region, usually represented by a substitute key center. Notice how, in the exposition, the tonic key center C is avoided, and the emphasis is to the delta region, creating on an enormous scale a perfect cadence of V-1. This and following movements will not be presented graphically as the key relationships can easily be seen from the above diagram.

Although the first symphony contains certain characteristics of harmonic style and structure which reappear in later works, it does not as yet establish the ideal design of the finale of the later symphonies. Together with the second and the third symphony, it forms an exploratory 'battleground' from which emerge the monumental tonal masterpieces of the later works.

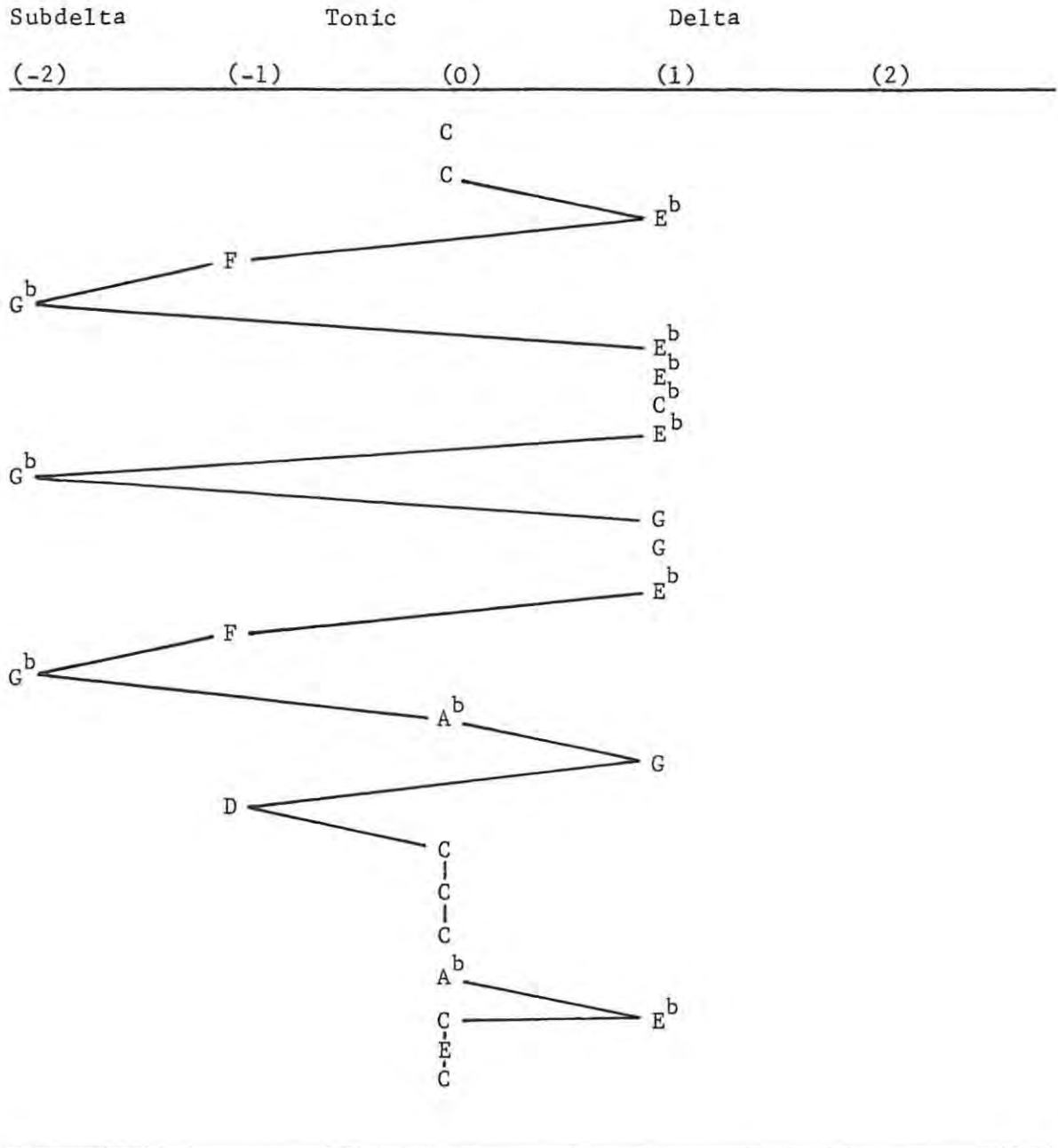
10.2. The second symphony.

The second symphony was begun in London in 1871 and continued in the autumn of the same year, in Vienna, during a period of personal tribulation. The performance of his first symphony had aroused bitter comment which shook much of Bruckner's small self confidence. So the second symphony reflects an attempt at far more conventional structures; thematically and tonally. The finale especially is simply a large cadence on the dominant to the tonic.

The first movement

The predominant emergent keys of this movement are C, E-flat, F, G-flat and G. It is based on an immense tonic-delta, subdelta-tonic design. The central portion, the exposition and development, largely consists of the ambivalence between the delta and subdelta regions: the tonic region makes its appearance only in temporary or transient keys and the tonic tonality C is avoided until the recapitulation. The tension of the movement is maintained by tonic expectation caused by the contrary assertions of the delta and subdelta regions. The harmonic climax of the substructure falls in the development, b.221-231, in which the subdelta region of f minor gains temporary dominance over the delta region of E-flat. This subdelta victory is sustained as the progression moves to G-flat, the tertiary dissonance of C b.231-244. The tertiary dissonance emphasizes the extent of the movement away from the tonic and is again placed in the central part of the development. After this assertion the harmony progresses to G, the delta (via a-flat minor C-flat, F and A minor-major) and then to the recapitulation and resolution in C. eg -

Diagram 82 S2:i Showing the emergent key centers of the first movement



It is quite obvious, from the design given above, that the subdelta assertions of the second half of the movement are not in the same class as the delta assertions of the exposition development.

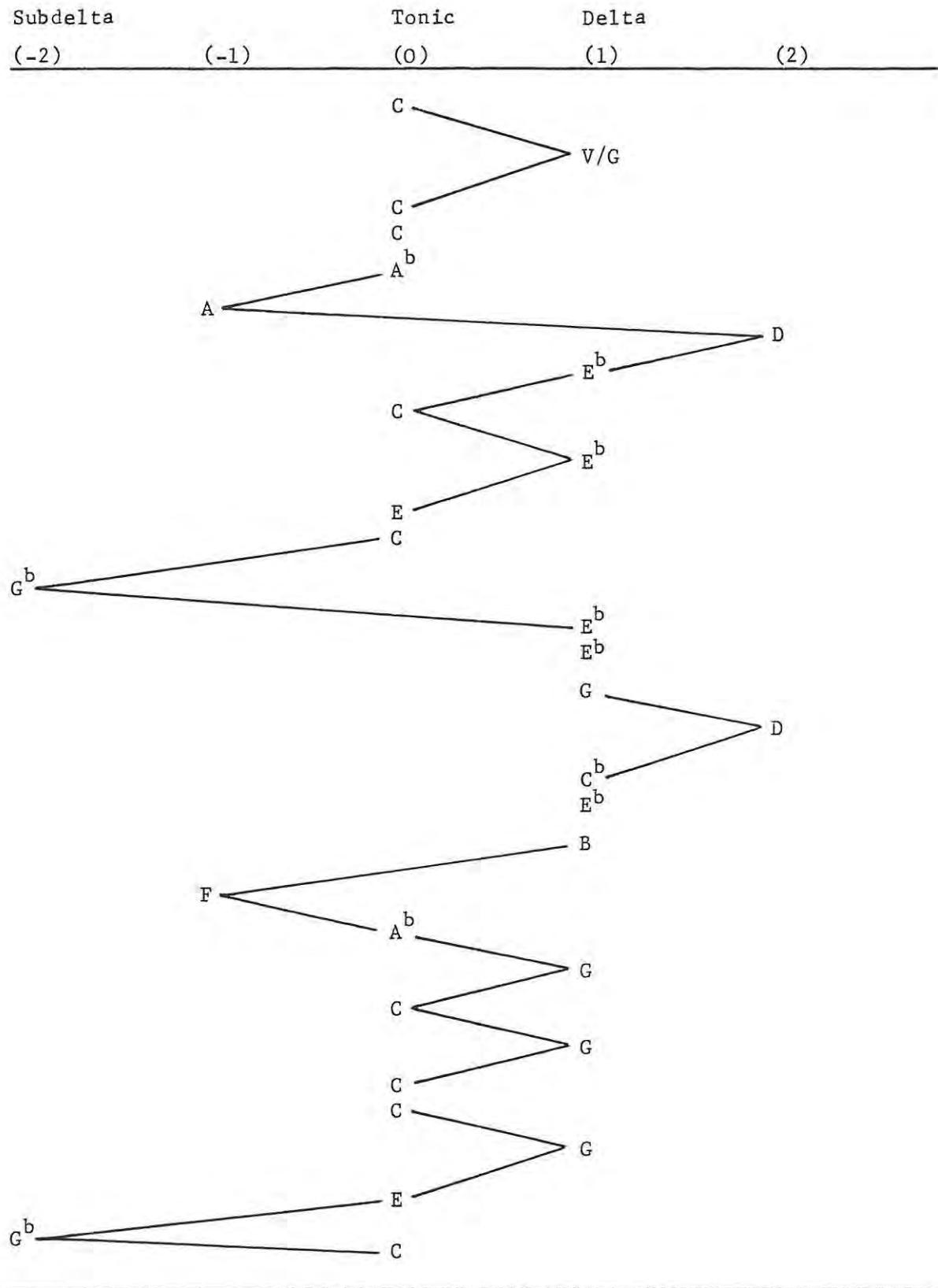
The impetus is still to the polarisation, on a secondary level of the tonic by the mediant related delta key center with interruption by the tertiary dissonance and tonal conflict between the delta and subdelta and deltasubm^u. The recapitulation centers quite conservatively on the tonic region with some excursions.

The final movement

This finale differs structurally from the first movement. Here the design is definitely a tonic-delta-tonic structure, with interspersions from the subdelta on the less assertive key centers of A and F. The first part of the finale is characterised by the strong delta assertions of G - E^b and C-flat. The tonic region gains predominance only in the recapitulation. The strong assertions of these keys causes the polarisation of the tonic.

The tension of the movement is maintained by tonic expectation. The tertiary dissonance has no dramatic harmonic importance in this movement. The harmonic climax of the movement is, at the beginning of the recapitulation with the main theme in the tonic key. This is achieved by the enormous tonic expectation generated by its avoidance and by the preceding dominant region on G, beginning at b.328-387, which actually forms the closing part of the development.

Diagram 83 S2:iv Showing the emergent key centers of the final movement



In many ways the second symphony is representative of later Brucknerian structural features, especially in the thematic sphere.¹ However, as far as harmonic design and structure is concerned, the second symphony, especially in the two outer movements, indicates that Bruckner was still in a state of flexibility regarding harmonic form, as the problems, caused by his classical and conventional training, had not been reconciled or adapted to the spontaneous overflow of his musical genius. This conflict is manifest in the large cadential links, the overdeveloped 'transitions', the long embellishing passages the harmonic problems posed by the tonal center of the development and recapitulation and, above all, his attempts to prepare and justify each harmonic progression by traditional means. However, these are disparagements which are overwhelmed by the impact of the overall beauty of sound and feeling created by this symphony.

10.3. The third symphony

When asked by Bruckner which of the two symphonies Wagner would allow to be dedicated to him, Wagner replied 'The one with the trumpets.' The third symphony is a trumpet symphony, not only instrumentally, but metaphorically as well. Here Bruckner regains his confidence and despite numerous revisions, the third remains as a triumphant assertion of breadth, depth intensity; despite the tonal 'faults' or ambiguous formats contained within it.

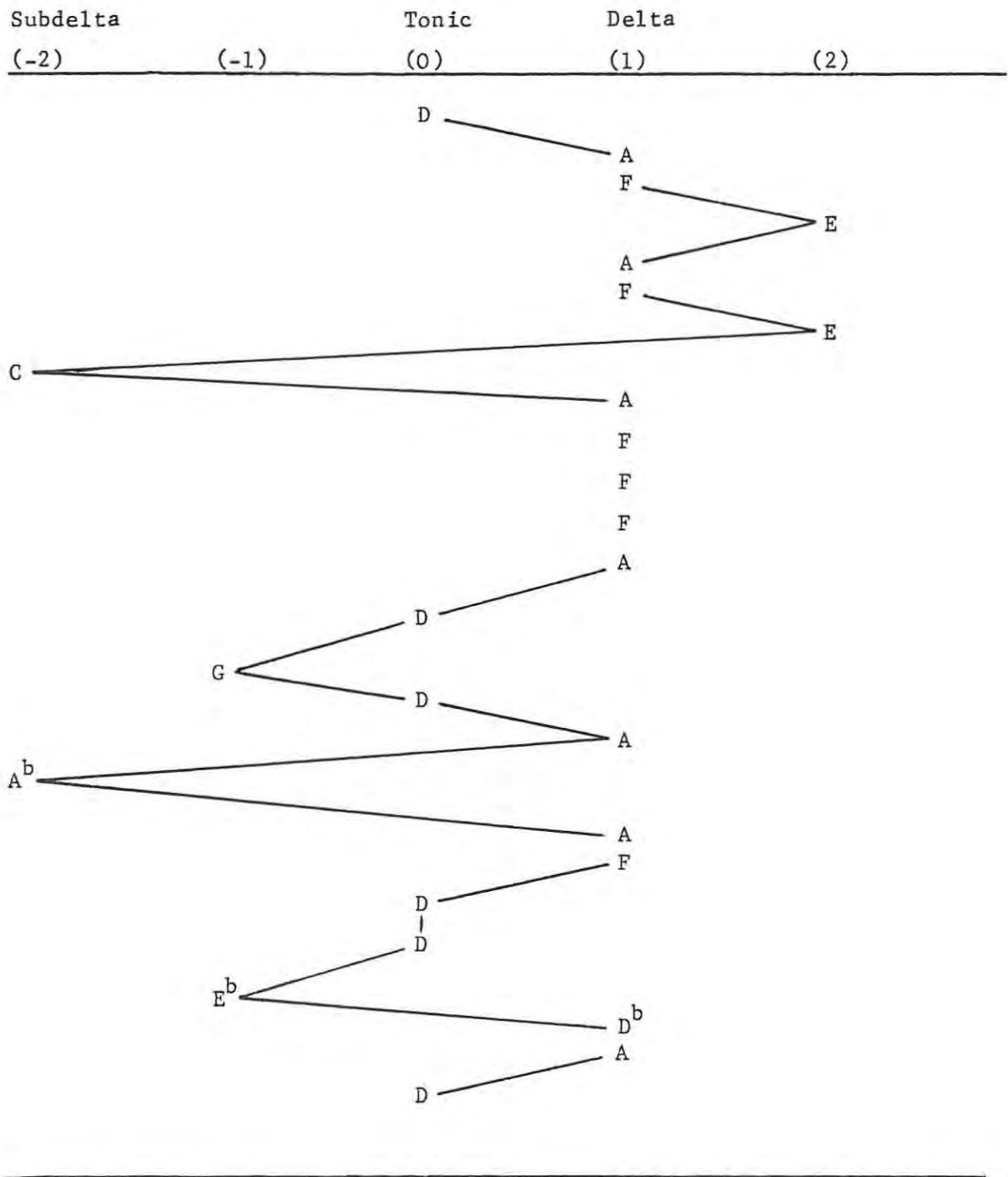
1. Compare the opening subjects of the second and the seventh symphonies.

The first movement

In this movement the tonic tonality-d is, after its initial appearance, rejected and the first part of this design is built on the delta region, with confrontations by subsidiary tonic regions. The exposition and development center around the resolution of the V/c to I/F and the Neapolitan dichotomy of G-flat in F major.

The harmonic intensity and the sense of tonal expectation which is generated by the conflict of these tonalities finds its ultimate resolution in the tonic tonality D, b.341. This provides the central tonal climax, in the development of the entire movement. The tonic tonality here provides a thematic, tonal impact to the development section, while creating problems for the reappearance of this key center in the opening of the recapitulation. The harmonic structure moves on to the tertiary dissonance, a structural 'fait accompli' b.393 on a-flat minor to maintain and carry over the harmonic tension through the tonalities E and F before the denouement and recapitulation at b.429 in D. The overall structural principle of this movement is a simple delta tonic design, similar in principle to the outline of the first movement of the first symphony.

Diagram 84 S3:i Showing emergent key centers of the first movement



The final movement

The overall design is delta-tonic. As is common to many Bruckner finales the harmonic line is based on the polarisation of the tonic, caused by the strong assertions of equally opposing regions. The established keys of the finale are the tonic D which is immediately confronted by the delta E and the delta subml F. This conflict is left unresolved as the harmony moves to a further ambivalence between the delta keys of D-flat, F and E, as opposed to the subdelta keys of C, A-flat and G. The tonic tonality is polarised by the strong assertions of these keys and the final resolution does not occur until the coda of the movement in which the tonic tonality finally establishes itself with complete conviction from b.621. The whole essence and success of Bruckner's finales lies in his ability to build and sustain a whole movement on an unresolved harmonic conflict.

The harmonic climax, running concurrently with the harmonic design, is found in the final resolution, in the coda, on the opposing keys of the exposition and the development in the final cadence, b.597, in which the first subject of the first movement is stated in D major.¹ The principle of this movement is the concerted drive to this final D major cadence made so intense by the retarding and conflicting forces preceding it.

The mediant relationships between the overall sections of the finale are quite markedly apparent; the F/A contrasting key sections being the most obvious.

1. The first subject of the first movement is used here as the equivocal character of the main theme of the finale would once again lead the harmony out of the tonic tonality.

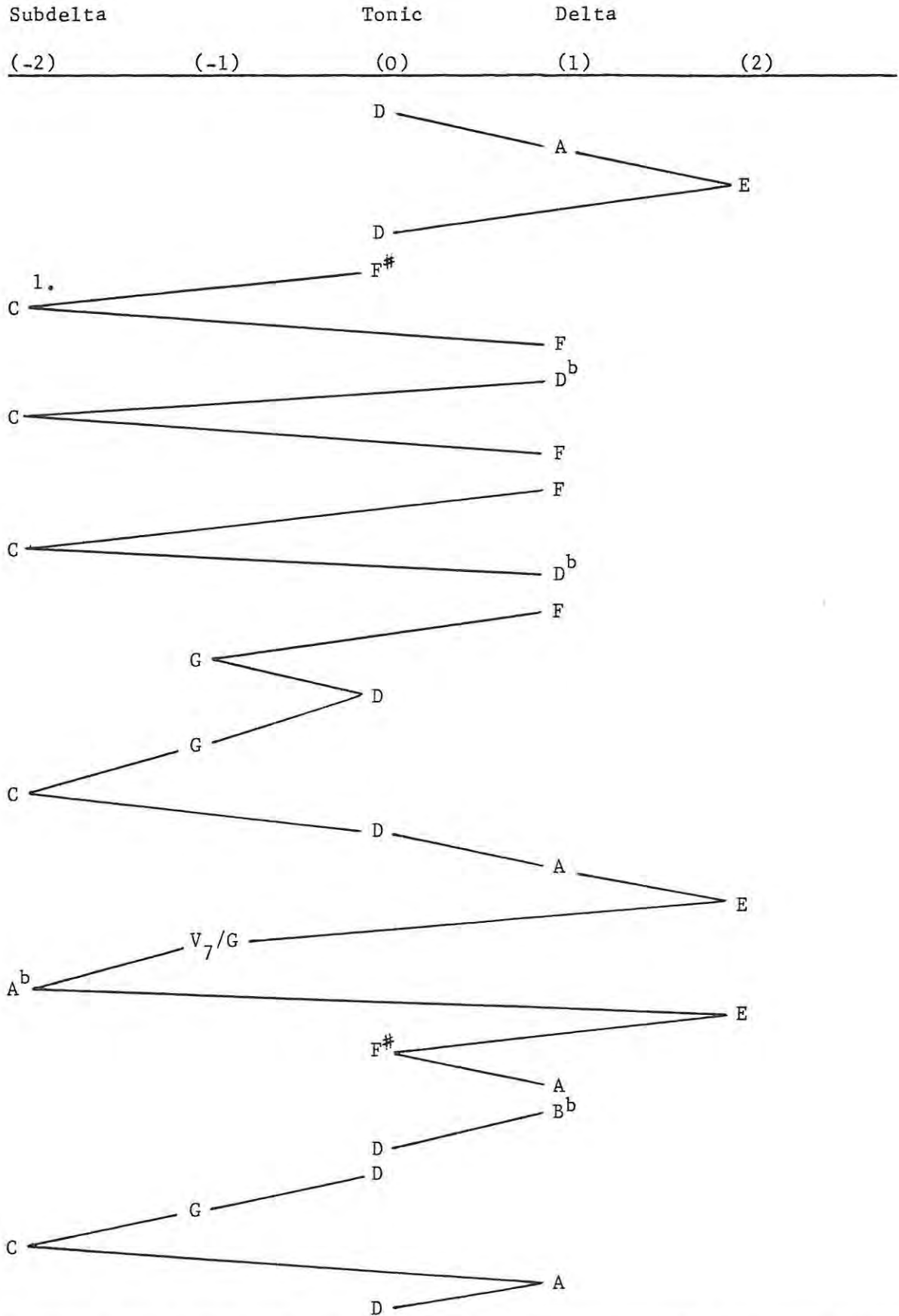
The third symphony marks the end of Bruckner's experimental period. It is the first example of that 'profound unquestioning religious spirit ... the prevailing serious weighty mood ... the combination of mystic ecstasy and tonal splendour ...'¹ of all the ensuing symphonies.

The diagram of the emergent key centers is -

1. Grout, Donald Jay. A History of Western Music.

W.W.Norton. New York. 1960 p.543

Diagram 85 S3:iv Showing the emergent key centers of the final movement



1. Notice the move to the σ^{-2} key C, here is an ambiguous one as, on the one hand, it reinforces its delta related key F -, and on the other it pulls the harmonic direction to the subdelta regions. The musical context will determine its actual function at each given point.

10.4. The fourth symphony

The fourth symphony is, perhaps, Bruckner's most popular work and it is :-

Not only proof of Bruckner's love for nature and romantic feeling but also for his willpower and his humility, qualities that seem hardly conceivable even taken separately, but become nearly incredible when found together.¹

The first movement

The main emphasis in the tonal patterns of this movement is towards the subdelta region. The overall pattern in the exposition and development is the emphasis on the emergent key centers on E-flat, (tonic), D-flat (subdelta region) and B-flat (delta region). Notice that D-flat is the subdelta twice removed from the original tonic, and so exerts an emphatic opposing tonality; the Neapolitan inflection on the tonal scale is implicit in the polarity suggested by the progression. The overall design is, therefore, tonic-subdelta-(delta)-tonic.

Harmonic tension is created by the movement away from the tonic of the opening section to the ambiguous tonality at the start of the development b.192. Here, a single tonality is held in abeyance by a series of diminished chords. These eventually settle around B-flat, b.205, and are followed by a German sixth chord of F major. The tonal ambiguity is prolonged by a series of chords, f minor, D-flat major, A major, c-sharp minor, e diminished seven and c-sharp seven, the latter being a German sixth of the ensuing B-flat major chord. The harmonic tension is increased again by a powerful dominant block on B-flat, b.245-252.

1. Nowak, Leopold, Translated: Maria Razumovsky, Anton Bruckner Samtliche Werke IV Symphonie Es-Dur. Vienna 1953 Preface p.ii.

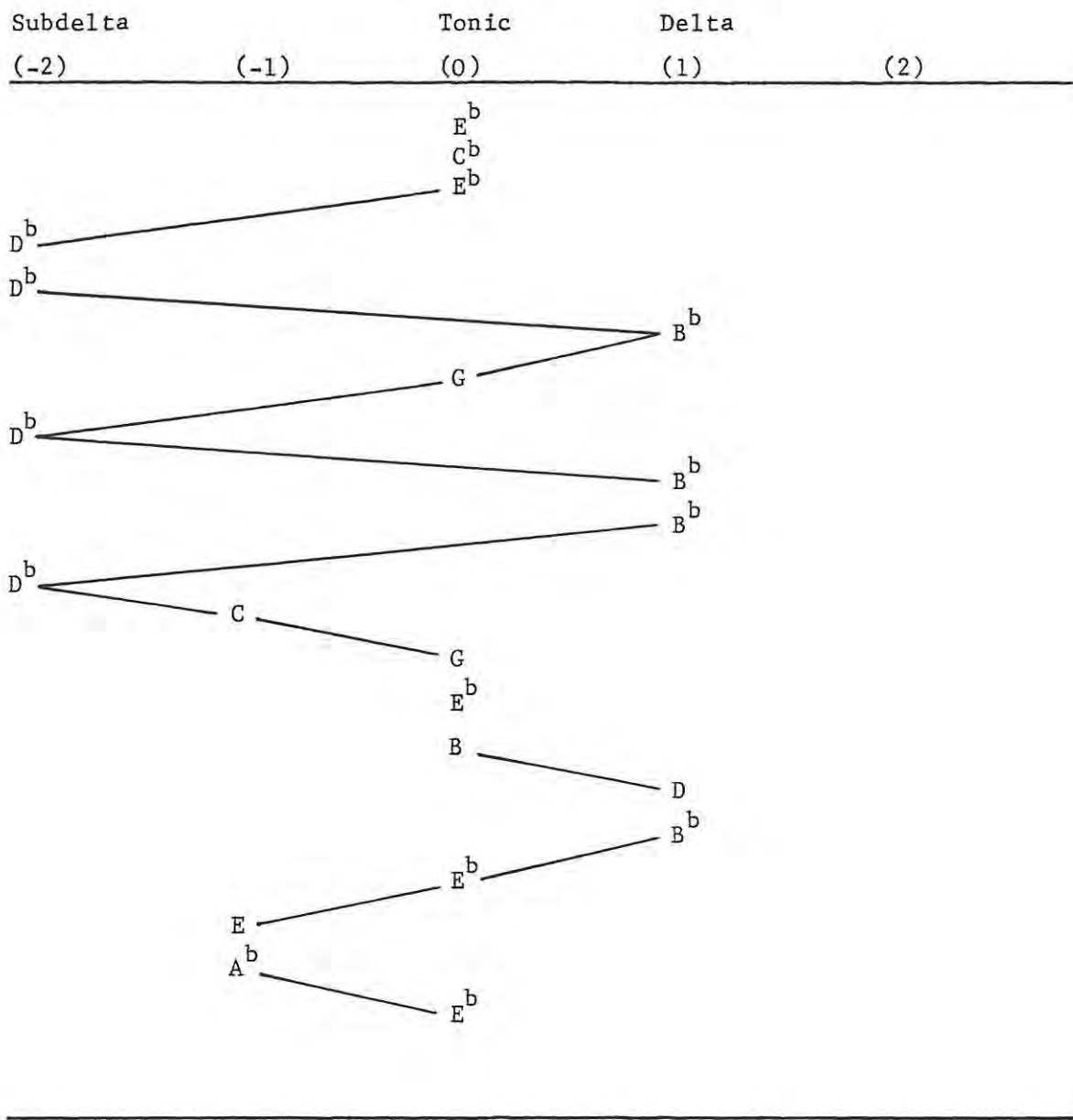
The climax of the movement is formed by the statement of the main theme in the minor tonic tonality e-flat.¹

Bruckner uses the minor tonic tonality as opposed to the opening major key, for his tonal peak so that he does not lose the impact of the recapitulation by a repetition of the major tonic key, a problem of S3:i.

The climax is sustained by the ambiguous, unsettled tonality of b.289ff in which the harmonic and thematic tensions are combined in the modulating chorale forming the emotional rather than the structural climax of the movement. Thus sustained, the ultimate resolution of all the conflicting, unresolved harmonic confrontations is especially successful in the reappearance of the tonic tonality-E-flat at the beginning of the recapitulation b.380.

1. In this symphony Bruckner uses the secondary theme from section A to avoid immediate repetition of the main theme in the recapitulation. Also the Ab theme is more 'active' than the main theme. In S3:i he used the main theme and the tonic tonality at this point in the development, which did cause structural problems.

Diagram 86 S4:i Showing the emergent key centers of the movement



The final movement

This movement is the first clear and concise presentation of the structure of Bruckner's finales.

After the initial statement of the tonic tonality E-flat, the subdelta regions (C and A-flat) and the delta regions (B-flat, G-flat,

F and D) form two clearly grouped opposing harmonic centers. The resolution of the ambivalence between these two regions is found in the recapitulation. The resolution of the tonal conflict brought about by the polarisation of the tonic tonality provides the harmonic impetus and drive which makes Bruckner's finales so compelling. The longer the resolution of the polarisation is delayed, the more compelling the tonal direction of the movement.

Two opposing principles work towards determining the harmonic climax of the finale :-

- (i) distance from the tonic
- (ii) the ultimate resolution of the conflicting harmonic progressions.

Up to this point the harmonic tension has been sustained by the movement away from the tonic, and the harmonic peak has been created by the resolution of the suspended tonic. In this finale Bruckner uses a new device, tension caused by 'unresolved harmonic progressions' which emphasize, by their position, the distance from the tonic.

The development consists of five parts: the first, beginning in b-flat minor moves to B major the raised fifth of E-flat: it ends in e minor. The second part begins in F-sharp which could be interpreted as the dominant of the preceding B major or as the Neapolitan (C-flat) of B-flat major, of the ensuing f-minor of Part IV. The fourth part begins in C, the dominant of F and progresses by semitone (D-flat b.299, D b.303, E-flat b.305, E b.307) to E and back to C, alternatively.

It forms, because of the quick, harmonic shifts and the powerful thematic constructions, an exciting build up which is sustained by a second region constructed around e minor. b.311-315. These two poles create the anticipatory tension point for a climax on b minor. This is introduced by a Neapolitan phrase on F b.316 , and followed by the dominant F-sharp major. This tension peak is juxtaposed to the same subject on C, which is also introduced by a Neapolitan phrase on D^b/C[#] and followed by its dominant on A-flat/G-sharp, these two keys forming the initial tonal climax of the movement. Although the progression moves extremely rapidly through this succession of chords the thematic structures assert these key centers forcefully. This part of the development can be seen to be constructed of a series of interrelated dominants: -

b-flat b.203, G-flat b.237, F b.269, C b.295, e b.311,
B to F-sharp b.317, C[#] to G[#]b.321-325, B-flat b.331.

- (i) F b.269 is the dominant of b-flat minor b.203
- (ii) F-sharp/G-flat b.237 is the dominant of b b.317/326
- (iii) C b.295 is the dominant of F b.269

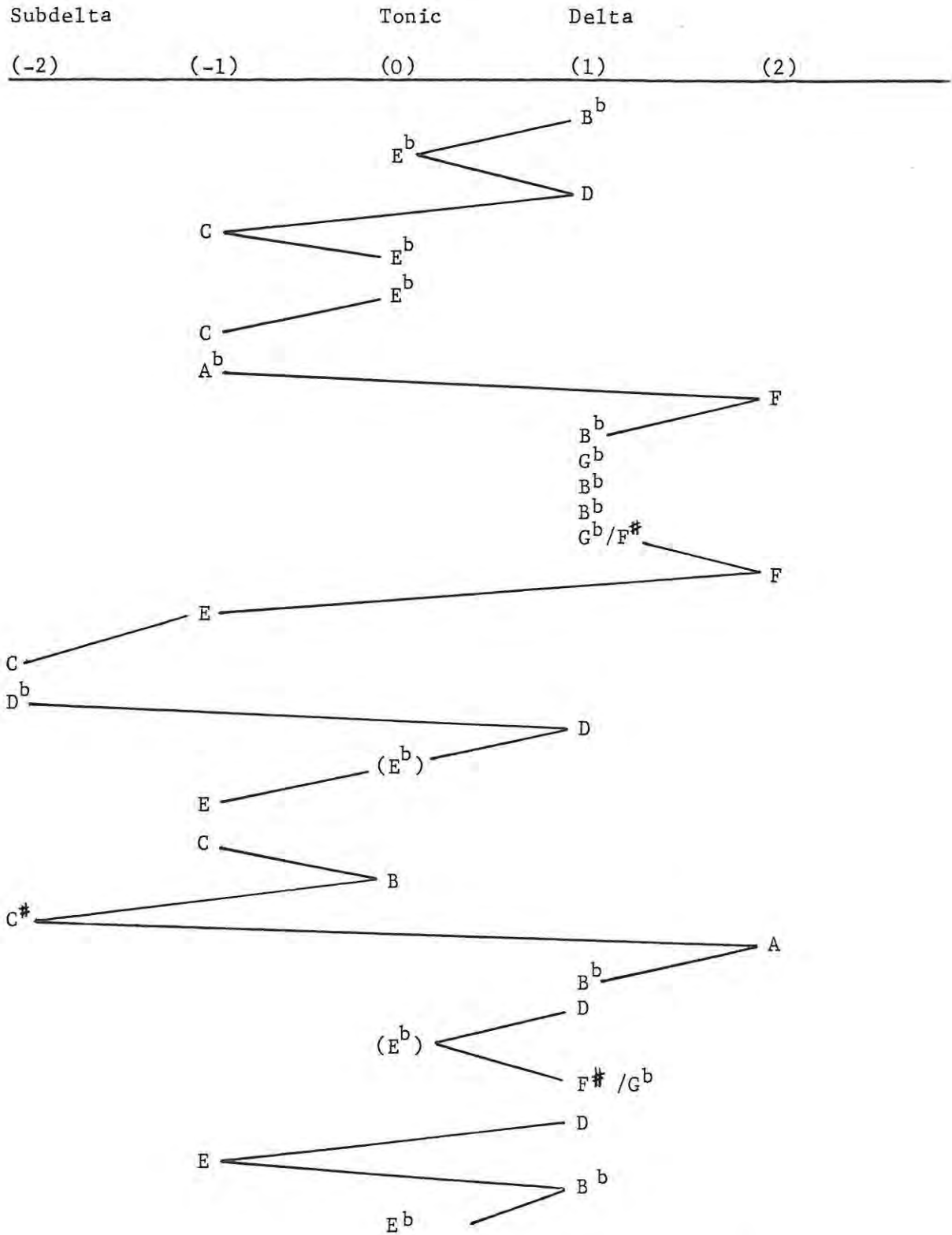
The development ends on B-flat the initial tonic.

In the recapitulation the long dominant block on B-flat is omitted. E-flat b.383 of the recapitulation turns quickly through kinetic progressions to Section B in f-sharp minor. Section C is omitted as it formed a vital part of the development. Instead, Bruckner uses an extended coda based on the main first subject of Section A. However, the tonic tonality is still not convincingly asserted, instead the

harmony moves through a series of indefinite chords b.491ff. As the final resolution in E-flat is almost reached b.509 the harmony turns to E b.516 and to a second series of chords (a-G-C-B-E-D-sharp-C-sharp - F-sharp C-flat-B-seven-A-flat and G-flat/F-sharp) which brings the progression to E b.529, the Neapolitan sixth of E-flat. This resolves finally and completely to E-flat major at b.533 the ultimate climax of the movement.

One can quite easily say that in this movement the tonic tonality, after its initial statement in Section A, is suspended until the last nine bars. This was the form to which Bruckner, in most of his succeeding symphonies, aspired for the finale's tonal design.

Diagram 87 S4:iv Showing the emergent key centers of the movement



1. The key centers of all these examples are presented in the starkness created by their isolation. In many cases the progression to and from these centers is smoothed by sequential patterns, kinetic chords, modulating progressions, transient successions and other methods discussed previously which does not exclude Bruckner's use of vaulting or direct confrontation of key centers without 'smoothing over' techniques, if desired.

10.5. The fifth symphony

This symphony is, perhaps, Bruckner's contrapuntal masterpiece. It was written between 14 February 1875 and 16 May 1876. The final score was completed by January 1878, and as far as it is known it was never revised, altered or corrected again. For this reason it is an excellent example showing Bruckner's original approach to his tonal and thematic structures and has therefore been extensively used for analysis throughout the thesis.

Bruckner began writing the fifth in a mood of despair. In a letter to Morits von Mayveld on 13 January, he writes :-

It is too late now. I shall just keep piling up debts till I end up enjoying the fruits of my labours in prison ruminating on the lunacy of ever having moved to Vienna in the first place.¹

Despite, or perhaps because of, this despair, Bruckner produced possibly one of his greatest works.

The first movement

The most striking feature of this movement is its tonal symmetry. The exposition consists of the following established keys: B-flat - F - D - D-flat. These are exactly balanced in the recapitulation by the established keys of B-flat - G - A - A-flat. This creates a perfect tonic-delta-(tonic)-subdelta-tonic outline. This is the cadence forming the overall structure, the framework, in which the chromatic explorations of the romantic composer take place. This movement is an example

1. Quoted by Nowak, Leopold; Anton Bruckner Samtliche Werke V, Symphonie B moll, Vienna 1953, Preface.

which shows Bruckner's technical understanding and mastery of form and structure.

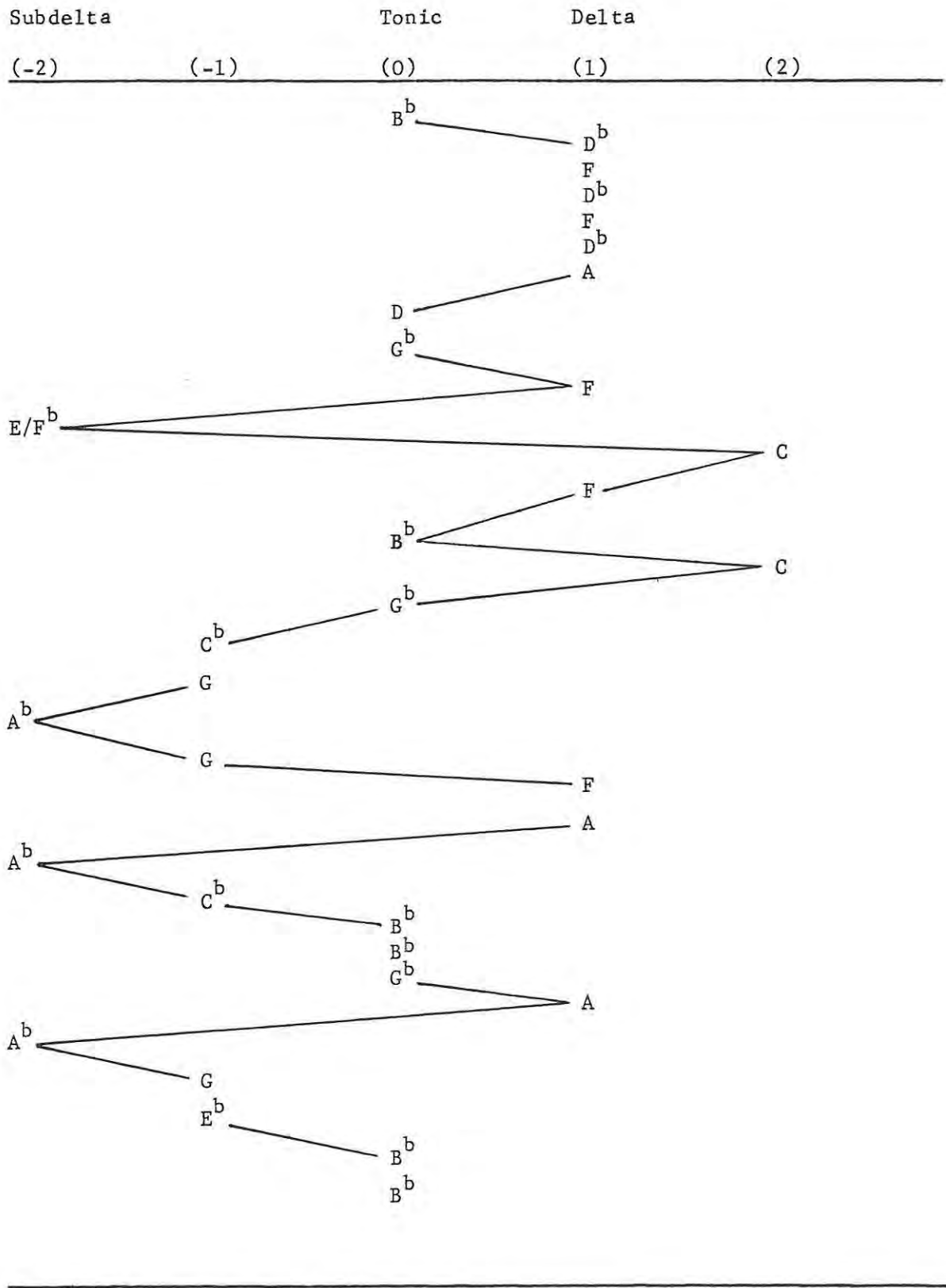
The movement, a manipulation and wielding of contrapuntal intricacies, has many tonal peaks correlated to a series of interwoven, thematic threads which derive from, and are constructed on, the theme and harmony of the first subject -

Ex.118. S5:i



The emergence of a recognisable thread forms a climax, harmonically and thematically, such as b.267-274, b.283ff or b.319-322. One of the most important of these occurs during four bars b.363-366 where Bruckner provides a thematic dynamic and orchestral resolution to the musical questions posed by the preceding development section. The real impact of the movement, however, lies in the final bars b.493-511 where Bruckner provides the resolution to tonal conflicts.

Diagram 88 S5:i Showing the emergent key centers of the movement



By referring to the diagram above, one can see how Bruckner, by a single semitone shift, moves the tonal center away from an entire key-region on the delta to the subdelta regions, thus emphasizing the polarity of the tonic center and creating enormous forward propulsion in the harmonic movement. Each movement from one region to the other is consolidated by the fluctuations and micro-cadences within the region presented by supportive transient or temporary keys. The delta tonic structure of the first half of the symphony (exposition and development) is centered on the submü key center, a tonic substitute key, rather than the tonic itself. Here, one sees the perfection, on the grand scale, of the smaller cadential explorations described in the earlier part of this chapter.

The final movement

As in the first movement this is an example of a symmetrical tonal design. It consists of the established keys of the tonic region B-flat, D-flat, and F, and C, the delta keys. The predominant tonalities of these are B-flat and F, which divide the formal arrangement of the movement into the exposition around B-flat, the development which centralises around F, and the recapitulation on B-flat. In the recapitulation the delta key center of F is replaced by its delta C. Once again the balance of the first movement is paralleled, B-flat - F, as the tonic dominant.

The finale does not polarise the tonic in the external structural outlines, as was the case in S4:iv; as the overall plan is a simple

I-V-I design. However, within this the established temporary and transient keys set up conflicting assertions.

- (i) although the stability of the tonic region is not contested, the stability of the tonic tonality certainly is: by the subm \flat related key of G-flat. In turn G-flat is confronted by the first subdelta m \flat key of F and the m \flat key of D, both of which stand in a tonic dominant relationship to each other
- (ii) similarly, within the delta region F is contested by D-flat and E, while D-flat, in turn, is contested by C, which acts as a reinforcement to F.

Lastly the overall concept governing these structures is, of course, the Neapolitan relationship. As F is the dominant of B-flat, G-flat is the Neapolitan of F. As C is the dominant of F, D-flat is the Neapolitan of C. Both F and G-flat polarise the tonic tonality by asserting their tonic functions reinforced by their respective dominants, C and D-flat.

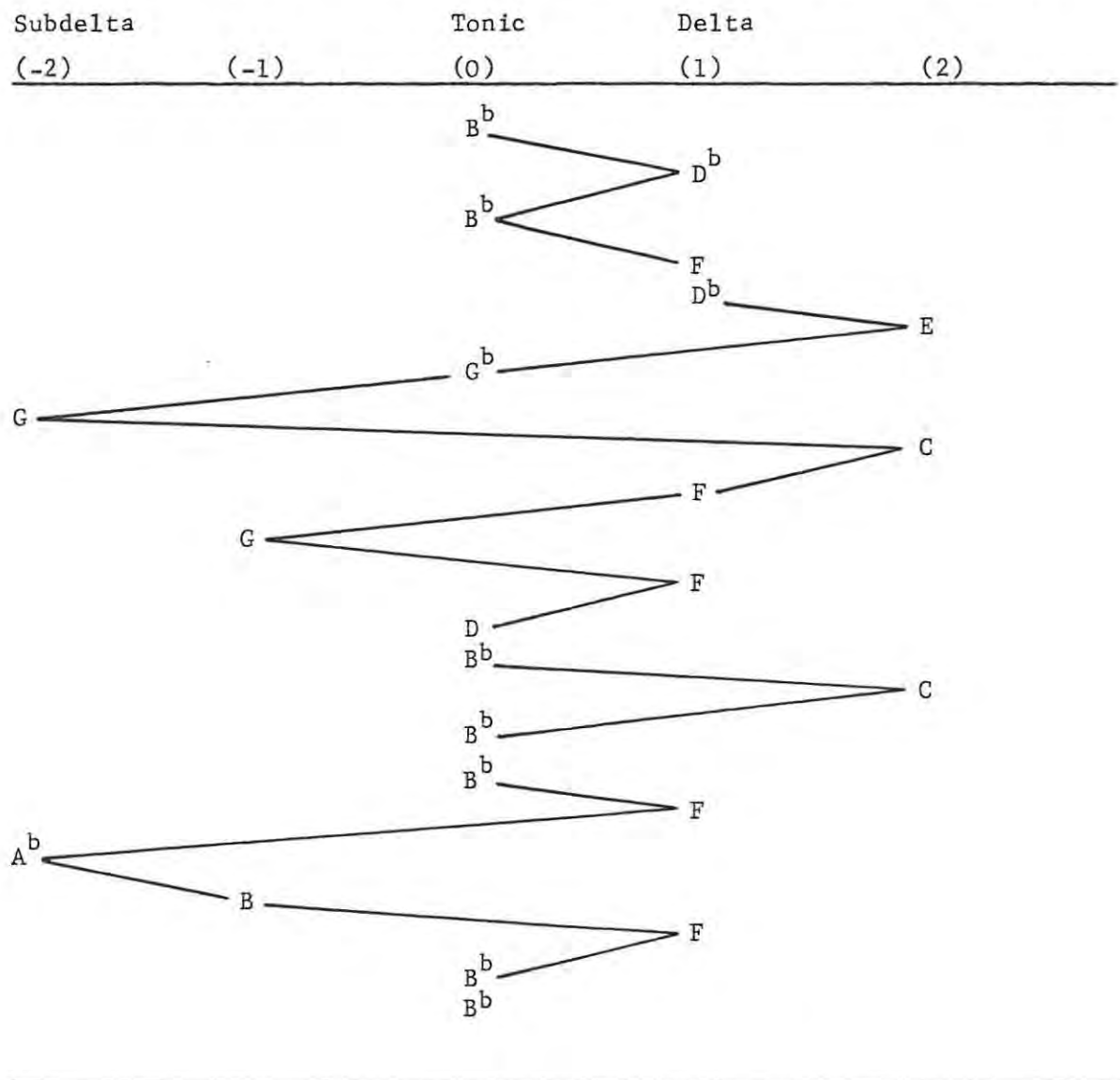
This finale represents the ambiguity and the complexity of the romantic idiom in its multiplicity of function and interpretation. Throughout the movement no single relationship or function is established. Rather each contradicts, interacts and interweaves, creating tension upon tension, until the final statement b.583ff and

the final resolution b.614ff.

Within these general outlines further smaller complexities occur, representing similar structural ideas. This movement can be said to reflect Bruckner's very personality: essentially simple and yet profoundly complex.

The design of the final movement is -

Diagram 89 S5:iv Showing emergent key centers of the movement



10.6. | The sixth symphony

The first movement

Once again Bruckner's idea of symmetry is displayed in the tonal design of this movement. The established key centers clearly divide the structure into the predominant regions of the tonic (on A major) and the delta (on E-flat, E and C regions). These form the exposition and the development. By contrast the recapitulation is constructed on the subdelta region of F-sharp and the tonic region of A.

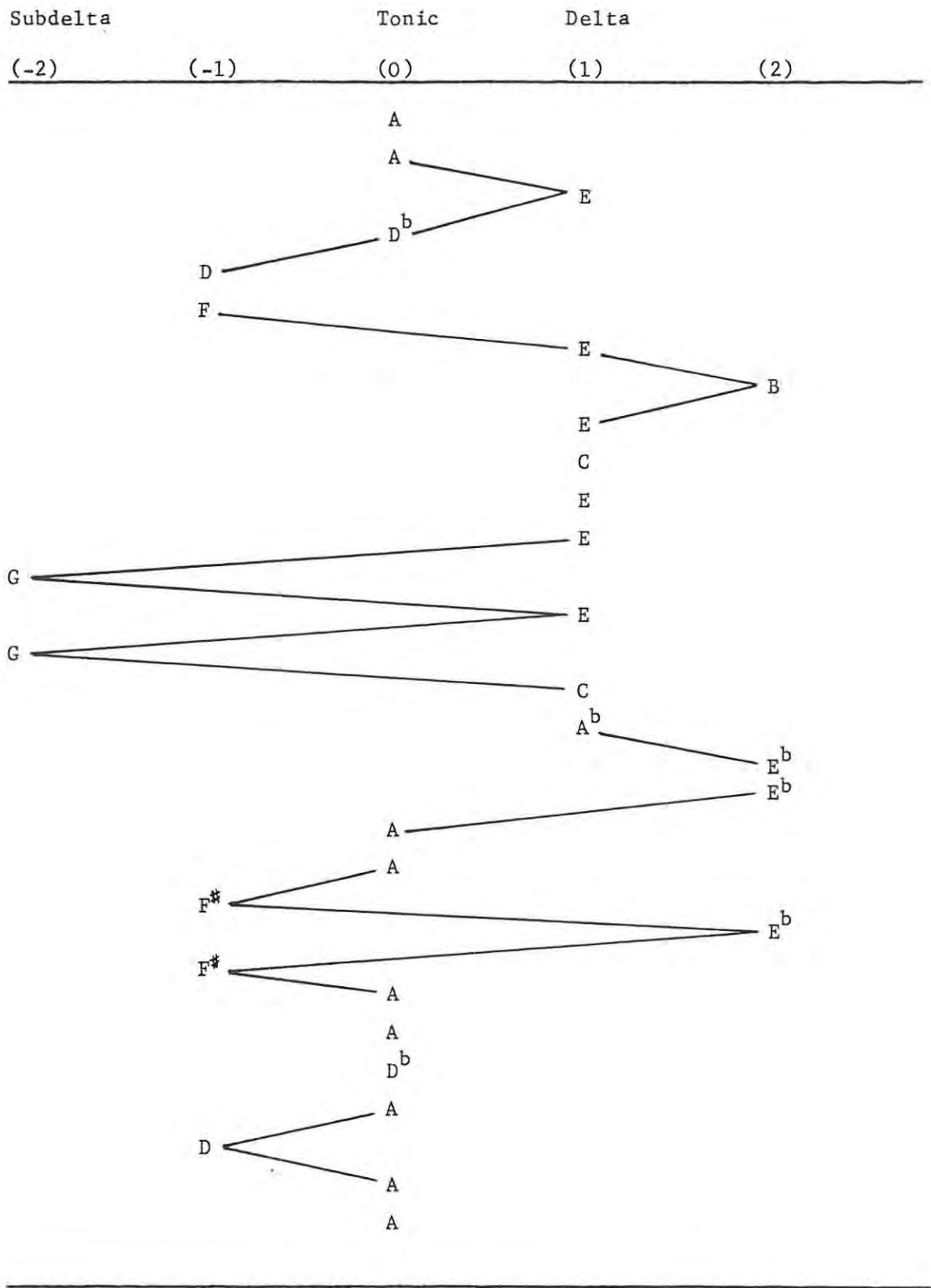
The overall plan, is therefore, a tonic-delta and (subdelta) tonic design, simpler but similar to that of the first movement of the fifth symphony.

The tonal climax of the movement is in the development at b.195-198. The use of the German sixth or flattened fifth relationship, the tertiary dissonance emphasizes the extent to which the tonal plan has unfolded. The climax is reinforced as the main theme of the first subject is presented fully, making the modulations to the dissonant key dramatic and emphatic. At this point the greatest dissonant relationship in the overall tonality is achieved. This peak is sustained as, instead of the expected resolution of the dissonance, the harmony moves through G-flat, A-flat and E-seven into a dynamic statement of the main theme, which is now in the tonic tonality A. The abrupt movement from the dissonance to the tonic is extremely effective and creates one of the most powerful sustained climaxes of Bruckner's symphonies.

In principle, this movement is similar to the first movement of the third symphony. However, in the first movement of the sixth the tonal plan is more daring and dramatic, as here it involves the tertiary dissonance as the climax, in the third the tonic tonality is used. In the sixth Bruckner overcomes the tonal problems by the abrupt progression into the tonic in the recapitulation, thus losing none of its effectiveness but rather, gaining impact by its juxtaposition in opposition to the dissonance in the development.

The diagram of the key centers is-

Diagram 90 S6:i Showing the emergent key centers of the movement



The final movement

Once again the tonic is not polarised. In this movement Bruckner uses the tonal design associated with the earlier symphonies, the tonic-delta-tonic structure.

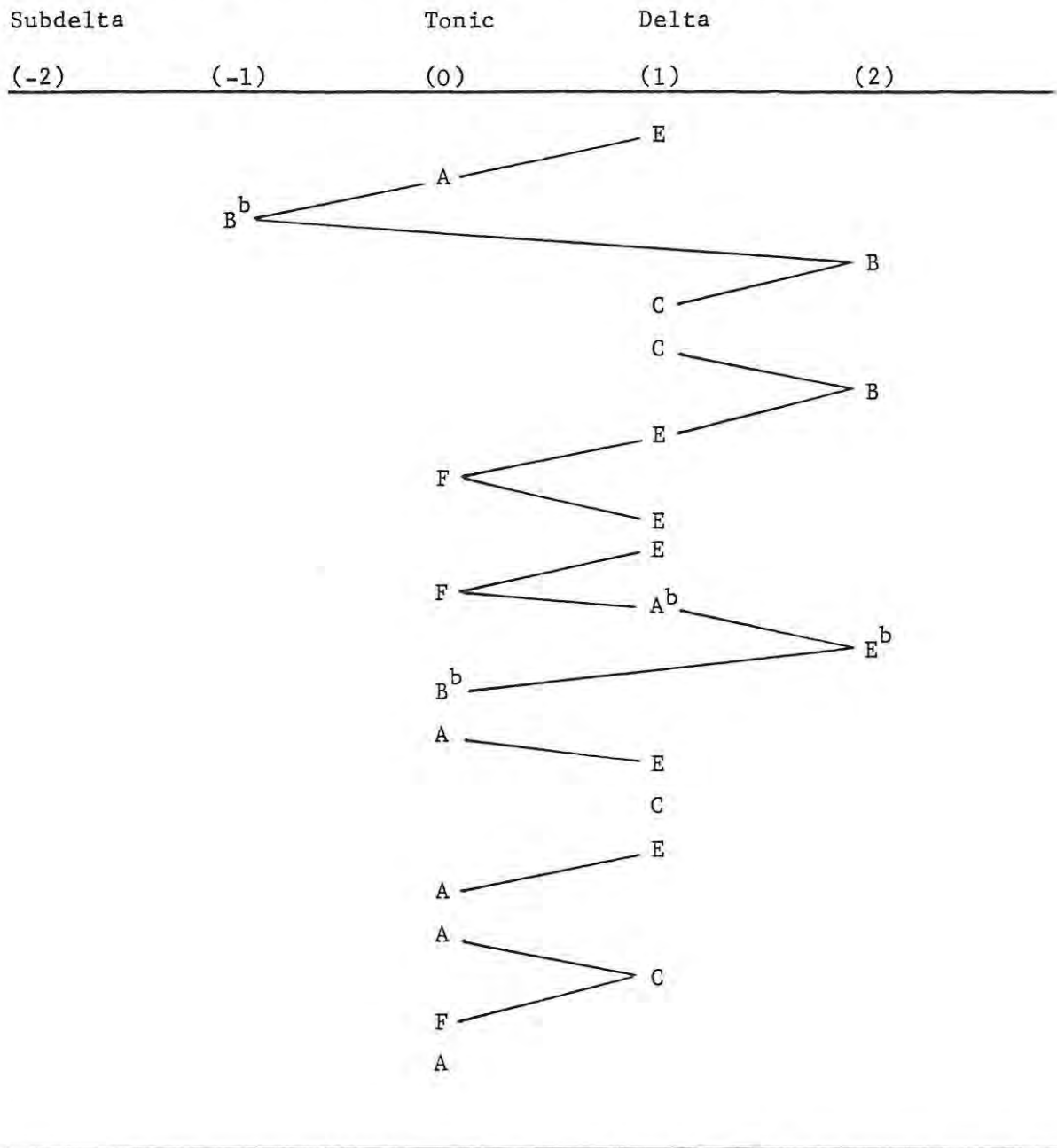
The established keys of the tonic region, A and F and those of the delta region E, C and B determine the structure.

The tonal climax is extended over the development, Part II and the quasi recapitulation of b.215 and 245ff. The second main theme of the finales' exposition is used to present the keys of E-flat (the tertiary dissonance b.215 ff) E b.225ff and A b.245ff forming a ^bV-V-1 structure which parallels, on a smaller scale, with similar intention and effect, the idea of the first movement.

The overall impression of the symphony is one of structural simplicity, confidence and conscious intention. The tonal framework is much clearer and more defined than that of the first three symphonies. The sixth is simpler in principle and in execution than the fifth, especially as the tonal regions are more obviously defined, and the kinetic transitions, and internal expansion of chords is more controlled and delineated. All in all, one feels that in this symphony Bruckner came to a successful understanding of the tonal concepts and designs with which he had experimented in the earlier works. Tonally, the rush to the tonic in the coda seemed the ideal form for the finale.

The diagram of the key centers is -

Diagram 91 S6:iv Showing the emergent key centers



By this stage one can see one of the criteria of the overall format viz, contrary to common belief, the Bruckner movement does not in actual fact fall into a ternary shape, as decreed by the sonata form ideal. Instead there emerges in the tonal shaping of the movements a clear cut

intention to divide the symphony's movement into TWO divisions. Grouping division one roughly as the exposition and development, and division two as the remaining material of the work. This is structurally apparent if one considers the format of the recapitulation of S7:i, S9:i, S5:iv, S6:iv and S7:iv. The culmination of this 'binary' design occurs in S9:i.

10.7. The seventh symphony

The seventh symphony was the first of Bruckner's symphonies to be an unqualified success, and to be accepted by his contemporaries. Together with the fourth it enjoys a general popularity and appeal.

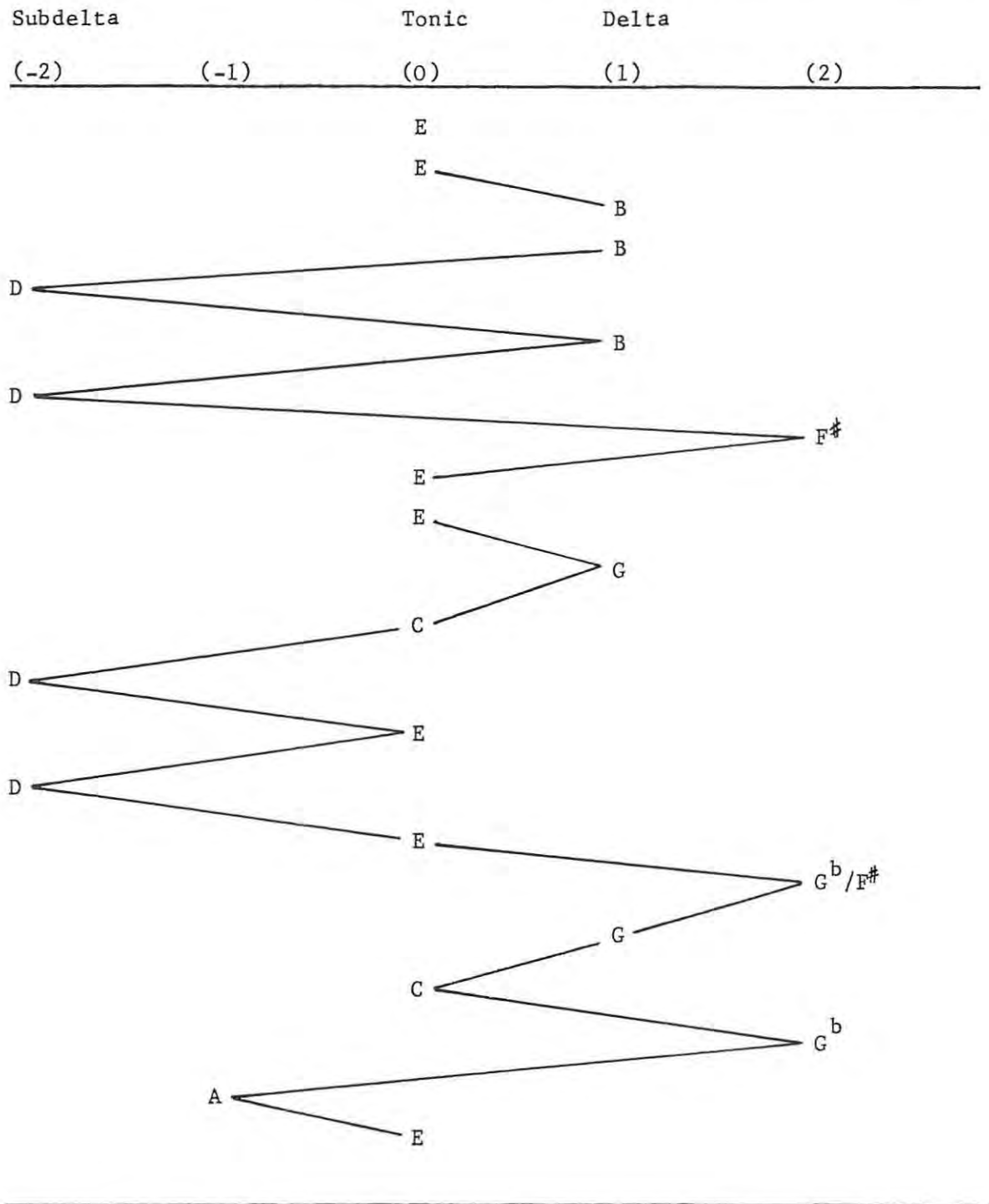
The first movement

This, unlike any of the previous first or final movements is based on the strong assertions of the tonic region, especially the established keys of E and C, stressing the mediant ambivalence of the tonal pattern. The delta and subdelta regions feature in the exposition in the keys of B, D-flat and F. However, their structural significance is overwhelmed by the emphasis on the tonic region. This movement borrows from the structural principles of the adagios and is based on a static-tonic design, ie. the centralisation of all harmonic direction centripetally to the tonic point.

Once again, there is no definitive drive to a specific tonal climax, the static tonic structure precludes this. Instead the tonal tensions are found between the tonic regions, thereby highlighting the tonic center and establishing a cathartic effect at each appearance of the tonic key, viz, in the development b.165ff F-sharp, D, E, F-sharp. C-sharp to E, the tonic minor key.

The design of the key centers of the first movement is -

Diagram 92 S7:i Showing emergent key centers of the first movement



The final movement

Bruckner draws on the structural concept of the finales of the earlier movements as, in principle, the movement is based on the polarisation of the tonic key center, by the other main key centers of the tonic region; overall, the finale is also a type of static tonic construction in that the energy is repeatedly to the tonic region, albeit on substitute key centers. The delta key centers of B act in opposition to the subdelta keys of F and A, both of which are juxtaposed with the tonic substitute keys of A-flat and A and C. This finale presents a new approach to the tonal design of the finales in its use of the tonic region's key centers for polarisation of the tonic.

Transient and temporary keys include excursions to F-A-B-flat and B-E-flat/D-sharp. Considered individually, there are eight keys in tonal action and reaction, so there appears to be, in the inner format, little tonal stability in this movement. There is created, internally a concerted rush to the resolution of the tonal conflicts in the coda, which is in the tonic tonality E at b.315-339. Structurally, this is the weakest of all Bruckner's finales as he expanded his concept of polarisation too much. Instead of a finely balanced ambivalent tonal pattern, the structure falls into a series of individual keys. The same principle is reflected in the chord successions, eg: S7:iv b.1-34ff. The key centers internally are constructed on a series of volatile chords, so that although the overall tonality is clear the internal tonal details are extremely rapid and fluctuating, eg: b.1-34 of S7:iv in which the chords are grouped to form internal harmonic units in the established key of E, ie -

Diagram 93 Chords of S7:iv b.1-34

Section A b.1ff

1 - 2 - 3 - 4 - 5 - : 6 - 7 - 8 - 9 - : 10 - 11 - 12 - 13 - 14 : 15 - 1

m V₇ 7 7 m M m d₇ 7 7

Modulating to A^b/G-sharp of b.34. As shown the chords of b.1-5

complete the first harmonic unit (1-V), b.6-9 the second harmonic unit: both of which form the first harmonic phrase E-G-sharp/A-flat.

b.10-16 orientate to E and form the third unit, b.17-19 form the

fourth unit: the last two completing the opening harmonic progression:

E - G-sharp - E - B-flat (V-seven to its tonic).

17 18 19: 20 21 22 23 24 25 26 27-30 V₇

V₇ d₇ 7 7 7 d₇ d₇ of G^b

B^b

31 32 33 34: 35-38 39-42 43-46 47-50 51-54-55- etc.

d₇ d₇ 6/4 m M V V₇

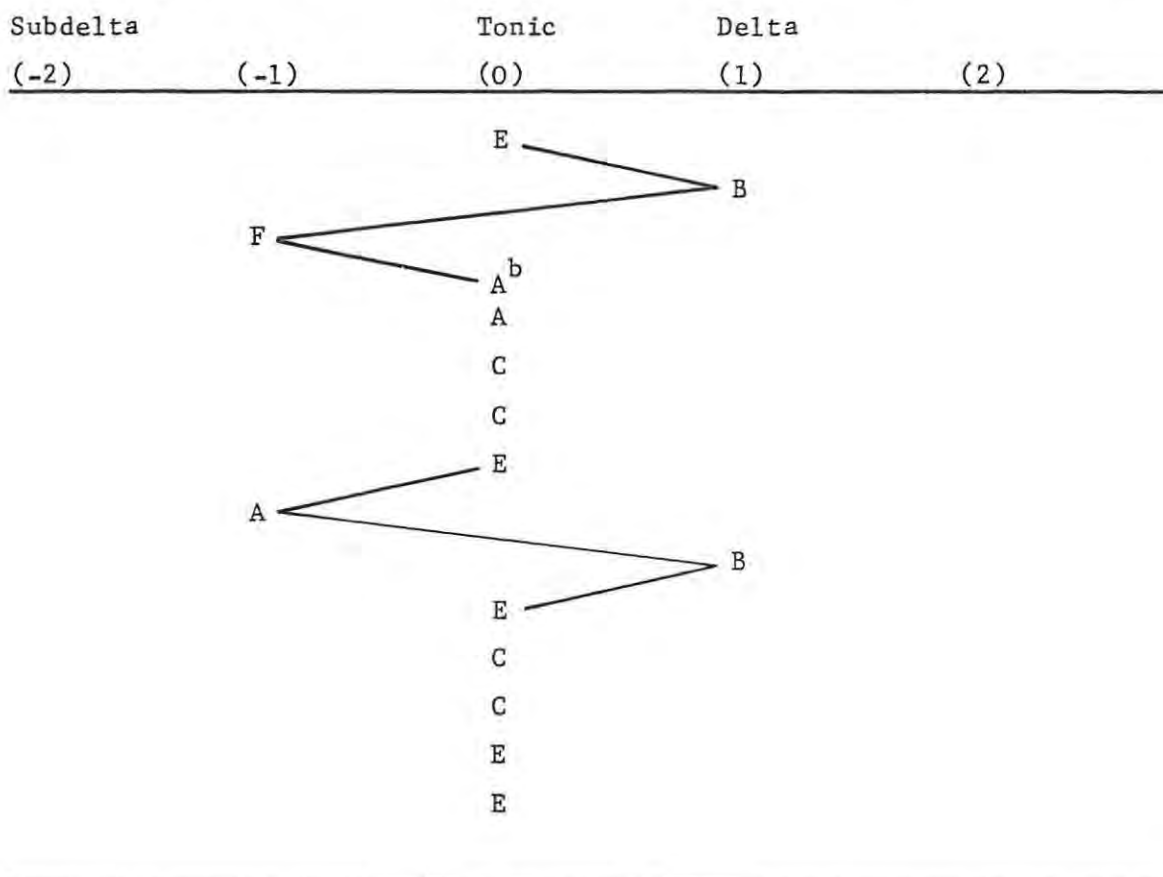
Section B showing modulating units of theme, based on a modulating chorale theme so no single key is clearly established, but rather a sense of continuously flowing harmony within the stable established key center of overall section.

Thus, by using this for the inner format, Bruckner achieves the idea of motion in rest most successfully. The stability of the outer design permits the kinetic character of the inner structures.

The seventh remains a natural symphony and although it lacks the grandeur of the eighth it asserts its own very distinct charm. Its beauty lies not in the subtlety, complexity or genius of its intellectual shape, but in its thematic design and the beauty of sound this produces. Its outer tonal structure is, perhaps, the plainest of all the symphonies, its inner the most flexible and volatile.

The design of the last movement is -

Diagram 94 S7:iv Showing emergent key centers of the movement



10.8. The eighth symphony

This was the last symphony which Bruckner was able to complete - the ninth symphony has only three movements as he died before he was able to write the finale. The first version of the eighth was ill received by Bruckner's friends Schalk and Levi and Bruckner was sunk into the deepest depression by their rejection of this work. However, he completely revised the symphony and the International Bruckner Society has issued an edition of the second version of Bruckner's symphony exactly as Bruckner wrote it. The following analysis is based on this score, edited and presented by Leopold Nowak.

Adjectives like 'monumental' and 'gigantic' can be used to describe this symphony, which is the greatest of all in its conception and execution. It was first performed in Vienna on the 18 December 1892, four years before Bruckner's death, and was an overwhelming success, more so than the fourth or the seventh; it was, and is, Bruckner's greatest triumph.

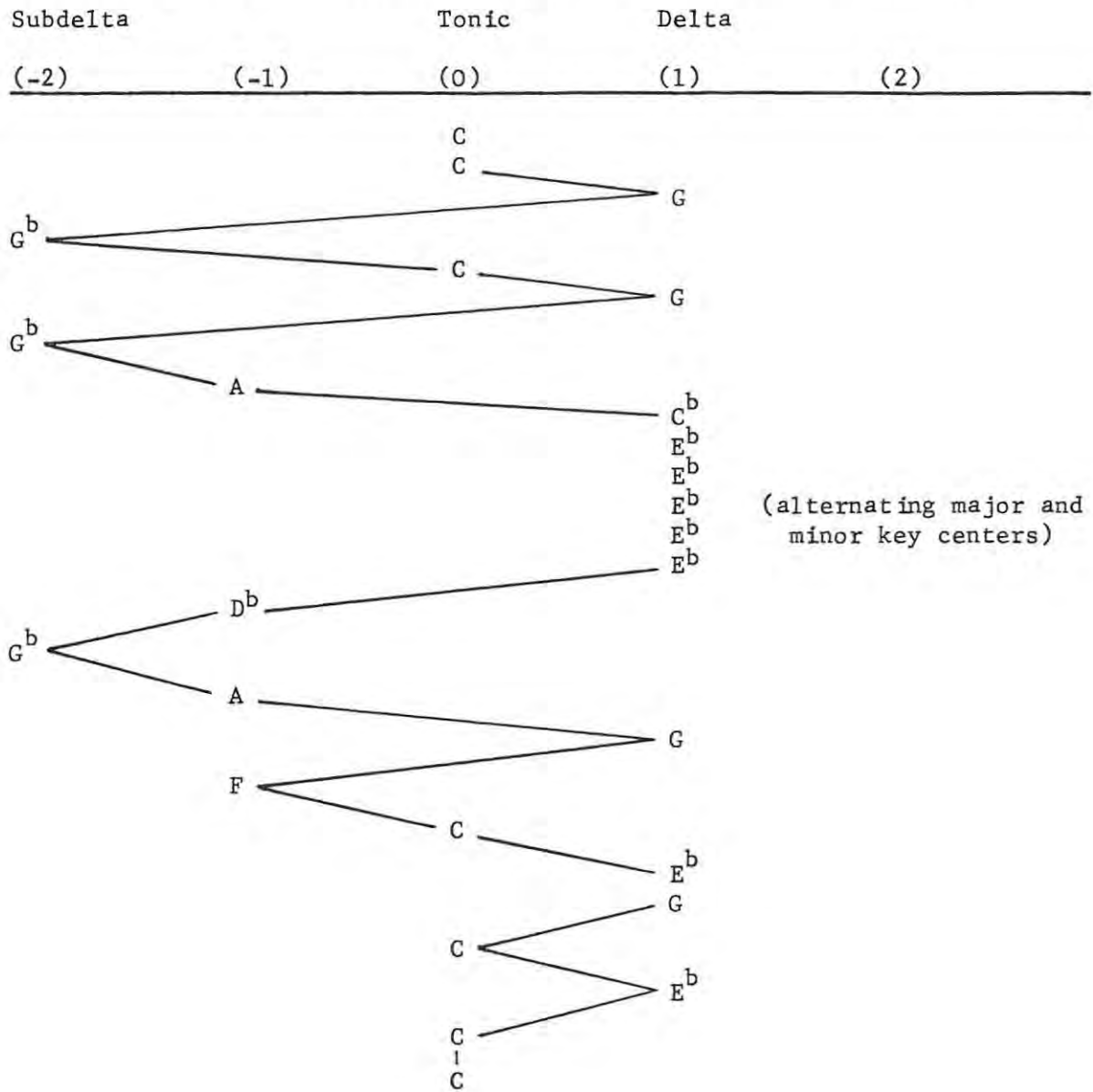
In this symphony one finds Bruckner, master of the compositional techniques which have evolved during his lifetime as a composer. All is interrelated, theme and tonality, micro-chordal progressions, tonal-schematic-design. What is found in the macro structure is reflected in the micro structure and vice versa. Here he exploits the full resources of the romantic-chromatic idiom, weaving the various devices of the language into the texture of the symphony.

The first movement

The established keys of this movement are C - E-flat - G-flat and C, forming the main key centers of the exposition and development, and C and E-flat forming those of the recapitulation. So, for all its internal complexity the first movement is constructed on the simple outline of a tonic-delta- subdelta-tonic, with a confirming closing cadence of 1-V-1V-1. In this way the tonic, after its initial appearance is suspended until the recapitulation, creating an extended region of harmonic tension. The tonal climax is at the first reinstatement of the tonic at the end of the development, b.225, opening of the recapitulation. This is the same structural principle found in the first movement of the fifth symphony.

The eighth presents the main theme in the tonic tonality, following the principle found in the third, but extended by the triple statement of the theme; now in the tonic major keys E-flat, f minor and again in G major/minor before the denouement to C minor, which however, is thwarted by the reappearance of the tonic major E-flat before the final resolution to the original tonic.

Diagram 95 S8:i Showing the emergent centers of the movement



The final movement

The established keys of this finale are C, from the tonic region; F-sharp from the subdelta region; and E-flat and G from the delta region. The overall tonal scheme is tonic, subdelta, delta tonic,

in essence the simplest design. However, the subdelta-delta confrontation is spread over most of the latter half of the exposition and the development, and the tonic is avoided for this period. In this way the tonic is polarised by two opposing regions. Each region is reinforced by the temporary and transient keys, arranged to maintain the balance of power between the subdelta and delta regions. Even the initial statement of the tonic is designed ambiguously as it is introduced by the key note F[#] which leads the progression to D-flat, followed by its dominant A-flat, followed by E-flat. But by b.31 the ambiguity of the opening bars is clarified as the strong assertions of the C key center indicate the Neapolitan relationship of D-flat to C.

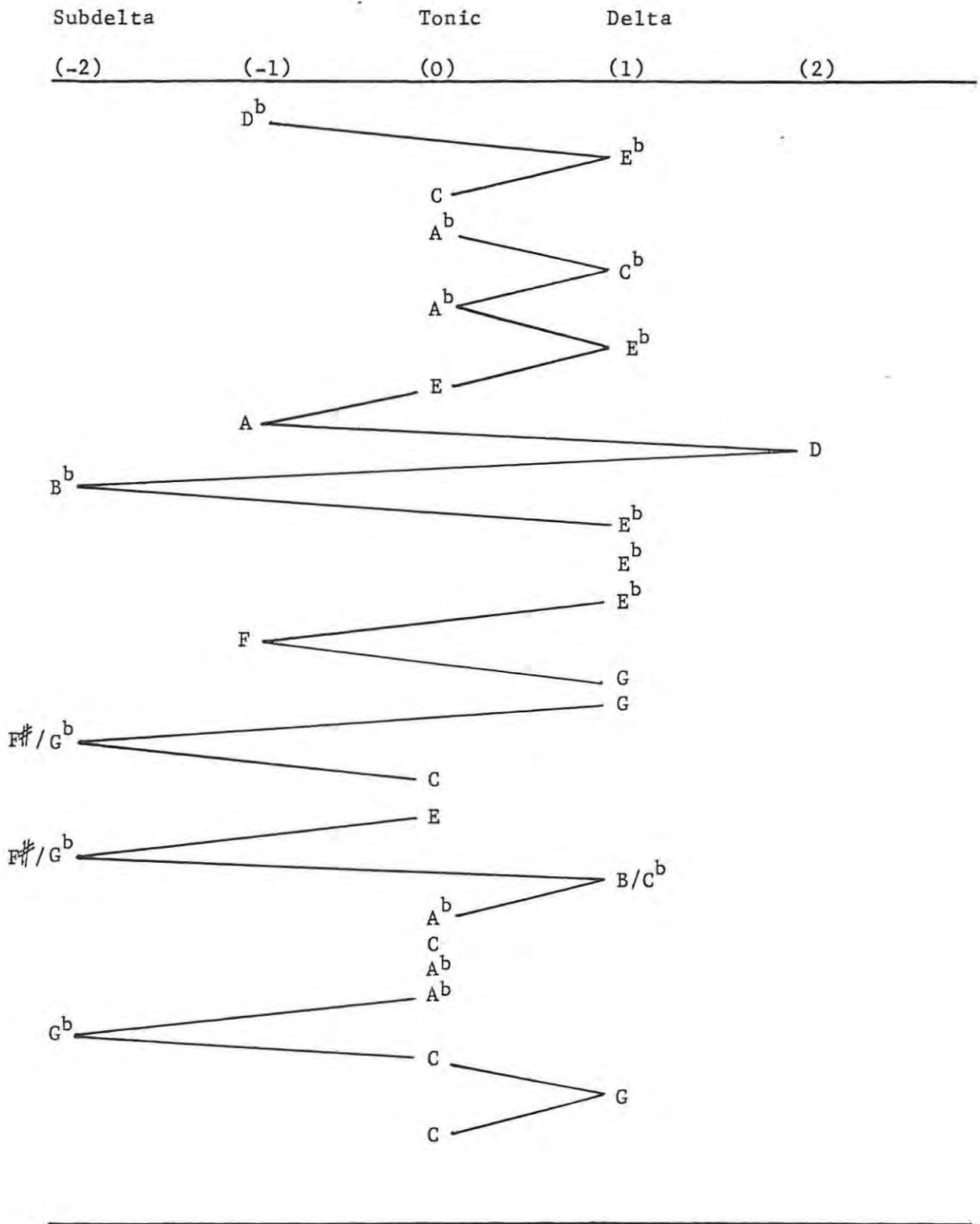
There is no single harmonic peak in the finale but rather a series of crescendoing harmonic peaks, such as e-flat minor, b.301ff, f minor b.323ff, and the dominant of C, G at b.333ff. This is suspended in a long cadence which ends on b-half diminished seven b.385 to b diminished seven b.386 intensified by a 4-3 suspension.

The recapitulation does not immediately reinstate the tonic key as it begins ambiguously on F-sharp and avoids a clear statement of C, leading the progression through the dominant to A-flat b.501. The ultimate relaxation and resolution of the harmonic tension is in the Coda b.647 in which the harmony moves through a gigantic cadence in C resolving unequivocally to C at b.687 on the final chord of C.

Once again the whole movement is devoted to disguising and masking the tonic until the greatest tension is achieved and all the harmonic threads are interwoven, interrupted and stretched to meet in the final climax. Quite a different compositional concept to the first movements which tend to expound the key centers, rather than disguise or suspend them, thus giving one of Bruckner's main methods of contrast between the two outer movements, which although balanced and similar in the criteria for symphonic form and retaining much interrelationship of both key and theme, are yet arranged in such a way as to present totally different tonal formats and response.

The finale is therefore based on a 1-1V-V-1 structure in which the tonic is polarised by the subdelta and delta regions.

Diagram 96 S8:iv Showing emergent key centers of the movement



The eighth is a rare and beautiful work containing in it the complexities of the fifth, the simplicity of the sixth and the charm of the seventh, and ultimately its own mystical grandeur.

It is interesting to see that the coda of the first movement includes a dramatic chord of the raised fourth (f-sharp) b.381 before its final denouement to the tonic C. The tonic is still not clearly defined as major or minor, as Bruckner omits the determining third note. This symphony is characterised by similar masking of the tonic, by chromatic inflections, of the Neapolitan and raised fourth, both structures noted for their tritonous possibilities. Even in the very final cadence of the first movement, the C-tonality is thwarted by Neapolitan inflections b.384 and suspensions, b.402-404. The final bars of the movement do not resolve the major minor ambivalence and the assertions of the Neapolitan still dominate the last chords, b.409-417. In the finale only in b.687 does the C major tonality emerge from the texture, shortly before the final chords.

10.9. The ninth symphony

In the words of Leopold Nowak, the ninth symphony embodies -

all the characteristic hallmarks of his previous symphonies: his minutely worked out techniques of theme development, his building up of thematic groups with a connecting tissue, his use of counterpoint, his great chorale-like climaxes, and of course, his unimpaired powers of invention.¹

1. Nowak, Leopold. Translated Richard Rickett. Anton Bruckner IX Symphonie D-Moll 1951. Vienna p.ii foreword.

His ninth symphony is indescribably beautiful, it is a work which combines the genius of the former symphonies and it contains, in the final assessment, the ultimate expression of that mystical conception of sound which was heard in the other symphonies. It is symbolic of the highest ideals of the romantic movement in its outpourings of spirit, sound, musical poetry and drama.

The first movement

The following keys constitute the first movement -

- (i) D, A, C forming an initial tonic-delta subdelta design
- (ii) A, D, F, G-flat, A, F, C, forming a predominant delta design, with excursions to the tonic region on the tonic key D and on the tonic m \flat , g-flat, with one excursion to the subdelta region of C.
- (iii) D, A-flat, C, B, F, forming a predominant subdelta region, with one excursion to the delta key of F before returning to the tonic.
- (iv) B, D, forming the closing cadence.

So, the structural outline of the first movement is :-

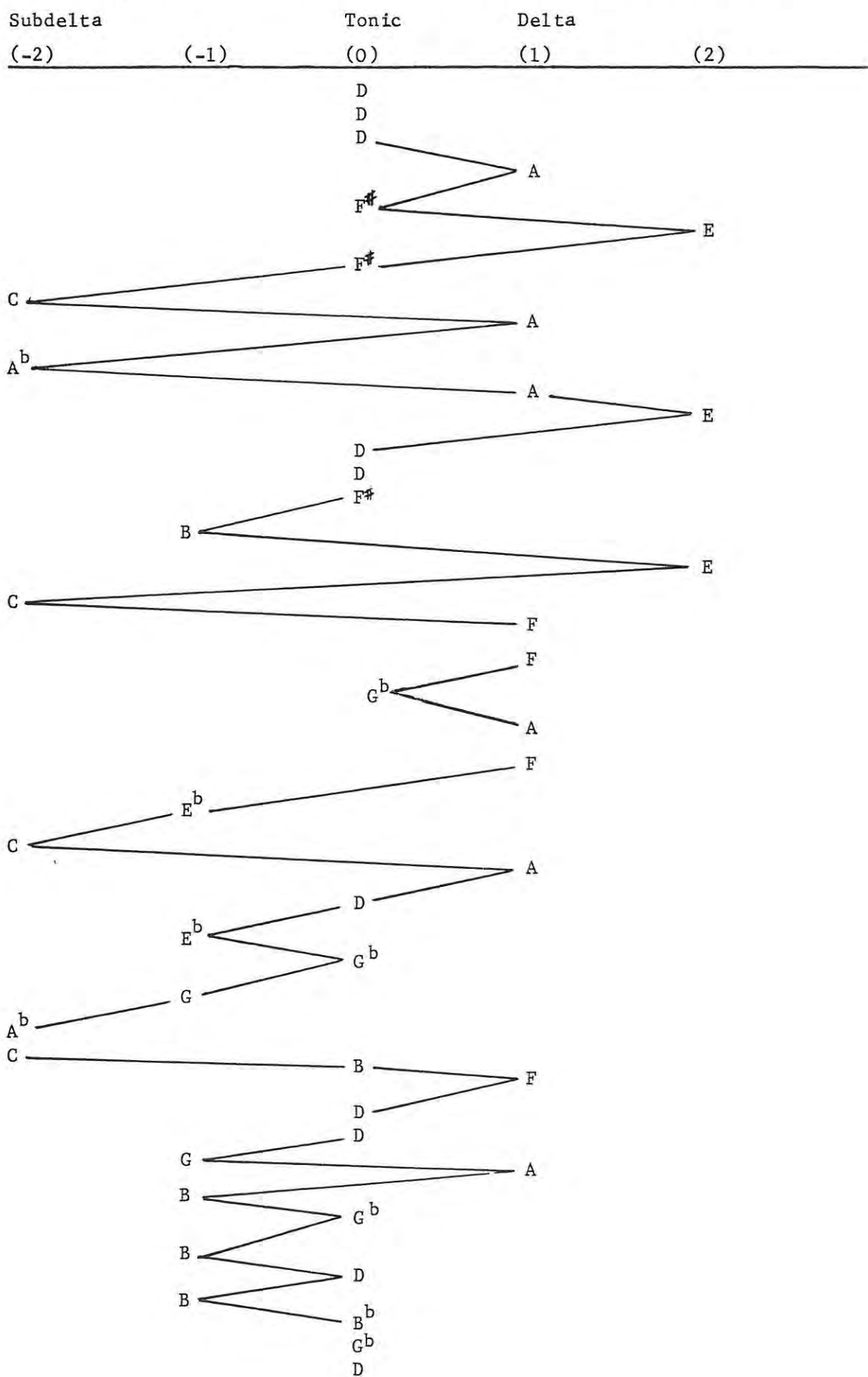
1	(of 1-V-1V)	the tonic region
V	(of V-1V)	the delta region
1V	(of 1-1V-V)	the subdelta region
1	(of 1V-1)	the tonic region

Thus, once broken into its simplest form and true to the usual design of the first movement Bruckner retains the simple cadential format. This time he breaks each of the larger regions into smaller conflicting ones, so setting up a hierarchy of harmonic tensions, each generating its own confrontations and each contributing to the harmonious sound of the whole. Once again, a deceptively intricate tonal design turns out to be essentially quite simple.

The harmonic tension of the movement is maintained by this pyramid structure; also by the movement to and from the tonic key of D. The tonal climax (in this case of distance from the tonic) being at b.269-276 and (of the return to the tonic) at the 'recapitulation' b.333-338. Following the statement of the first theme in d minor, is a statement in e-flat minor, g-flat minor and finally g-minor, each taking the harmony further and further away from the initial key center of d minor, and in this way sustaining the harmonic line through to the coda and the first uninterrupted sounding of the tonic key at b.519.

The diagram of the emergent key centers is -

Diagram 97 S9:i Showing emergent key centers of the first movement



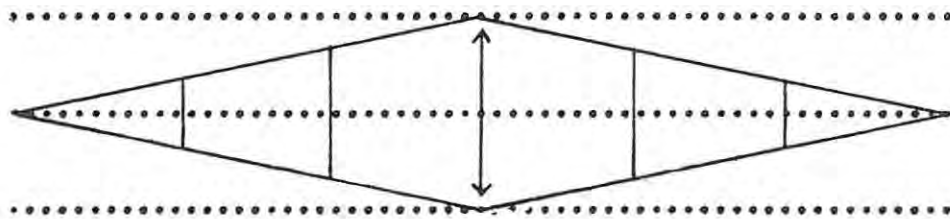
10.10. A graphic presentation of the tonal contours
of the first and final movements

The tonal structures of Bruckner's works precribe a specific harmonic contour. This is shown in the following graphs which reflect the ultimate tonal development of the key centers of the substructure: in some cases the distance from the tonic and in others the resolution to the tonic center. They do not always reflect the correlated thematic-harmonic design as Bruckner, in earlier cases, pre-empts the thematic-harmonic climax by contrasted tonal peaks in the substructure which anticipate the thematic statement.¹

10.10.1. First movement designs

The following sketches trace the external, harmonic contours peculiar to Bruckner's symphonic movement.

(i) Graph A



Expo.,

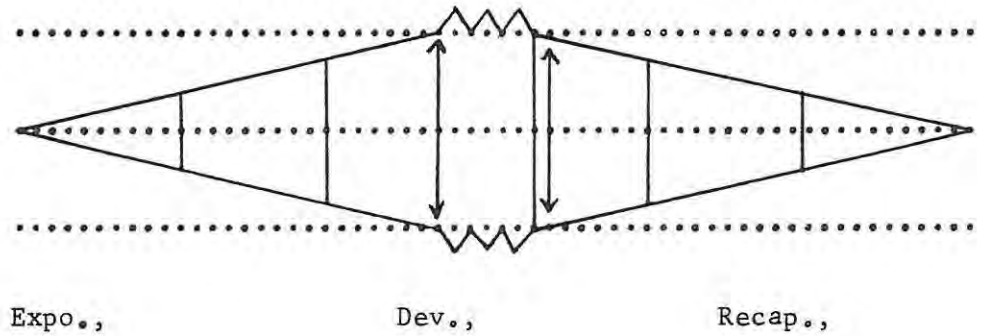
Dev.,

Recap.,

This structure is the fundamental design of the tonal contour of
S2:i, S3:i, S4:i, S6:i.

1. After the first two symphonies (except for the ninth's first movement) the thematic harmonic climax of the superstructure is usually paralleled by the tonal climax of the substructure, as these are combined.

(ii) Graph B



This structure is the fundamental design of the tonal contour of S1:i, S8:i.

(i) S2:i is based on an extended cadential structure 1-V-1V-1, the tonal peak is in Part Two of the development, used in combination with thematic structures to present the rest of this section. Thematic-harmonic climax follows at opening of recapitulation. Tonally varied restatement of the theme.

S3:i is based on a delta tonic design. The climax is in the development, combined with full thematic statement of Aa in the tonic minor key. Forms an extended tonic region in the movement.

S4:i is based on an extended cadential form of 1-1V-V-1 and the harmonic climax occurs in the development. Combined with thematic-harmonic statement of Ab in the opposing minor tonic key center.

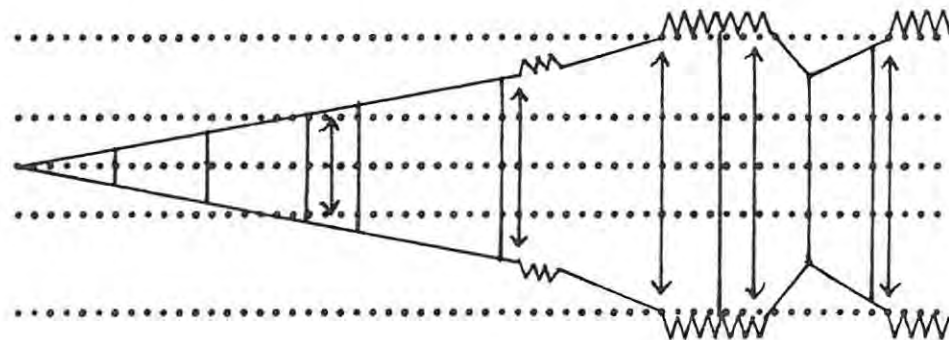
S6:i is based on a 1-V-1V-1 design and has the tonal climax in the development, Part II, in this case combined with the Aa thematic statement.

(ii) S1:i is based on a delta-tonic design, the tonal peak takes place in the development, just before the recapitulation. Thematic-harmonic climax follows at opening of recapitulation.

S8:i is based on the same tonal structure as S1:i, the tonal climax taking place in the development, just before the recapitulation, but in this case emphasized by combination with a triple statement of a dual subject group (on Aa and Ba) in three different key centers.

The other symphonies, ie. S5:i and S7:i and S9:i have an individual and original design, a result of Bruckner's explorations in structural principles.

(iii) Graph C S5:i



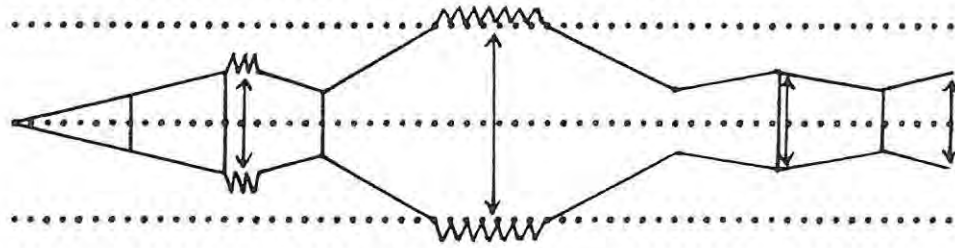
Expo.,

Dev.,

Recap.,

The fifth is based on an extended cadential structure of 1-V-1-lV-1, and so has a series of tonal climaxes resulting in the greatest tension peak in the coda b.493. Combined with various fugal thematic statements for greater emphasis.

(iv) Graph D S7:i



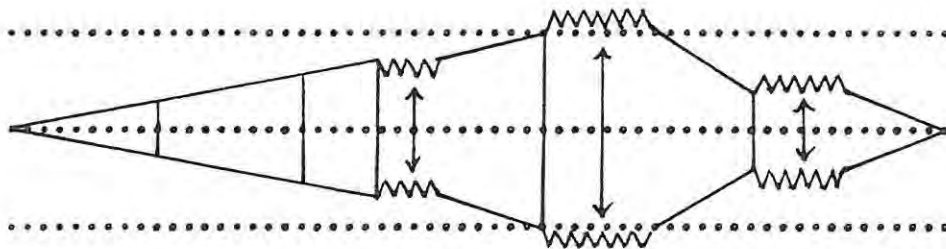
Expo.,

Dev.,

Recap.,

The seventh does not conform to the usual structural principles of first movements, the harmonic contour follows that of the static-tonic, creating a series of tonal peaks throughout the movement, but emphasized in the development by the assertion of the flattened VI (minor) through the full thematic statement of Aa.inv.

(v) Graph E S9:i



Expo.,

Dev.,

Recap.,

Coda

Based on the same structure as S1:i but different internally as the tonal peak is combined with a statement of Aa² theme and the Aa theme to emphasize the key center in Part I of the development, but the combined thematic-harmonic climax occurs at the opening of the recapitulation section - sustained by subsequent development.

10.10.2. Finale designs

If one compares the harmonic design of the first with the last movements, it is obvious that some finales are based on a different tonal contour, as determined by the position of the harmonic climax.

Similar in design to first movement contours are:-

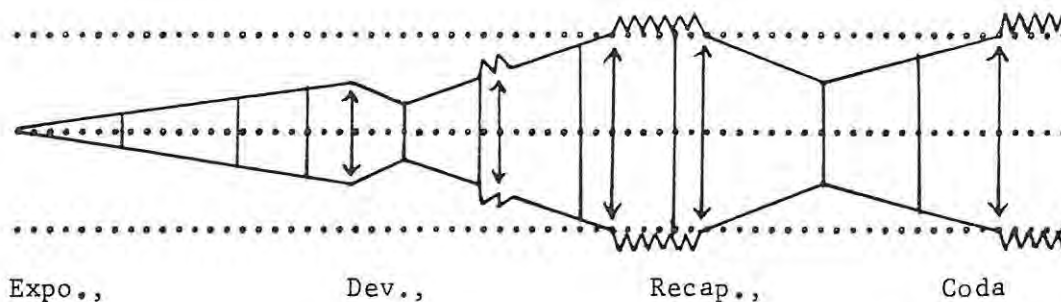
S1:iv which follows the outline of Graph A. Here the tonal substructure is not correlated with thematic assertion.

S2:iv which follows the outline of Graph B, where the substructure and thematic assertions combine to present a small climax of a new theme in the development while maintaining the main impetus to the recapitulation.

S6:iv which follows the outline of Graph E in which thematic and harmonic assertions of the Ab theme are presented in the tonic major in the development, Part II..

In Bruckner's finales the typical contour emerges; this forms the fundamental design for most of his last movements

(vi) Graph F

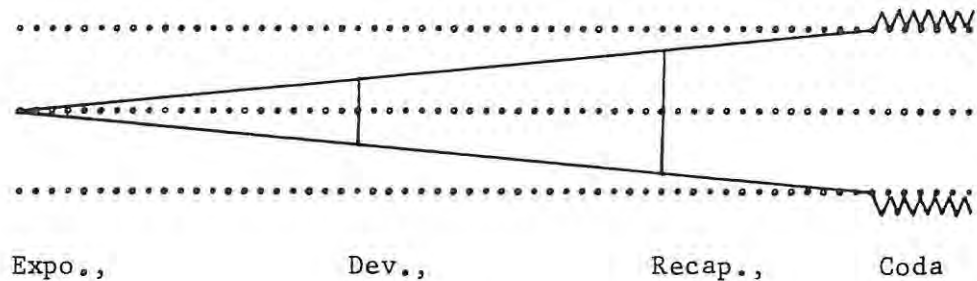


This structure is found in S3:iv, S4:iv, S5:i, S7:iv and S8:iv.

Bruckner used this design effectively in the first movement of the fifth symphony.

Resulting in the following pure tonal design so peculiar to the finales.

(vii) Graph G



S3:iv is combined with thematic statement in the development Part I and II to emphasize the tonal peak, culminating in the climax, achieved by the resolution to the original tonic, in the coda.

S4:iv illustrates a series of accumulative thematic-harmonic peaks culminating in the climax, the resolution to the original tonic in the coda.

S5:iv combines thematic-harmonic structures giving a series of accumulative peaks, fugally presented, moving from distant tonalities to the resolution to the tonic, as the climax, presented in the coda.

S7:iv combines with a triple subject statement of the Aa main theme in removed keys, showing accumulative thematic-harmonic peaks presenting the climax of the movement as the resolution to the tonic in the coda.

S8:iv combines tonal centers with a triple statement in the development Part II, using the recapitulation with its particular tonal shape to sustain the tension by avoiding the tonic, culminating (as the climax of the finale) in the resolution to the tonic in the coda.

Thus, in spite of harmonic similarities, the movements differ thematically and structurally, and in spite of structural similarities the movements differ with regard to their tension line and harmonic climaxes. In this way Bruckner retains the individuality and essential character of each and every movement.

The fifth symphony has been valued as Bruckner's contrapuntal masterpiece, the eighth as his masterpiece of grand art, but the ninth is more than this; it is art itself. Here, the compositional techniques evolved during each successive symphony, discussed in the preceding chapter, are melted into the texture of the work, and form is not separable from content or content from form, but the whole acting as a single unity to present a moment of truth and beauty.

The grandeur of Bruckner is -

Not the intense moment
Isolated, with no before or after,
But a lifetime burning in every moment
And not the lifetime of one man only
But of old stones that cannot be deciphered.¹

and in our understanding this nobility of time and movement -

We must be still and still moving
Into another intensity
For a further union, a deeper communion
Through the dark cold and the empty desolation
The wave cry, the wind cry the vast waters
Of the petrel and the porpoise.²

1. and 2. Eliot, T.S. Collected Poems. 1909-1962, East Coker V.
1963 p.204 to 205. Faber and Faber. London. 1963.

CHAPTER ELEVEN

11. Development Techniques: The Structure of the Development and its Role in Determining the Form of the First and Final Movements

11.1. General Introduction

In the nine symphonies Bruckner is beset by two main problems: his instinctive concept of structural dynamism and tonality and his imbibed understanding of orthodox conventions regarding symphonic structure and sonata form: two superficially irreconcilable ideas.

Consequently there is, in each movement of each symphony, a new approach, a subtly different compositional technique as he moves from his initial understanding of these problems to the perfection of his own ideal in the later works.

In this chapter, the evolution of compositional techniques directly derived from the structural features of the symphonies themselves, will be shown. Comparative references between first and final movements will overlap as Bruckner used compositional principles from his first movements for the finales and vice versa.

It is necessary to consider Bruckner's treatment of thematic-harmonic-rhythmic material in the development as this influences his approach

to quality, position and structure of the recapitulation, eventually leading to a reorganisation of the recapitulation itself. This is effected mainly by two techniques :-

- (i) The structural positioning of the thematic and harmonic climax of the development division
- (ii) The structural treatment of thematic-harmonic material of the A section in the development and in the third division/recapitulation.

By comparison consider, as a representative work of the classical era, Haydn's Drum Roll symphony, No.103.

It consists of :-

- (i) an adagio introduction (opening with the drum roll) the main melody of which appears again in the movement as part of the allegro theme, the development and the coda.¹
- (ii) an exposition consisting of two clearly differentiated subject groups in two principal and contrasting keys, joined by a bridge passage, so avoiding sectionalism.
- (iii) a clearly differentiated development section which
 - (a) explores material mainly from the A subject
 - (b) uses an organic development of motives (contrapuntal techniques)
 - (c) uses new keys for tonal development

1. Not a common device of this era.

- (d) is divided into three sections
 - (e) uses (unusually) a full statement of the B subject, in D-flat major, transformed re pitch, key and sonority.
- (iv) a recapitulation which simply restates the exposition material in the tonic key (except towards the end of the section).
- (v) and a coda which again (unusually) states, from the exposition, the adagio introduction (drum roll) and uses this thematic material as an allegro close together with other subject matter.

These typical features are realised in Bruckner's movements.

Although Bruckner (being a classical conventionalist in spirit) attempted to describe, and possibly compose his works within the confines of these principles, various romantic innovations too, may be seen in the structural arrangement of the movements.

Thus, superimposed on the classical spirit one finds criteria peculiar to the romantic era such as :-

- (i) The expansion of the number of subjects found in the exposition.
- (ii) The expanded dimensions of form caused by larger internal sections such as the expanded exposition, the prolonged codas, and the extended developments.
- (iii) The development section of the movement became the focal point, the heart of the movement and techniques of :-

- (a) organic motive development (beginning with the germ cell which generates the larger form)
- (b) modulation to remote keys
- (c) the use of new material, new subjects
- (d) expanded use of exposition material in all manner of polyphonic, contrapuntal techniques

became the norm for this section

- (iv) the expansion of the coda to a section in its own right
- (v) the permeation into the exposition and recapitulation of development techniques and the structural problems of contrast innovation and expectancy this posed
- (vi) the romantic preoccupation with the validity of a recapitulation (in the tonic key) of previously expounded material and the urge to avoid this by turning the recapitulation into a 'new experience' of explored material
- (vii) the gradual movement away from organic development as typified by Beethoven to the concept of development by contrast, juxtaposition, orchestral colour variation, reharmonising thematic material and the repetition of theme rather than the gradual expansion from a smaller musical idea
- (viii) the tendency towards the theme as the paramount structure of a movement and towards the situation where the themes themselves were contrasted, and the sectionalism this implied

- (ix) the implication that this total involvement in thematic shapes destroyed to a degree the technique of motivic development
- (x) the reliance on rhythmic variation, and rhythmic patterns, for development purposes
- (xi) the emphasis on cyclic structures, seen in most of the works of the romantic composers and the return of other movements' themes in the finale movement
- (xii) the incorporation of fugal textures into the first and final movement sonata forms

These ideals of both periods are represented to a greater and lesser degree in the first and final movements of Bruckner's symphonies. Bearing these criteria in mind, one can trace the evolution of Bruckner's own approach to symphonic form noting the application in the development of these criteria and the two techniques, mentioned at the beginning of the chapter.

11.2. The Prelogue

All developments, first and final movements are introduced by a prelude. This is the section immediately following the C section of the first main division of the symphony. Bruckner uses the character theme and mood of the prelude to open the second division to avoid the sectionalism brought about by too abrupt juxtapositioning of C subject and tonal material and the initial material of the development.

Certain features distinguish the prelogue in Bruckner's symphonies :-

(a) It is cadential. Some symphonies have a short cadential region, eg:

(1) S1:i, S1:iv, S5:i and S9:i,

others an extended region, eg:

(2) S3:i, S3:iv, S2:i, S4:i, S7:i, S6:i and S8:i

In group (2) the prelogue incorporates thematic exploration on a small degree but the form and development is not as expanded as that of an expanded cadential region, eg:

(3) S2:iv, S4:iv and S6:iv.

(b) Other prelogue structures include an extended thematically explored region as in S5:iv and to a lesser degree S8:iv.

(c) And in S7:iv Bruckner uses the prelogue as a tonal pivot to bridge the harmonic direction from the first to the second division.

(d) The prelogue enables movement from one key center to that which opens the tonality of the development proper.

(e) Usually the prelogue is based on themes or fragments from one of the three main subject groups of the exposition. In S2:iv and S3:i thematic material is derived from outside sources. (Respectively Bruckner's own mass in f minor and the kyrie from Palestrina's Stabat Mater).

- (f) The mood of the prelogue is tranquil, achieved by resolving harmonies (hence the cadential form), low dynamic range, the slower rhythmic tempo brought about, in some cases, by the augmentation of the rhythm and intervals of the main themes, and the non-tense thematic character since the transformed material of the exposition resolves into static layered repetitions or imitations and sequences. In this way Bruckner drops the structural tensions of the first division to allow for rebuilding and the greater climactic effect in the ensuing development.

11.3. The development, its structure and techniques found therein: first movements

11.3.1. Fragmentation within the development and the impetus towards the final division (recapitulation)

This technique is found in S1:i, S2:i and S9:i.¹

Illustration:

The features common to these symphonies are :-

- (i) The development is subdivided into three sections, Part I, II and III in the traditional manner.
- (ii) The development is introduced by a prelogue.
- (iii) Part I of the development centers on Aa material from the exposition except S1:i.

1. Also S1:iv and S2:iv

- (iv) Part II still centers around the Aa theme, in S1 and 2, but in S9 Bruckner uses the Ab⁵ theme in combination with the Cb theme.
- (v) The last section of the development, Part III acts as an epilogue. The epilogue may be described as a type of 'transition' in the classical sense. It is usually modulatory, it winds down the development section; it presents fragmentary statements of developed thematic material and forms a denouement before entry of the main theme in the recapitulation. In S9:i Bruckner uses a different technique as he combines the fragmented statements of Cb, Ab² in varied inversion, and Ab¹ into an ostinato block which forms a figural extension of the dominant chord leading the development directly into the "recapitulation" of the main theme Ab. (Cf S1:i P/III).
- (vi) S2:i Part II represents a technique to be much used by Bruckner in later movements, viz. the restatement of the main theme in a new key, varied, as part of the development process.
- (vii) Part II of S1:i presents a small sound field as the closing structure of the section. Another technique to realise its potential in the later symphonies.

If one considers each of these movement individually, certain characteristics peculiar to the symphony, emerge.

Ex.119. S1:i Diagrammatic analysis of development

Prelogue b.101-106

Short 6 bar cadence in E-flat major

Forms part of the development material based on transformations of C subject.

Part I b.106-143

Is subdivided into five smaller groups

- (i) b.106-119 forming an intro on transient key centers E-flat (g - V/B-flat) based on C material
- (ii) b.120-123 Ca theme, varied, in key center G
- (iii) b.124-131 C theme in sequence, key center B-flat major
- (iv) b.132-135 combination of themes mainly of demi-semiquaver figure of C section with fragments of Ca
- (v) b.136-143 continuation and fragmentation of theme, emergent key center being D major, acting as a dominant.

Here Bruckner departs from convention and uses C section material for development. He applies the same statement, continuation and

fragmentation of thematic material used in the exposition, combining this mainly with tonal exploration and orchestral variation and colour. Here is the dual structure peculiar to his compositional arrangement in which two levels of orchestral colour operate, one being a diffuse accompaniment (the demi-semiquaver figure) restricted to the strings or flute, and the other a thematic presentation, albeit fragments, by the winds. This technique is much refined and improved in the later works by emphasising the contrasting dual structure with different subject material, and using a large orchestra.

Part II b.144-176

- (i) b.144-155 forms an introduction to the rest of the section. F-sharp minor acts as a dominant preparation and increases harmonic tension. Return of Aa material.
- (ii) b.156-166 a conventional true development of the Aa theme in b minor, the key center is transient moving to iv/e.
- (iii) b.167-176 this involves the fragmentation and orchestral transformation of the motives, settling on V₉/C for closing bars. The resolution to F is omitted, apart from a brief suggestion at b.177-180. This section forms a figurally extended chord-block, which creates a small tension peak in the development: a device to be used with much greater confidence in later works.

Part III b.177-198

(i) The epilogue centers on V/G dominant to c minor. The thematic material is transformed in a fragmented state. This is, except for b.16, the first use of V/G in the section in a truly confirmed progression.

The epilogue dies out completely for the ppp opening of the recapitulation in the tonic key c minor.

As there is no climactic statement of any theme in the development, the emphasis falls on the restatement of Aa in the recapitulation in a traditional manner. The nature of the theme is such, that the recapitulation begins on a low tension point and the tension line is directed to the C section of the recapitulation and ultimately to the coda.

The second symphony follows similar outlines to the first movement. After the criticism Bruckner received on the performance of his first symphony, he became far more restrained, "the Viennese have made me timid" he said. Certain features, however, distinguish it :-

Ex.120. S2:i

Prelogue b.163-184

This is a vastly extended section and presents some of the features to be found in later works :-

- (a) Sustained pedal-chords over which figural embellishment takes place.
- (b) Fragmentation: such as the use of Aa¹ varied, juxtaposed to Aa² and ab thematic material.
- (c) The transient nature of the key centers: moving from G (acting as a dominant) to E-flat and then to f minor.
- (d) The imitative use of fragments and contrasting orchestration colours to present the motive : bassoon, oboe, clarinet and horn.

Part I b.185-220

The development begins in the established key of f minor (and includes the V's Neapolitan inflection). Thematic material is drawn from the Aa theme. There is much emphasis here on assertive key tones, a feature to characterise the rest of this work, eg: the opening bars the assertive f-tone (b.185ff). Use is also made of the pivot tone or pivot note (b.190).

Various interesting development techniques appear in this section :-

- (i) The layered presentation of the theme from a single to a multiple structure.
- (ii) Expanded imitation b.204ff.
- (iii) The predominance of assertive key-tones. From b.211, although the theme retains its opening rhythmic form, the harmony intensifies as the key centers dissolve into quickly moving

chords. The chromatic indecisiveness allows no tonal center, other than that asserted by the key-tone, (E-flat b.212ff) while the developing ostinato phrase gives direction to the thematic and chordal structures.¹ In this way Bruckner holds the sense of key in obeiance without indulging in complicated harmonic strategy.

Part I ends on C/V of F major.

Part II b.221-274

Consists of, in effect, a restatement of P/I with completely new orchestration and different pitch, while remaining in the same key center of f minor. It uses :-

- (i) the decending scale pattern from Aa¹
- (ii) Aa in imitation fragmented and presented vertically, in inversion, ascending and descending, simultaneously
- (iii) irregularly spaced ostinato motives from Aa¹ to build up broad tension lines
- (iv) Aa rhythm only (in the horns)

It splits the motive to form two themes so creating a multilayered structure.

The motive -

1. In later works this technique is seen on a far more developed level. The ostinato is used to drive the chordal figurations forward; but these too can be suspended with rests, as in this section.

Ex.121.



is used in subsequent repetitions, forming a type of ostinato-phrase, it leads the key center to G-flat b.231ff. This center is used to introduce the Ca theme, the rhythmic augmentation of which forms the basis of the fragmentation process to follow.

Here one sees the lapidary relationships between themes as each musical idea emerges from or is related to another in the subtlest way -

Ex.122.

b.234ff

Ca b.97fff



The second part of the development closes on transient keys which move towards the new key of Part III - G. Once again the assertive key note is in strong force and the pivot note B becomes the major third of G b.272ff.

Part III b.275-317

Tracing the rhythmic development of the motive one sees that Part III opens with the Ba theme and a rhythmic and interval variation of the

theme, illustrating the close interrelationship of these two lines.

Ex.123.



This section forms the epilogue to the recapitulation and acts as a cadential region preceding the tonic.

Having examined the similarities and differences of the first two symphonies, one may see in the ninth how Bruckner, in using the structural impetus to the climax in the recapitulation, now restructures his whole concept of symphonic form.

Illustration:

To see the outline of this movement in perspective, it is necessary first to give a diagrammatic analysis of the work.

Diagram 98

Exposition/Division I - Opening Statement

Section I - A

A frg = Aa¹ ----- Aa ----- Ab¹(cont) -- Ab cont² & Frg ----- Ab³frg
 b.1 b.19 b.27 b.39 b.51

Section I - A continuing

Ab Main theme --- Ab⁴frg --- Ab⁵Trans.
 b.63 b.71 b.77

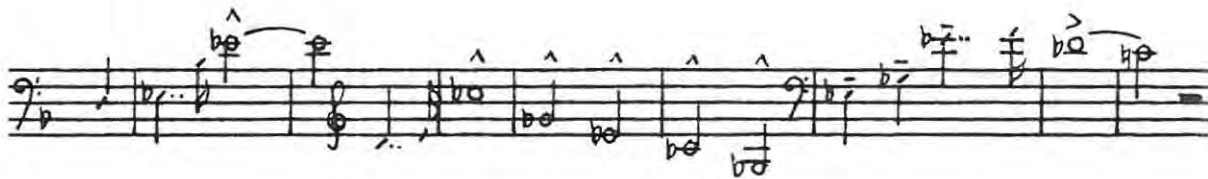
Represented here are the two subjects which make up the first section of the 'exposition'. The structure is the inverse of that usually followed by Bruckner as here he opens the movement with the fragmentary ideas and builds up to the full statement of the subject theme.¹ In this work the Ab theme is by far the most important. It is, however, possible to subdivide the structure, giving the Aa theme an autonomous nature, the stress laid on the second theme falls in line with the inverse structural concepts of this movement.

Musically, Diagram 98 is represented as -

Ex.124. b.4ff S9:iAa¹



Ex.125. b.19 Aa



Ex.126. b.27 Ab¹



Ex.127. b.39 Ab²



1. A technique anticipated to a lesser degree in the final movement of the second symphony.

This is based on Ab⁵ frg and forms, in fact a German sixth chord on G-sharp (of D major) to the new key center A major.

Diagrammatically this section reads as follows :-

Transition Section II - B (Division I)

Ab ⁵ Tr	Ba-Ba-Ba(cont)	---	Ba.inv.	Bb	--	Bbcont	Ba ¹	--	Ba ¹	--	cont--	Frg
b.77-96	b.97 101 105		115	123		127	131		135		139	143

Musically the following examples match the diagram above -

Ex.132.

Ba b.97

Musical notation for Ex.132, showing a piano part with chords and melodic lines. The notation includes a treble clef, a key signature of two sharps (F# and C#), and a common time signature (C). The music features a series of chords and melodic fragments, with some notes marked with 'y' and 'z'.

Ex.133.

Ba cont b.105

Musical notation for Ex.133, showing a piano part with chords and melodic lines. The notation includes a treble clef, a key signature of two sharps (F# and C#), and a common time signature (C). The music features a series of chords and melodic fragments, with some notes marked with 'y' and 'z'.

Ex.134.

Ba inv b.115

Musical notation for Ex.134, showing a piano part with chords and melodic lines. The notation includes a treble clef, a key signature of two sharps (F# and C#), and a common time signature (C). The music features a series of chords and melodic fragments, with some notes marked with 'y' and 'z'.

Ex.135.

Bb b.123

Musical notation for Ex.135, showing a piano part with chords and melodic lines. The notation includes a treble clef, a key signature of two sharps (F# and C#), and a common time signature (C). The music features a series of chords and melodic fragments, with some notes marked with 'y' and 'z'.

Ex.136.

Bb cont b.127



Once again Bruckner writes a transition based on Bbcont theme and fragments of the B subject group to bridge the movement to the third section. The transition opens on the chord A-flat, acting as a dominant. The expected resolution to D-flat is omitted as A-flat turns enharmonically to G-sharp, the leading tone of a minor the ensuing key center, b.157. The transition ends on E, the dominant of the opening key center A of Section II. Section III opens again on d minor.

Transition Section III - C (Division I)

Ca	Ca	Ca restatement	Cb	Cb ¹	Ca	Prelogue
b.153	b.167	b.179	b.191	b.199	b.207	b.219 - 226
New Idea						Static tonal pivot on F to f minor

Musically the themes are as follows -

Ex.137

Tr. new theme b.153



Presented on A^b, then a minor b.157.

'gesangs' character of the themes. Each section is marked by the ternary nature of its structure and the double statement technique. If one understands the genre and magnitude in which this is presented, the spirit of the exposition is essentially simple and classical in its clear-cut, formal lines.

In similar vein the development, following the criteria of the early symphonies, is not complicated. After the prelude it falls into three sections. Diagrammatically represented as follows :-

Development Division II

Part I b.227-276: As is peculiar to this group of symphonies this part centers on A material, using Aa¹ motive in imitative statements to form a sound field on the key center f minor, counterstated on the key center G-flat/F-sharp, in which key the Aa theme is also found. The process is repeated, this time forming a sound field on the key center a minor, moving to the dominant of the expected B-flat, but settling, instead, on V/B b.269 and moving to G for the statement of the Aa theme, ending the section on V/E and beginning the second section of the development on the dominant F of the omitted tonic B-flat; now acting as a tonic in its own right. This section is an excellent example of the double statement structure.

Part II b.277-302: Now opening in F major Bruckner uses Ab⁵Tr and Cb motives for development. These are combined and arranged in ostinato phrases as they are fragmented to form a block structure - emerging from b.285ff. This structure was used in the early symphonies to create a certain amount of expectancy and tension at this point. The harmony moves to E-flat, b.289 and the section closes on a German sixth chord of C major (A-flat seven) to introduce and confirm the key center of the ensuing section, Part III.

Part III b.303-332: Opening on the key center C, Bruckner uses the Cb motive, diminished, and the inversion of Ab². An interesting feature of this section is the use of the Ab¹ motive in imitative sequences with orchestral colour variation, in nine separate entries, with transient key centers, before fragmenting the material b.321ff. This forms a kinetic section and a block structure on, ultimately, V/A b.329ff, to punctuate the bravura entry of the main Ab theme. In the section there is then, the contrast between the almost diatonic development of the Ab¹ motive and the kinetic section which builds up expectation in the ostinato phrases of the block structure.

Many analysts record this point as the recapitulation (ie. b.233), and in a sense it is, as it presents the

opening Ab theme, sans the long introductory fragments given in the exposition. It is presented in the tonic minor key. However, the restructuring of the material in the ensuing section is as far removed from classical norms of recapitulation as possible, and is rather an extension of the development, in fact a development in its own right.

'Recapitulation' - Division III

Section I - A

Ab in d minor -----	Aa frgs of-----	Dual subject -----	pivot note link
	exposition intro.	Tutti statement	C/3rd to A
Ab in e-flat minor	Varied		
Ab in g-flat minor	a-flat minor	As using most frgs	
	b-flat minor	and	
Ab in g minor		Bacont in aug.rhythm	
b.333	B major	opens on C minor	
b.339	b.355	transient keys to	
b.345	b.359	B major b.381	
b.351	b.363	Block	
		ends on f minor	
		b.387-397	

Transition

Aa⁵ Tr augmented

Pedal point on A dominant to D

Sound field on motives

If one compares this to the exposition it is obvious that the entire concept of this section is different. The function is to develop, not expound or recapitulate material. This is Bruckner's resolution to

the problem of the recapitulation viz. to turn it into an exploratory section while presenting as the climax the main theme in not one, but multiple statements; each tonally more exciting than the previous. In this way, the recapitulation or third division acts as a counter-statement to the exposition with the development acting as an enormous "transition" leading into this counterstatement. One feels that as this is the principle so evident in the smaller structures, the parallel principle is definitely intended in the macro structure. In this way Bruckner solves the problem of the 'uninspired, tonally restricted' recapitulation in a truly romantic manner. He also satisfied his own quest, as is seen in the other symphonies, for the full bravura presentation of the theme without loss of momentum, or tonal disparity, at this central structural peak of the movement. The multiple, in this case quadruple, statement in tonally dissimilar key centers is a technique which appears in other movements, but never before at this point of the structure.

One has but to listen to the movement to appreciate its success. The retention of tension by a dual subject statement to create a block structure is also found in the other movements, but again, not at this point in the structure. It is as if in this symphony Bruckner finally reconciled his intuition and training and drawing together the resources of all the techniques which gradually emerge during the course of his life, he successfully united them in the ninth. The exposition then forms an almost classical spirit of balance and proportion leading into the counterstatement b.333ff of kinetic energy and development.

The fact that the subsequent sections are shortened and varied further substantiates the theory of the entire third division being a type of 'development'. The momentum is directed towards the C section which culminates in a block structure (b.493ff) forming a transition to the coda. Here, as Haydn did in the Drum Roll symphony, Bruckner demonstrates his compositional genius as he closes the movement with this 'spiritual' type coda based on fragments from the Ab theme and controlled by a tonic pedal on d, which moves to its Neapolitan (E-flat b.527) and returns to d minor. Thereafter follows a kinetic section of transient keys and fragmentary statements till the coda terminates b.551-567 on an enormous block presenting the Aa theme as the closing motive, using the trumpets assertive V/A to 'suspend' the tonic until the ultimate moment.

Diagrammatically an analysis of the B and C sections is as follows -

Section II - B (Division III)

Transition	Ba	-	Ba	-	Ba(cont)	---	Ba inv	Bb	----	to Section C
	b.421		425		429		439		447	

Section III - C (Division III)

Ca	Ca	Cb	cont and frg to transition		Coda
	restatement				
b.459	b.467	b.479	b.487	b.493	b.519
				closing block	

This closes the discussion on the first group of symphonies which use the main theme in the recapitulation as the structural point of the first movement.

- 11.3.2. The impetus to Part II of the development with the full tutti presentation of a main theme as the climax, eg: SS4:5:6:7:i

The features of this group are as follows :-

- (i) The development is irregularly divided: S4 and S5 have 4 sections to the development. S6 and S7 have only two sections; the reason being the emphasis placed on the ostinato block, as a giant build-up towards the statement of the Aa theme in the recapitulation.
- (ii) In SS4:5 and 7 Bruckner writes a short cadential prelogue. S6 has an extended cadential structure b.121-145 on a simple V/G - I/C basis moving to b.132 IV or I/A - I or V/E on Aa frg, Ccp.a motives. (Similar to the prelogue of S2:i)
- (iii) Part II uses A subject material for development, but each symphony differs in the actual presentation and selects different A subject material, eg:-
 - (a) S4 uses the full statement of the Ab subject group in the tonic minor (as opposed to the original tonic major)
 - (b) S5 uses a dual subject structure combining Aa in canon with Aa inverted and accompanied by Ccp.a material. It involves transient key centers for each of the seven statements of the sequentially treated theme,

viz. E, G-flat, D-flat, (modulating chords), B, a minor, b-flat minor and C.

- (c) S6 states the Aa theme, in full tutti in its entirety on the raised fourth degree of the original tonic, E-flat major
 - (d) S7 states the full inverted Aa theme in the flattened 6th-c minor
- (iv) Part I of the development has a sectional character, but the use of subject material differs from work to work :-
- (a) S4 uses Aa and Ab fragments
 - (b) S5 the Introduction's theme Intro/i cp.a (iii) and Intro/i (i) as well as the Aa head motive
 - (c) S6 uses free inversion of Aa
 - (d) S7 uses Aa, Ba inverted, and Ca in its minor inversion in a dual-subject presentation
- (v) Part I acts, overall, as an introductory section to build up expectation by the development of thematic material, before the main presentation in Part II. Subdivisions of material are used to form an introduction; and an impetus to a block of lesser or greater magnitude, eg: S4 a rhythm field S6 an ostinato block b.189ff, S7 a rhythmic sound-field on thematic ostinato phrases. In S5 b.303ff there is true motivic development of the Aa theme which forms a block initially on the B-flat epi-center, then a roving center of kinetic chords.

The dissimilarities in these developments illustrate Bruckner's search for the ideal first movement form. Once the development reaches its climax with the presentation of the full main theme the composer is left with the problem of :-

- (i) how to maintain thematic interest to the end of the movement
- (ii) to sustain the climax, both thematically and harmonically and to
- (iii) propel the momentum to a satisfying conclusion. These problems, peculiar not only to Bruckner but to composers of the romantic period, rest ultimately on dealing with the recapitulation, the return of the tonic tonality, and the restatement of previously encountered material.

In SS4-7 Bruckner approaches the problem from a rather conventional position, although each of these symphonies shows a different structural approach. Of these S6 and 7 omit the true recapitulation of the A section. A technique first used in the finale of the fifth symphony.

In determining the structural intention certain features need to be examined :-

1. The nature of the development.
2. The subject theme used as the climax in the development.
3. The nature of the subject to be recapitulated.

Ex.140. S4:i

The development is divided into -

Prelogue	Part I	Part II
b.169-192	b.193-252	b.253-288
Cadential B-flat	Intro	Ab MAIN CLIMAX
	dim chords	E-flat minor/tonic
Ba themes	b-flat key-note asserted	
	Aa	
	Ab inv. motives	
	rhythm field	
Part III	Part IV	
b.289-333	b.334-364	
harmonic exploration	Ba cp.a mod. chorale	
Aa arr. modulatory chorale	development closes on V/B-flat seven, with pedal points on G, A-flat and B-flat	
sound field (small)		
b.321-332 (♩ ♯ ♩)		

Part I The indeterminate key center of the opening of this section I, created by the diminished chords on b-flat and d-diminished is unusual for Bruckner, as he normally opens the development in a key center presupposed by the epilogue.¹

1. He uses this technique again in S8 in which the opening subject of the exposition is so structured as to present an indeterminate opening key center.

He uses, in this section, the key-tone b-flat as an assertive tonality on a pedal point on the timpani, moving to an extended chord on b, a German sixth chord of F major, to introduce the key center of the second subgroup in F major.

This reflects a typical technique: the development of two opposing key centers. Seen here on a micro-scale Bruckner contrasts the F key center b.217 with that of A major b.219...229...233 each asserting their independent tonic function. Taking the overall picture of the development into consideration it becomes apparent that F is acting in a dominant relationship to B-flat, which, in actual fact, is the dominant of E-flat minor the key tonality of the development in which the thematic climax is presented. This is quite apparent as, after a series of kinetic chords b.239ff, Bruckner moves to B-flat, initially the Neapolitan of A but actually the dominant of E-flat minor. The harmony is flexible at this point as the motivic fragmentation of the subject material takes place. At b.245 a rhythm sound field emerges on the chord of B-flat which directs the ostinato and the harmony to the climax at b.253 Part II.



Part II At the climax of the development Bruckner uses the Ab subject in the opposing minor tonic key center, e-flat.

Ex.141.



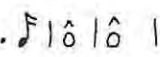
It is interesting to compare this structure with S3:i in which Bruckner states the Aa theme in the tonic tonality. Structurally, by using, in S4:i, the minor tonic he avoids a loss of harmonic momentum in the otherwise duplicating statement of the tonic in the recapitulation. He also avoids elongating the development by extended sections presenting transient key centers and modulating chords forming a contrast before the re-entry of the tonic in the recapitulation. By using the minor tonic he creates tonal contrast and tension by the juxtaposition of minor and major key centers thus emphasizing their tonal differences.

The use of the Ab theme which, in itself consists of a strong rhythmic propulsion and cadentially assertive character, provides a fitting culmination to the movement. Thus, it does not lessen the impact of the Aa theme when this appears as the next climax at the opening of the recapitulation. To be taken into consideration is the inorganic character of the Aa theme, which lends itself to gradual assertion, as opposed to the rhythmic, dramatic quality of the Ab theme which lends itself to bravura treatment within the development. One feels that Bruckner must have been well aware of the intrinsic qualities of each theme and planned his structure accordingly.

The climax achieved by presenting the Ab subject in the minor tonic is sustained as the  rhythm is presented in retrograde 
b.274 superimposed with the original form, and a block emerges on the

B-flat epi-center V/ of E-flat, to close Part II of the development

Part III Reverts to the Aa theme. Development techniques concentrate on harmonic exploration of the opening motive as Bruckner arranges this as a modulatory chorale. This typical arrangement of material becomes a regular feature of developments.

The predominant key center here is D-flat/C-sharp and it follows quite naturally for the first subgroup to orientate to G major a tritonus relation to D-flat, which forms the key center of a small sound field b.321-332. (old...  | \hat{O} | \hat{O} |

Part IV This forms an epilogue based on Bacp.a b.334ff to 364 a modulating denouement to the development. Here it is absolutely essential for creating the mood of the misterioso opening required by the Aa theme of this movement.

The entire development is conceived far more tightly than S2:i (or S3:i) and it is as if in this work Bruckner regains the confidence displayed in his first symphony. In this movement emerges the first 'new' approach to the compositional structure of the first movements: a thematic-harmonic climax centered in the development: as yet presented in the tonic tonality, leading to a strongly asserted climax of the Aa theme in the recapitulation. At this stage there is no thought of a new format for the recapitulation, nor any attempt to avoid the recapitulation, or to alter the form of the third division. Bruckner's intention in this and the

following symphony first movement is to highlight the structures of the recapitulation while remaining within the confines of conventional form. In achieving these ideals Bruckner relies on the strategic placing of his rhythm - sound fields, and block structures: using intense rhythmic and interval fragmentation of the form or the multilayered ostinati of the latter, to build up anticipatory tension/ expectation before the assertion of the original, unfragmented theme in toto.

His fifth symphony offers a new attitude to symphonic form.

Diagrammatically the structure is as follows -

Ex.142. S5:i

Prelogue	Part I	Part II
b.217-224	b.225-266	b.267-318
Cadential	i.Temporary key centers	i.Transient key centers
F	F/E	E/G-flat/D-flat
	Intro/cp.a(iii) Ccp.a	b/a minor/b-flat minor/C
	ii.Intro/(i) & (ii)	frg modulating chords
	temporary key centers	Aa in canon with Aa inv.
	C/M/m	7 statements
	F	
	E-flat	ii. Block
	iii. Aa head motive	
	Temporary key center	
	b-flat minor	

Part III	Part IV
b.319-345	b.346-362
Frg	i. Aa inv.
Block	Ostinato assertions
Aa inv.	Key center on V/b-flat minor
chorale arr.	forms an ostinato block to recapitulation

This development represents a certain consolidation of the compositional techniques of the first movement viz. -

- (i) The impetus is definitely to the central development section Part II, emphasized by the dual subject structure of Part II and anticipated by the 'fragmented statements' of the introduction (first movement, adagio section).
- (ii) The key centers are mobile; anticipating the tonic utterance in the recapitulation. Bruckner avoids an established key center on the tonic throughout the development. This suspension of the tonic tonality became a marked feature of the following symphonies, especially in the finales which directed harmonic progressions to the codas.
- (iii) A truly motivic development section is built from b.303ff on the block structure interrupted by the utterance, in toto, of the theme undergoing development, b.324-328.

- (iv) The use of the propulsive sound-rhythm field on a dominant key center to precede and to introduce the tonic key of the recapitulation.
- (v) The varied use of the Aa theme here, in inversion, instead of the original format.

In the sixth and seventh symphonies Bruckner reassesses his structural concept of the development and the recapitulation. In doing so he introduces two new features :-

1. To limit the development to two sectional divisions.
2. To restructure the A section of the recapitulation.


In each symphony he fulfils these principles in different ways.

The sixth symphony presents the ideal of the double climax, the first in the development, followed as quickly as possible by the second, at the opening of the recapitulation. To achieve this Bruckner :-

1. rearranges the introductory nature of the development
2. has, instead of two fragmentary sections after the initial statement of the main theme, a longer prelogue, and longer first development section
3. forms the first climactic point of the development in Part II, and this is sustained moving directly into an equally powerful statement in the recapitulation.

The diagram illustrates how this is achieved -

Ex.143. S6:i

Prelogue	Part I	Part II
b.121-145 Extended cadential	b.145-182	b.195-208
i. V/G-I/C	i.Key center E intro to b.158	i.Full orchestral presentation of Aa theme
ii. IV/A-I/E	Free inv.of Aa cp.a triplet	Established key E-flat (raised fourth/flattened fifth to original tonic)
on Aa frg head motive	ii.Temporary key centers	ii.b.202 Frg, to form short, but powerful <u>block</u> on volatile epi-centers to merge into recapitulation in <u>tonic A major</u>
Cp.a on C 	G/A/C to ^b II/A ^b	NB: E-seven = German sixth of A-flat
motive	Aa b.159ff	b.203 which was the IV in E-flat, to reach A
	iii.Frg Block	

The entire momentum in this movement is to the development-recapitulation. Here, as in S5:iv the idea to fuse the development with the recapitulation is executed, to create a very successful dramatic climax in the movement. To heighten this the juxtapositioning of the main theme in a distantly related key, a tertiary dissonance, creates much tonal tension, and the main theme gains momentum in its restatement. Here one sees an effective use of the restatement strategy. Bruckner further heightens the tension of the recapitulation by reverting the form of the A section; the A statement and counterstatement are interchanged and the forte presentation is presented initially, followed by the pp version of the first statement. This, possibly, presents the initial attempt towards interchanging structural arrangements appearing on a grander scale in S7:iv and S9:i.

The movement is concise, elliptical and dynamic, and in closing it is interesting to notice that the harmonic inflections of the theme actually become the integral structural relationships of the substructure, another device frequently employed by Bruckner.

The rest of the recapitulation follows traditional forms in that the B section is almost exactly restated with different orchestration.

In the seventh symphony Bruckner restructures the recapitulation, a process leading to the format found in S8:i and S9:i, and originating in the finale of the sixth. There he presents the Ab theme as the thematic harmonic climax of the development, in the original tonic key, he then omits Section A of the recapitulation and so retains the momentum of the tonic presentation in the development by fusing the final section of the development, with its exploratory character, to the B section of the recapitulation.

In S7:i he returns to using the Aa theme as the thematic climax of the development, but now he presents it in inversion and in its original form, as a dual-subject in a removed tonality, c minor, the flattened sixth of the original tonic E. Bearing in mind the, at this time, structural breadth of the first movement form, Bruckner follows this statement by a shortened ambiguous presentation of the A section, again merging, but not as definitively, the development to the recapitulation. At this point the Aa material, pianissimo, acts both as the opening of the recapitulation, which asserts itself at b.319 with the B section,

and as an epilogue to the development. The cantabile presentation of this subject contributing to this interpretation.

Having presented the Aa subject in the development Bruckner reverses the order of the recapitulation: opening with the B section. The momentum is directed to the C section(b.363,) to a transition-like section on Aa¹ b.394 and thence to a Coda on A material, in the tonic key E major. In this recapitulation development techniques of rescoring and reworking of thematic material are all present. Here one sees the structure in which the first movement form is poised as a statement and counter-statement of, respectively, exposed and subsequently developed material.

Diagrammatically the structure of the development is as follows -

Ex.144. S7:i

Prelogue	Part I	Part II
b.149-164 Short cadential section V/F-sharp-I/B	<p>b.165-232</p> <p>i. Established key B Forms an intro on Aa material, in inversion canonic</p> <p>ii. Harmonic var. Ba dev by inv. Aa is absorbed into harmonic progressions b.185-218 emergent key center e minor key centers flexible transient d/f-sharp/ to E</p> <p>iii. based on Ca, plus mirror inversion (brass) Dual statement Frg b.119-232 Rhythm sound field</p>	<p>b.233-280</p> <p>i. Statement of entire Aa theme, tutti, INV. established key c minor Theme treated canonically with contrasting chordal passages</p> <p>ii. b.249 Theme frg dev in original and inverted form frg of Ba theme superimposed canonically with Aa</p> <p>iii. b.261 sound field emerges transient key centers direct progression from d minor to chord on E-flat seven</p> <p>iv. merges into the second statement of the Aa theme in the tonic key E major the recap/epilogue</p>

This closes the discussion of the second group of symphonies with the main theme as the climax of the second part of the development.

- 11.3.3. The impetus to Part III of the development, a denouement followed by the restructuring (in S8:i) of the recapitulation eg: S3:i and S8:i

The first movement of the third symphony is of particular interest as it presents, in simpler form many of the structural features encountered in the later symphonies.¹ Together with the sixth symphony it presents the main climax of the development through the statement of the Aa theme, here in the original tonic key, d minor. The appearance of this theme may be seen as an effective climax of the development. It can also be seen in the light of the macro concepts peculiar to this movement which rely on statement and counterstatement principles.

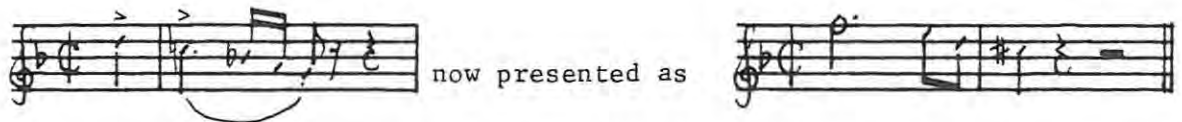
The exposition of S3:i is constructed on a statement and counterstatement form, eg: b.1 and 57ff, the latter being incomplete. In this preparation is made for the similar structure in which, Section C of the exposition b.211ff, presents a tutti statement of the Aa theme in inversion, triple forte, just before the prelude to the development. The ear, thus trained, expects, in a manner of speaking, the counterstatement of the theme. This appears in Part III of the development, after suitable anticipation in the preceding sections, again in full tutti, this time in unison.

The reappearance of the same Aa theme in the recapitulation is successful as here, the character of the theme is altered by reverting to the *mysterioso* format of the opening of the exposition, thus providing the

1. It is interesting to realise that Bruckner, after completing the 1887 version of the eighth returned to rework the third symphony.

An interesting feature of this movement is the rhythmical development which takes place in the second division.

Part II opens with the Acp. a accompaniment. This entire section evolves from the treatment of the Ab motive -



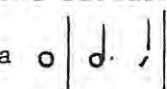
in the temporary key emphasizes development by rhythmic variation. As the tempo intensifies, the key centers destabilize into a succession of kinetic chords, which direct the motion to a figurally expanded structure on c-sharp diminished seven chord, or V minor nine of d minor, with missing root.

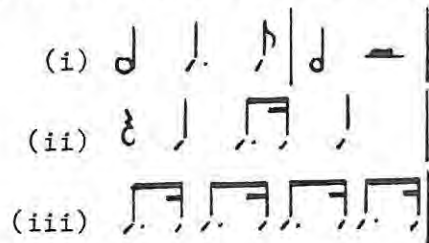
The parallel integration of rhythm and harmony being a device used frequently by Bruckner.

This intensification forms a figural extension similar to that of S2:iv b.348-387. In S3:i, however, the dominant key center is masked and ambiguity obtained by the assertive key note on b-flat in the basses. This 'pseudo-block' anticipates in its figural explorations of interval and rhythm the true block formations of the later symphonies.

S3 consolidates many compositional techniques featured in movements of the first two symphonies, and uses these larger structures to build up expectation before presenting the cumulative climax of the development/recapitulation. In S1:iv Part II was anticipated on a smaller scale by a sound-rhythm field b.134-143 and a similar structure

closes Part II b.171-209 in the same movement. Now in the third symphony this chord 'block' heightens the tension contours by its ambiguous key center and enables a striking entrance in d minor of the Aa subject.

After the unison statement of the Aa theme the section depends again on rhythmic exploitation of the opening idea  which lends itself to intense diminution and forward propulsion.



Together with pitch variation and harmonic turns the section culminates in a true block structure anticipatory of the later symphonies. As in S5:i Bruckner interrupts the momentum of the block by a full rendering of the motive, in its original form, from which the block itself emerged, b.386ff and b.396. The epi-center of the block is not constant, moving from D through kinetic chords at the peak of fragmentation b.373, to E b.381 and then to F. Part III ends on the V/E of A major.

In the eighth symphony Bruckner reworks his structural concepts for the first movement form. Here he uses the elliptical finale form occurring in S7:iv.¹

A reappraisal of the overall balance of the symphony is substantiated as Bruckner, for the first time, places the scherzo as the second

1. The finale of S8 is the culmination of the structural principles he had been experimenting with in both the first and final movements of his previous symphonies.

movement. As a result the first two movements present energy and power directed to their tonal/thematic peaks and the last two movements present breadth in a spiritual concept. As Robert Simpson says in his book The Essence of Bruckner¹

In the finale, the background, in a sense, of Bruckner's life work, a contemplative magnificence of mind beyond battle. This finale is not so much a victory over tribulation as a state that had to be found behind it, slowly and sometimes painfully uncovered by the Adagio.

The impetus of the movement is to the third section of the development. Bruckner increases the impact of this structural climax by creating a dual subject structure, which he presents in a triple statement, each time in a different key center. In addition, he sustains this peak by forming an ostinato from fragments of the Aa and then the Ab theme creating a development section around A material, enabling him to omit the recapitulation of the A material and to begin the recapitulatory section with the B subject material, b.311ff. In this manner he achieves the concise first-movement form first presented in S6 and 7 (and the finale of 7), while incorporating some of the breadth of form experienced in the first movement of the third.

Diagrammatically the development division of the S8:i is as follows -

1. Simpson, Robert. The Essence of Bruckner Gollanz, London, 1967.

Ex.146. S8:i

Prelogue	Part I	Part II
b.129-152	b.153-192	b.193-224
Short cadential V/B-flat-I/E-flat	i. Intro E-flat	i. Transient key centers G-flat/A sequence b-flat/G
Uses Aa idea	Inverts Aa	based on Ba in original and inverted form
& final frg on head motive in aug.	Pitch and tonal var.	chord extensions to form sound and rhythm field
	Aa frg inv. b.183 D-flat transient key center, V of G-flat	asserted key note F

Part III	Part IV
b.225-262	b.263-310
based on e full statements of Aa theme and Ba augmentation	i. G key-tone used transient centers frg of A on dim. and aug. ostinato phrase
i. c minor ending major ii. E-flat major iii. g minor ending major iv. cadential confirmation of C in V chord frg Aa	ii. frg on Aa A-flat used as key note Triple statement in miniature of Aa theme in transient key centers. Settles on C b.209ff
	iii. Ab+Aa frg to the recapitulation on Division II/B subject b.311.

Various points need to be made regarding the individual sections of this movement.

Apparently in Part III, in the original 1887 version, Bruckner¹ totally overhauled this section for the 1890 version. It appears that

1. According to Derek Watson.
Watson, Derek. The Mastermusicians, Bruckner. Dent, London, 1975.

the issue of true recapitulation was undecided in the earlier version. B.225 is not defined as a recapitulation despite the simultaneous appearance of the Aa theme and the tonic key. (cf S3:i). As has been shown in previous first and final movements Bruckner has experimented with this very problem of structural position and harmonic momentum. To call this section the recapitulation is to nullify his ideas on symphonic structure according to his time-scale and compositional scheme. Referring to the structural features experienced thus far, one would rather see this as the third part of the development section, with the triple tonal exploration of the theme on the mediant related keys C- E-flat and G, as the central tonal point of the development. This is substantiated by elliptical fusions of the development and recapitulation in earlier symphonies. The elimination of the A section in the third division of the movement is structurally sound for by doing so the momentum of the development is sustained while presenting the anticipated return of A material. Tonally, the suspension of a cadentially established topic key directs the harmonic momentum to its ultimate appearance, in the final stages of the movement.

In part I and Part II Bruckner uses fragmentary development of thematic material to anticipate the final climax in Part III, and similarly in Part IV he generates in the first subgroup an ostinato, double-layered block which disintegrates into miniature statements of the Aa triple statement feature, forming a denouement before the entry of the B section. Having fused the A section into the development Bruckner shortens the B section and condenses the C section into a shortened ostinato block directing the momentum of the movement to the Coda. Here, in a reworked ending of the later revision, Bruckner closes the

movement with his so called 'death music' or 'totenuhr', which returns to fragmentary statements of the opening motive, using the strong Neapolitan note inflection to suspend the tonic feeling till the last note of the symphony. This final section b.393ff representing a sound field on the exploration of the



motive.

11.4. The development, its structure and techniques found therein: finales

11.4.1. Movements in which the development acts in a conventional manner and the impetus is to the recapitulation. eg: S1:iv, S2:iv and S3:iv.

In S1:iv, S2:iv and S3:iv the impetus of the movement is towards the opening of the recapitulation with the statement of the Aa theme in the tonic key. In these early symphonies there is a strong similarity between the first and finale movements, and throughout the symphonies Bruckner is seen to be striving towards the ideal of presenting the climax of the finale in the final sections (the coda) of the movement, and suspending, polarising or avoiding the tonic tonality until this stage. The progression to this goal is varied, and as yet not in process in the early works.

The first two symphonies do not have much in common in the finale. Possibly as this movement is the one in which Bruckner most experimented with formal outlines and internal arrangement. Similar characteristics are, however, that :-

- (i) Both centralise Part I around A subject material.
- (ii) Part II develops B subject material, in S1:iv Ba and Ba inverted are fragmented to form a sound field, in S2:iv Bruckner creates a "new theme" out of transformed material and follows this with Ba subject material, this is combined and fragmented to form sound-rhythm field. Here is Bruckner's first attempt to create a thematic-harmonic climax within the development without detracting from the impetus of the recapitulation. This technique is fulfilled in the first movements of SS4, 5, 6, 7, and 3, 5, 6, 7, 8 finales.
- (iii) The fragmentation of material into ostinato-type layers creates a large sound area before the recapitulation. In S2:iv the 32 bar introduction preceding the first statement of the Aa theme is omitted for its presentation at the head of the recapitulation: Bruckner uses Part III of the development to fulfill this function.

Dissimilarities can be seen by a comparison of the following diagrams. These center on tonal orientation, sectionalism and thematic material.

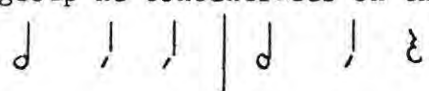
Ex.147. Sl:iv C minor

Prelogue	Part I	Part II
b.79-86 8 bar cadence E-flat	b.87-151 i. b.87-111 Intro on Aa F key center Temporary ii. b.112-134 a. on Aa material E key center transient b. A key center transient c. D key center transient d. E key center transient iii. b.134-143 <u>Sound field</u> C key center iv. Sound field to cadential end E key center established	b.151-207 i. b.151-162 Ba material B-flat key center Temporary ii. Ba inv. transient iii. b.171-207 Fragmentation of subject material <u>sound field</u> emergent key center A, transient centers throughout
	Part III	Part IV
	b.208-233 Aa ² and Aa ³ frg and Bb Trad dev tech emergent center d minor to transient centers settling C	b.234-272 Tonal block on V/G of C Fig. extended delta region

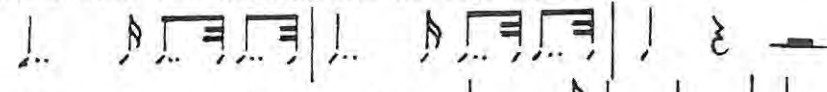
Ex.148 S2:iv

Prelogue	Part I	Part II	Part III
b.200-230	b.232-289	b.290-315	b.308-387
Extended cadential	i.b.231-250 Intro based on Prelogue	i. <u>New theme explored</u> and fragmented	Epilogue
E-flat	ii.b.251-289 Acp.a Aa Var. and derivation technique <u>New theme</u> Transient key centers	transient key centers B emergent center	i. b.308-347 Ba Key center F Trad dev techniques ii.b.348-387 Figurally extended delta region (not a block) on the dominant chord/G


An interesting feature of the S1:iv is the development technique Bruckner applies to the Aa material. In the first treatment of the theme on the key center E, he uses motivic exploration of the cp.a and the Aa theme. In the second sub-group he treats the theme sequentially in A, B-flat and C-flat, in the third subgroup he concentrates on the rhythmic augmentation of the theme, eg:



paralleled with the diminution of the theme eg:



The original theme's rhyth being



In the final subgroup the rhythmic augmentation is fragmentary, and from this emerges the sound field with predominance given to assertive tones on C, combined with an ostinato phrase around the C key center. Interestingly, the delineating third-tone is omitted, making the key center neither major nor minor, so that the true tonic character of the

device of Bruckner's which he used at this structural point in both first and final movements, eg: S3:i, S5:i, S6:i, S9:i, S2:iv (chord block) the emphasis, however, being carried by the first movement form as Bruckner, although he used the ostinato crescendo to close the development, preferred in the finales to drop the structural tension by following this with a pianissimo entry of B subject material, Section II, eg: S5:iv.

The prelogue to S2:iv is one of the first of Bruckner's extended cadential passages. Already anticipated on a smaller scale in S1:i b.101ff and S1:iv b.79ff, it is a compositional concept which forms the underlying structure of his movements. The Prelogue, preceded by two bars of silence, opens b.200 and includes quotation from his F minor Mass (the kyrie b.122) on the temporary key center of E-flat. This passage begins on G-flat which can be seen as the dominant of the flattened sixth, C-flat major.

The first part of the section I of the development concentrates on thematic exploration on motives taken from the prelogue, forming an introduction to the development of thematic material taken from the opening Acp.a theme -

Ex.149. b.2

b.1



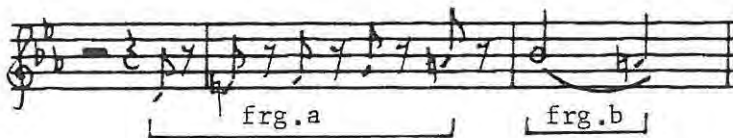
presented as

b.251ff



The theme is developed with variation techniques of rhythm, pitch, orchestration and at this point in the development Bruckner, for the first time applies a new compositional procedure, viz. to create a 'new theme' in the development to be used for subsequent development.

Ex.150. b.265



This is sequentially repeated and frg (b) forms the basis of a 'new' melody

Ex.151. b.275

Vid.2



which is, of course, a free derivation, in inversion, of the Aa theme of the first movement.

Ex.152. S2:i b.2.



This theme is extended for modulatory purposes -

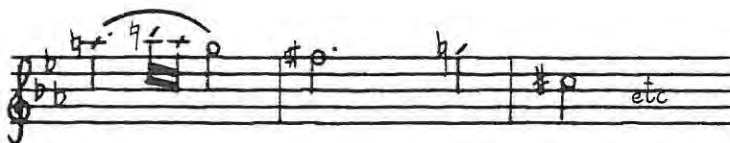
Ex.153. b.283



during the sequential treatment of Example 150, b.265 the harmony moves through transient key centers (d and E-flat) moving to C-flat a temporary center, in which the new theme Example 151, b.275 is presented.

The thematic development continues through Part II, which opens on the established key center B, b.290. Here the indeterminate B major/minor key center states the newly derived theme now represented as -

Ex.154. b.290



before fragmenting the structure and recalling the Ba subject to close the second part: so highlighting the close derivational relationship between the two themes -

Ex.155



The II section ends on the chord A.

Bruckner ends the development on an extended chord-block on the dominant of C major. The figural extension is asserted by the ostinato phrase -

Ex.156 (from b.348-487)



and a pedal point on G. This is an excellent example of Bruckner's technique of sustaining the chord, with figural repetitions of the chord, while exploring thematic and rhythmic fragments of preceding themes. The chord resolves to the tonic-a at the recapitulation, b.388.

Thus in the early group of symphonies, as in the first movements, Bruckner's main interest lies in the internal content of the sections, as it is here he concentrates on finding his own idiosyncratic approach to the symphonic form. One sees the manner in which he evolves his typical structural features of sound-rhythm fields, blocks (examples of chord and tonal blocks) the emergence of technical features such as the assertive key-tones, phrase and chord. His use of pivot ideals, the emergence of the transient, temporary and established key centers, his arrangement of thematic material and how he applies both motivic,

and lateral development treatment in its transformation and development. After these early works his attention turns more to the structural features of the finales as his internal techniques, once established, develop in the facility of application rather than in freshly conceived approaches for each work. One cannot claim for Bruckner originality of structural concept in the internal methods he incorporates in his movements, as he draws from the conventions of his era, but the manner of its execution displays both his genius and imagination.

11.4.2. In which the impetus is to Part I and Part II of the development, with the full statement of a main theme in these sections, eg: S3:iv

Still within the conventional framework of the symphonic form this is one of the earliest movements to present the full statement of the theme as the climactic point of the development. As in the first movement of this symphony attention is directed temporarily, away from the recapitulation towards the development. In the finale Bruckner draws once again on the restatement concept and states the main Aa theme in Part I of the development, b.233-292, in the established key center C (delta relation to F.¹) He then has a sequential restatement on a grander scale of the Aa theme b.293-350 on the established key center f minor, the m \bar{u} related key of d minor. This multi-stated structure is used to great effect in triple and

1. This he subsequently fragments to a figural extension of the chord C b.285ff, and so builds up and sustains the momentum of the development.

quadruple form in S6:iv Part I, S7:iv Part II and S8:iv Part II. The juxtaposition of foreign key centers being an effective development device in the presentation of these themes. Bruckner does not again use this double statement, incorporating the Aa, with this tonal relation, at this structural point of the movement. The principle, however, he retains to use again in the symphonies mentioned above.

To appreciate the development processes of this movement consider the vertical realisation of the opening Aa theme: it consists of the following progression -

Ex.157.

The image shows a handwritten musical staff with three chords. The first chord is a triad with notes B-flat, D, and F, labeled 'bII'. The second chord is a triad with notes D, F, and A-flat, labeled 'ii' with a handwritten 'x*' above it. The third chord is a triad with notes G, B, and D, labeled 'I or i'.

* (appears in its $\frac{4}{2}$ vii inversion, resolving to D in the score)

So, the finale exposition, begins on the fifth degree of the flattened second chord of d minor, establishing the d minor key center. Similarly, in principle, the exposition closes on G-flat, a German sixth chord in C, the dominant of F the opening key center of the development. Or, another possibility, the exposition closes on G-flat the Neapolitan of F, an example of vertical designs being integrated into the substructural format of the movements.

The diagrammatic analysis of S3:iv is as follows -

Ex.158. S3:iv

Prelogue	Part I	Part II	Part III
b.219-232	b.233-292	b.293-350	b.351-378
Cadential Key center F	i. <u>Main Aa theme</u> Established key C frg.treatment fig.ext.chord	i. <u>Restatement Aa</u> sequential (shorter) f minor ii. motivic dev. Aa material iii. motivic dev. Aa b.325 emergent center G b.327 iv. Block b.325 S3:i Aa theme dom region/ V/G	i. Epilogue, cadential close based on Bcp.a chorale-theme emergent key center C no direction of harmony to d minor denouement before recap

Considering this movement in some detail, Part II consists of a sequential restatement of Part I, varied by orchestral rescoring and dissonant harmonization, to increase the emphasis. It is tonally varied as it appears in f minor. Each statement is preceded by an 8 bar introduction on the flattened sixth chord.¹

The second statement is shortened to present a third motivic statement of the theme, now in a transient key center. One can see, in the altering nature of the key centers, the increasing of tension as a structural development technique. The key center is transient on G.

1. The D-flat b.293 acp in a cadential sense, as a tonic to the first statement.

structural points in the later symphonies. (eg: S5, introduction), S6, and S7.

If one compares the first and final movements of the third symphony, both present two sections of the development, dedicated to a full presentation of the Aa theme, Bruckner was obviously aiming towards a monumental emphasis of thematic utterance in the development. Tonally however, he achieves a lesser impact as the contrasts of the tonic minor (first movement) and the mediant minor (finale) to the original tonic were not as dramatic as those achieved in the later works.

In the finale the entire development is taken up with fragmentation and development techniques, culminating in the statement of the first movement theme. This leaves the recapitulatory entry as rather an anti-climax, being another statement of the four times previously heard head motive. The insertion of the first movement theme does, however, alleviate the structural problem to a certain extent. Bruckner was obviously aware of these drawbacks as he never again uses this particular arrangement, but extracts certain viable criteria for use in the finale of the fourth and later works.

11.4.3. In which the impetus is towards Part IV of the development with dual subject presentation of the main theme, eg: S4:iv

In this development one comes to the crossroads/culmination of Bruckner's search for a structurally satisfying finale. In many ways this is his most complex form as he has not yet clearly defined the

perimeters of his requirements for finale form. To see the movement and particularly the development in perspective it is necessary to consider the structure of the exposition, which Bruckner alters by reversing the common thematic grouping -

Diagram 99 Common grouping

Aa cont frg: Ab..... cont frg.

Diagram 100 S4:iv

frg ¹	block	Aa theme	frg ²	ostinato block	Aa theme 1st Mo
B-flat		E-flat	G-flat	c minor	E-flat
V		I	6/C	vi	I

Here, 42 bars of ostinato motives form a gigantic figural extension of the dominant chord B-flat before the statement of the Aa theme. In S2:iv he anticipates the head theme by 32 bars of fragmented phrases. He uses this device in its full thematic potential in the first movement of the ninth symphony.¹

The B section proceeds normally, but the C section uses the fragmentary motives of frg² of Diagram 100 to form an immensely active, rhythmically and intervallically strong subject group; far more developed than any C section previously encountered in the symphonies. The double unison structure of the C sections of the first movements appears here as a triple layered presentation of thematic material, with the full potential

1. This is the fulfilment of the ideal presented initially in the closing section of S2:iv and S4:iv.

of the assertive phrase exploited. The entire section is sustained at this peak until the prelude to the development. So, Bruckner permeates the exposition with development techniques, building up in the opening exposing statement, a structural climax before the entry of the development. His resultant formal problem is whether to maintain this level or change direction.

Bruckner obviously adopts the latter course, dropping the tension point in the prelude and balancing the exposition with an unusually extended sectional development. He uses Part I for intense fragmentation of the Aa theme, continuing this in Part II and III now on the Bb theme, and placing the culmination on the Section IV of the development, once again dropping the tension in Section V, in an epilogue, to prepare for the expected pianissimo entry of the recapitulation. This, however, is not given, and the recapitulation opens at b.383 with a tutti, unison statement of the Aa theme. The recapitulation thereafter continues its restructuring as the B section is shortened, its function entirely altered as now it acts as a type of transition to the Coda, b.474,¹ which closes the movement, in one of the most powerful culminative passages ever written. Considered in its totality, this movement presents, like the ninth, a new approach to the overall finale form; viz. it can be considered in the light of a gigantic binary statement, Part I expounding the material, and culminating in the C section; and Part II developing the material beginning with the development and culminating in the coda. As yet, the structure is loose in the

1. The C section is also omitted as it is used in the exposition and the development.

expanded sectionalism it presents, but for the listener, on an emotional level, the result is absolutely satisfying.

The detailed analysis for the development section S4:iv is as follows :-

Prelogue: b.183-202. Based on frg² from b.57 of the exposition. Can interpret the key center as the Neapolitan of F or the flattened sixth of B-flat. The prelogue is more extended than normal, but conforms to the usual criteria for this section. Closes on the key center B-flat.

Part I: b.203-236. Is based on Aa, intro frg¹ in b-flat minor with varied orchestration, and development is achieved by variations of pitch and key.

Part II: b.237-269. Taking the two bar phrases which Tovey forebore in his analysis to quote and of which Robert Simpson writes,

for twentyfive years I have tried to persuade myself that there must be something else, some redeeming subtlety behind this crackjaw platitude.



b.105

Bruckner gives us Part II b.237 -

The "crackjaw platitude" transformed into a chorale-type setting of breath-taking beauty. This Bb theme provides the development material for Part II, both in its chorale-setting and in an ostinato rhythm ()))) as well as the original rhythm slightly intensified. The key centers are transient moving through g-sharp minor, D-flat, E, to end on the dominant chord of F.¹

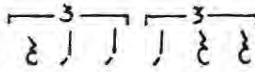
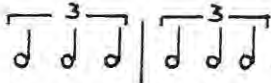
1. Bruckner was once heard to remark on passing a house in which a ball was being held while the neighbouring Sühnhaus harboured the body of the architect Schmidt, "Listen, there in that house is dancing, and over there lies the Master in his coffin - that's life. It's what I wanted to show in my third symphony" referring to the chorale/polka double-subject of the B section. Here, one sees the same parallel - that's life, the sublime and the reality, the sacred and profane explored in the contrasts of the development. One has seen, in Bruckner his acute awareness of the structural potential of all his themes in the subsequent arrangement, and his treatment of these in the sections of his movements, to not feel sure that even in the exposition he was aware of the dichotomy he was to produce with this simple two bar banale figure.

Part III: b.270-294. Continues to develop the 'crackjaw' theme of Bb. Intense motivic development takes place on the triplet figure of Bb.

Referring again to the principle structure of the exposition, the same technique applies here and this subgroup should be seen as an introductory build up to Part IV. It uses the Bacp,a theme and motives from C section (horns).

The key centers are transient, moving through f minor and E major. This subgroup, although not a sound-rhythm field, generates similar tension through motivic exploration of the structures.

Part IV: b.295-338. The climax of the development: using the structural ideals of the earlier works, Bruckner presents, as the culmination of the development, the head motive of the Aa theme, as a supportive theme in a chorale-type arrangement, anticipated in Part II, with the sextuplets from frg² of the C subject group. The key center is the Tonic-Major-C (compare this to the first movement in which at this point Bruckner presents the Ab subject in the tonic minor noting the conscious balance of theme and tonality even between the larger outer structures). Thus, Bruckner, in his search for the perfect finale form proffers the dual subject format usually associated with the C section bravura statement (rather than the gesangsperiode of the B section) as a solution to the structural climax of the development. Part IV is subdivided into -

as  and as  and this forms the epilogue still on the Aa and Ca subject material. Beginning on D key center the harmony moves to B-flat b.357 and ends on the dominant of E-flat, b.382.

In the final division in E-flat, Bruckner presents the full Aa theme in the tonic, the introductory fragments of the exposition omitted. This finale structure represents one of his greatest compositional successes as :-

- (i) The Aa theme was last heard in its entirety in its initial statement in the exposition b.43.
- (ii) The tonic major E-flat is studiously avoided as an established center since b.43.
- (iii) The double format of Part IV on the C subject group and the Aa head motive and cp.a fulfils the thematic harmonic expectations of the development.
- (iv) The thematic/harmonic movement propels forward to the 'recapitulation' without detracting from the impact of the Aa theme in the tonic key.
- (v) The use of the tonic major as the tonal peak of the development intensifies the harmonic drive (of both the development and exposition) to this point of 'resolution'; yet, by using the minor tonality, contrasting impact of the theme in the tonic major at b.383, is not lost.

The structural summary of the development section of S4:iv is as follows -

Ex.160. S4:iv

Prelogue	Part I	Part II	Part III	Part IV	Part V
b.183-202	b.203-236	b.237-269	b.270-294	b.295-338	b.339-382
	Frg	Bb	Bb frg rhythm	<u>Aa head motive</u> <u>Ca theme</u>	Epilogue
extended cadential	Aa head motive	G-flat chorale- setting		C major	Aa and Ca motives denouement
B-flat	b-flat minor	ii.frg Bb Transient key centers	f minor ostinato dev.	ii.Aa inv. Ca D-flat iii. Frg.	transient key centers Settles on B-flat

This symphony marks the end of Bruckner's experimental stage, as in the first four symphonies he has involved to a greater or lesser degree all the structures, compositional devices he uses in the finales of the last great symphonies. In the fourth he discovers, on an expanded scale, the format which forms the point of recognition for the finales to come. In SS6 and 7, he moves towards a more flexible, elliptical and concise structure, and in the eighth's finale he returns to the extended format and slower tempo of the first movement forms. The tempo of forward propulsion and organic energy characterises most of the finale forms, but especially the first, the third, and the seventh, and to a slightly lesser degree the fourth. The second and eighth put forward their own time-scale of cumulative intensity, and the sixth and the fifth stand alone.

- 11.4.4. In which the impetus is to Part II of the development with full presentation of the main theme as the climax of the section, eg: S5, 6, 7, 8:iv

Bruckner varies each application of this technique from symphony to symphony.

In S6:iv Bruckner presents the Ab¹ subject as the central theme of the development section.

- (i) In S5 and 6 he restructures the third division opening the recapitulatory division on the B section.
- (ii) In S7:iv he confines the development to two sections and reverses the order of the exposition's thematic material to form the recapitulatory division.
- (iii) In S8 he returns to the expanded structure of the first movements, maintaining the climax of the development by an entire section devoted to a kinetic region (Part III) before the denouement to the recapitulation.

In presenting the main theme in the second part of the development Bruckner approaches this in various methods :-

- (i) In S5 (later to be examined in detail) he presents a double fugue on the Aa and Adagio Introductory themes in Part II of the development, followed by an extended block (as in S8 Part III) on the subject material of Fugue I and II, omitting Section A and proceeding into Section B for a recapitulation thereafter.

1. The same format as S4:i.

- (ii) Retaining the layered principle S6:iv presents as the main theme the Ab subject forming, not a dual subject, but a static block on layered reiterations of fragments of this theme in the tonic major. This is sustained to form a subgroup before the denouement into Section B of the recapitulation.
- Using possibly, the miniature quadruple statement of the Aa theme (which characterises the first part of the development of S6:iv) Bruckner now applies the triple statement technique of the Aa main theme, in divergent key centers forming a block structure for Part II of the development. He passes through the dominant minor b minor, the mediant A-flat and the tonic minor e, which present the theme in its original and inverted forms, simultaneously: this fragments into Section B, III division.
- (iii) This technique is retained for S8:iv which now uses the Ab theme in a triple statement, in Part II of the development, on e-flat minor, f minor and G respectively the minor mediant, the subdominant and the dominant.

Illustration: S5:iv

To understand the structure of the finale of the fifth symphony fully one should return to the adagio of the first movement which sets the thematic and tonal relationships of the entire symphony.

It consists of the opening theme.¹

Ex.161. Intro (i)

Ex.161. Intro (i) musical score showing two systems of staves. The first system shows a treble clef staff with a whole note chord and a bass clef staff with a rhythmic pattern of eighth notes. The second system continues the bass line and adds a treble line with chords and a melodic line. The piece ends with 'etc.'

followed by

Ex.162. Intro (ii)

(a)

Ex.162(a) musical score showing a single staff in treble clef with a melodic line and various accidentals.

(b)

Ex.162(b) musical score showing two staves in treble and bass clefs. The bass line has vertical arrows pointing down to the text "P/5 Asc tetrachord to P/5". To the right, a separate staff shows a melodic line with the text "inversion of adagio motive" below it.

1. Concerning the interrelationship of these themes see Chapter 2ff.

and

Ex.163. Intro (iii)

The finale opens with a 28 bar introduction which presents the themes¹ of the first movement's introduction, plus a 'new' motive -

Ex.164.

There is a two bar statement of the Aa theme's head motive and the movement enters into a fugal arrangement of the A section. The B section, having its usual double theme structure is quite extended and consists of three thematic subthemes. The C section is short, based on an augmented rhythm of the Aa head motive so forming a Ca group. It presents the diatonic shape and not the chromatic shape of the Aa group.

1. It might be interesting to look at the main theme of the Adagio (which was the first movement to be written of this symphony) and notice the derivations of the first and finale movements' themes from this subject.

S5:ii

P/5 asc. tetrachord

final motive

Ex.165. S5:iv

Prelogue	Part I	Part II	Part III
b.167-210	b.211-269	b.270-373	b.374-396
based on three themes of Intro.i Arr.chorale-setting as in b.18-29/i	Fugal treatment of theme from prelogue derived from Intro/i (ii)= Fugue 2 11 entries in orig. and inv. forms	Vastly extended region i. <u>double fugue</u> Aa/iv head motive Intro/i (ii)	NOT an epilogue Not a recapitulation climax of the development: <u>block structure</u> , superimposing all the thematic material in one form or another, of entire movement in -
Key centers transient because of mod.structure of theme	each entry on a modulating key center	established key center b-flat minor frg from b.285	(a) brass statement Fugue 2 (b) orchestral statement of Fugue 1
F emergent key center	entire section <u>transient</u> dev.= exploration of harmony closes key center F	ii. True development Intense frg b.306 no single emergent key center, although direction is to C b.327, then G-flat b.340, Neapolitan of F b.342. Note Neapolitan relations this section iii.Closing cadence b.350 in B-flat, first appearance of tonic major key Block structure on delta key center F b.362, builds to Part III	Established key B-flat ends on Neapolitan of F A section omitted of recapitulation

In this symphony we see the culmination of structural principles viz:

- (i) The prelogue presents thematic material to be used in the development.
- (ii) Part I uses not the Aa head motive for development but thematic material derived from other sources (Intro/(ii)).
(cf S2:)
- (iii) Part I does not create an established key center, but is rather, transient so building up harmonic expectation.
- (iv) The fugal treatment of the theme as one of the most successful development techniques.
- (v) Part II uses a double theme structure, incorporating material from Part I, the Adagio Intro/i (ii frg) and the Aa:iv theme as the second fugal subject.
- (vi) The tension of the movement is maintained by the cumulative effect of his treatment of the thematic material as a double fugue in this section.
- (vii) The thematic material is presented, as in S4:i, in the tonic minor - the opposing tonality of the original tonic.¹
- (viii) The development Part II is subdivided into smaller groups, rather than larger sections Part III, Part IV and Part V with different key centers, as in previous movements; this creates a tighter unity within the development.
- (ix) The second, third and fourth subgroups of Part II are kinetic, in that no established key center emerges until the closing cadence of Part II b.350ff.

1. In S6:iv it is in the tonic major.

- (x) The central portion of the development builds into an expanded block structure leading into the climax of the development Part III. This successful positioning of the block was seen in S1:iv and in principle, in S2:iv.
- (xi) The use of the dual subject statement, plus the block at this point, allowing for the omission of the Aa subject of the exposition and the start of the recapitulation immediately in the B subject group, so maintaining again both thematic import and harmonic momentum.

Possibly this is the most successful of all of Bruckner's true finale structures, (especially if S8:iv is regarded in the light of a first movement form).

Ex.166. S6:iv

Prelogue

b.145-176

Extended cadential region based on Aa/i cont.



b.15

inv. in prelogue
Heard as iv/Ca theme,
based in turn on
Ac theme

extensive frg

transient chords
no single key center
until b.159
key tone D acts as V
Key center moves to
another V/B and E
emerges as an asserted
key center

Cf opening F as N₆ of E
and see this as a
broad cadence in
established key E

Part I

b.177-245

Based on Aa theme key
center phrygian-E

1.Aa theme established
key center E b.177
uses prelogue motive
as cont.contrast of
broad cantabile and
rhythm

2.Aa theme inverted
established key
center F major
b.197

3.Aa theme inverted
and sequentially
treated, shortened
and different
orchestral
arrangement

established key
center A-flat
major b.203

4.Aa theme inverted
only head motive and
combined with Aa in
original form

Temporary key center
E-flat b.209

Interrupted by
derivation from Ab/iv -



frg. b.217ff
alternation between Aa
and Ab(i) to transient
centers

Ab in brass tutti
frg area to b.245
ending on V chord A-flat

Part II

b.246-298

Based on Ab theme
climax

i. Ab on the TONIC
MAJOR/A established
key

forming a block
structure of assertive
phrase on A key center
in strings.

Ab theme in brass
and frgs on assertive
key tone in woodwinds

moves to A-flat to
introduce E, German
sixth at b.265

ii.Ab on the DOMINANT/
E - phrygian,
established key

Expanded block
compounding the layers
of Part II(i) by
distributing thematic
material between
internally subdivided
orchestral groups

(a) rhythmic augment-
ation

(b) ostinato phrases

(c) epi-center
volatile, ff
thematic frg/
exploration
includes transient
keys a/b.269

E/b.273

C/b.277

G-flat/b.281

closes on e minor
then E phrygian b.287ff
as a denouement
before Recapitulation
on Section B

The impulse in this finale is to Part II of the development in which the Ab theme is used for the tutti statement. The momentum of using the tonic major of this statement is sustained (unlike S3:i) as Bruckner omits the A section of the recapitulation and replaces it with an expanded block structure whose very generative nature adds tension to the direction of the movement in its assertion of fragmented A section material. The fact that this is centralised on the delta key center increases the listener's expectation and anticipation. This finale structure presents one of Bruckner's best examples of the concise forward driving design he sometimes desired as the closing movement.

The finale of the seventh symphony is quite unique in formal outlines. To see the development section in perspective it is necessary to look at the overall structure of this movement.

The opening theme of the finale holds the structural clue to the work -

Ex.167.

The image displays three staves of musical notation for Example 167. The first staff begins with a treble clef and a key signature of two sharps (F# and C#). It contains a melodic line with a fermata over the first measure and a bracket underneath labeled "(i) E Major". The second staff continues the melodic line with a fermata over the first measure and a bracket underneath labeled "(ii)". The third staff shows a key change to A-flat major, indicated by a double flat sign (Bb) and a bracket underneath labeled "A-flat major". The notation includes various rhythmic values, accidentals, and dynamic markings.

It clearly establishes the mediant key relationship of the movement, beginning in E it ends a major third higher in A-flat (g-sharp). The opening subdivisions of the A theme 'develop' the theme by transposition, in this way Bruckner does not follow his usual head motive, theme, continuation and fragmentation technique.

The Aa theme is presented on the dominant -

Ex.168.

b.11



(cellos)

this is followed by B-flat major -

Ex.169.

b.19



(clarinets)

then D major

Ex.170

b.21



(clarinets)

and finally to F-sharp major/G-flat major

Ex.171.

b.23



(clarinets)

The latter moves to D-flat/V₇, A Neapolitan to the dominant of F, on which the A section ends b.34.

The statement of the Aa theme is simply a harmonic exploration of the tonalities inherent in the theme itself. Notice the mediant relationships between each statement of the theme. So, in this opening section Bruckner already presents 'developmental' ideas. Herein lies the structure of the movement, which should be seen, not in terms of sonata form, but rather as an enormous single unit, with subdivisions, nebulously related to sonata form, exploring the possibilities tonal, thematic and structural, of the Aa theme. Notice the short rhythmic area for each change of key. In this division Bruckner turns to the harmonic time-scale of Beethoven and Haydn rather than the expanded duration of SS8 and 9. B.35ff offers an unusually concise A section: Bruckner presents his contrasting subject material which forms the B section. Beginning in A-flat (the enharmonic form of g-sharp) it stands in a mediant relationship to Section A in E major, thus on a larger scale presenting the relationship first seen in the Aa theme. Once again this section is concerned with tonal 'development'. The theme is a modulating choral-type arrangement and moves through various key relationships before closing in F at b.51ff, on its dominant to bar 64. The entire statement is repeated, b.65 moving to new key centers b.73 and following a transient line to end on e, the minor dominant chord of a minor,¹ the key center for the ensuing C section.

The C section still uses the Aa theme, altering the ending of the theme to end on the dominant note of the third-related key, instead of its tonic as in the original exposition. In addition, the semitone

1. Not the anticipated mediant related C key center.

relationship is explored as the entire structure is shifted to b-flat minor, and thereafter to f minor b.101, followed by modulating chords b-flat, a and e minor.

Returning to his usual practice, Bruckner fragments the theme (b.101ff) and kinetic progressions follow, ending on the dominant chord/G which introduces the close of C and the Prelogue in C major (via A-flat and a diminished chord b_7^d) at b.128.

The main keys to emerge in this first division are E major (tonic), its mediant A-flat major, and its mediant C major. The a-priori principles are now set for development in Division II.

The diagrammatic analysis for S7:iv is as follows -

Ex.172. S7:iv

Prelogue	Part I	Part II
<p>b.128-144</p> <p>based on Aa frg established key center C becomes temporary and acts as a tonal pivot to A-flat b.147.</p>	<p>b.145-190</p> <p>i. Augmentation of prelogue material derived from Aa emergent key center/ A-flat, pivot tone C chorale arr.of Aa for brass basses</p> <p>ii.b.163ff Inversion of entire Aa theme a-minor (cf semitone shift of Section C, Division I)</p> <p>Inversion and diminution of Ba theme modulating to V/B major dominant of E</p> <p>Aa theme in stretto with its inversion</p> <p>frg.of thematic material</p>	<p>b.191-211</p> <p><u>Aa theme in its entirety in DOMINANT MINOR b-minor</u> modulating theme, progressions are - b-A=N₆ to A-flat b.195 f-V/E-flat of A-flat E-flat=d-sharp e/i-b/V Kinetic chords f-sharp-B/I b.211</p> <p><u>ie.</u></p> <p>1. Aa theme b minor b.191</p> <p>2. b.195 Aa theme repeated sequentially apparently in f minor but in A-flat major ends on V/key tone E-flat d-sharp to e minor</p> <p>3. Aa theme in Inv. and original form (dual subject structure) b.199.</p> <p>in e minor with repeated statement in b minor</p> <p>frg transient centers closing on B major dominant chord of e minor b.211</p> <p>Part II forms an expanded block structure based on Aa theme arranged around the mediantly related epi-centers b-g-sharp/A-flat and e. Note that the exposition was built on major mediant progressions, here in Division II Bruckner uses minor and major related mediant</p>

In Part II of this development the key centers are given a rapid harmonic-rhythmic area (as against the prolonged rhythmic area of those in S9:i), and the very modulatory nature of the theme determines their transient key character. A necessary compositional feature to bring this movement to a harmonic climax in the final division of the work. So to realise the tonal implications of the development/ Division II, one has to trace the harmonic progression through the III division, the 'recapitulation'.

Briefly, in terms of sonata form, Bruckner omits the Aa section and starts Division III with B section material. This time in C major acting in a mediant relationship to the tonic (as previously experienced in Division I (E-A-flat).). The modulating chorale arrangement of the theme involves again various transient key centers which settle on the chord C b.241 (acting as a dominant to F major).

At b.247 the C section, in actual fact the variation of Aa is presented in A major. This forms the final portion of the third division. It can be subdivided according to its tonal confrontations -

Ex.173

Part I

Ca	frg(i)	(ii)	(iii)	(iv)
A 247	B 251	B 257	C-sharp 259	transient chords E 267
			V-I	includes quote from S4:i

Part II

1.Aa	/frg	2./ Aa	3./ Aa
Full theme	kinetic chords	Full theme	Full theme
E.....A-flat		GB	B.....
b.275			b.299

at the third statement of Aa Bruckner extends, by modulating chords, the theme arriving at B after various chord progressions which disguise the tonality at b.314.

Part III True Coda/conclusion

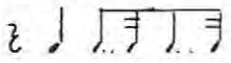
Aa

E major

b.315

Figural extension of Aa theme to form the closing block structure

In this recapitulation division, the structure is geared towards the climactic statement of the main theme in the tonic key, in the coda section of the movement. Here one sees Bruckner's ideal final movement form in which the first momentum of exposed material, culminates in the statement of the Aa theme, in the dominant minor, so directing the thematic and harmonic development to their resolution in the counterstatement of the Aa theme in the tonic, in augmentation, in the Coda. This structural position of both the theme and the tonic key center redesigns the entire format of the finale, directing the entire momentum to the end of the work. In many ways this is successful,

especially in this symphony where the rhythmic conception is towards a steady forward propulsion of the  idea of the Aa theme. This rhythmic drive and the mediant relationships of the key centers unifies this movement in a manner reminiscent of Beethoven's fifth symphony.

The entire harmonic tension is built around the polarisation of the tonic key center, but its related centers, in the first division E, A-flat and C: in the second vision (development) - E, A-flat and B: and in the third division - E, G, and B which resolves the thematic, formal and harmonic dilemma in the coda b.315, following with the final assertion of theme and harmony in the tonic key.

This symphony marks the departure point for the two final symphonies as Bruckner uses, in principle, these compositional techniques in the eighth and ninth.

Diagrammatically, the development of the eighth is as follows :-

Ex.174. S8:iv

Prelogue	Part I	Part II
<p>b.212-252</p> <p>Extended region¹</p> <p>Based on Cb</p> <p>FN:1. This score (Nowak) is slightly shorter than the Haas edition.</p>	<p>b.253-300</p> <p>i. Acts as an intro. Uses mod.theme from Bcp.b in the original inverted form.</p> <p>combines with Ba inv.</p> <p>key centers transient opens on key-tone E-flat</p> <p>G-flat emerges and e-flat minor established b.285</p> <p>ii. Based on Ca inv. e-flat established key center</p> <p>frg to end on dim. seven to E-flat</p>	<p>b.301-344</p> <p>TRIPLE statement of theme</p> <p>1. <u>Ab theme</u>, in tutti e-flat minor established key center combined with Ca frg on Ca in transient chords</p> <p>2. <u>Ab theme</u>, in tutti f minor established key center canonic presentation of Ab kinetic diminished chords</p> <p>3. <u>Ab theme</u>, in tutti G major established key center. combined with its own inversion chordal arrangement</p>
Part III	Part IV	
<p>b.345-386</p> <p>based on Aa subject material</p> <p>Frg</p> <p>Key centers fluctuate freely, opens V/C and moves to A, f-sharp,/b-flat D-flat -no settled key center</p> <p>Assertive note on clarinets and horns directs the key centers</p> <p>ends on a series of diminished chords, e^d₇, a^d₇ and b^d₇, b.386ff</p> <p>An example of a true kinetic region</p>	<p>b.387-436</p> <p>based on Aa and rhythmic diminution derivative of Ca/Ab</p> <p>Opens on transient key C</p> <p>development of above themes in rhythmic variation, augmentation and diminution</p> <p>Transient centers pass through E-flat, D-flat, A-flat to settle on F-flat/E b.429 to close development linking the recap with ♯♯ rhythmic frg.</p> <p>Part IV forms a denouement to the recap opening on pivot tone f-sharp, with long suspension of tonic C.</p>	

The opening theme of the finale of Bruckner's eighth symphony presents an interesting tonal structure -

Ex.175. S8:iv

Musical notation for Ex.175, showing two staves of music. The first staff contains a melodic line with various notes and rests, including a triplet of eighth notes. The second staff contains a bass line with notes and rests, including a dynamic marking of *ff* (fortissimo).

In its chordal realisation it may be analysed in c minor the tonic key as -

Ex.176. S8:iv

In c minor:

Chordal realization of Ex.175 in c minor. The notation shows a sequence of chords: $\sharp IV$, II, $\flat VII$, $\flat V$, $\flat II$, and I. A bracket labeled 'm6' spans the first three chords. A key signature change to D Major is indicated by a box containing $\flat IV$, $\flat V$, $\flat II$, and I, with an arrow pointing to the right.

This is sequentially repeated in d minor -

Ex.177. S8:iv

In d minor:

Chordal realization of Ex.175 in d minor. The notation shows a sequence of chords: $\sharp IV$, II, $\flat VII$, $\flat V$, $\flat II$, and I. A bracket labeled 'm6' spans the first three chords. A key signature change to E Major is indicated by a box containing $\flat IV$, $\flat V$, $\flat II$, and I, with an arrow pointing to the right.

One feels that Bruckner deliberately composed this theme in this format as this structure is open to multiple interpretation. It is quite simple to see the entire theme as chord progressions in the c and d key centers, it is also possible to see the theme in the transient centers of D-flat and E-flat, seeing the opening chord progressions as an extended plagal cadence, the assertive notes on the brass substantiating this interpretation. The ambiguity is removed when the Aa continuation theme opens b.31 in C minor-major key center, and one realises despite the minor-major alteration of this section that this is the established key center, a fact confirmed by the extended plagal cadence (f minor to C major) b.49-68 which closes this section.

The important influence this format of the theme has is that at the point of recapitulation, Bruckner, by using this opening does not assert but avoids the tonic key center, and so solves the tonal structural problem which has beset the designs of all his finales. Using this theme he may present the Aa theme as the structural climax, and in a key center, 'far removed' from the tonic - c minor, even while being acceptable as a key center in c minor! He can thus sustain his tonal momentum, by avoiding the statement of the expected tonic tonality in the continuatory section, and avoids any statement of the established tonic tonality right until the Coda, b.647. He builds up an enormous expectation of this key center throughout the movement, especially in the anticipatory delta region beginning b.617.

S8:iv is perhaps the best example of Bruckner's ability to integrate the dynamics, motive, tonality and rhythm of the Aa or recapitulated main theme, into the structural design of the symphony and one feels that, as in S4:i, S3:i and S8:i, he consciously designed the opening theme, with the positioning and structuring of the development/recapitulation in mind.

In conclusion one may summarise the various methods with which Bruckner treat thematic material in the development, as follows :-

- (i) as a full thematic statement, in a particular tonal relationship to the original tonic as a climax point of the movement.
- (ii) in fragmentation to form an anticipatory build up to the full thematic statement
- (iii) in fragmentation to close a particular section
- (iv) in fragmentation, forming ostinato patterns culminating in a sound field or block, or losing impact and dying out in a denouement
- (v) as figural extensions of a sustained chord forming a chord-block
- (vi) as figural extensions of a number of kinetic chords, forming a kinetic chord block
- (vii) combining with rhythmic and tonal features to form a block proper
- (viii) motivically explored and developed
- (ix) thematically juxtaposed in a semi-fragmentary style, or in complete statements

- (x) fugally treated for structural extension, emphasis and/or development, to propel motion to a climax
- (xi) inverted and combined with its inversion to form dual-subject groups and multilayered structures
- (xii) sequentially used with variation to form double, triple or quadruple statements of full thematic material as the climax to the movement
- (xiii) with all manner of rhythm, and interval variation
- (xiv) in chorale type and other orchestral variation.

Thus, one sees Bruckner encompassing the full resources of both classical and romantic ideals of development.

In conclusion symphonies with common structural features between the first and final movements may be grouped as follows :-

- | | |
|---|---|
| S1:i and iv
S2:i and iv | normal recapitulation and retains Section A |
| S5:i and iv
S6:i and iv
S7:i and iv | place the climax of the movement in Part II of the development with varying treatment of the third division |
| S8:i | places the climax in Part III of the development and omits the A section |
| S8:iv | places the climax in Part II of the development and keeps the A section |
| S9:i | places the climax of the movement in the 'recapitulation' which is in fact a full development section |

- S3:i places the climax in Part III and again in the opening of the recapitulation, maintains the A section
- S3:iv as above but places the climax in Part II of the development
- S4:i places the climax in Part II and retains the A section
- S4:iv places the climax in Part IV and restructures the recapitulation

11.5. The tonal thematic form of the nine symphonies
first and final movements: a comparative assessment

Two aspects of musical form are design and tonal structure. Design is the organisation of the basic elements of music according to melody (thematic structures) rhythm, tempi, orchestration and instrumentation. Tonal structure is the all encompassing organisation of the harmonic aspects of music.

In Bruckner's music one needs to consider his tonal attitude towards structural design, as, in many of his sonata form movements, he does not follow the traditional pattern of tonal development.

This traditional pattern may be graphically presented as -
Exposition (I - V): Development of flexible key centers (-X-): and
Recapitulation (I - I). The tonal tension is most accentuated by the movement away from the original tonic to the dominant center. Tension is then prolonged by the tonal explorations of the development before returning to the resolution of the tonic at the opening of the

recapitulation. Thus creating an overall I-V-X-I harmonic design. Although Bruckner does use this form as one of his fundamental concepts of tonal organisation, yet he attempts to improve upon or adapt it to his idiosyncratic format, in each of the first and final movements. The "sonata" form in Bruckner's hands tonally and formally was built along the following lines -

Illustration:

Division I

Exposition

Section A

Subject Aa	Ab	Aa ¹ /Ac/Aa/or omitted
	Aa ¹ (restated)	Aa

Traditionally these groups should open on the tonic region, but Bruckner does not always follow this principle, eg: S1:iv, S4:iv, S7:iv and S8:iv. In addition he does not restrict himself to the tonic region for his key centers, but (as in S4:iv) opens on the delta region, sustaining this for an entire A section. He draws from all the regions' key centers for this section, there is no consistent approach to key centers he uses; thus creating a different tonal shape in each movement for the A section.

Exposition

Section B

Subject Ba	Bb			
Ba	Ba ¹	Ba ²		etc
Ba	Ba restated			
Ba	Ba ¹	Ba/c or omitted		

One finds that this is the most flexible tonal section (apart from the development) of the movement as, Bruckner, instead of moving to the delta/dominant region as required traditionally, uses key centers from any region. Here, he prefers to juxtapose, in the overall design, the B section in a mediant key center to the A section, once this is achieved the B section is open to multiple key relationships. In S1:iv, S3:iv, S7:iv and S8:iv, he uses unstable or migrating key centers, ie. alternating between two tonal poles, or moving from one point to another, allowing none to predominate. This polarisation is particularly apparent in the finales.

Exposition

Section C

Subject Ca	Ca ¹	Ca ²	Ca ³	frg
Ca			Cb	frg
Ca	Cb	Ca		
<u>or</u>	Aa	Ab		
or	Ab	Aa		

In this section Bruckner takes keys, usually from the delta region, eg: S4:iv and S6:iv. However, he also uses the subdelta and the transient/migrating principles as well. The C section's tonality is determined by the plan preceding it. Once again each symphony follows its own pattern.

Division II

The Development

Part I

Part II

Part III

Part IV

Part V

Each of these parts usually presents its own tonal center. These may be established key centers, (a technique Bruckner shied away from in the later symphonies especially the finales), temporary key centers, but usually transient key centers. In these sections he tends to use, on occasion, the kinetic region (S5:iv) to distort and emphasize the tonal development within the points of the structure. He has at his disposal the key centers of the tonic, delta and subdelta regions. These are arranged with contrasting and polarising qualities juxtaposed, to create the tension of the section:

- (i) simply by tonal divergence from the tonic center, of the recapitulation:
- (ii) or by emphasizing the tonic center by its reiteration at this point:
- (iii) or by emphasizing the departure from the tonic by multiple statements of other tonal centers so suspending the anticipated tonic until the last possible moment either in the opening bars of the recapitulation, or preferably in the coda of the recapitulation.

This is obviously the most flexible section with many alternatives of juxtaposed and contrasted key centers. The emergent principle of the later symphonies is the greater tendency towards transient centers at this point of the substructure.

Division III

"Recapitulation"

Section A

Usually uses the same construction found in the exposition, (except S7:iv). In some symphonies SS7: 9:i and SS5: 6: 7:iv, this section is omitted as, by doing so, Bruckner avoids the return to the tonic region at this structural point. If it is used, the tonic region key centers are predominantly found, although he often disguises these by temporary or transient centers which migrate from the initial statement of the tonic to new areas eg: S3:iv, S4:iv. Thus the tonic region is interrupted, or suspended wherever possible to maintain the tonal tension of the design.

Section B

Follows the subject structures similar in outline to the exposition, but orchestrally varied. As in the exposition this is the most (tonally) flexible region and thus Bruckner's intention in tonal design is clarified. For, by making the B section tonally unstable in the exposition, its instability in the recapitulation forms the ideal format in the suspension of and accelerando to the tonic in the closing stages. Bruckner frequently omits or alters the C section in the recapitulation, turning the latter into an extended coda rather than a third subject group, the kinetic flavour of the B section is well suited to this. This is his formula in S2:iv, S3:iv, S5:iv, S6:iv and S8:iv. Otherwise he tends to use the key centers which polarise or substitute the tonic era, while remaining within the tonic region. In S4:iv, he orientates the tonal patterns to the delat region.

Although Bruckner uses the key centers from all the regions, he maintains the same harmonic relationships between the A section and the B section, encountered in the exposition, ie. if, for example, the tonal movement between the two centers is a mediant relationship, although in the recapitulation the key centers may differ, the mediant relationship is retained.

Section C

Subject Ca (follows the structure of the exposition)

The subject C is omitted and a coda is built, using themes from all the movements; some of the movements; or from the first and last movement.

Subject Ca Coda

Bruckner uses key centers from all the regions here, but they are arranged into cadential patterns which ultimately confirm the tonic. However, he avoids the use of the actual tonic center until the final stages of the movement. He frequently interrupts the tonic region centers by interspersions of material, interjected and unrelated tonal centers from other regions, to suspend or polarise the final tonic resolution. In the finales this avoidance and acceleration to the tonic became a feature of the symphonies. He thus fulfils his aim to generate the forward harmonic drive to a final climax at the very close of the movement, by the ultimate resolution to the tonic key center.

11.6. Conclusion

An analysis of the structural principles of Bruckner's symphonies presents only a fraction of that which contributes to the complete artistic realisation which is his music. Still to be taken into account is his rhythmic organization and instrumentation, his inheritance from Schubert and Beethoven, his total inheritance from Wagner and his empathy with the baroque era in religious mysticism, brass chorales, motivic development, and various harmonic peculiarities. Also to be considered is the heritage he passed to the future, through Hugo Wolf, Gustav Mahler, Richard Strauss and Arnold Schoenberg, of a new concept of tonality, structural juxtaposition, form and shape, mass and void, moments of harmonic pointilism which hint of Webern and harmonic blocks which direct the musical evolution of style to the structures of Les Noces and La Sacre by Stravinsky.

In his works Bruckner fused

.... sonata style's dualistic tonal conflicts and kinetic motor rhythms with 'baroque' counterpoint and types of melodic organisation derived from medieval cantillation One finds something similar in the music of Hindemith: for although his music does not share 'Bruckner's' ... Catholic mysticism and Austrian lyricism it attempts to subdue twentieth century tensions to a concept of unity which is not, like Schubert's discovered within the psyche, but is inherited from the past. ¹

1. Mellers, Wilfred. Man and His Music the Story of Musical Experience in the West Romanticism and the Twentieth Century Part IV, 1962. p.192-193
Barrie and Rockcliff. London. 1969.

An analysis which incorporated and presented all these attributes could be said to be truly comprehensive and could put to flight those criticisms of Bruckner which have been heard and read since the nineteenth century.

One of Bruckner's most vitriolic critics was Eduard Hanslick whose musical opinion dominated Vienna during the latter half of the nineteenth century. In his criticism of Bruckner's eighth symphony he writes:

Also characteristic of Bruckner's newest symphony is the immediate juxtaposition of dryschoolroom counterpoint with unbounded exultation. Thus, tossed about between intoxication and desolation, we arrive at no artistic pleasure. Everything flows without clarity and without order, willy nilly into dismal longwindedness. In each of the four movements, and most frequently in the first and third, there are interesting passages and flashes of genius - if only all the rest were not there: ¹

Hopefully the structural analysis of the preceding pages has negated Hanslick's well-worn criticism of music flowing "without order, willy nilly" by showing that each movement is constructed on an extremely sensitive and all embracing tonal design. "Longwindedness" is a criticism which is frequently applied to Bruckner's works. It can be discredited by a willing suspension of disbelief and a willingness to involve oneself in the extended time-scale of each symphony; or credited by a complacent refusal to come to terms with the artistic form within which the composer conceived his work.

At the first performance of the eighth the public had the greater insight than the critic into the future success of Bruckner's symphonies for, as Hanslick himself writes, there was

1. Hanslick, Eduard. Musical Criticism 1846-1899,
Peregrine Books. Harmondsworth. 1950. p.289.

a stormy ovation, waving of handkerchiefs from the standees, innumerable recalls, laurel wreaths, etc : For Bruckner, the concert was certainly a great success.¹

Graham George writes in "Tonality and Musical Structure" it is self-evident that

....tunes, harmonies and rhythms play an important part in music ... But these materials have to be shaped into a piece of music, and this shaping is ... a matter of tonality.²

It is in this 'matter of tonality' that Bruckner's genius is so apparent, and in his symphonies it is evident that, although tonality does not monopolise the shaping of musical material, an understanding of his tonality, and the structural pattern it follows within a movement, is a necessity as this understanding highlights the subtle shadows, the tension and relaxation, climax and denouement, and all the musical elements of each movement, each symphony.

The structural principles which organise the tonal design of each movement, are one of the primary sources which generate the grandeur, mysticism, charm and kinetic energy of Bruckner's symphonies. The effect Bruckner has on a listener could be described in the words of Sir Arthur Bliss (in an interview with Hans Keller) -

Music must convey to me some state of mind, or some emotional or intellectual stimulus. Some part of me must be moved by feeling I'm in contact with a superior mind that wishes to express itself to me ...³

-
1. Hanslick, Eduard, Musical Criticism 1846-1899, 1950. p.290
 2. George, Graham, Tonality and Musical Structure 1970 p.216
 3. Bliss, Arthur, Composer (Journal of 1966) an interview with Hans Keller, quoted by Lawrence Davies in Paths to Modern Music (Aspects of Music from Wagner to the present day) p.xi
Barrie and Jenkins. London. 1971.

A performance of any symphony of Bruckner, but especially the Fifth, Sixth, Eighth or Ninth evokes an intense response in a listener. It also creates those

intimations ... of eternity, reflected in time or glimpsed between its moments, more significant than dream-like wanderings in the unreality of "real" life ... ¹

So, through an intellectual exercise of analysis one gains a sensitive, aesthetic appreciation of the symphonic music of Bruckner and arrives, as T.S. Eliot says in "Little Gidding"

... where we started
And know the place for the first time.²

The power of this musical world of both dreams and reality, sophistication and simplicity, aestheticism and vulgarity and the other eternal paradoxes peculiar to Bruckner's music, makes

Facts melt away as we examine them, and their apparent materiality dissolves into thoughts, feelings and insights. ³

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1. Raine, Kathleen, Farewell Happy Fields. Memories of Childhood Hamish Hamilton. London. 1973. p.7
 2. Eliot, T.S. Collected Poems 1909-1962 The Four Quartets, Little Gidding. Faber and Faber. London 1963.
 3. Raine, K. Farewell Happy Fields, Memories of Childhood, 1973 p.7

TABLE 1

EXTERNAL STRUCTURE

<u>Division A</u>	<u>Division B</u>	<u>Division C</u>	<u>Prelogue</u>	<u>S.No.</u>
a + b + a	a + b	a + cont.	frg.B.	S1
a + b	a-recurring	a + cont. + a + cont.	frg.B.	S2
a + b + a ¹	a + a	a + a-recurring	frg.Ab	S3
a + b	a + b + a	a	frg.Ba/b	S4
a + a	a + b	a	frg.Bb	S5
a + a	a-recurring	a + b + c	frg. -	S6
a + a	a-recurring	a + a ¹ + cont.	frg.Ba/Ca	S7
a + a	a + a	a	frg.Aa	S8
a + b + a ¹	a + a ¹ + a ² ...	a + a ¹ + a ² ...	frg.Ba	S9

TABLE 2

A Table of Comparison of the Internal and External Structures found in the Exposition, First Movements.

INTERNAL SUBJECT TYPES

<u>Section A</u>	<u>Section B</u>	<u>Section C</u>	<u>S.No.</u>
simple derivative	additive chain	simple motivic	S1
	derivative cp	rhythmic ostinato	cp
additive chain	additive chain	ostinato motivic	S2
		rhythmic ostinato	cp
complex derivative	complex derivative	ostinato motivic	S3
		rhythmic ostinato	cp
ostinato motivic	complex derivative	ostinato motivic	S4
	additive chain cp	ostinato thematic	cp
		rhythmic ostinato	cp
simple motivic	additive chain	ostinato motivic	S5
	derivative cp		
simple motivic	additive chain	ostinato motivic	S6
		(migrant)	
additive chain	additive chain	simple ostinato	S7
		thematic ostinato	cp
simple motivic	complex derivative	ostinato motivic	S8
		(migrant)	
complex derivative	variation struct.	variation struct.	S9
		rhythmic ostinato	cp

TABLE 3

A Comparative Summary of Subject Types of First and Final Movements: only Main Themes are given

First Movement			Finales		
A	B	C	A	B	C/A ¹
Derivative	Additive Chain	Simple Motivic	Simple Motivic	Derivative	Simple Motivic
Additive Chain	Additive Chain	Ostinato Motivic	Derivative (intro simple motivic)	Additive Chain	Derivative Motivic
Derivative (complex)	Derivative Complex	Ostinato Motivic	Derivative	Derivative (cp motivic)	Simple Motivic
Ostinato Motivic	Derivative Additive Chain	Ostinato Motivic	Ostinato Motivic	Derivative	Simple Motivic
Simple Motivic	Additive Chain	Ostinato Motivic	Simple Motivic	Additive Ostinato Derivative	Simple Motivic
Simple Motivic	Additive Chain	Ostinato Motivic (migrant)	Derivative	Additive Chain Ostinato	Simple Motivic Ostinato (derivative ostinato)
Additive Chain	Additive Chain	Simple Ostinato	Simple Motivic	(Migrant) Modulating Ostinato	Simple Motivic
Simple Motivic	Derivative	Ostinato Motivic	Derivative	Additive Chain	Simple Motivic
Derivative (complex)	Variation	Variation			

TABLE 4 (Cont'd)

First Movements

Formal Outlines	S 6 bars	Formal Outlines	S 7 bars	Formal Outlines	S 8 bars	Formal Outlines	S 9 bars
D/I Aa	1	D/I Aa	1	D/I Aa	1	D/I frg	1
Rest.	25	Rest.	25	Rest.	23	Aa	19
Ba	49	Ba	51	Ba	51	Ab frg	27
Ba ¹	57	Var.	89	Rest.	73	Ab	63
Rest.	81	Ca	123	Ca	97	Trans.	77
Ca	101	Prelogue	149	Prelogue	129	Ba	97
Prelogue	121	Dev P/I	165	Dev P/I	153	Ba ¹	105
Dev P/I	145	Dev P/II	233	Dev P/II	193	Ba ⁷ =Bb	123
Dev P/II	195	D/III Dev	281	Dev P/III	225	Ba	131
D/III Aa	208	D/III Ba	319	Dev P/IV	263	Trans.	153
Rest.	229	Var.	343	DIII/Ba	311	Ca	167
Ba	245	Ca	363	Ca	341	Rest.	179
Rest.	269	Coda	413	Coda	370	Cb(=a ¹)	191
Ca	285					Prelogue	219
Coda	309					Dev P/I	227
						Dev P/II	277
						Dev P/III	303
						"D/III" Ab	333
						Aa	355
						Trans.	401
						Ba	421
						"Bb"	447
						Ca	459
						Rest.	467
						Cb	479
						Trans.	493
						Coda	519

TABLE 5

Finales									
Formal Outlines	S1 bars	Formal Outlines	S2 bars	Formal Outlines	S3 bars	Formal Outlines	S4 bars	Formal Outlines	S5 bars
D/I Aa	1	D/I Aa	1	D/I Aa	1	D/I Aa	1	D/I Intro	1
Rest.	23	Rest.	33	Rest.	25	Cont.	50	Aa	29
Ba	38	Ba	76	Ba	65	frg.	63	Ba	67
Ca	52	Ba ¹	86	Rest.	125	Ba	93	Rest.	93
Prelogue	79	Ba ²	112	Ca	155	Bb	105	Ca	137
Dev P/I	87	Aa	148	Prelogue	219	Ca	155	Prelogue	167
Dev P/II	151	Prelogue	200	Dev P/I	233	Prelogue	183	Dev P/I	211
DevP/III	208	Dev P/I	232	Dev P/II	293	Dev P/I	203	Dev P/II	270
Epilogue	234	Dev P/II	290	DevP/III	351	Dev P/II	237	DevP/III	374
D/III Aa	273	DevP/III	308	D/III Aa	379	DevP/III	270	DIII/Ba	398
Ba	300	D/III Aa	388	Rest.	403	Dev P/IV	295	Rest.	424
Ca	315	Ba	432	Ba	433	Epilogue	339	C	460
Coda	338	Rest.	472	Rest.	467	D/III Aa	383	Coda	564
		A	493	Ca	479	Ba	413		
		Coda	590	Coda	515	Bb	431		
						Coda	477		

TABLE 5 (Cont'd)

Finales					
Formal Outlines	S6 bars	Formal Outlines	S7 bars	Formal Outlines	S8 bars
D/I Aa	1	D/I Aa	1	D/I Aa	1
Ab	29	Rest.	11	Sequence	17
Ac	37	Ba	35	Ab	31
Ab ¹	47	Bb	51	(Aa frg)	40
Ba	65	Ba	65	Ba	69
Bb	97	C=Aa ¹	93	Bb	91
Ca	125	Prelogue	128	Rest.Ba	111
Prelogue	145	Dev P/I	145	Ca	135
Dev P/I	177	Dev P/II	191	Cb	159
Dev P/II	246	D/III Ba	212	Prelogue	212
D/III Ba	299	Aa	247	Dev P/I	253
C/i Aa	333	Aa ¹	275	Dev P/II	301
Coda	371	Aa ²	291	Dev P/III	345
		Aa ³	299	Dev P/IV	387
		Coda	315	D/III Aa	437
				(Ab inv)	527
				Ba	547
				Fugue	583
				Coda	647

TABLE 6

A Summary of Thematic Features of the Development Section

	Part I	Part II	Part III	Part IV
S1:i	(i) Intro Ca Ccp.a from A/I cp.a frg	(i) Intro (ii) Dev. Aa theme (iii) frg Sound rhythm field	Epilogue:- frg of main ideas fig. chord ext. <u>Main theme in Recap.</u>	
S2:i	Aa theme	(i) Restate- ment of P/I Aa frg inv. (ii) Ca frg	Epilogue Ca theme Cadential to <u>Main theme in Recap</u>	
S3:i	(i) Intro (ii) Aa (iii)Aa sequence (iv) Aug.of Aa h/motive	Acp.a Ab theme Fig.block ext.	<u>Aa theme</u> (tonic minor) fig. Block	Epilogue:- Ba denouement to pp presentation of <u>Main theme in Recap</u>
S4:i	(i) Aa frg + Ab frg (ii) Aa+Ab (iii)Rhythm field	<u>Ab theme</u> (tonic minor)	(i) Aa dev harmonically mod.chorale Soundfield (ii) Bacp.a	Epilogue:- mod. denouement to <u>pp main theme in Recap</u>

TABLE 6 (Cont'd)

	Part I	Part II	Part III	Part IV
S5:i	Intro/i cp.a(iii) Aa h/motive	<u>Aa in canon with Aa inv.</u> 7 statements + Ccp.a frg (ii)Motivic dev. block	frg Aa inv. in chorale arr.	Aa inv. ostinato block to <u>main Aa theme in Recap</u>
S6:i	(i) Free Aa inv as intro (ii) Aa (iii) frg block	(i) Full Aa theme in T.D. (ii) frg block <u>Recap of Aa Main theme in tonic</u>		
S7:i	(i) Intro Aa (ii) Ba inv. (Aa into harmony) (iii) Ca + inv. (minor) (iv) frg ostinato rhythm sound field	<u>Aa Inv in full</u> frg o + inv + Aa in canon Soundfield <u>to Reversed Recap</u>		

TABLE 6 (Cont'd)

	Part I	Part II	Part III	Part IV
S8:i	(i) Intro Aa Aa inv frg	Ba=0.+ inv. fig.chord ext. sound rhythm field	<u>Aa+Ba aug.</u> Triple State- ment of dual subject (i) c (ii) E ^b (iii) g Cadential	Aa frg.ostinato Aa triple miniature statements soundfield Ab + Aa <u>No A/Recap</u> begins Sect.B.
S9:i	frg Aa ¹ + a <u>Statement of</u> <u>Aa² + Aa</u> frg on a ¹ , a, b ¹ and b ²	Ab ⁵ TR + Cb frg chord block ext.	Cb rhythm dim + Ab ² inv.var = acc + frg Ab ¹ in pitch var (8) frg Ostinato block V/fig ext <u>Ab main theme</u> <u>of "Recap"</u>	

TABLE 7

A Summary of Thematic Features of the Development Sections

	Part I	Part II.	Part III	Part IV
S1:iv	Aa (i) Intro (ii)theme (iii) (iv) Soundfield	Ba (i) (ii) Ba inv (iii) frg soundfield	Aa ² Aa ³ frg Trad.dev. techniques	Epilogue :- fig block ext G/V <u>Main theme in Recap</u>
S2:iv	Aa (i) (ii) Aa Acp.a	new theme Ba	Epilogue:- Ba Fig. chord ext. G/V <u>Main theme in Recap</u>	
S3:iv	<u>Aa main theme</u> Fig. chord ext	Aa main theme Aa sequential (i) Restate- ment (ii) & (iii) Aa motivic development (iv) Block of <u>Aa first movement</u> fig. chord ext. V/G	Epilogue:- Bcp.a chorale- theme denouement <u>Main theme in Recap</u>	

TABLE 7 (Cont'd)

	Part I	Part II	Part III	Part IV
S4:iv	(i) frg on Aa	(i) harmonic exploration (ii) frgs	(i) Bb frg ostinato development	(i) <u>Aa h/motive</u> <u>Ca theme</u> (ii) counter-statement Aa inv. Ca <u>Part V</u> Epilogue:- Aa Ca frgs
S5:iv	(i) Fugato (ii) Intro/ii	(i) <u>Aa double-fugue</u> Intro/ii/i (ii) Dev. (iii) Dev. (iv) Dev. Fig.block ext.	(i) Block Fugue 1 Fugue 2 <u>No A/Recap begins Section B</u>	
S6:iv	Aa:Quadruple Statement each varied = (i) a ¹ (ii) a ² (iii) a ³ (iv) a ⁴ (v) frgs	<u>Ab Main theme</u> (i) Block (ii) Block denouement	<u>No A/Recap begins Sect.B.</u>	

TABLE 7 (Cont'd)

	Part I	Part II	Part III	Part IV
S7:iv	<p>(i) Aa intro chorale-arr.</p> <p>(ii) Aa inv. Ba inv.+ dim. Aa in stretto frg.</p>	<p><u>Aa Main theme Triple Statement</u></p> <p>(i) b min (ii) A^b (iii) e Aa inv. (iv) frg</p>	<p>No A/Recap begins Sect.B</p>	
S8:iv	<p>(i) Bcp.b O + Inv. Ba inv.</p> <p>(ii) Ca inv. frgs</p>	<p><u>Ab Main theme Triple Statement</u></p> <p>(i) e^b (ii) f (iii) G</p>	<p>Kinetic Region</p>	<p>Aa Ca Ab Denouement</p> <p><u>Main theme Recap</u></p>

TABLE 8

The Emergent Key Centers of First Movements

	ONE c Min	TWO c Min	THREE d Min	FOUR E ^b Maj	FIVE B ^b Maj	SIX A Maj	SEVEN E Maj	EIGHT c Min	NINE d Min
Sect.A.	c:	c:	d:	E ^b :	B ^b :	A:	E: E counter statement	c: c:counter statement	d:
	A ^b ; B ^b :	Rest. c:	Rest. A:	E ^b : F/V	Rest. b ^b :	Rest. A:			d:
	A ^b : G ^b : c# ^o :								Trans: d:
Sect.B.	E ^b : E ^b :	E ^b :f:G ^b	F:	D ^b :	f: g: V of	e:D ^b cont D:F:A:	b: B:	G:G ^b : C:	A:F# :E: f# :
	C ^b d ^o :		Rest. E:a:	D ^b :	Rest. d ^b :D ^b :	Rest. E: B:		Rest. G:C:F#: A:c:C ^b :e:	C:
					Rest. f:				A:Trans: A ^b :a: E:

TABLE 8 (Cont'd)

	ONE c Min	TWO c Min	THREE d Min	FOUR E ^b Maj	FIVE B ^b Maj	SIX A Maj	SEVEN E Maj	EIGHT c Min	NINE d Min
Sect.C.	E ^b ;	E ^b :C ^b :E ^b	F: Tr: E:	B ^b : G: D ^b :	D ^b :	E: C:	b:d:Tr:	e ^b :E ^b :	d:
		Var.			Var:D ^b : A: d:				Rest. d:Trans.
		Rest. G ^b : G:			B ^b : G ^b :				Rest. f#: b: e:
Prelogue	E ^b :	G: /V E ^b : f:	C:A:F:	B ^b :	F:	E:	B:	e ^b :E ^b :	C:F:
P/I	E ^b : Tr.	F :Tr: c/V	F/f:Tr:	b ^o :F:	F:E:C: c:F:b ^b :	E:G:E: G:a:C: A ^b :e ^b :	B:d:f#: E:Tr:e: G/V	E ^b /m: F:D ^b :	f:F#:a: E/V
P/II	f#b/B: f:	f:G ^b :a ^b : b:a:G:b ^o	a: c# ^o :	e ^b :B ^b	E:G ^b :B: a:b ^b : c:A:B ^b : G:A ^b :	E ^b :	c:D/m Tr:	G ^b :A: G/V:F/V	F:E ^b :A ^b :
P/III	f: c:	G:D ^b :G:	d:g:d: Tr:a ^b : A: C V	B ^b :Tr:c:	b ^o :g:F:a: A ^b :B:			c:E ^b :G/V	C:c:Tr:A:

TABLE 8 (Cont'd)

	ONE c Min	TWO c Min	THREE d Min	FOUR E ^b Maj	FIVE B ^b Maj	SIX A Maj	SEVEN E Maj	EIGHT c Min	NINE d Min
P/IV			F:	g:d ^o /s	b ^b :			c:	
Recap Sect.A.	c:	c:	d:	E ^b :	B ^b /b ^b :	A:	E: D:		d:e ^b :g ^b : g:
	A ^b	Rest. c:C:	Rest. omitted	E ^b		Rest. A:			a ^b :C:B: f:
	c/V f# ^o								
Sect.B.	c:	C:A ^b :	D:E ^b D ^b A:	B:	G:a: A ^b :G:	f# :E ^b _m /M	e: E: G ^b BaVar	E ^b :	d:Trans: D:g:A:
	c:			D:Tr: B ^b :		Rest. F# ^b :A:			B:g ^b :
Sect.C.	c:C:	c:E ^b :E: c:	d:	E ^b :E:A ^b : a ^b :E ^b :	E ^b :b ^b : B ^b :	A:D ^b :A: D:A:	G:C:Tr: G ^b :A:E:	c:Tr:c:	b:d:b:b ^b : G ^b /M d:

TABLE 9

TONAL BALANCE FINALES

SS	Exposition										
	Section A.	Section B.	Section C.	Dev.	Part I.	Part II.	Part III/IV/V.	Recap.	Section A.	Section B.	Section C
1											
	I - IV	- X -	- X -	IV	IV	V		I	I	I - IV - I	
	subdelta region	unstable region no single key centre	alternating	subdelta region	subdelta region	delta region		tonic	tonic	subdelta tonic	
2											
	I	IV	IV	IV				I - V - I	I-IV- V	I-V-I-IV- V-I	
	tonic region	subdelta region	subdelta region	subdelta region	unstable	delta		tonic region	mig.	tonic	
3											
	I	V	V	- X -	- X -	IV		I - V - IV	IV - V	I-IV-V-I	
	tonic region	alternating regions-delta	delta region	unstable	delta tonic-subdelta alternation	subdelta region		mig.	mig.	tonic	
4											
	V	IV	V	V	V	IV - I - V		I - X - V	V-I-V- IV-V-I- V	I tonic	
	delta region	subdelta region	delta region	delta region	delta region	mig.		mig.	delta	tonic	

TABLE 10 (Cont'd)

FINALES - RECAPITULATIONS

51.	279	293	291	295	390	215	328																		
	Aa/C:	E ^b	G/X	C:	Ba/C:	TR:	Aa/C:	Coda/e: c: F: E ^b F: c:																	
	o	f	f	o	o	...	o	f o f' f' f' o																	
52.	398	395	407	423	432	472	489	493	508	513	521	533	543	590-700											
	Aa/C:	G/X:	G/X:	A ^b :	Ba/C:	A ^b :	Ba/F:	J ^b G:	Aa/C:	G/X:	C	kinche	C ^b	G/X	Coda	C									
	o	f	f	f	o	f	f	...	f	o	f	o	...	f	f	o									
53.	379	395	403	419	433	453	467	479	499	513	535	556	571	579	597										
	Aa/d:	Aa/A:	c:	G: Fio est.	Ba/A ^b :	TR:	cont. E:	Ba/A:	ca/B ^b :	TR:	d:	Coda/d:	G/Fio est.	C:	TR	A:	D:								
	o	f	f	f	f	f	f	f	f	f	...	o	o	f	f	...	f	o							
54.	339	393	394	395	413	425	427	431	449	453	459	465	473	477	501	533									
	Epilogue	D: e:	d:	B ^b :	Aa/E ^b :	cont. G:	E ^b	TR	kinche	G ^b /F ^b /X	Ba/f ^b :	E ^b :	c ^b :	Bb/D:	E:	F ^b	B ^b :	C ^b :	B ^b :	Coda/E ^b	Kinche	E ^b :	kinche:	E ^b	
	Dev. P/X	f	f	f	f	o	f	o	f	f	o	o	f	f	f	f	f	o	o	...	o	...	o
55.	397	402	410	413	414	420	424	449	460	468	476	480	496	496	514	536	535	540	564						
	Ba/F:	B ^b :	TR:	[G ^b]	[E ^b]	A ^b :	b ^b :	D: TR	G ^b /N ^b :	F:	Ca/B ^b /b ^b :	C:	A ^b :	B ^b :	C ^b :	B ^b :	b ^b :	C#	G	TR	F	Coda:	B ^b		
	f	o	...	f	o	f	f	...	f	f	o	o	f	f	o	f	o	f	f	...	f	o			
56.	299	323	327	331	333	356	352	359	371	385	399														
	Ba/A:	TR:	F ^b :	B ^b :	C ^b :	Ca/B:	TR:	kinche:	e ^b :	B:	C ^b + ^b + ^b :	Coda/F:	A:	TR	A:										
	o	...	f	f	...	f	f	f	f	o	...	o											
57.	212	229	241	247	251	257	259	263	267	270	271	275	291	299	315										
	Ba/C:	Id:	TR	A:	TR:	C/X _o F	Aa ² /A:	B:	B	C ^b	B	E	b ^b	C ^b	Aa/E:	TR:	G:	B:	TR:	E					
	f	(f)	...	f	...	f	f	f	f	f	f	o	...	f	...	o	...	f	f	...	o				
58.	437	445	449	463	481	493	501	510	514	519	529	537	577	573	581	Fugue	517	419	430						
	Aa/[F#]/[D]/[B ^b]	G ^b :	[G]/[E ^b]/[C ^b]	e.C.	[F#]/[D ^b]	A ^b :	re:	Aa.cont/TR:	G:	f ^b /A ^b :	G/X:	c:	C:	kinche	Ab.inu./C:	TR:	-G ^b :	Ba/A ^b :	C ^b :	A:	G/X	kinche:	o:	c:	G
	f	f	f	f	f	f	o	f	f	f	o	o	o	...	f	f	f	f	f	f	f	o	o	f	
58 (cont)	447	670	697																						
	Coda	/C:	TR:	F:	C:																				
	o	...	f	o																					

BIBLIOGRAPHY 1

- Andrews, Herbert K. THE TECHNIQUE OF PALESTRINA, Novello & Co., London 1958.
- Blom, Eric. PROBLEMS OF BRUCKNER, Monthly Musical Record, Jan. 1929.
- Boulez, Pierre. BOULEZ ON MUSIC TODAY, (Transl., S. Bradshaw and R.L. Bennett), Faber and Faber, London, 1956-1959, 1971.
- Boyden, David B. AN INTRODUCTION TO MUSIC Faber & Faber London. 1959.
- Brindle, Reginald Smith. SERIAL COMPOSITION, Oxford University Press, 1966.
- Bukofzer, Manfred F. MUSIC IN THE BAROQUE ERA, J.M. Dent and Sons, London, 1948.
- Busoni, Fernuccio. THE ESSENCE OF MUSIC, Salisbury Square London, 1957.
- Capel, R. BRUCKNER, Monthly Musical Review 1936.
- Cardus, Neville. ANTON BRUCKNER, The Guardian April 1964
- Carner, Mosco. BRUCKNER, A MUSICAL PROFILE, The Listener, 12 May 1966.
- Carner, Mosco. A STUDY OF TWENTIETH CENTURY HARMONY VOL. II. Joseph Williamson, London, 1948.
- Carner, Mosco. BRUCKNER VERSUS MAHLER, Music Review 24 August 1967.
- Cooke, Deryck. THE BRUCKNER PROBLEM SIMPLIFIED Musical Times, Jan., Feb., Apr., May, Aug., 1969.
- Cooke, Deryck. BRUCKNER'S TIME IS ANYTIME, The Listener, August, 1970.
- Crocker, R.L. A HISTORY OF MUSICAL STYLE, McGraw Hill Inc., New York, 1966.
- Dal, BT. BELA BARTOK, Music Review, Vol.30. 1969.
- Dawson-Bowling, Paul. THEMATIC AND TONAL UNITY IN BRUCKNER'S EIGHTH SYMPHONY, Musical Review, August 1969.
- D'Indy, Vincent. CESAR FRANCK, A STUDY, John Lane London, 1909.
- Doernburg, E. THE LIFE AND SYMPHONIES OF ANTON BRUCKNER, Barrie and Rockcliff, London, 1960.
- Donat, Misha. SECOND VIENNESE SCHOOL, Tempo, 99, 1972.

- Einstein, Alfred. SCHUBERT, (Transl., David Ascoli) Cassell and Co., London, 1951.
- Einstein, Alfred. MUSIC IN THE ROMANTIC ERA, J.M.Dent and Sons, London, 1947.
- Eliot, Thomas Stearns. COLLECTED POEMS 1909-1962, THE FOUR QUARTETS, Faber and Faber, London, 1963.
- Fairfax, Bryan. ANTON BRUCKNER, Musical Times, 105, Feb., 1964.
- Fairfax, Bryan. UNKNOWN BRUCKNER, Musical Times 105, May 1964.
- George, Graham. TONALITY AND MUSICAL STRUCTURE, Faber and Faber, London, 1970.
- Goldman, Albert, Sprinchorn and Evert. WAGNER ON MUSIC AND DRAMA PART II THE GREEK IDEAL, (Transl., H.Ashton Ellis), Gollancz, London, 1970.
- Green, Douglas M. FORM IN TONAL MUSIC, Holt, Reinhart and Winston Inc., New York, 1965.
- Grout, Donald J. A HISTORY OF WESTERN MUSIC W.W. Norton and Co., New York, 1960.
- Güldenstein, G. von. MODULATIONS LEHRE, Carl Grüniger, Stuttgart, 1917.
- Hälm, August. DIE SYMPHONIE ANTON BRUCKNER, G. Müller, Munich, 1923.
- Hanslick, Eduard. MUSIC CRITICISM 1846-1899, (Transl., and Ed. Henry Aleasants), Peregrine Books, 1963.
- Harvegal, Brian. BRUCKNER'S ROMANTIC SYMPHONY NO.4. Musical Opinion, 1928.
- Hodgson, Anthony. ARCHITECT AND MASTER BUILDER, Records and Recordings, 15 Jan., 1972.
- Jeppeson, Knud. THE STYLE OF PALESTRINA AND THE DISSONANCE: INTRODUCTION BY E.J.DENT Ejnai Munksgaard, Copenhagen, 1946.
- Keller, Wilhelm. HANDBUCH DER TONSATZ LEHRE I (TONSATZ = ANALYTIK), Gustav Bosse Regensburg, 1957.
- Keller, Wilhelm. HANDBUCH DER TONSATZ LEHRE II, Gustav Bosse, Regensburg, 1957.
- Leichtentritt, Hugo. MUSIC HISTORY AND IDEAS Harvard University Press, Cambridge, Massachusetts, 1964.

- Larner, Gerald. BRUCKNER AND PIOUS DUTY The Listener, 21 July 1966.
- Lines, J.A. BRUCKNER, BRUTALISM AND THE BAROQUE Musical Opinion 91, May 1968.
- Machlis, Joseph. INTRODUCTION TO CONTEMPORARY MUSIC W.W.Norton, U.S.A., 1961.
- Maecklenburg, A. HUGO WOLF AND ANTON BRUCKNER Musical Quarterly, New York, 1938.
- Mann, William. BRUCKNER'S STRUCTURES IN PERSPECTIVE Times, 21 July 1967.
- Mellers, Wilfred. MAN AND HIS MUSIC, THE STORY OF MUSICAL EXPERIENCE IN THE WEST: ROMANTICISM AND THE TWENTIETH CENTURY. PART IV Barrie and Rockcliff, London 1969.
- Mitchell, Donald. MAHLER STUDY, Musical Review, London, 1958.
- Mitchell, Donald. GUSTAV MAHLER, THE EARLY YEARS Rockcliff, London, 1958.
- Mitchell, Donald. THE LANGUAGE OF MODERN MUSIC, Faber and Faber, London, 1963-1966.
- Newlin, Dika. BRUCKNER, MAHLER AND SCHOENBERG Kings Crown Press, New York, 1947.
- Newlin, Dika. THE FINALE OF BRUCKNER'S NINTH SYMPHONY The Monthly Musical Record, London, 1974.
- Orel, Alfred. ANTON BRUCKNER Hartleben, Vienna 1945.
- Palmer, Christopher, IMPRESSIONISM IN MUSIC, Hutchinson and Co., London, 1973.
- Perle, George. SERIAL COMPOSITION AND ATONALITY, AN INTRODUCTION TO THE MUSIC OF SCHOENBERG, BERG AND WEBERN Faber and Faber, London, 1968.
- Raine, Kathleen. FAREWELL HAPPY FIELDS, MEMORIES OF CHILDHOOD, Hamish Hamilton, 1973.
- Raynor, H. AN APPROACH TO ANTON BRUCKNER Musical Times, 1955.
- Redlich, H.F. THE FINALE OF BRUCKNER'S NINTH SYMPHONY, Monthly Musical Record, July-August 1949.
- Redlich, H.F. BRUCKNER AND BRAHMS QUINTET IN F, Music and Letters, July 1955.

- Redlich, H.F. BRUCKNER'S CHORAL MUSIC,
The Listener, Nov., 1971.
- Redlich, H.F. BRUCKNER AND MAHLER, J.M.Dent and
Sons, London, 1955.
- Rees, Gustav. MUSIC IN THE RENAISSANCE
J.M. Dent and Sons, London, 1954.
- Rees, Gustav, MUSIC IN THE MIDDLE AGES, J.M.Dent
and Sons, London, 1941.
- Reid, Charles. STANDING UP TO BRUCKNER, The
Spectator, 15 May, 1964.
- Rimsky-Korsakov, N. THE PRINCIPLE OF ORCHESTRATION
(Ed., M.Steinburg, Transl., E.Agate)
Calmus Orchestra Score, Inc., New York
- Rothwell, J.S. POST WAGNERIAN TENDENCIES IN FRENCH
MUSIC AND POETRY WITH SPECIAL
REFERENCE TO MALLARME AND DEBUSSY
M.Phil. Vol.XIV 1968-1969.
- Sachs, Curt. RHYTHM AND TEMPO, W.W.Norton & Co.,
New York, 1953.
- Sachs, Curt. THE RISE OF MUSIC IN THE ANCIENT
WORLD EAST AND WEST, W.W.Norton & Co.
1943.
- Salzman, Eric. TWENTIETH CENTURY MUSIC: AN
INTRODUCTION, Prentice Hall,
New Jersey, 1967.
- Sharp, Geoffrey. ANTON BRUCKNER, A SIMPLETON OR
A MYSTIC Music Review, Vol.III, 1942
- Schoenberg, Arnold. STRUCTURAL FUNCTION OF HARMONY,
William and Norgate Ltd., London, 1954.
- Schoenberg, Arnold. THEORY OF HARMONY (HARMONIE LEHRE)
Transl., R.B.W. Evans), Philosophical
Library, New York, 1948.
- Schoenberg, Arnold. FUNDAMENTALS OF MUSICAL COMPOSITION
(Ed., Gerald Strang and Leonard Stein)
Faber and Faber, 1967.
- Schönzeler, Hans Hubert. BRUCKNER, Calder and Boyens
Ltd., London, 1970.
- Simpson, Robert. THE ESSENCE OF BRUCKNER, Victor
Gollancz, London, 1967.
- Simpson, Robert. BRUCKNER AND THE SYMPHONY, BBC
Publications, July 1966.
- Simpson, Wilfred Levick. THE NEAPOLITAN IN THE ROMANTIC
PERIOD, Music Review, Vol.30. 1969.

- Strunk, Oliver, SOURCE READING IN MUSIC HISTORY FROM CLASSICAL ANTIQUITY THROUGH THE ROMANTIC ERA, W.W.Norton, New York, 1950.
- Tovey, A.F., ESSAYS AND LECTURES ON MUSIC, Oxford University Press, 1949.
- Trainer, Roswitha, BELA BARTOK'S KOMPOSITIONS TECHNIQUE, DARGESTELLT AM SEINEN SECHS STREICHQUARTETTEN, Gustav Bosse, Regensburg, 1956.
- Watson, Derek, BRUCKNER, The Master Musicians, J.M. Dent and Sons, London, 1975.
- Wellesy, Egon, ANTON BRUCKNER, THE PROCESS OF MUSICAL CREATION, Musical Quarterly July, 1938.
- Wordsworth, William, PREFACE TO LYRICAL BALLADS, (Quoted by O.J.Enright and E. De Chickera in ENGLISH CRITICAL TEXTS) Oxford University Press, London, 1964.
-

BIBLIOGRAPHY 2.

- Davies, L. PATHS TO MODERN MUSIC, Barrie and Jenkins. London. 1971.
- Jacobs, Arthur A NEW DICTIONARY OF MUSIC, Penguin Books, Harmondsworth. 1967.

MUSICAL EDITIONS

- Bruckner, Anton. I SYMPHONIE C - MOLL, 2., Revidierte Ausgabe Musikwissenschaftlicher Verlag R.G.M.B.H., Wien.
- Bruckner, Anton. II SYMPHONIE C-MOLL, Originalfassung Brucknerverlag Wiesbaden G.M.B.H. Wien
- Bruckner, Anton. III SYMPHONIE D-MOLL, Fassung von 1878 Brucknerverlag Wiesbaden G.M.B.H. Wien.
- Bruckner, Anton. IV SYMPHONIE, ES-DUR, 2., Revidierte Ausgabe Musikwissenschaftlicher Verlag R.G.M.B.H. Wien.
- Bruckner, Anton. V SYMPHONIE B-DUR, 2., Revidierte Ausgabe Musikwissenschaftlicher Verlag Wien.
- Bruckner, Anton. VI SYMPHONIE A-DUR, 2., Revidierte Ausgabe Originalfassung Musikwissenschaftlicher Verlag R.G.M.B.H. Wien.
- Bruckner, Anton. VII SYMPHONIE E-DUR, 2., Revidierte Ausgabe Musikwissenschaftlicher Verlag Wien.
- Bruckner, Anton VIII SYMPHONIE C-MOLL, Fassung von 1890 Musikwissenschaftlicher Verlag Wien.
- Bruckner, Anton. IX SYMPHONIE D-MOLL, Originalfassung Musikwissenschaftlicher Verlag Wien.