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THE MUSICAL LANGUAGE EMPLOYED IN THE
KONZERT FÜR ORGEL UND STREICHORCHESTER OF
JOSEF FRIEDRICH DOPPELBAUER

presented by

Donald Lee Armitage

has been accepted towards fulfillment
of the requirements for

DOCTOR OF PHILOSOPHY degree in MUSIC


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THE MUSICAL LANGUAGE EMPLOYED IN THE
KONZERT FÜR ORGEL UND STREICHORCHESTER OF
JOSEF FRIEDRICH DOPPELBAUER

By

Donald Lee Armitage

A DISSERTATION

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ABSTRACT

THE MUSICAL LANGUAGE EMPLOYED IN THE KONZERT FÜR ORGEL UND STREICHORCHESTER OF JOSEF FRIEDRICH DOPPELBAUER

By

Donald Lee Armitage

The purpose of this dissertation is to determine the musical language utilized in the composition of the Konzert für Orgel und Streichorchester of Josef Friedrich Doppelbauer, and to identify those types of influence which bore upon its creation. The paper is the final portion of a degree program which has also included three public organ recitals containing music of Sweelinck, Buxtehude, Bach, Mozart, Franck, Simonds, Vierne, Couperin, Sifler, Sowerby, Dupré, and Mulet.

The musical language of the Konzert is determined through a detailed, three-part examination which includes formal (structural), motivic, and harmonic analyses. These analyses reveal the Konzert to be an attempt on the part of the composer to find a unique and personal form of musical expression through the combination of traditional and non-traditional elements. The result is a three-movement, eighteen-minute work cast in the form of a concerto of the Classical period: first movement in sonata-form, second movement in a broad ternary form, and third movement in a seven-part rondo form. Included as an integral part of these structures is the extensive use of fugal processes patterned on models from the Baroque period which range in scope from short points of imitation within themes and transitions to a fully-organized fugue which is placed as the central part of the second movement. The

Baroque and Classical formal procedures shape themes the harmony of which, though clearly tonal, makes considerable use of non-functional chord successions, extended-tertian and non-tertian (quartal and quintal) chords, altered chords (whole-tone dominants, minor dominants, and augmented-sixth chords built on minor triads), and mixed scale resources (major and minor scales, ecclesiastical modes, and symmetrical scales).

The juxtaposition of the old and new elements is handled gracefully and skillfully with the music given to both the organ and orchestra idiomatic in character and infused with a fresh, natural spirit.

Also included in the dissertation is a biographical sketch of the composer and a survey of all of his solo organ music which includes titles, publishers, and (in the case of all but the shortest pieces) a brief description of each work.

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1932

To Mary, my wife, with love and thanks

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An endeavor of this kind is not undertaken by an individual without considerable help from friends, associates, and professors. In the case of this paper, an attempt to thank in print all such persons would be a most difficult task; suffice it to say that I am grateful to all who assisted in the completion of this project.

Several groups of persons should be singled out for special mention: Dr. Corliss Arnold, Dr. Theodore Johnson, Dr. Edgar Kirk, and Professor Richard Klausli of Michigan State University whose kind patience and guidance is sincerely appreciated; Dr. Robert Paul Ward, the officers, and the congregation of Court Street United Methodist Church of Flint, Michigan, without whose support the project could not have been initiated; Dr. David H. Burr, the officers, and the congregation of First Presbyterian Church, Winston-Salem, North Carolina, without whose encouragement it could not have been completed; my parents, Mary and Everett Armitage, who provided help and work space when both were most urgently needed; Dr. Robert Ulery who assisted in the translation of numerous source materials; Dr. William Stevens who prepared all the musical examples; Linda Rubright who patiently prepared the typescript; the firms of Alfred Coppenrath, Altötting, and Doblinger Verlag, Vienna, who lent gracious assistance; and to Josef Friedrich Doppelbauer who supplied valuable information and insight into his compositional philosophy.

All of the musical examples included in this paper are reprinted with kind permission of original-edition L. Doblinger (B. Herzmansky) KG, Wien.

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INTRODUCTION

This writer first became acquainted with the Konzert für Orgel und Streichorchester in 1970 while seeking a concerted work for organ and orchestra to be included in a concert of such pieces with members of the Flint (Michigan) Symphony Orchestra, and to be given at Court Street Methodist Church in Flint. The Konzert was so well received by the audience, and was such a pleasure to learn and rehearse that, given the paucity of such works for the organ, it was deemed worthy of further analytical study.

It is assumed that the reader of this paper will have a basic knowledge of music theory and access to the study score available from the publisher (Doblinger Verlag, Vienna [Stp. 110]); the numerous musical examples included in the body of the text are intended to illustrate analytical points, but are not sufficient in themselves to allow the reader to understand fully the complete score. Indeed, most of the examples are incomplete inasmuch as the phrasing, dynamic, and articulation signs frequently are omitted to make the analytical processes clearer.

At many points analytical procedures employed in the dissertation are, of necessity, exhaustive, with the concomitant risk that both writer and reader will become overwhelmed by minutiae. This danger is both unavoidable and mitigated somewhat by the fact that the only way to know thoroughly a piece as complex as the Konzert is from the inside out.

There is no question but that the work can be enjoyed and appreciated without the scrutiny given it here: indeed, this is one of the attributes which makes it musically successful. This appreciation is far more profound, however, when the hearing is informed by a thorough understanding of the detailed artistic construction.

The vocabulary employed in the analysis chapters utilizes standard terms and symbolisms with the exceptions noted in footnotes throughout the paper. The expression functional harmony is used to describe those chord relations (most commonly associated with the eighteenth-century) in which one sonority is suggested by another; non-functional harmony refers to those chord successions in which no one sonority implies or suggests the nature of the one which follows it. The reader should expect a rich variety of traditional and non-traditional compositional techniques to be used in the Konzert, a synthesis which contributes in large measure to the musical success of the work.

CHAPTER I: BIOGRAPHY OF
JOSEF FRIEDRICH DOPPELBAUER

Josef Friedrich Doppelbauer was born on August 5, 1918, in Wels, a city in upper Austria.¹ His early years were lived in a musical environment nurtured by elder brother Rupert, at the time the deputy music director of Steiermark in Graz, and by Johann Nepomuk David, an active musician, composer, and teacher in his native city. After graduation in 1938 from the Realgymnasium in Wels, Doppelbauer entered the Conservatory and Music High School in Graz, where he was able to pursue his education and musical training for two years, studying composition with Karl Marx, organ with Franz Illenberger, and cello with Wolfgang Grunsky. These musical studies were interrupted in 1940 upon his call to the armed forces, a break in his career which finally ended in 1947 with his return to Wels from imprisonment in Yugoslavia.

He became choir director and organist of St. Johannes-Kirche in Wels in 1947, and in 1951 re-organized, conducted and toured with the Wels Bach Chorus, which had been founded in 1926 by his former teacher, J. N. David. Doppelbauer entered the Mozarteum Academy in Salzburg in 1954 where, in two years, he finished the school music studies suspended during the war.

¹ Rudolf Walter, "Doppelbauer," Die Musik in Geschichte und Gegenwart, Supplement, 1826-27; Walter Kolneder, "Leben, Werk, und Wollen," in Josef Friedrich Doppelbauer: Werkverzeichnis (Vienna: Doblinger Verlag, 1975), pp. 5-7.

He became a teacher of music theory at the Bruckner Conservatory in Linz in 1957, serving in that capacity for three years. Since 1960 he has held the position of Professor of Organ and Composition at the High School for Music and the Performing Arts, the Mozarteum, in Salzburg.

The stress of conflict and incarceration during the war years had some ill effects on the composer's health, and the loss of many opportunities for study and experience in his craft left him concerned with the building of a career after the war. A period of intensive effort led to full recovery of his technical skills and to the unhampered expression of his creative spirit. The many honors and awards he has been presented bear witness to the high esteem with which his work is regarded by colleagues and critics.

Awards, Honors, and Distinctions

1952 and 1954: Fellowship from the Austrian Education Ministry

1955: First prize in the international composition competition, Haarlem, Holland, Sonatine für Orgel

1955: Gold medal "Pro arte et scientia" of the city of Wels

1956: First prize in the international composition competition, Haarlem, Holland, Sonata da chiesa

1956: Winner in the Organ improvisation competition of St. Florian

1958: First prize in the international composition competition, Ghent, Belgium, Konzert für Orgel und Streichorchester

1960: First prize in the international composition competition for the 900th-year celebration of the Cathedral in Speyer, Marienlied-Kantaten

1966: Culture promotion prize of Upper Austria, Trio für zwei Klarinetten und Fagott

1967: Austrian State Prize (promotions prize), Missa psalmodica

1972: the Anton Bruckner Prize

CHAPTER II: SURVEY OF MUSIC FOR ORGAN

The catalogue of musical compositions of Josef Friedrich Doppelbauer is quite large, and illustrates his wide-ranging interests in many forms of musical expression. Although this chapter is concerned primarily with the music for organ, he has written works for a variety of media, including choir, piano, woodwind ensembles (trios, quartets, and quintets), string ensembles (three quartets, a trio, and a violin duet), as well as other chamber works for various combinations of these instruments (including piano and cello; flute and violin; flute, violin, and cello; oboe, viola, and cello; and flute, clarinet, and harp). Larger orchestral works include a Symphony in G, the Konzert für Orgel und Streichorchester, and an Allegro concertante for small orchestra.

The largest body of music in the catalogue is that for accompanied and unaccompanied chorus, the majority of which comprises works for church use, a result, at least in part, of the composer's post-war labors at the Johannes-Kirche in Wels. The corpus contains settings of both ordinary and propers of the Mass, motets, psalm and canticle settings, and cantatas on church hymn tunes. A smaller number of secular choral pieces have been written which are based on folksongs and a variety of poetic texts.

Doppelbauer has edited several collections of choral and organ music and has contributed articles on a number of musical subjects to

various European periodicals.

That portion of his musical compositions devoted to the organ divides into two parts: the pieces which have as cantus firmi the hymn and chant tunes of the church, and those based upon themes of the composer's own invention. In all cases, the organ music is carefully edited with liberal use of dynamic, articulation, phrasing, and registrational suggestions. The player is left to work out his own fingerings and pedalings, however.

Cantus firmus works Two major compositions in this group are based on Gregorian chant melodies.

Organum in missa cantata Christophorous Verlag, Freiburg¹

Included in this publication are four partitas, one each on the propers for Pentecost Monday, the 19th Sunday and the 21st Sunday after Pentecost, and for the Feast of St. Joseph the Laborer, and a postlude (Fugue) on "Ita missa est" VIII. Each partita contains four movements: Ante Introitum, Post Offertorium, Post Communionem, and Post Benedictionem.

Partita super "Ave maris stella" (1963) Doblinger Verlag, Vienna (02 240)

This partita is a large and difficult work comprising four movements--Preamble: a lengthy chorale prelude in which the harmonized phrases of the chant melody are separated by sections of extensive two- and occasionally three-part counterpoint which is motivically based on the cantus firmus; Chorale: a shorter movement which presents each phrase of the cantus firmus twice, the second time in rhythmic diminution; Recitative: a fantasia utilizing brilliant passage work for both

1 To the right of each title is given the name and location of the publishing house from which the work can be obtained. Catalog numbers will also be given when available.

manual and pedal parts, all facets of which are cantus firmus based;
Fuge und Chorale: a double-fugue the two subjects of which are based
 respectively on the first two phrases of the cantus firmus. Technical
 manipulations include the treatment of the subject in augmentation,
 diminution, inversion, and stretto.

The balance of the cantus firmus works are based upon German hymn
 tunes. Collections of shorter chorale preludes will be listed first,
 followed by brief discussions of the larger cantus firmus works.

Choralvorspiele zum Katholischen Kirchengesangbuch der Schweiz

Edition Cron, Lucerne

This is a large, two-volume collection of 150 chorale preludes to
 which Doppelbauer has contributed two short settings of "Im Frieden
 Dein," the second with the cantus firmus in canon at the fourth. Both
 chorale preludes are in Volume II, pp. 23-25.

Nun singet froh im weissen Kleid (1)
Nun bringen wir die Gaben (2)

Edmund Bieler, Köln
 Edmund Bieler, Köln

These two volumes of chorale preludes are based on hymn tunes from
 the hymnbook of the Diocese of Münster; Doppelbauer has composed several
 pieces for each volume. In (1) above is one setting of "Beim letzten
 Abendmahle" and two festive settings of "Nun singet froh im weissen
 Kleid," the first a fugato with the cantus firmus in the pedal, and the
 second a French-style toccata, also with the cantus firmus in the pedal.
 Volume (2) contains one chorale prelude each on "Nim auf, o heilger
 Vater" and "Wir weihn, wie du geboten," both also provided with an in-
 tonation and chorale harmonization.

Augsburger Orgelheft

Anton Böhm & Sohn, Augsburg

Nine contemporary German composers have contributed to this collec-
 tion which includes two pieces by Doppelbauer: Hymnus and a fughetta

on "Gott in der Höh, sei Preis und Ehr."

The remainder of the publications of organ music to be surveyed, whether cantus firmus based or free, contain music of Doppelbauer exclusively.

Aphorismen und Versetten zu Kirchenliedern Alfred Coppenrath, Altötting

This title is given to three volumes of brief compositions (some only a few bars in length) written for use as introductions, interludes, and postludes to hymns. Volume I contains pieces based upon five Advent hymn tunes, and Volumes II and III pieces based upon nine Christmas hymn tunes. While a few of the pieces are lengthy enough for use apart from hymn singing (as brief postludes or interludes in the liturgy), all are motivically based on their respective tunes and employ a variety of compositional devices: canons, trios, toccatas, ornamented cantus firmi, and recitative style.

Vor- und Zwischenspiele (Liedproprium zur Weinacht)

Alfred Coppenrath, Altötting

Orgelsätze zum Deutschen Liedproprium

Alfred Coppenrath, Altötting

These two volumes contain collections of short pieces to be used to introduce hymns (Vorspiele), as interludes between stanzas (Zwischenspiele), or after the hymn is concluded (Nachspiele). The first collection above is based upon Christmas hymn tunes, while the second is based on a variety of seasonal hymn tunes, the settings of which include one complete harmonization of each tune.

Sieben Choralvorspiele für Orgel

Alfred Coppenrath, Altötting

("Wie schön leuchtet der Morgenstern," "Es ist ein Ros entsprungen," "O Traurigkeit," "Tu auf, tu auf," "Lasst uns erfreuen herzlich sehr," "Ave Maria zart," and "O Christ, hie merk")

This group of seven chorale preludes, of moderate length and difficulty, includes a toccata ("Lasst uns erfreuen"), and a festive

chorale-fantasia ("O Christ hie merk"). The remaining pieces employ various contrapuntal devices: cantus firmus in canon, imitative accompanying counterpoint based on the cantus firmus, and trio-style writing.

Kleine Partiten über Adventlieder für Orgel Alfred Coppenrath, Altötting

(Two each on "Nun komm der Heiden Heiland" [1937 and 1944], and on "O Heiland reiss' die Himmel auf" [1939 and 1942])

Kleine Partiten über Weihnachtslieder für Orgel

Alfred Coppenrath, Altötting

(One each on "In dulci jubilo," "Puer natus in Bethlehem," and "Joseph, lieber Joseph mein" ["Resonet in laudibus"])

The seven partitas contained within these two volumes are all early works. Each is made up of three movements, usually brief (the second partita on "Nun komm der Heiden Heiland" and the third movement of the first partita on "O Heiland reiss' die Himmel auf" are somewhat more involved, though still of only modest difficulty), and sometimes without pedal. Canonic manipulations of the cantus firmi and accompanying counterpoint are frequent.

Fünf Orgelchoräle (published in 1966) Doblinger Verlag, Vienna (02 235)

("Zu Bethlehem geboren," "Puer natus in Bethlehem," "Als Jesus von seiner Mutter ging," "O Haupt voll Blut und Wunden," and "Allein Gott in der Höh sei Ehr")

The first two chorale preludes in this set are short: in the first the cantus firmus is placed in the pedal (on a four-foot stop) and accompanied by flowing eighth-note triplets in the right hand part; the second chorale prelude presents the cantus firmus in canon between an upper voice (quarter-note tactus) and the pedal part (in augmentation with a half-note tactus). The third prelude is a three-stanza setting: the cantus firmus in the first stanza is in the top voice with a three-voice accompaniment motivically based on the chorale tune; the second stanza has the cantus firmus in the pedal part (on an eight-foot stop),

again with a three-part accompaniment which freely imitates the chorale; stanza three is a restatement of stanza one, but with each phrase of the cantus firmus stated twice, the second statement of which is in an ornamented form. The cantus firmus in the fourth prelude is set in the top voice in a florid, coloratura style against a chromatic accompaniment. The final piece in the set of five is a joyful setting with the cantus firmus in the pedal part (on a four-foot stop), accompanied by a dance-like figuration in the top voice, also derived from the chorale tune.

Partita über "Vater unser im Himmelreich" (1965)

Doblinger Verlag, Vienna (02 241)

Another of the composer's large-scale partitas, this work comprises four movements, each of which presents the chorale in singular fashion.

I (Dialogue): phrases of the cantus firmus (registered with a Prinzipal 8' and Flöte 4') in an unornamented form alternate with passages composed in a free, agitated, motivically complex style (registered with Krummhorn 8', Flöte 4', and Scharff). The resulting dialogue is between both the cantus and non-cantus phrases, and the two contrasting registrational schemes. II (Cantabile): this movement utilizes a highly ornamented form of the cantus firmus over a gently flowing accompaniment. III: the third movement, stylistically resembling a gigue, uses an ornamented form of the cantus firmus and its canonic inversion.

IV (Fuge): movement four is composed as a three-voice fugue in the manual parts which accompanies the widely spaced phrases of the chorale tune in long notes in the pedal part. The subject of the fugue is utilized in its original and inverted forms, with both treated to occasional stretto.

Partita über "O Heiland, reiss die Himmel auf" (1973)

Doblinger Verlag, Vienna (02 294)

This partita, the third and most recent of the large sets of variations on liturgical or chorale themes, contains ten movements, each with a strong motivic relationship to the chorale, often including the accompanying parts to the various presentations of the cantus firmus. The first movement, Introduktion, is written in the manner of a free fantasia in which are developed fragments of the chorale. Chorale, the second movement, is only eighteen measures in length and presents the chorale tune in a simply-harmonized, straightforward way. This movement, the first full statement of the chorale, functions as the theme of movements three through nine which are variations of the cantus firmus utilizing various devices including canon, canon in inversion, and ornamentation and expansion of the cantus firmus. Movement ten (Finale-Ricercare) is constructed from three subjects, each based upon different phrases of the chorale tune. In its final pages, this movement becomes a double fugue based upon the first and third of these subjects.

The balance of the organ works are based on motives or themes of the composer's own invention, and vary greatly in size and formal design. Most were written for use in Abendmusik programs or for concert use. The shorter works will be listed first, followed by those of greater length and complexity.

Drei kleine Präludien und Fugen (1966) Doblinger Verlag, Vienna (02 231)

These three works of modest length are readily accessible to the competent organist, making them useful for service preludes or postludes. Number one is in C major, number two (an Hommage à César Franck)

in a contemplative style in A minor, and number three, vigorous in spirit, in G major.

Vier neue Stücke für Orgel (1956)

Alfred Coppenrath, Altötting

The four pieces in this publication include Praeludium, a large work of 109 measures in ternary form; Cantilene, also in ternary form and in the manner of an adagio in which a modestly florid melody in the top voice is accompanied by gentle polyphonic lines alternating with rich, sometimes non-tertian chords; Fuge, a sturdy, robust four-voice piece based on a five-measure subject treated to double and triple stretto; Hymne, a majestic, stately piece in ternary form in which an eight-measure fugato and six-measure development of the head of the fugato subject in a free, fantasia style separate the statements of the principal theme, harmonized in large chords with an obligato pedal part.

Zehn Etüden für Orgelpedal Solo

Doblinger Verlag, Vienna (02 233)

This collection of pedal studies is designed to assist players in the development of advanced pedal techniques (double and triple part writing, trills, and imitation). The etudes, although brief (one page each), are demanding in their technical and musical realization.

Kleine Stücke (1965-67)

Doblinger Verlag, Vienna (02 232)

The twelve pieces in this volume include Präludium (a festive fugato), Intermezzo (a quiet piece in binary form in which two- and four-part writing are alternated), Toccatina, Pastorale, Intrada (a processional piece in ternary form in which the outer sections in a martial, crisp, dotted rhythm contrast with the brief central portion written in smoothly flowing eighth-note couplets), Präludium, Chorale, Fantasie (festive, in broad ternary form contrasting cadenza-like passages with sections utilizing sturdy, rhythmic melodies), Fughetta (a

three-voice piece without pedal on a dance-like subject), Meditation, Intermezzo, and Preamble. The pieces, which are from one to three pages in length and range from easy to moderately difficult, embody a variety of moods and are well-suited to service use.

Acht kurze Stücke für Orgel

Alfred Coppenrath, Altötting

This collection of short pieces is also very useful in worship service use: Introitus (in da Capo form contrasting declamatory opening and closing sections which utilize the full plenum with a less forceful central section on the Positiv division), Dialogue (a very short quiet piece in which the dialogue occurs between the principal melody on one tone color and its inversion on another color), Praeludium (characterized by full plenum and constructed in rounded binary form), Kanon, Intrada, Pastorale, Trio, and Alleluja (a festal piece in which sections of an imitative, maestoso character alternate with sections in homophonic style utilizing a rapid, chant-like melody of rhythmically asymmetrical construction that resembles the theme of Litanies of Jehan Alain).

The pieces contained in the two publications Kleine Stücke and Acht kurze Stücke für Orgel make only moderate demands on the player. Most utilize a clear formal plan with an economical use of thematic resources. The composer is a gifted improviser at the organ, yet he has taken care that short pieces such as these, which he could easily extemporize, are carefully and thoughtfully crafted.

The next six works to be discussed are all conceived on a large scale and available only in individual publications. Dating from 1954 to 1978, each of the pieces makes significant technical and musical

demands on artist and instrument.²

Toccatina

Doblinger Verlag, Vienna (02 234)

This eight-page, one movement work is based on the complete working out of one principal and one secondary motive. Brilliant passages for manual and pedal parts, complex polyphony utilizing an extended form of the principal motive in three simultaneous rhythmic configurations, and frequent contrasts in tempo and dynamics characterize this recital show-piece.

Partita für Orgel

Doblinger Verlag, Vienna (02 238)

All five movements of the Partita are based on the same nine-note



Intrada: a vigorous, martial movement characterized by dotted rhythms and the use of fragments of the motto in original, inverted, and retrograde forms. Ostinato: in trio construction with the ostinato theme (the motto) in the pedal part. The other two voices utilize various forms of canon, including a mirror canon of the retrograde of the motto. Capriccio: (available separately from Doblinger as number 02 239) a lively movement in alternating $\frac{6}{8}$ and $\frac{9}{8}$ meters the theme of which is an extended form of the motto. A busy figuration derived in part from sequential use of fragments of the motto accompanies the presentation of the theme, which is used in several keys as well as in three-part stretto. Canzona: a quiet, peaceful movement in ternary form, the first and third parts of which make use of a highly ornamented melody in the right hand part (incorporating the motto as structural skeleton)

² The observations made about these six works are based, in part, on brief, unpublished analytical comments graciously provided to this writer by the composer.

followed at a short interval (usually about two beats) with a different form of the motto in the pedal part (unornamented and separated by rests into groups of one to five notes); the middle portion of the movement is in the style of a cadenza and is based upon the retrograde form of the motto. Fuga: The subject of the fugue is a highly rhythmic form of the motto which is treated in stretto, inversion, inversion in stretto, and rhythmic augmentation. An economical use of thematic materials is demonstrated inasmuch as a large portion of the non-thematic counterpoint is based in one way or another on the fugue subject. The fugue rounds out the Partita by virtue of the inclusion in the melodic content of the subject a portion of the bass part of the Intrada. The macro-harmonic rhythm of the work as defined by the keys of the various movements (C F B $\flat$ G C) also reflects the motto in that these key centers form the retrograde of the first four notes of the motto theme.

Sonatine für Orgel (1956)

Alfred Coppenrath, Altötting

The Sonatine was composed for the composition competition in Haarlem, Holland, where it won the only prize awarded. The conditions of the competition did not permit the use of Baroque forms, therefore, the three movements of the composition are based on forms more commonly found in sonatas of the classical period. The first movement employs sonata form, although it is frequently polyphonic in idiom, with three theme groups of contrasting styles in the exposition (in mediant key relationships), a complex development in which the thematic elements are highlighted through sharply contrasted dynamics and registrational colors, and a full recapitulation with coda. The second movement, a Larghetto standing in sharp contrast to the two outer movements, is structured in an arch form (A B C B A). The third movement is cast in

the form of a seven-part rondo, the principal theme of which shares certain fanfare characteristics with the opening theme of the first movement. The second themes of the first and third movements share common motivic skeletons. The harmonic language of the Sonatine is totally panchromatic, somewhat in the spirit of the harmony of Paul Hindemith.

Toccata und Fuge ("In memoriam Maurice Ravel") (1959)

Doblinger Verlag, Vienna (02 237)

This is the only work of this common Baroque genre in the composer's catalogue. The dedication to Ravel, apart from any aesthetic intention, is due to the relation of the main theme of the work to a variant of a figure used in the first movement of the Ravel Sonata for violin and piano.

The opening movement is a bravura piece written in the style of a French toccata. The theme is developed out of the interplay of major and minor thirds and the perfect fourth. The resulting motive is treated to extensive elaboration including, at the end of the Toccata, double augmentation. A lyrical interlude in the middle of the Toccata contains the initial portions of the theme of the Fugue. The lengthy fugue subject utilizes all twelve pitch classes of the octave (with repetitions) and is treated to stretto, rhythmic augmentation and diminution, fragmentation, and inversion. Certain secondary contrapuntal figurations in the Fugue also contain the essence of the theme of the Toccata.

Suite Breve (1961)

Doblinger Verlag, Vienna (02 236)

The Suite Breve was composed for a special program during the Bruckner-festival in Linz-on-the-Danube during which a special work was to be premiered along with a related free improvisation. Performance

circumstances dictated that no registrational assistance could be used, so the composition demands few such adjustments during movements, being playable in a straightforward manner on three manuals. The influence of the French school of organ composition is evident also in this work.

The first movement, Präludium, utilizes a tone row of twelve pitch classes, but without the atonal implications normally associated with this technique. Constructed in four parts (A B C A), the music is of a concertant, rhapsodic quality. Ostinato is the title of the second movement which is written with the nine-note ostinato theme in the pedal part. Although the notes of the ostinato are constant, the rhythmic groupings of the notes change in an arbitrary manner reminiscent of the tenors of early isorhythmic motets. A Krummhorn solo melody in the right hand part is also, in a broad sense, an ostinato, with variances caused by thematic expansion and contraction. The accompaniment in the left hand part is made up largely of quartal chords. The concluding movement, Toccata, is plainly patterned on the French models. The toccata figuration employs two contrasting motives in various juxtapositions which overlay a sturdy theme in the pedal part. The central section of the movement, played on a secondary manual, is a variant without pedal of the main theme. A return of the first section of the Toccata and an exchange of the thematic material between manual and pedal parts ends the work.

Ornamente - Partita für Orgel (1969) Doblinger Verlag, Vienna (02 242)

This work, commissioned for the opening of the new organ in the great Hall of the Mozarteum in Salzburg, contains seven movements: Introitus, Mosaik, Permutation I (Rezitativ), Permutation II (Trio), Fuga (al rovescio), Permutation III (Meditation), and Toccata. The

nature of the work is such that it need not all be performed, but because of their structural importance, the Introitus, Fuga, and Toccata always should be included.

The first of two structural procedures with which the Partita is organized causes the Introitus, Mosaik, Fuga, and Toccata to be bound together through certain interrelationships. Introitus, based upon a synthetic scale containing eight pitch classes (an acknowledged use of a technique of Olivier Messiaen), is a free, fantasia-like movement constructed from the developmental use (ornamenting) of several motives of differing linear, textural, and rhythmic shapes. Mosaik is a fleeting, shimmering movement written largely in a single voice line containing within it certain polyphonic implications. Based on a trichord derived from the synthetic scale, the figuration (the ornamenting of the trichord) makes extensive use of rapid manual and color changes, all employing bright flutes, mutations, and reed stops. Fuga (al rovescio) is composed as a mirror fugue, with the last thirty-two measures an exact pitch-class retrograde of the initial thirty-two measures (certain rhythmic adjustments are made in the second half of the fugue since time values cannot be made to flow backwards effectively.) Additionally, the exposition (and consequently the closing entry section) presents the fugue subject in the four basic conventions: original form, inversion, retrograde, and retrograde-inversion. This is possible inasmuch as the subject is a twelve-tone row the head of which, derived from the synthetic scale, was presented in the Introitus in a slightly different rhythmic form. The contrapuntal development (ornamentation) of the fugue subject material includes at climactic points the use of diminution and stretto. Toccata, in $\frac{7}{8}$ meter, is built from the spinning-out

(ornamenting) of a three-note motivic cell in an asymmetrical, motoric style which shows evidence of the influence of the music of Béla Bartók.³ A central section uses as a kind of secondary theme a variation of the fugue subject, which, by extension, relates the Toccata also to the first movement.

The first structural procedure, then, involves unifying the four movements mentioned above by (1) basing each in some way on a portion of the artificial scale from the Introitus and (2) by causing each of the four movements to share the compositional technique of motivic development (ornamentation) through expansion, contraction, inversion, fragmentation, and use in retrograde of the motivic material.

The second structural procedure utilized in the three Permutations involves the re-ordering, transposition, and inversion of the approximately half-dozen motivic units (or short thematic ideas) from which each Permutation is constructed, without changing the rhythmic and intervallic qualities of the motives (as happens through fragmentation, augmentation, and diminution). This unity of process binds these three movements together with the ornamentation being defined in terms of the various re-orderings and inversions of the basic motivic units.

Fantasie I (Hommage à Dietrich Buxtehude) (1974)

Doblinger Verlag, Vienna (02 300)

Composed for a concert in Vienna, Fantasie I bears the appellation to Buxtehude by virtue of its formal structure, i.e., a single through-composed work comprising several individual sections. The Fantasie I is based on a twelve-tone row which is utilized as a main theme throughout the composition. (The row, however, is not used to guide the

³ H. H. Stuckenschmidt, Twentieth Century Music, trans. by Richard Deveson (New York: World University Library, 1969), pp. 34-35.

harmonic structure or to shape other melodic components in the manner of atonal compositional techniques.) Two motives that are independent of the row theme generate the balance of the musical content. The opening section, a toccata-like exposition, is created from the development of the first motivic cell and the row theme. A quiet interlude introduces the second motive in conjunction with the row.

The second section of the Fantasie I is composed as a trio with the main theme in the middle voice. The upper voice is given bird-call figures, and the lower voice a martial, dotted rhythm character. Section three, composed as a pastorale, is melodically created from the two motives, and registered with colorful reed stops. Section four is constructed as a fugue with the main row theme as subject. The appearance of the countersubject at the outset gives the movement a double-fugue quality. After considerable contrapuntal development, the fugal process is loosened and the original substance of the Fantasie I (first section) is returned. The work ends quietly with rhythmic augmentation of the second motive.

Fantasie II (1978

Doblinger Verlag, Vienna (02 325)

This work was commissioned for the dedication of the organ in the Cathedral of Graz. The donor requested that the work contain fugues, so the four-movement composition took the form: Introduktion, Fuga I, Meditation, and Fuga II. The entire work is built from a nine-note cantus firmus stated in the pedal part with the full plenum at the beginning of the first movement. This statement of the theme is coupled with massive chords in the manual parts. An andante utilizing an ornamented form of the cantus firmus on a Kornett stop leads, through a return of the opening chordal passage, to a quiet section which ends the

movement and is built from several measures of motivic fragments from the ornamented cantus. Fuga I follows immediately with an extended form of the cantus firmus as subject. Eleven of the twelve pitch classes appear in the subject, although without affecting the tonal framework of the harmony. Inversion and motivic development of a portion of the tail of the subject (first introduced in the andante of the opening movement and found again at the conclusion of that movement) provide musical momentum. Fuga I dissolves into a return again of the initial chordal passage which serves as a transition to the next movement, Meditation. In this movement an inversion of the cantus firmus in a highly ornamented form and registered with mutation stops is accompanied by chords created from intervals common to the cantus. Fuga II, written as a gigue fugue in $\frac{3}{8}$ time, continues to depend upon the same thematic material (the cantus firmus and the motive from the Introduktion), but in a rhythmic, highly-articulated framework. The exposition of Fuga II is followed by a brief section of middle entries in which the subject is inverted and given a legato, less rhythmically vigorous character. The middle entries are followed by a return of the original form of the subject in the pedal part fortissimo. The contrapuntal procedure loosens somewhat with the use in the pedal part of the subject in ostinato fashion with a brilliant figuration in the manual parts. The work concludes with the last half of the subject placed in the pedal part, maestoso, accompanied by massive manual chords.

The survey of the organ music of Doppelbauer concludes with a brief commentary about three works which combine the organ with other instruments. The first work will be discussed in detail in subsequent chapters of this paper.

Konzert für Orgel und Streichorchester (1958) Doblinger Verlag, Vienna

Recipient of the first prize in the composition contest in Ghent, Belgium, in 1958, this is the only organ concerto to date in the composer's catalogue. The formal shape of the eighteen-minute, three-movement work was presaged in 1956 by the Sonatine für Orgel with which it shares a basic structural design, key center, and macro-harmonic rhythm. The Konzert is characterized by richly varied themes, a taut, lean organization, and extensive use of motivic variation and developmental techniques. The organ part is published as Doblinger Number 02 230, and a complete study score (in miniature) is also available (Stp. 110).

<u>Sonata für Oboe und Orgel</u> (1972)	Edition Brockhoff, Münster (MSI 6)
<u>Sonata für Flöte und Orgel</u> (1977)	Doblinger Verlag, Vienna (02 916)

Both of these sonatas are three-movement works in which are realized, in a context more like that of chamber music, the rich inventive characteristics of Doppelbauer's other, less restrained music, i.e., imaginative thematic ideas, extensive motivic development and variation, and the frequent use of the various contrapuntal devices found in all his keyboard music.

CHAPTER III: ANALYSIS OF
FIRST MOVEMENT - ALLEGRO CON BRIO

This attempt to discover the nature of Doppelbauer's musical language as it is manifested in the Konzert für Orgel und Streichorchester subjects every aspect of the work to detailed analyses through which are determined formal structures, scale resources, motivic resources, and harmonic organization. The three movements are studied in separate chapters, with a consistent analytical approach utilized in each: a brief overview of the entire movement, after which each part of the movement is examined for internal structure and the other items mentioned above. Summaries of the analyses are provided in detailed charts at appropriate places in the text and at the conclusion of each chapter.

The first movement of the Konzert employs sonata form, contains 160 measures, and is in the fundamental tonal area of D. The basic metrical organization is $\frac{4}{4}$ time. Inasmuch as there is no introduction, the first theme of the sonata form begins on the downbeat of the first measure and concludes on the downbeat of m. 11 with a $c\sharp^7$ (add 4) chord.¹ A

1 Chords, keys, and single pitches are identified in the following manner: (1) single pitches, key centers, and simple chord structures, if written out, use upper-case letters to identify the pitch (. . . the note E, . . . a C major triad, . . . the key of D minor); (2) references to more complex chords in the body of the text and in the various examples and figures often employ a shorthand using upper-case letters to refer to chords whose base triads are major and lower-case letters to refer to chords whose base triads are minor ($c\sharp$ [add 4] describes a C-sharp minor triad with an added fourth and $A_{\frac{6}{4}}$ an A major triad in second inversion); Roman numeral analyses follow the same (continued)

developmental transition starting on the second beat of m. 11 leads to the onset of the second theme in m. 26.² The second theme concludes in m. 36 and is connected by a seven-measure transition to the closing theme which begins in m. 44. The exposition closes with a cadence on a B major chord on the first beat of m. 51.

The development of the sonata form elides with the exposition in m. 51 and is made up of four sections: mm. 51-58, 59-72 (the last two measures transitional), 72-86, and 87-104. Measures 105-111 comprise an anticipatory transition to the recapitulation, which begins on the downbeat of m. 112 with a restatement of the first theme. The shape of the return of the first theme is altered somewhat with the interpolation of portions from the first transition (mm. 12-25) within the theme. Concluding in m. 128:1, the recapitulation of the first theme is followed by a transition to the second theme. This transition, also altered from its appearance in the exposition, utilizes materials found in both the second transition of the exposition (mm. 37-43), and in the transition linking the development section to the recapitulation (mm. 105-111). The second theme returns in m. 141 and leads without a transition to the closing theme in m. 148. A codetta in m. 156 leads to the final cadence in D on the downbeat of m. 160.

procedure--upper-case numerals denote major base triads, and lower-case numerals minor-base triads; (3) quartal harmonies are noted by the symbol Q4, and quintal harmonies by Q5.

Single measures are notated with a lower-case m (m. 27 refers to measure 27); groups of measures use the symbol mm (mm. 27-33 refers to measures 27-33 inclusive). Beats within measures are separated from the measure number by a colon (m. 27:3 refers to beat 3 of measure 27).

2 The term developmental transition is used to describe a transition which both links the first and second themes by effecting the necessary modulations and character changes in the music, and develops in some way material from the first theme.

Figure 1: Formal structure, mm. 1-51, (Exposition), First Movement

1	11:1	11:2	25	26	36	37	43	44	51:1
First theme		Transition		Second theme		Transition		Closing theme	

First theme The first theme of the exposition, a single phrase nine measures in length with a two-measure cadential extension, begins in the orchestra part with an opening statement of a motive of five eighth-notes. This motive serves to establish immediately the principal key center, duple rhythmic organization, tempo, and vigorous character of the music. The organ part assumes the principal thematic role on the third beat of m. 1 with a melodic line of continuous sixteenth-notes that proceeds to the first beat of m. 7. The character of this line is best described as motoric, with its dominant role assured both by its placement in the musical texture and the performance markings (forte and brightly). The accompanying parts in the organ and orchestra are marked mezzo-forte and, in addition, pizzicato in the lower string parts. In m. 8 the soprano melody momentarily stops its motoric drive, but the sixteenth-note motion is assumed by a second, lower voice in imitation of the first, maintaining the sensation of continuous movement.

Analysis reveals that the first theme contains five motives which are important here, and later in the Konzert. Of the five, the first three are more important, two of which are included in the opening eighth-note figure with which the orchestra begins the first theme; they are labeled M1A and M2 (Example 1). The former also occurs in another form which will be labeled M1B.³

³ The upper-case letter M will refer to motives identified in the text (M1 refers to motive 1) and the letters Sm to submotives (Sm(1) refers to a submotive of motive 1, Sm(3A-1) to the first submotive of motive 3A, and Sm(3A-2) to the second submotive of motive 3A).

Example 1: Motives M1A, M1B, and M2



The characteristic shapes of these motives--a leap downward of an octave or fifth followed by several repetitions of the second note, or a leap up of a fourth followed by stepwise motion downward, usually to the first note of the motive--are not unrelated: if M1B is inverted and contracted intervallically by one whole-step, the first two notes of M2 result.

These two motives are followed by the third important one (M3A) given to the right hand of the organ part on beats three and four of m. 1. It will later appear in a slightly altered form (M3B). The forms of this motive are illustrated in Example 2.

Example 2: Motives M3A and M3B



The fourth motive (M4) appears in the right hand of the organ part in m. 4 and, in this context, is of figural rather than melodic interest. Motive five (M5) appears in the right hand of the organ part in m. 7. Both M4 and M5 are illustrated in Example 3.

Example 3: Motives M4 and M5



M1, M2, M3, and M5 are divided at various times in the Konzert into submotives, as shown in Example 4.

Example 4: Submotives of M1, M2, M3, and M5



The close relationship between these motives, already discussed with respect to M1 and M2, is illustrated in Example 5.

Example 5: Relationships between Motives 1 through 5

	M1BI with intervallic contraction becomes head of M2	
	M3A is ornamented form of M2	
	Sm(5-1) is two successive state- ments of head of M2	
	Sm(5-2) is ornamented form of Sm(2)	
	M5 is ornamented form of M2	
	M4 is ornamented form of inversion of head of M2	

M3 can be seen as a highly ornamented version of M2, Sm(5-1) as a double statement of the first two notes of M2, Sm(5-2) as an ornamented

form of Sm(2), all of M5 as a variant of M2, and M4 as either an ornamentation of the first two notes of M2 (inverted) or the inversion of the first four notes of M3A with intervallic change.⁴

The first theme is constructed almost entirely from various forms of these five motives and their submotives. M1 and M2 are presented simultaneously by the orchestra with the opening five notes of the Konzert. The motoric continuation of the theme in the right hand of the organ part is made up of M2A, M4, M5, and their submotives. From the third beat of m. 1 to the third beat of m. 4 the orchestra part has two statements of Sm(2) concurrently with two statements of Sm(2I) over a D pedal. These appearances of Sm(2) and Sm(2I), sounded as short notes separated by rests and each spanning almost two measures, are not heard in a linear fashion but as rhythmic punctuation supporting the motoric melody above. The organ part also uses Sm(2) but in a more condensed form than the orchestra part. The motive is heard three times in two and one-half measures and extended with added notes the second and third times. M2 in an extended form (with added notes) is also heard in the organ part in the second half of m. 4 and again beginning on the last beat of m.5. Measures 7 and 8 are based entirely upon M5 (treated imitatively by the right and left hand parts) and Sm(5-1) and Sm(5-2), which are used twice in the pedal part. Five eighth-note chords are played by the orchestra in m. 9. Although heard as vertical sonorities, each of the instrumental parts is motivically derived: the first violin

⁴ These motives (M) and submotives (Sm) are often used in inverted and/or retrograde forms. The use of these forms is indicated by the standard abbreviations: I - inversion, R - retrograde, RI - retrograde inversion. No symbol is used for motives in the original form. Therefore, M2I refers to the inversion of motive two, and Sm(5-1RI) to the retrograde inversion of submotive 5-1.

part has Sm(2I), the cello-bass part Sm(2), and the viola part M2 (altered). The roots of these five chords (E, A, G, F#, and E) also outline M2.⁵ The melodic mirror in this measure between the first violin part and the cello-bass part is an intervallic retrograde:

B₂ C#₁ D₂ E₂ F# over B₂ A₂ G₁ F#₂ E.⁶ Finally, in m. 10 Sm(3A-1R) appears in the first violin part and M2(I) in the cello-bass part. The complete first theme is presented in Example 6 with the various motives marked with brackets.

⁵ The chord built on F# is a quartal sonority the lowest note of which functions as the root.

⁶ The notation is borrowed from one of the techniques utilized in the analysis of atonal music. The numbers identify the size of the intervals between the notated pitches: a half-step is 1, whole step is 2, minor third is 3 . . . an octave is 12. For more details on atonal analytical theory see John Rahn, Basic Atonal Theory (New York: Longman, 1980), pp. 19-38.

The musical score for 'The Rose Tree' is presented in a system of ten staves. The first staff is a treble clef melody, and the remaining nine staves are grouped into three systems of three staves each, representing a piano accompaniment. The score is divided into three measures, numbered 1, 2, and 3. Above the first staff, there are labels for measures 1, 2, and 3: 'M3A' above measure 1, 'M3A' above measure 2, and 'M3A' above measure 3. Above the second staff, there are labels for measures 1, 2, and 3: 'Sm(2)' above measure 1, 'Sm(2)' above measure 2, and 'Sm(2)' above measure 3. Above the third staff, there are labels for measures 1, 2, and 3: 'M1A' above measure 1, 'Sm(2I)' above measure 2, and 'Sm(2I)' above measure 3. Above the fourth staff, there are labels for measures 1, 2, and 3: 'M2' above measure 1, 'Sm(2)' above measure 2, and 'Sm(2)' above measure 3. Above the fifth staff, there are labels for measures 1, 2, and 3: 'M2' above measure 1, 'Sm(2)' above measure 2, and 'Sm(2)' above measure 3. Above the sixth staff, there are labels for measures 1, 2, and 3: 'M2' above measure 1, 'Sm(2)' above measure 2, and 'Sm(2)' above measure 3. Above the seventh staff, there are labels for measures 1, 2, and 3: 'M2' above measure 1, 'Sm(2)' above measure 2, and 'Sm(2)' above measure 3. Above the eighth staff, there are labels for measures 1, 2, and 3: 'M2' above measure 1, 'Sm(2)' above measure 2, and 'Sm(2)' above measure 3. Above the ninth staff, there are labels for measures 1, 2, and 3: 'M2' above measure 1, 'Sm(2)' above measure 2, and 'Sm(2)' above measure 3. Above the tenth staff, there are labels for measures 1, 2, and 3: 'M2' above measure 1, 'Sm(2)' above measure 2, and 'Sm(2)' above measure 3.

Example 6: (continued)

Musical score for Example 6 (continued), showing a complex melodic line in the upper staff and a multi-staff accompaniment below. The score is divided into three measures.

Upper Staff (Melody):

- Measure 1: Labeled with $Sm(3A-3)$, $M4$, and $M4$. It contains a melodic line starting on a G4, with a 5^5 marking above the staff.
- Measure 2: Labeled with $M4$, $M4$, and $M4$. It continues the melodic line.
- Measure 3: Labeled with $Sm(5-3)$ and $Sm(5-3)$. It contains a melodic line starting on a G4, with a 6^6 marking above the staff.

Lower Staves (Accompaniment):

- Staff 2: Labeled with $M2$ and $Sm(2)$. It contains a melodic line starting on a G3, with a 5^5 marking above the staff.
- Staff 3: Labeled with $M2$ (extended). It contains a melodic line starting on a G3, with a 5^5 marking above the staff.
- Staff 4: Labeled with $M2$ (extended). It contains a melodic line starting on a G3, with a 5^5 marking above the staff.
- Staff 5: Labeled with $M2$ (extended). It contains a melodic line starting on a G3, with a 5^5 marking above the staff.
- Staff 6: Labeled with $M2$ (extended). It contains a melodic line starting on a G3, with a 5^5 marking above the staff.

Example 6: (continued)

This musical score, labeled 'Example 6: (continued)', is written for a grand piano and includes a set of empty staves below. The score is divided into three measures, numbered 7, 8, and 9. The notation is as follows:

- Measure 7:** The right hand (RH) begins with a descending eighth-note scale. Above the staff, a bracket labeled $Sm(5-2)$ spans the first two notes, and a bracket labeled $M5$ spans the next two notes. The left hand (LH) plays a descending eighth-note scale. Above the staff, a bracket labeled $Sm(5-2)$ spans the first two notes, and a bracket labeled $M5$ spans the next two notes. The bass staff (LS) contains a whole note chord.
- Measure 8:** The RH continues the descending eighth-note scale. Above the staff, a bracket labeled $M5$ spans the first two notes, and a bracket labeled $Sm(5-1)$ spans the next two notes. The LH continues the descending eighth-note scale. Above the staff, a bracket labeled $Sm(5-1)$ spans the first two notes, and a bracket labeled $Sm(5-1I)$ spans the next two notes. The LS contains a whole note chord.
- Measure 9:** The RH continues the descending eighth-note scale. Above the staff, a bracket labeled $Sm(5-1)$ spans the first two notes, and a bracket labeled $Sm(5-1I)$ spans the next two notes. The LH continues the descending eighth-note scale. Above the staff, a bracket labeled $Sm(5-1)$ spans the first two notes, and a bracket labeled $Sm(5-1I)$ spans the next two notes. The LS contains a whole note chord.

The score is written in a key signature of one sharp (F#) and a time signature of 4/4. The RH and LH parts are in treble and bass clefs, respectively. The LS part is in bass clef. The empty staves below are arranged in two systems of three staves each, with the first system in treble and bass clefs, and the second system in bass and bass clefs.

Example 6: (continued)

←

9 10 11

Sm(2I) Sm(3A-1R)

M2

Sm(2) M2(I)

The musical score is written for a piano, featuring a grand staff with three systems of staves. The first system (measures 9-11) includes a treble and bass staff for the piano, with a left-pointing arrow above measure 9. The second system (measures 10-11) includes a treble and bass staff for the piano, with a middle staff in treble clef. The third system (measures 10-11) includes a treble and bass staff for the piano, with a middle staff in bass clef. The score is annotated with various labels: 'Sm(2I)' and 'Sm(3A-1R)' are placed below the first system; 'M2' is placed below the second system; 'Sm(2)' and 'M2(I)' are placed below the third system. The key signature is one sharp (F#), and the time signature is 4/4.

References to the tonality of the Konzert have been somewhat vague, because the work makes significant use of the ecclesiastical modes as well as the major and minor scales. The writer thus cannot say the piece is in D Major or D Minor, but only that it has D as the key center.

Measure 1 uses notes from the lower tetrachord of the Phrygian mode on D. The balance of the first three measures for the organ part and first four measures for the orchestra part are in the Mixolydian mode on D, with one exception: the C# on m. 2:4 in the organ part can be explained as part of a real sequence of Sm(3A-1). This note also creates a dominant-seventh on A over a D pedal point affirming D as the key center.

The characteristic color of the Mixolydian mode created in these opening measures is weakened in the organ part in m. 4. Changes in harmony from D to F# on beat one of m. 4, to E on beat two, and back to F# on beat three combine with the chromatic alterations in m. 4:4 (B^b and A^b) to break down the effect of Mixolydian mode on D which is retained only in the chords in the orchestra part.

Precise modal identification is also hampered by the frequent use of cross-relations and double-inflections. Examples occur on the fourth beat in m. 4, the third beat in m. 5, and in m. 6 (see Example 6).

Close examination of the vertical structures on each beat of m. 5 reveals the following chords: a_3^4 $\frac{e^7}{d \text{ pedal}}$ $A^6(\text{split 3rd})$ D_4^6 . Seen linearly, the right hand of the organ part is in Aeolian mode on A on beats one to three; the left hand part is in Mixolydian mode on A for the entire measure. The orchestra part plays an e_2^4 on the second beat, which might also be identified as an E minor triad over a D pedal, as was done

above. All three beats serve a dominant function to the D major chord on beat four. This is not a strong affirmation of D as the tonal center, however, for the dominant-tonic statement is too fleeting and disguised by non-harmonic tones

Tonality is obscured further in m. 6. Two real sequences of Sm(5-3) and one statement of Sm(5-2), all in the uppermost organ voice, over three conjunct tetrachords of identical intervallic construction lead to the imitative material in m. 7. In addition, a quartal chord on D is played by the orchestra on the second beat. All of these devices--real sequences, symmetrical motives, and quartal harmony--tend to weaken tonality by denying dominant-tonic functions.

Measures 7 and 8 exhibit mixed modal and tonal characters. Each of the three voices, if analyzed independently, has its own modal character and tonicized pitches. This linear independence, and the tonal conflicts that result, when added to the previously described weakening of the strong tonal and modal characteristics with which the movement began, serve to create instability and increase musical tension leading to the downbeat of m. 9.

The E minor (add 2) chord on beat one of m. 9 is located at the first point where the tonality is allowed to stabilize after the D harmony of the opening measures, although the voicing of the chord with the orchestra parts entering in unison on the fifth creates a quasi- $\frac{6}{4}$ out of the sonority which denies any real opportunity for repose. All of the pitches contained in these five orchestral chords (m. 9:1-3) fit into the Dorian mode on E. At this point the organ and orchestra parts utilize different modes: the chords in the organ part beginning on the second half of the third beat of m. 9 are, if examined separately from

the orchestra part, in Aeolian mode on E. This mode is sustained in the organ part through m. 10 with a Neapolitan gesture on the third beat. The orchestra part in m. 10 masks the clarity of the Aeolian mode here, because the first two beats are still in Dorian mode on E. A mode common to both the organ and orchestra parts--Aeolian on E--is arrived at with the Neapolitan chord on the third beat and sustained through m. 10.

The harmonic language of this opening theme is greatly influenced by the modal usage. A very important characteristic is the infrequent use of leading-tone-to-tonic, and dominant-to-tonic melodic and harmonic relationships. In the absence of these classic tonal tools to define the various shifts of key center, the composer uses the linear motion of the various musical lines. For example, the approach to the F# pitch level in m. 4 (shown in Example 7) is through a Phrygian progression.

Example 7: Modulation, mm. 3-4



Of special importance is the half-step movement down to the tonic (F#) and the whole-step movement up to it in the uppermost organ voice. These movements, similar to the melodic cadences to the final in early music employing Phrygian mode, are identified in the discussion of the Konzert as Phrygian progressions. The E minor (add 2) chord on beat one of m. 9 is approached by contrary motion (Example 8). The root in this cadence is approached from a whole-step below and the fifth from a half-step above. The F# in this chord is a substitute for the third without

which the cadence would be another of Phrygian character.

Example 8: Cadence, organ part, m. 9



The cadence on the first beat of m. 11 is approached from a C^{13} chord, three members of which are tied over the bar line to become a part of the cadence chord. A leading-tone is present here, though of rather short duration; the characteristic Phrygian descending half-step is also present (to the root of the chord in the viola part and to the fifth in the first violin part).

The balance of the harmonic vocabulary of the first theme contains both classic and non-traditional elements. The first three measures are comprised only of root movement by fourth and fifth. More exacting analysis reveals the vertical structures that result from the motivic linear motions already discussed. The tertian harmonies which can be extracted are shown in Example 9.

Example 9: Chord analysis, mm. 1-3

m. 1:	3	2:	1	3	4	3:	1	2	4	4
d	D		D ⁹	D ₄ ⁶ (add 6)	<u>A⁷</u>		D	D ⁹	<u>G₅⁶</u>	
					tonic pedal				tonic pedal	

The root movements of these chords are common; non-traditional elements include unresolved ninths, added sixths, the unresolved seventh of the dominant chord, and the unresolved seventh of the subdominant $\frac{6}{5}$ chord.

Another non-traditional characteristic of the first theme is the frequent use of root movement by second: m. 4 (F#, E, F#), m. 9 (E, A, G, Q4 on F#, E), and m. 10 (G, F#, E, D, F, A, B, C, C#). Non-tertian chords are employed: m. 6 (quartal chord on D in the orchestra part), m. 9 (quartal chord on F# in the orchestra part on the second half of the second beat), and on the last chord in m. 10 (a quartal chord on C the lowest interval of which is an augmented fourth--C, F#, B, E, A, D).

The use of the Neapolitan chord in m. 10 causes the listener to expect a strong, traditional cadence in E. The classic formula (i N₆ i₄⁶ V i) is almost completed. The chord on the fourth beat contains both tonic ₄⁶ and dominant elements. The last chord of the measure, however, leads to an evaded cadence on a c#⁷(add 4) chord. Constructed on the raised sixth degree of Aeolian mode on E, this minor seventh chord serves a pivotal function to the transition which follows.⁷

Transition A transition leading from the first theme to the second theme begins on the second beat of m. 11 and ends on the second beat of m. 25. This lengthy transition is contrapuntally complex and developmental in character.

Beginning in the key center of F#, to which the immediately preceding c#⁷(add 4) serves as a minor dominant, the first part of the transition resembles the opening of the first theme: M1B and M2 are heard in the orchestra part as before and M3B follows M1B in the first violin part. The resemblance to the first theme ends on the fourth beat of m. 11 with an imitative entry of M1B in the second violin part. This

⁷ It would have been possible for the composer to use this chord as a way back to the key center D, the tonic of the movement, by using it as a leading-tone sonority.

entry is followed with sequential treatment of M1B and its submotive Sm(1B) in the first violin part beginning on the second beat of m. 12 and continuing through m. 13. These initial two and one-half measures of the transition serve to return to the key area of D in which the second and longer portion of the transition begins. The second part, beginning in m. 14, is a six-measure fugato that dissolves in m. 20 into six measures of chromatic, motivically fragmented material leading to a cadence on an E chord (third omitted) on the second beat of m. 25.

The motivic analysis of the first part of the transition illustrating the use of M1, M2, and M3, their variants and submotives is presented in Example 10.

Example 10: Motivic analysis, mm. 11-13

The image shows a musical score for measures 11, 12, and 13, with four staves (Violin I, Violin II, Viola, and Cello-Bass). Above the staves, various motivic labels are placed with brackets indicating their span across measures. The labels include: M1B, M3B, Sm(1B), M1B, Sm(1B), M1B, Sm(1A) above the first staff; M1B, Sm(3B-2), Sm(1BI), (1BI), (1BI) above the second staff; M1B, Sm(3A-1), Sm(3A-1R), M1B above the third staff; and M2, M2, Sm(3A-1R) below the fourth staff. The score itself shows the melodic and harmonic development of these motifs across the three measures.

Considerable intervallic contraction and expansion take place, especially with respect to M2. Of interest also is the use of Sm(3A-1) in rhythmic augmentation in the viola part (m. 12) and in the same rhythm but in retrograde and with slight intervallic contraction in the viola and cello-bass parts (m. 13). Also, the relationship previously noted

between M1B and M2 is apparent on the first two beats of m. 13 in the two violin parts. It seems clear that the second violin part freely inverts the first which in turn, sequences M1B. Without the first violin part reference point, however, the first six notes of the measure in the second violin part can be described as submotives of M2 with various intervallic adjustments.

The second part of the transition starts with a fugato utilizing a subject created by the joining of M1B and M3B (Example 11).

Example 11: Fugato subject, mm. 14-15



The first note of M1B in m. 14 is in the second violin part. M2 is heard three times at the start of the fugato in the viola part: the first appearance coincides with M1B of the fugato subject--reminiscent again of the initial notes of the first theme. All three entries involve some degree of intervallic change. (The second note of the third statement is in the second violin part.)

An inverted form of M2 appears in the second violin part on the fourth beat of m. 18, slightly overlapping the last entry of the fugato subject. This form of the motive appears four times in the second violin part: the first three appearances elide with one another through mm. 19-20 with the fourth occurring in m. 21. A retrograde inversion form of M2 is used in m. 21 in the first violin part, followed by a variant of M5, and by Sm(5-2) in rhythmic diminution. The last motivic use in the transition is a retrograde inversion form of Sm(3A-1) found

in the first violin part between mm. 24 and 25.

The Aeolian mode on F# is the scale resource at the beginning of the transition (m. 11) except in the second violin part which employs Aeolian mode on C#. These two modal key centers are sustained together through the first beat of m. 13 with the cross-relation between D $\flat$ and D# strongly felt in m. 12. The first three entries of the fugato subject utilize the Dorian mode: the first on D, the second on A, and the third on D. The fourth entry, in the cello-bass part, uses Mixolydian mode on A. This answer differs from the one in m. 15 not only in mode, but in that it is a tonal answer; the earlier one was real.

The various musical lines of the fugato move freely in relationship to each other. The first tonal goal of the fugato is the G major triad on the fourth beat of m. 23; each voice line follows its own tonal path to that point. The first violin part begins in Dorian mode on D (m. 14), the key center moving to F minor on the fourth beat of m. 16 (affirmed by the A $\flat$ [m. 17], the iteration of the note F, and the influence of E $\flat$ as a leading-tone), to G minor in m. 18 (also affirmed by the B $\flat$ [m. 19], the iteration of the note G, and the influence of F# as a leading-tone) where it remains to the end of m. 23. From m. 16 through the third beat of m. 21 the first violin part alternates between harmonic and melodic minor.

The second violin part begins in Dorian mode on A. D is briefly tonicized on the first beat of m. 17 by the chromatic alterations at the end of m. 16. F is tonicized on the second beat of m. 17 through the A $\flat$ and the influence of E $\flat$ as a leading-tone. D is tonicized by the middle of m. 18, aided by its rhythmic and durational strength and the use of C# as a leading-tone. Despite frequent use of chromatic alterations,

the pitch center remains on D to the end of m. 23 where this note becomes the fifth of the G major chord. The mode is Dorian in mm. 14-16, harmonic minor through the first half of m. 22, and quasi-Phrygian to the end of m. 23.

The viola part, doubled briefly by the cello part, enters with the fugato subject in m. 17 in Dorian mode on D. D remains the key center until the first beat of m. 22, although the mode becomes more like harmonic minor in m. 19, melodic minor in m. 20, and harmonic minor again in the last part of m. 21 and the first notes of m. 22. The key center moves to G on the second beat of m. 22, with a Mixolydian color caused by the F $\sharp$ at the end of the third beat. This line comes to rest on the third of the G major chord in m. 23.

The cello-bass part enters with the subject in a syncopated fashion, starting on the last half of the fourth beat of m. 16, instead of the downbeat of m. 17 as the listener would expect. The mode in m. 17 is Mixolydian on A. In m. 20 the key center touches C minor, and in m. 21 the line becomes highly chromatic, denying any sense of key. This part moves from G $\sharp$ on the last beat of m. 21 downward in half-steps to D on the fourth beat of m. 22, the distance of a tritone. Movement resumes downward, in whole-steps from this same D, to A $\flat$ on the second half of the second beat of m. 23, again the distance of a tritone, and then down one more half-step to G.

The linear pitch-center movements of these four parts are plotted in Example 12.

Example 12: Linear pitch-center movements, mm. 14-23

	m. 14	15	17	18	23
Vl I	d-----	f---	g-----	-----G	
Vl II	a-----	d-f	d-----	-----D	
Vla		d-----	g-----	-----B $\sharp$	
Cello-bass		a-----	c-----	-----G	

Most of the transition is conceived contrapuntally, and the vertical sonorities largely result from the movement of these independent polyphonic lines. Nonetheless, at many points these vertical structures are tertian. Examination of the first measures of the transition yields the chord progression shown in Example 13.

Example 13: Harmonic progression, mm. 11-14

m. 11:	2	12:	1	2	3	13:	1	2	4	14:	1
	f $\sharp$	D $\sharp^7$	B 9	E $\sharp^7$		A $\sharp_6$	$\frac{d}{e}$ minor	d		d	

This analysis assumes several non-harmonic tones that could be analyzed as chord tones, and vice-versa. Non-traditional procedures include unresolved sevenths and ninths and the polychord on the third beat of m. 13. The bass note of the A $\sharp_6$ (m. 13) is part of a melodic line that, when viewed alone, is clearly in E minor (harmonic) at the same time the upper string parts (violins and violas) are outlining D minor. In spite of this, the cadence progression from the third beat of m. 12 to m. 14

is fairly traditional in spirit: $\frac{v^7}{vii}$ vii [poly-chord] i. The linear cadence to the downbeat of m. 14 is Phrygian in character.

The harmonic analysis of m. 22 through m. 25 is given in Example 14.

Example 14: Harmonic analysis, mm. 22-25

22

g: Q5 on G Q4 with tritone on F $\sharp vi_{b5}^7$ iv_6 i_3^4 N_6 i_4^6 i I

24

G^7 $\sharp G^7$ d_5^6 Q4 with tritone on B $\flat$ Q4 on G f^7 e (no 3rd) b (no 3rd)
(split 3rd) (add 4) (b: iv i)

The two non-tertian chords in m. 22 are followed by a cadential movement toward the tonal area of G in which the harmonic skeleton is as follows: $\sharp vi_{b5}^7$ iv_6 i_3^4 N_6 i_4^6 I. The use of the Neapolitan chord recalls m. 10, although its occurrence here is slightly masked by the split root. The melodic move to G in the cello-bass part in m. 23 is repeated

with rhythmic diminution in the first violin part. Both of these voices approach the root in a Phrygian manner. The next two measures move the pitch center from G to B. The third chord in m. 24 could be analyzed as a quartal chord built on D with its uppermost member in the bass. The transition concludes with a plagal cadence on a B-F# dyad (m. 25:4).

The function of the transition is not only to move the key center to B for the second theme, but also to change the character and spirit of the music. The dynamic levels are lowered to pianissimo for the orchestra, and mezzo-forte and piano for the organ part; the vigorous, motoric nature of the first theme is replaced with the marked instruction grazioso (mm. 21-22).

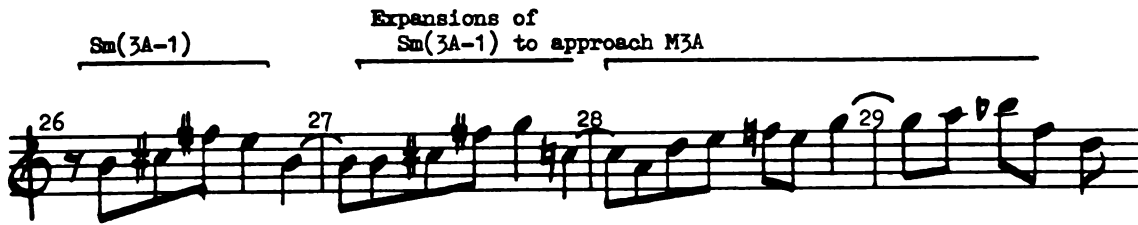
Second Theme The second theme begins in m. 26 in B minor and concludes on the first-half of the third beat of m. 36. It is made up of a two-phrase period (4 plus 3)⁸ in contrasting construction and a third, independent phrase. This theme is played by the organ; the orchestra participates in only a minimal way. The texture of all three phrases is that of a trio: the two upper voices (one for each hand) have a canon at the octave, and the pedal part has quarter notes in groups of two and three that are related motivically to the canon above but are, in spirit, more like a continuo bass, especially in mm. 26-30.

The melodic components of the second theme are derived from the motives identified previously in the first theme. The first phrase employs Sm(3A-1) as the generating motive, which is stated three times in mm. 26, 27, and 28-30; the second statement is an expansion of the first and the third an expansion of the second to the point that the third

⁸ This terminology is used to describe the length of each of the phrases contained in a multi-phrase structure, such as a period; in this case, the phrases are four measures and three measures in length.

statement resembles the complete motive (M3A) more than the submotive (Sm[3A-1]). This motivic development is illustrated in Example 15. The pedal part of the first phrase utilizes inverted and inverted-retrograde forms of the first three notes of the phrase as found in the upper voices.

Example 15: Motivic development, mm. 26-29



The second phrase (mm. 31-33) is based upon M2 with the descending stepwise motion of the normal form of the motive expanded intervally to thirds. The pedal part accompanies the upper voices with one statement of the first four notes of the second phrase in rhythmic augmentation at the sub-octave (Example 16).

Example 16: Motivic development, mm. 30-33

Example 17 illustrates three different ways the melody of the third phrase (mm. 34-36) can be related: (A) the first measure of the melody can be thought of as an expansion of Sm(3A-1); (B) the first four notes

of m. 34, if rotated one place, are similar to submotive $Sm(3A-1)$; and (C) the melody of m. 34 and the first half of m. 35 can be related to M5. The principal difference illustrated in Example 17C is that the fourths at the head of M5 exhibit a conjunct relationship, whereas they are disjunct in m. 34, and moving in opposite directions. 17C is the preferred analysis, however, for it takes into account all of the remaining melodic material of the phrase.

Example 17: Motivic derivation, third phrase, second theme, m. 34

Ex. 17A Ex. 17B Ex. 17C

Above rotated one
note becomes $Sm(3A-1)$

$Sm(3A-1)$ - transposed $Sm(3A-1)$ M5

As in the second phrase (mm. 32-33), the pedal part in the third phrase contains one statement of M2 in quarter notes, but with intervallic contraction and added notes.

The second theme is constructed as a canon between the two upper voices--a canon which is real at the octave from m. 26 to the first half of the second beat of m. 33, and from m. 34 to the first half of the first beat in m. 35 (not including any notes in the right hand part in m. 36). The time interval between the voice entries is two beats in the first and second phrases, and one beat in the third phrase.

Examination of the melody in the right hand part, mm. 26-36, allows linear roots to be extracted with interesting results (Example 18). A melodic form of the Neapolitan chord is utilized in m. 27, although not in its usual cadential formula.

Example 18: Linear root analysis, mm. 26-36

	m. 26:1	27: 3	28: 2	29: 2 4	30: 2
roots:	b	C	d	Bb F	G(?)
functional	b: i	N			G: I
analysis:		F: V	vi	IV I	

m. 31: 1 3	32: 4	33: 1 3	34: 1 3	35: 1	36: 2
G g	D	D A	F g	F	b(?)
G: I i	V	F: III	I ii	I	
	D: I	I	V		

Analysis of the harmonies at the conclusion of the canon (m. 33) reveals the use of a modified augmented-sixth chord.⁹ The sonority resembles a German sixth chord, but is built upon a minor instead of a major triad, with the root of the chord, Gb, spelled enharmonically as F#. The augmented-sixth interval resolves properly in contrary motion to F. This analysis (shown in Example 19), the product of the addition to the upper voice of the balance of the musical fabric, differs slightly from that given in Example 18.

Example 19: Harmonic analysis, mm. 33-34

Org.

Vla.

Vlc.

D: I IV F: b11[?] I

⁹ The symbols used to identify the classic augmented-sixth chords are: Italian sixth--It₆, German sixth--Gr₆, and French sixth--Fr₆.

The harmonic and melodic resources of the second theme are restricted to the major and minor scales. This change from the modal character of the first theme, plus the differences in dynamics, texture, compositional technique, and general musical style, contribute to the marked contrast of this second-theme area.

Transition A two-part transition which begins on the second half of the third beat of m. 36 and ends on the second beat of m. 43 links the second theme to the closing theme. After a change of tempo to poco andante, indicated at the first downbeat of the transition, a change in dynamics from piano in m. 39 to forte in m. 43 and an a tempo in m. 43 prepare for the closing theme.

The first part of the transition, illustrated in Example 20, is a brief reflection of the second phrase of the second theme: the organ is the only instrument used, and the trio texture is thickened to four voices organized in two streams of thirds which move, in part, in contrary motion resulting in several polychords that are bracketed by an A_4^6 and an a_6 . The use of an expanded form of M2 continues in the top voice and is followed by another statement of M2 in quarter notes in the pedal part.

Example 20: Transition, mm. 36-39

The musical score for Example 20 shows the transition from measure 36 to 39. The organ part is written on two staves. Measure 37 features a melodic line in the upper voice and a bass line. Measure 38 continues this texture. Measure 39 shows a change in dynamics and tempo. Harmonic analysis labels below the staff indicate A_4^6 and a_6 polychords, and a (Fr_6) chord. A bracket labeled M2 spans measures 37 and 38, and another bracket labeled M2 is below measure 39. A 'V1 II' marking is present in measure 39.

The a_6 is preceded by another augmented-sixth chord the characteristic interval of which ($D\flat-B\sharp$) is traditionally resolved. In the context of diverging streams of thirds, and because of the wide spacing, the listener probably will not hear this as a French sixth chord.

The second part of this brief transition (shown in reduced form in Example 21) is taken by the orchestra alone beginning on the second half of the third beat of m. 39. The same four-note motive (M2) from the second phrase of the second theme is used and treated in imitation with a figure of ascending conjunct quarter and eighth-notes which, in three of the appearances, outlines the tritone.

Example 21: Transition, mm. 39-43

The entrances of M2 are separated by descending fourths which, when combined with those tritone relationships between the entrances of the ascending figure (marked with [) and those contained in the melodic contour of the figure, keep the tonal center fluid. Each lower entrance in

the string parts calls attention to itself and becomes the foundation of the prevailing harmony. The resulting root movement in the passage--B $\flat$, F (m. 41), C (m. 42), F $\sharp$ (m. 43)--is concluded with a whole-tone chord on F $\sharp$ in m. 43:2. The outer voices of this chord (F $\sharp$ and E) behave as if they were an augmented-sixth, not a minor seventh, by resolving outward to the octave F in the first chord of the closing theme.¹⁰

Closing Theme The closing theme begins on the third beat of m. 43 with an upward flourish of sixteenth-notes which form an extended anacrusis to the downbeat of the theme in m. 44. The closing theme, and the exposition, conclude with a strong, final cadence on a B minor chord on the first beat of m. 51.

The structure of the closing theme is that of a three-phrase period, in parallel construction, with the phrases overlapping. The first phrase is two measures long with its first downbeat in m. 44. The second is three measures long with its first downbeat in m. 45, and the third, five measures long with its first downbeat in m. 47. Each phrase begins in the organ part with an extended upbeat of ascending sixteenth-notes which lead to three quarter-note chords. The orchestra finishes each of the first two phrases with a syncopated statement of descending perfect fourths. The third phrase is concluded in the organ part.

The length of phrase overlap in the closing theme is about four beats in each case, with the beginning of the second phrase coinciding with the start of the orchestral conclusion to the first. The same

10 The name BACH is spelled out in parallel minor thirds in the first violin and viola parts in the last four notes of the transition: E $\flat$, D, F, E $\sharp$ and C, B $\sharp$, D, and D $\flat$ which are both intervallically equal to the notes B $\flat$, A, C, and H. In German nomenclature the note-name B represents the pitch B $\flat$, and the note-name H, B $\sharp$; hence, BACH implies the pitches B $\flat$, A, C, and B $\sharp$ or their enharmonic equivalent.

procedure is followed in the second and third phrases. The overlapping of phrases one and two is illustrated in Example 22.

Example 22: Phrase overlapping, mm. 43-45

The musical score for Example 22 consists of two staves: the top staff is labeled 'Org.' (Organ) and the bottom staff is labeled 'Orch.' (Orchestra). The organ part begins with a flourish in measure 43, which is the start of 'Phrase one'. This phrase continues through measure 44 and ends in measure 45. The orchestra part begins in measure 44 with a single note, which is the start of 'Phrase two'. This phrase continues through measure 45 and ends in measure 46. The overlapping occurs because the organ's phrase one extends into the time of the orchestra's phrase two. Brackets below the staves indicate the duration of these phrases: 'Phrase one' spans measures 43 to 45, and 'Phrase two' spans measures 44 to 46. Measure numbers 44 and 45 are marked above the organ staff.

The aural effect of this overlapping is similar to that of a phrase begun twice in the organ part and abruptly suspended at its midpoint. Only the third time is the phrase allowed to work toward a cadence. In any case, great energy and excitement are generated and tension created before the cadence is reached in m. 51.

Motivic analysis reveals the use of Sm(3A-1) at the beginning of each of the upbeat flourishes in the organ part, of Sm(5-1I) with an added note in the orchestra part in mm. 44, 45, and 46, a variant of M5 in the pedal part in mm. 47-48, and two retrograde forms of Sm(3A-1) in mm. 48-50. The latter two forms elide in the top voice of the organ part with the C# on the second half of the second beat of m. 49.

The closing theme starts in the key center of F, and all of the chords through the first beat of m. 47 conform to F major or F minor.

The Aeolian mode on C# is imposed on the harmony beginning with the third beat of m. 47. The e^7 chord on the second beat of m. 47, belonging neither to that mode nor to the preceding F major or minor (except as an altered chord), serves as a linking or passing chord, being situated symmetrically, in a melodic sense, between the last chord of one

tonal area, the F^7 , and the first of the next, the $d\sharp^{\circ 7}$.

Example 23: Harmonic analysis, mm. 44-48

	m. 44:	1	2	3	45:	3	4	46:	1	
chord analysis:		f	E $\flat$	D $\flat$		f	E $\flat$		D 9	
function analysis:	f:		i	VII $^{\sharp 7}$	VI 7		i	VII $^{\sharp 7}$		$\frac{v^9}{ii}$
	m. 47:	1	2	3	48:	1				
		F 7	e 7	d $\sharp^{\circ 7}$		f $\sharp_4^6$				
		I 7	vii $^7_{\sharp 5}$							
	c $\sharp$:		iii $^7_{\sharp 3}$	ii $^{\circ 7}$		iv 6_4				

As shown in Example 23, root movement occurs by whole-step in m. 44, by whole- and half-step in mm. 45 and 46, and by half-step only in m. 47. The ear is also surprised by the C $\sharp$ in the top voice of the organ part (m. 47). This note is a result of the whole-tone scale (Example 24) begun on the third beat of m. 45 (uppermost voice).

Example 24: Soprano voice, mm. 45-47

F - G - A - ($\overset{16\text{th note}}{\text{upbeat}}$) - A - B - C $\sharp$

M5, initiated in the pedal part in m. 47 becomes, in m. 48, a de facto double pedal part: the lower voice has a repeated C $\sharp$, a pedal tone, lasting to the third beat of m. 49; the upper part has the varied conclusion of M5 along with two sequential repetitions of that conclusion. Above this double pedal part the manual parts begin m. 48 with a descending pattern of sixteenth-notes, reversing the flourish with

which each phrase of the closing theme began. These sixteenths lead to a C# minor seventh chord on the fourth beat of m. 48, through F# minor and D# diminished chords to a C# minor tonic chord in the second half of the second beat of m. 49. The mode changes to Aeolian on B on the third beat of m. 49. After a brief quintal chord on G on the second part of that beat, a progression firmly in Aeolian on B and shown in Example 25 terminates the exposition.

Example 25: Harmonic analysis, mm. 49-51

	m. 49:	3	4	50:	1	3	4	51:	1		
chord analysis:		quintal on G	G ₆		D ⁷	e ⁷	f ⁷ #		b		
function analysis:	b:		Q5 on G	VI ₆		III ⁷	iv ⁴ ₃	v ⁶ ₅		i	

The use of a leading-tone in this cadence is still avoided through the strict adherence to modal usage. A two-beat, sixteenth-note flourish in the orchestra part (similar to the flourishes in the organ part at the beginning of each phrase of the closing theme) provides a final accent to this chord.

The chart in Figure 2 plots the major characteristics of the exposition of the first movement and allows several observations to be made:

The three themes and the final cadence are in mediant relationships--the pitch centers a minor third away from D in each direction are used--with the last cadence on the relative minor of D.

The use of various ecclesiastical modes is carefully ordered and restricted to the first theme and following transition. The second theme and following transition use the major and minor scales. The closing theme begins in harmonic minor, and changes to the Aeolian mode in its second half.

The instrumental dialogue is clearly defined: the organ part carries the principal content of the first and second themes with responsibility for most of the transitional passages given to the orchestra. Only in the closing theme do both instrumental mediums share the thematic role.

The dynamic arch is forte, piano, forte, the shape of which parallels the contour of the thematic material: motoric-vigorous, pastoral-quiet, and motoric-vigorous.

The first theme is essentially homophonic, the second theme canonic, and the closing theme again homophonic but, because of the extensive overlapping of the phrases, contains some polyphonic characteristics.

Each section of the exposition (except the closing theme) ends with a non-final cadence of one kind or another, assuring continuous musical flow through the exposition.

Figure 3: Formal structure, mm. 51-112:1 (Development),
First movement

51	58	59	70:3	70:3- 72:1	72:1	86:2	86:3	104:1	104:3	112:1
Section I		Section II		trans	Section III (fugato)		Section IV		transition	

Development: Section I The first section of the development is constructed as an independent phrase which elides with the final cadence of the closing theme on the downbeat of m. 51 (if the upward sweep of sixteenth-notes in the orchestra part in m. 43 is considered to be an anacrusis to this phrase, the analysis must be that the exposition and development sections overlap). The thematic material from the first measure of the movement is utilized again at the beginning of this phrase, but is transposed to B and altered, thus avoiding the Phrygian implication in the cello-bass part of m. 1. The mode is the Aeolian on B through m. 52, and Dorian on B from m. 53 through the second beat of m. 56.

This section of the development uses the juxtaposition of a dyad in the upper string parts against two imitative voices in the manuals of the organ part which are built from Sm(3B-1), M3A, and M3B. The dyad, A-B, results from the imitative appearance of M1B in m. 52, first in the second violin part (F# to B), then in the first violin part (E to A); the dyad is sustained as a series of eighth-notes to the downbeat of m. 55. The imitative voices in the organ part begin on the third beat of m. 53, with Sm(3B-1) heard twice in the right hand starting on B, and echoed canonically at the distance of one beat in the left hand at the dominant level (a fourth below). On the third beat of m. 54, the right hand plays all of M3B once and M3A twice (with intervallic expansion). Sm(3B-1) is played once more by the left hand, followed with an inverted

statement of M3B (with ornamentation). Three sequential statements of M4 in the right hand of the organ part appear in m. 56 while the orchestra part reaffirms the key center, B, with two pizzicato chords outlining the dominant, then tonic intervals (both with the third omitted). A modulation begins on the second sixteenth of m. 56:3 to Dorian mode on C#. The imitative use of M1B appears again in the upper string parts with syncopations formed by ties across the bar line into m. 57 in the first violin part (D#-G#) and, also on the second beat of the same measure (inverted) by the second violin part (B-F#). The second notes are also used here to create a new dyad (G#-F#) that is repeated through the fourth beat of m. 58. Another pair of imitative voices similar to that in m. 53 in the organ part begins on the downbeat of m. 57. The G#-F# dyad is in the new key center (C#) and starts on the dominant in the right hand part and as an echo one beat later on the tonic in the left hand part. Sm(3B-1) is heard once in the right hand in its original form and once inverted on F#. The left hand has this motive once in its original form on C# and once on D#, ending on G#. The two lines in dialogue end with the same pitches (F# and G#) that are sounding in the dyad in the string parts. These two orchestral dyads (m. 53 and m. 57) do not bear the same relationship to the pairs of voices in the organ part: the first dyad sounds notes which are the root and seventh of the prevailing mode, while the second sounds pitches that are the fourth and fifth degrees of the prevailing mode.

The cadence of the first section of the development occurs when the cello part enters on C# in m. 58 and completes the dominant-tonic progression left unfinished by the organ part. The fifth degree (G#) bears, in its enharmonic spelling (Ab) a Phrygian mode relationship to

the pitch center of the next section of the development which starts in m. 59. The modulation from C# to G that ends this section takes place in this transitional measure in the cello part (m. 58). M3B is heard at the beginning of m. 58 on C#, and leads to a statement of M3A on G#. Chromatic alterations in the last half of the latter motive--specifically the D# and A#--help prepare the coming Mixolydian mode on G. Because the C# is still present, these four notes belong neither to the preceding Dorian mode on C# nor to the following Mixolydian mode on G. They form instead a link between these two pitch centers in much the same way the chord on the second beat of m. 47 connected the chords on either side of it without belonging to the key of either.

Section II Section two of the development, an independent phrase with a cadential extension, begins on the downbeat of m. 59 with another use of the opening motivic material of the Konzert, transposed to G, and including the Phrygian figure in the cello-bass part. The organ and orchestra parts are telescoped by one beat and the orchestra part, after the initial five notes, loses its resemblance to the first theme. The section arrives at a final cadence on an E major chord on the first beat of m. 69; the cadence is repeated into the first beat of m. 70.

The motivic organization of this section closely resembles that of the first six measures of the first theme of the exposition. M3A and its submotives extend the motoric theme in the organ part over into the first half of m. 64. M4 is then used to prolong the process for another three and one-half measures. Sm(3A-1) appears again in the left hand part in an ornamented form on the third beat of m. 68. The orchestra part contains less motivic involvement: M1A and M2 in m. 59 on G and again in m. 61 on D, and M4 once in the string parts in unison in m. 69.

As in the exposition of the first theme, both Phrygian and Mixolydian modes on G are used at the beginning of section two of the development. The organ part sustains the Mixolydian character through the first beat of m. 62; the combination of M1A and M3 in m. 61 of the orchestra part is almost identical to the Phrygian mode material found in m. 59, but transposed to D, suggesting polymodality. Starting with the second beat of m. 62, the pitch centers identified by the organ part are transitory, rarely lasting longer than one beat. The chords from m. 62 to the second beat of m. 64 are in root position. Beginning on the third beat of m. 64 two four-beat sequences occur in the organ part with all but one of the chords in inversion. As seen in Example 26, the chord roots are usually found in the uppermost voice. The left hand part does not participate in the sequential progression.

Example 26: Harmonic analysis, organ part, mm. 64-66

Harmonic analysis labels for measures 64-66:

- Measure 64: c^7 , d_6 , c_2
- Measure 65: d_6 , F_6 , e_6 , $D_2(\text{split 3rd})$, e_6 , G_6
- Measure 66: e_6 , G_6

The progression F_6 Bb_6 | a^7 is found on beats three and four of m. 66 and beat one of m. 67. The a^7 chord, $a\ iv^7$ in the eventual cadence in Aeolian mode on E (m. 69), is followed on the second beat of m. 67 by an Ab_6 which functions enharmonically as a borrowed VI_6 to the B_6 chord (Eb equalling $D\#$) on the third beat of m. 67. The B_6 is a V_6 in the key of E in which this section of the development ends (m. 70). The strength of the dominant is increased by a quintal chord on B, initiated by the orchestra (on the same beat as the Ab_6 in the organ part) and held for four beats.

These dominant structures are separated from the ultimate tonic by one measure (the last two beats of m. 67 and the first two beats of

m. 68) which contains a four-fold sequence of a four-note motive leading to the tonic, E (Example 27). A series of tonicizations result from the linear half-step movement, and the tonicized pitches (marked with an asterisk in Example 27) are all part of the same whole-tone scale.

Example 27: Sequence, mm. 67-68



The actual cadence in mm. 68 and 69 (in the Aeolian mode on E with a raised third) utilizes the progression $e_6 \ a^{11} \ D^7 \ E$ in mm. 68-69:1 with a repetition of the three last chords of this progression one measure later. An orchestral flourish of sixteenth-notes in the same mode (except for several chromatic alterations in the first violin part) separates the cadence from its repetition and affirms the E tonality. This cadence does not make use of a leading-tone movement.

Transition A brief transition leads from the E cadence on the first beat of m. 70 to the beginning of the third section of the development in m. 72. It is an anticipatory transition, made up of three imitative entries in the orchestra part of the head-motive of the third section. In addition to preparing the motivic material of the following fugato, the transition modulates from E minor at the beginning of m. 70 to D minor in m. 72. A reduction of the instrumental parts in Example 28 shows the modulation, the diminished and Neapolitan chords in traditional progressions, and the use of M4, M4I, and M4R, the latter in rhythmic augmentation.

Example 28: Harmonic and motivic analysis, mm. 70-71

Section III Section III of the development is fashioned as a fugato which begins in m. 72, becomes transitional in m. 82, and concludes in m. 86:2. The fugato has four entries: a subject in the soprano voice, tonal answer in the alto voice, subject in the tenor voice, and tonal answer with the tail omitted in the bass voice.¹¹ The entire section is played on the organ until transitional material begins in m. 82.

M4 is the generating motive of the subject which is characterized by the striking leap up of a minor seventh and the outline of a Neapolitan triad (the first entry is illustrated in Example 29).

Example 29: Fugato subject with analysis of harmonic implications, mm. 72-73

Analysis of the implied harmony reveals that the subject modulates to the subdominant area. No countersubject is utilized in the fugato.

¹¹ Because the fugato lies entirely within the organ part, vocal terminology will be used in the analysis.

Example 30 reproduces mm. 74-76:1. Analysis points out the difference between the implied harmony of the answer in the alto voice and the actual harmony created by the combination of the answer and the continuation of counterpoint in the soprano voice. The most volatile harmonies outlined by the answer alone (the vii° and major mediant triads) are masked by the soprano voice, which changes them into supertonic, tonic, and minor subdominant chords.

Example 30: Fugato, mm. 74-76:1

(1) d: i vii° i VI v^7

(2) G: I $\frac{v^7}{iv}$ vi d: ii i iv_6 v^7

(1) Implied harmony of answer (2) Sounding harmony

The ascending scale in the alto voice in the last half of m. 75 contains a C#, rather than a C $\sharp$ that would be expected were the answer to m. 73 real. A C $\sharp$ would severely weaken the strength of the dominant-seventh harmony being outlined by this voice in preparation for the D major chord accompanying the entry of the subject in the next measure.

The entry of the subject in the tenor voice with its associated counterpoint is shown in Example 31. The harmonies at this place more nearly reflect those implied by the subject. The head of the subject is harmonized with a major tonic, major submediant-seventh, passing Italian-sixth, dominant-seventh, and, stretched over the first two beats of m. 77, a Neapolitan chord. A degree of harmonic conflict begins on the third beat of m. 77 as the Neapolitan chord is carried by the upper

two voices through the first beat of m. 78 while the tenor voice sounds a C scale with a B $\flat$, outlining a possible V⁷ of III in D minor.

Example 31: Fugato, mm. 76-78

Neapolitan in top two voices

76 77

d: I VI⁷It₆ v⁷ N (lower voice) V III

V discernible moving to tonic triad

78

(III₄)⁶

A III₄⁶ is sounded very briefly, in fact, on the first sixteenth-note of m. 78, but the polyphony quickly moves on. The tenor voice plays another ascending scale, this time in D melodic minor, which is doubled by the soprano voice at the tenth. This doubling leads to a tonic chord on D with an accented lower neighbor tone in the third beat of m. 78.

The last entry of the fugue subject (in the bass voice) begins on beat three of m. 78 and completes the four-part polyphonic texture. The

score from this point through the first beat of m. 82 is reproduced in Example 32.

Example 32: Fugato, mm. 78:3-82

79 80

81

C_4^6 Bb_4^6 Gr_6^6 a_4^6 Bb_6 d^7 F^7 $Bb(add\ 6)$ a_4^6 e^7 g^7 C a A

$C_{\#4}^7$ b_2 e_2 Q_4 G^9
on Bb

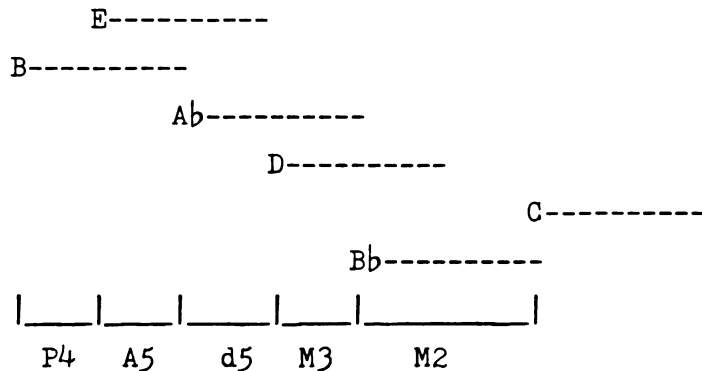
A chromatic passing-tone creates a German sixth chord, traditionally resolved, on the last sixteenth-note of the first beat of m. 79, at the equivalent place in the subject the Italian sixth chord was created in m. 76. An altered dominant¹² (F A B $\sharp$ E b) in which the B $\sharp$ is considered to be C b , occurs on the second half of the third beat of m. 79

¹² Ludmila Ulehla, *Contemporary Harmony* (New York: The Free Press, 1966), pp. 215-224, calls this chord a whole-tone dominant.

and resolves to a B $\flat$ (add 6) chord.

The bass voice does not complete the subject, and the music, by m. 81, bears little resemblance to a fugato. The figure which begins in the soprano voice on the second eighth-note of m. 81 is treated to extensive imitation in both organ and orchestra parts. The relatively stable tonalities of the fugato are loosened by a series of complex tertian sonorities, unresolved sevenths, another altered dominant, and a quartal chord on D $\flat$, all which lead to a G⁹ chord in m. 82. A series of imitative entrances of the aforementioned figure from the soprano voice in m. 81 begins in the orchestra part in m. 82, is continued in stretto in the organ part, and concludes in the cello-bass part in m. 84. These entrances employ tonal imitation and, as shown in Example 33, occur at increasingly close harmonic intervals (disregarding octave displacements).

Example 33: Intervals of imitation, mm. 82-84



Except for the one on B, all of the notes with which these entries begin (E, A $\flat$, D, B $\flat$, and C) are part of the same whole-tone scale: C, D, E, (G $\flat$), A $\flat$, and B $\flat$. The entrance on C (m. 84) in the cello-bass part makes use of Aeolian mode on F (the G $\flat$ in m. 85 is analyzed as an altered upper neighbor tone) and leads to the large C^{b7} chord (3rd

omitted) in m. 86.

The musical effects of the transitional measures of this fugato (mm. 81-85) include a modulation from D minor to C, a change in the nature of the musical material from the rhythmic, lively character of the fugato subject to the tranquil, pastoral quality of the next section of the development, and a lowering of the dynamic level from forte to pianissimo.

Section IV This section of the development (mm. 86:3-104) is based upon the first phrase of the second theme of the exposition, being similar to it in structure--a two-phrase period (4 plus 6) in parallel construction plus an eight-measure independent phrase--and in texture--a trio in the organ part. The pedal part (mm. 88-95), however, has no motivic implications, and instead of the exact canon between the manual voices used in the second theme, the left hand part in phrases one and two (mm. 88-95) is written as a free canonic inversion of the right hand part.

The orchestral accompaniment to the trio in the organ is arranged as expanded, long-note chords (extending across almost five octaves in m. 94) in which the divisi cello and first violin parts are given widely-spaced, sustained pitches filled in with gently undulating triplet figures by the second violin and viola parts.¹³ These chords, including the moving notes, are built in such a way as to include all of the notes in the organ trio they accompany. An instrumental halo is thus created by the strings which contributes a warm, lush quality to the somewhat ascetic organ part. These chords can be condensed and

¹³ The orchestral accompaniment actually precedes the organ trio by six beats, commencing on the third beat of m. 86. The organ part enters in m. 88.

analyzed vertically (Example 34). Whole-notes in this example represent first violin, cello, and contra-bass parts; black notes represent the triplet figures in the second violin and viola parts. Each change in harmony corresponds to a change in the notes of the cello-bass part.

Example 34: Harmonic analysis, orchestral chords, mm. 88-95

88 90 92 94

C_{b7}^9 b^9 $G_{\#11}^{13}$ b^{11} Q5 on B G^9 f^7 E_b^7 d^{11}

(no 3rd) (no 3rd) (add 6) (add 6) (no 3rd) (no 3rd) (add 6) (add 6) (no 3rd)

Although these chords do not relate to each other in a functional way, certain patterns of succession can be seen: one non-tertian chord is used, and is placed on beats three and four of m. 91 at the end of the first phrase of the right hand of the organ part and central in the series of chords; no two adjacent chords share the same quality of base triad--either the third is missing, leaving the triad incomplete, or the triads are alternately major or minor. Example 34 includes this analysis.

The first phrase from the second theme of the exposition and the first phrase from this section of the development (right hand parts only) are compared in Example 35. The phrase from this portion of the development is shorter than the one from the exposition, and its third stage of motivic expansion has been omitted. The tonal goals are changed also: the phrase from the exposition begins and ends on the same note, while the phrase from the development modulates to a pitch

center a tritone away from that in which it began. The new pitch center, F#, becomes the leading-tone of the next phrase which begins in the key center of G. The second phrase (mm. 92-97) begins like the first but does contain a third stage of motivic expansion, and concludes on an incomplete cadence on E in m. 97.

Example 35: Comparison, mm. 26-30:2 and mm. 88-91



The left hand part of the trio follows the right in the first phrase at the interval of two beats, and in the second phrase at the interval of one beat. The voice in the left hand part is not in strict imitation of the upper voice, and operates in different linear pitch centers. The interplay between these centers (as defined by linear roots) is displayed in Example 36.

Example 36: Linear roots, organ manual parts, mm. 88-96:3

	m. 88	89:1	3	90:1	3	91:1	3	92:
Right Hand:	C			D $\flat$		E	B	F#
Left Hand:		G				E $\flat$	E	B--
				(first phrase)				
	m. 92:2	93:1	3	94:1	3	4	95:1	2 3 4
Right Hand:	G			A $\flat$		F		C (D) A E
Left Hand:		F				E $\flat$	D	G D#
				(second phrase)				

Both phrases come together in the key center of G over a D pedal point (m. 95), but digress again with the left hand part finishing its phrase on D# and the right hand part continuing for one more measure to close on E. The last measure in the right hand part (mm. 96-97) is accompanied by a series of descending parallel fourths in the left hand part which make, with the last notes of the right hand phrase, a C_4^6 on the last beat of m. 96 and the first beat of m. 97. The parallel fourths conclude on beat two of m. 97 on an F#-B dyad. The ending of this phrase is inconclusive but supplies preparation for the third phrase of the section, played by the orchestra.

The third phrase of the fourth section of the development, marked poco sostenuto, begins with a solo viola part in m. 97, overlapping by one and one-half beats the end of the preceding phrase. This five and one-half measure solo is harmonized by the other string parts and leads to a G(add 2) chord in m. 102. The solo melody is generated from a transposition of m. 94 of the right hand part of the organ trio which is then extended in an impassioned way to span the range of an octave and a minor seventh. The harmonies are plotted in Example 37 and include a variety of added-note chords, extended tertian and non-tertian sonorities, and polychords. The quintal chord on C (m. 109) which concludes both this phrase and this section of the development is created from the sustained last notes of a series of statements of the head of the second theme melody at intervals of a fifth. One statement, in the cello part, is in inversion with rhythmic augmentation. These sustained final notes (C, G, D, A, and E) form the vertical quintal structure.

Example 37: Harmonic analysis, mm. 97:4-104

	m. 97:4	98:1	2	4	99:1	2	4
chord analysis:	C		c#	A(add 6)	Quartal on G#		$\frac{c\#}{d\#}$ Quintal on F C ₆ (add 6)
	m. 100:1	4	101:1	2	3	4	102:1
							103
							104
	Eb ¹³	d ₄ ⁶	D ₄ ⁶	$\frac{C}{d}$	e	C	G(add 2)
				d	pedal		----- Quintal on C

The non-functional elements--non-tertian chords, the polychord (m. 99:1), and the root movement by second and third--are balanced by the final, more functional root movements of a fifth: D to G (mm. 101-102) and then G to C (mm. 102-104).

Transition An anticipatory transition to the recapitulation begins on the third beat of m. 104. The structure of the transition is one eight-measure phrase created from the extended, imitative use of M3A and Sm(3A-1) in sequential treatment and with intervallic changes. The transition concludes on the downbeat of m. 112 in elision with the first beat of the recapitulation of the first theme.

The first entrance of M3A is in the cello-bass part in Mixolydian mode on G (m. 104:3), the dominant key of the final chord of the preceding section of the development (m. 104:1). It is followed in m. 106 by the entrance of the viola part on D with a strongly rhythmic line using Sm(3A-1). A modulation which begins on the fourth beat of m. 106 with an enharmonic augmented A₄⁶ chord moves in the next measure through four chords (one on each quarter-note beat)--b⁷, C, D, and A minor--to the new tonic (D) on the downbeat of m. 108. From m. 107 through the second beat of m. 109 the mode is Mixolydian on D. The G# on the third beat of m. 107 strengthens the minor dominant on beat four of that

measure. The second violin part enters in m. 108 with an intervallically contracted statement of M3 on A; the first violin part is written similarly on A in m. 109. Several statements of M3 occur in the viola part starting on D in m. 108.

The last two beats of m. 109 and all of mm. 110-111 are reproduced in Example 38. The various brackets mark the stresses given the note A and the A major triad in these two measures. In spite of the large number of nonharmonic tones, these measures serve a dominant function to the return of the first theme in m. 112. The dominant tonal area is prepared by a Neapolitan progression in the cello-bass and viola parts on the last two beats of m. 109. Although the chord is not in first inversion, it does proceed to the dominant, a normal progression. Interesting parallelism occurs between the second violin and viola parts on these same two beats: two perfect fifths are followed by two perfect fourths, three tritones, and one minor third. This last interval (B $\flat$ -G) embraces the root of the next chord (A).

Example 38: Conclusion: transition to recapitulation, mm. 109-111

The musical score for Example 38 consists of two systems. The first system contains measures 109 and 110, while the second system contains measure 111. The notation is complex, featuring many beamed notes and accidentals. Below the first system, the letters 'd:', 'N', and 'V' are printed under the first, second, and third staves respectively.

The progression to the cadence on the downbeat of m. 112 again utilizes a Phrygian formula: the tonic (D) is approached in contrary motion from a half-step above in the bass part and from a whole-step below in the top voice.

This transition to the recapitulation accomplishes the return to the original tempo (an a tempo indication precedes the entrance of the cello-bass part in m. 104), the original key (D), the original dynamics, and the vigorous, motoric rhythm of the first theme.

The chart in Figure 4 plots the major characteristics of the development.

Figure 5: Formal structure, mm. 112-160 (Recapitulation),
First Movement

112	128:1	128:1	140	141	147	148	155	156	160
First theme		transition		Second theme		closing theme	Codetta		

Recapitulation The recapitulation of the first movement, which begins on the downbeat of m. 112, presents the themes and transitions from the exposition with three main types of change: (1) extensive rearrangement of the transitional materials, (2) use of new key centers for the second and closing themes, and (3) significant alterations in the return of the second theme. Smaller changes will be noted and discussed in the course of dealing with these principal areas of difference.

The recapitulation of the principal theme through m. 114 is essentially a return of mm. 1-3 of the exposition. In m. 115, however, the figuration in the organ part is altered to allow the tonal center to move from F# (where it remained for several beats in m. 4) to A (Dorian mode). At this point the first of the major alterations mentioned above occurs. The transition which originally linked the first and second themes in the exposition is utilized in the recapitulation in a different way. An abbreviated form of the essential element of the transition, the fugato, is interpolated instead into the body of the return of the first theme. The success of this maneuver is due to the close motivic relationship between the fugato and the principal theme. The fugato enters in the orchestra part on the third beat of m. 115, the organ part drops out, and mm. 116-120:3 are identical with mm. 15-19:3. At the point where the fugato ends in the original transition, the fourth beat is altered slightly to allow a return of the organ figuration in G on the downbeat of m. 121. Two measures of figuration based

upon M4 (mm. 121-122) closely resemble m. 5 and complete the interpolation.

In m. 123 the actual recapitulation of the first theme resumes. The similarity to the exposition is sustained with only slight alterations through the downbeat of m. 128. These include (1) m. 112--addition of two sixteenth-note forms of M2 on A, the second inverted; (2) m. 113--omission of the first note of Sm(2) and Sm(2I) from the first and second violin parts of the orchestra; (3) m. 126--pitch goal of F# (Gb) in the left hand of the organ part delayed one beat by ornamentation (the notes of the next three chords in the organ part in the same measure are slightly rearranged, although the chords are harmonically the same); and (4) measure 128--the organ is omitted from the cadence chord in order to allow it to begin the new transition to the second theme.

The new transition (found in the recapitulation between the first and second themes) has two parts. The first part (mm. 123-133:1) is an exact transposition of the first phrase of the second transition of the exposition (mm. 37-39) which is extended through the use of sequence to a length of five measures. Beginning in m. 128 in the tonal area of C#, the new transition strikes a cadence on C# on the downbeat of m. 133. The melodic figure in the soprano voice on the last two beats of m. 129 and the first beat of m. 130 is utilized two more times--on B in the organ part and C# in the orchestra part--and is followed by a cadential gesture imitating the opening of m. 128. This cadence in the organ part is extended by repetition in the orchestra part. The dynamic level of the transition is piano and the tempo indicated is poco andante. The change in intensity between the return of the first

theme and the new transition is kept from being too abrupt by a de-crescendo marked over the last two beats of m. 127.

The second part of the new transition in the recapitulation begins with the organ part in m. 133 in C# and concludes in F on the downbeat of m. 141. The structure of this part of the transition is three phrases (2 plus 3 plus 3); the tonal centers of the phrases change from C# minor to B minor, A minor to G minor, and F minor to F (Mixolydian mode). All of these tonal centers are part of the same whole-tone scale.

The motivic bases for part two of this new transition are M3A and Sm(3A-1) which are treated to extensive imitation and sequence. The first phrase of the transition is reproduced in Example 39. The first entrance of M3A on C# is in the Aeolian mode and remains in that mode through m. 134. The second entrance (on G#) is also in the Aeolian mode on G# which, when juxtaposed with the first entrance, results in the cross-relation between A $\flat$ and A#. The third entrance (on D#) uses Sm(3A-1) three times in tonal sequences on D#, G#, and C#. The pedal part has one entrance of Sm(3A-1) in inversion and augmentation starting on F# which serves a dominant function to the B-minor seventh-chord to which all the voices of the organ part move on the first beat of m. 135. The orchestra part links this phrase to the next with an ornamented and retrograde form of M2 through which the B-minor seventh-chord is resolved to the note E. This pitch, in turn, serves as a dominant to the entrance of the next phrase in the organ part on A.

Example 39: Recapitulation, mm. 133-135

The musical score for Example 39 consists of two systems. The first system contains measures 133 and 134. Measure 133 features a piano part with a treble staff and a bass staff. The bass staff has a label 'M3A' under a bracketed group of notes. The organ part has a treble staff with a label 'M3A' under a bracketed group of notes. Measure 134 continues the piano part, with a label 'Sm(3A-1)' above a bracketed group of notes. The organ part has a label 'Sm(3A-1I)' above a bracketed group of notes. The second system contains measure 135. The piano part has a treble staff with a label 'M2R (ornamented)' below a bracketed group of notes. The organ part has a treble staff with a label 'M2R (ornamented)' below a bracketed group of notes.

The second phrase repeats the same process with one additional sequence of $Sm(3A-1)$. Also, the tenor and alto voices of the organ part further fragment $M3A$ by sounding $Sm(3A-3)$ six times with the soprano voice. The pedal part again has $Sm(3A-1I)$, this time on D, the dominant pitch of the final chord of this phrase ($g[add b6]$). The orchestra part links this phrase to the next with a descending pattern of five notes (G to C) which are in the key of F minor (Aeolian mode) and serve a dominant function in that key.

The rest between the first and second phrases in the organ part is omitted between the second and third, and the latter phrase begins on the next eighth-note after the cadence chord in m. 138. Only two freely imitative voices are used above the pedal part in this phrase, but the motoric sixteenth-note motion is maintained in both of them. After beginning in the Aeolian mode on F with fragments of M3, the two lines are extended through m. 140 with these fragments (Sm[3A-1]) appearing on various pitches, primarily C and B $\flat$, the dominant and subdominant areas. F as a tonality is never threatened, and the transition leads directly into the return of the second theme in F (m. 141). One more appearance of Sm(3A-1I), starting on F, occurs in the pedal part at the end of the phrase.

The return of the second theme which starts in m. 141, is abbreviated (using only the initial one and one-half phrases of the first form) and, by starting on C $\sharp$, is transposed up a half-step from the key in which it was presented in the exposition. A harmonization different from that found in either the exposition or the development is also utilized. In the preceding two presentations the first note of the theme is analyzed as the tonic; in the recapitulation the fourth note is considered the tonic and the key center in m. 141 is F. Mixolydian mode is employed at the outset due to the constant use of E $\flat$ in the organ figuration, although the chromatic nature of the theme melody prevents this modal color from being sustained beyond the middle of m. 142.

The dramatic and musical character of the second theme is changed markedly in the recapitulation: the melodic material in its strict canonic form is given to the orchestra with the two violin parts carrying the leading melody in octaves and the viola, cello, and contra-bass

parts the canon. The dynamic level is fortissimo, and the canon is accompanied by the organ which is given a toccata figuration in the right hand part derived from a retrograde form of M⁴, and chords in the pedal and left hand parts in the rhythmic pattern  . Only three beats long and repeated six times in four measures, this pattern adds a poly-metric quality to the duple meter of the other portions of the musical fabric which contributes to the rising levels of energy and excitement at this moment in the movement. In addition to serving a rhythmic and color function, these chords in the left hand and pedal of the organ part contain most of the notes of the canonic theme in the orchestra part. The changes of chord structure tend to coincide with the linear movement of the trailing member of the canon. The Aeolian mode is established by the last beat of m. 145, and the return of the second theme concludes with a cadence on a D-major chord on the third beat of m. 147. The harmonic progression to this cadence is shown in Example 40. As has been the case so frequently, the use of a leading-tone in the cadence is avoided.

Example 40: Recapitulation, mm. 146-147



146 147

E_6 Bb $a^4 - \frac{3}{6} C_4$ D

(Aeolian mode with raised third on final chord)

There is no transition between the second theme and closing theme, for there is no reason for one. The dynamics are already forte, the motoric, vigorous character of the closing theme is already established, the tempo does not change, and the tonal center is already D. The organ part of the closing theme in the recapitulation is almost identical to that found in the exposition up to m. 153. The orchestra part has a vigorous descending passage of sixteenth-notes based upon the figure first used at the close of the second section of the development (m. 69). M4 is the generating motive. In m. 148 the figure begins in the lower string parts and is answered at the interval of one beat by the upper strings. The process is reversed in m. 149, and all of the orchestra parts have the figure in unison in m. 151. The Aeolian mode is used beginning with the third beat of m. 151 in the organ part and in m. 152 in the orchestra part. The motoric rhythm is continued in the organ pedal part from m. 152:3, with chords in the manual part (m. 154) suggesting the progression G, d, C^{b7}_{#5}. The sixteenth-note figuration in the pedal part continues to the first beat of m. 156 where it is taken over by the manuals for one measure (m. 156), and then by the orchestra for two measures (mm. 157-158). Measures 156-160 constitute a codetta with the final cadence progression beginning in m. 157 (illustrated in Example 41).

Example 41: Harmonic analysis, final cadence, mm. 157-160

	m. 157:1	3	158: 1	3	159	160	
chord analysis:	G(add 6)	f# ⁷	e ⁷	c# ₆	d	d	
function analysis:	d: IV(add 6)	iii ⁷	ii ⁷	vii ₆	i	i	

The strength of this cadence lies in its obvious use of the leading-tone triad (vii_6) in m. 158 with the leading-tone in the uppermost voice and the third of the chord in the bass voice resolving in contrary motion to the octave D.¹⁴ The use of the accidentals F#, C#, and G# suggest Lydian mode from the third beat of m. 158 to the end. The character of this mode is not negated by the one last Phrygian figure in m. 159 which recalls the first measure of the movement (M2 in the cello-bass part).

The care with which the composer has selected the cadence structures throughout the movement is emphasized here. Leading-tone-to-tonic progressions have been carefully avoided at principal cadential moments. The use of this progression in mm. 158-159, however, highlights the finality of this last cadence in rounding out the movement. The use of a diminished triad in the final cadence has been avoided with the use of G# in the harmony.

The chart in Figure 6 illustrates the major elements of the recapitulation.

¹⁴ Generally, the leading-tone triad does not provide for the most conclusive-sounding cadences. This harmonic context, however, in which cadential dominant and leading-tone chords are found very rarely, allows the vii_6 in m. 158 to assume unusual strength.

Figure 6: Principal characteristics of recapitulation, mm. 112-160

Recapitulation: mm. 112-160

	112	128:1	128:1 transition	140	141	147	148	160
Structure	First theme Three-phrase period; cadential extension	128:1 c#	Independent phrase with cadential extension and three-phrase period	140 f	141 Second theme Single phrase	147 Three-phrase period with codetta	Closing theme	160
Keys/Cadences	d (a g e) c#	c#		f	F (d)	D	g d#	d
Cadence types	evaded		final, linear		final	final		final
Modal usage	Mixo Phry Dor	Aeolian			M-m scales	M-m Aeol Lydian		
Dynamics	F 	p 	ff 	ff	ff	ff		
Instl. <u>Org</u> Dialogue <u>Orch</u>	***** ** * * * ***** ***	***** ***	***** ***	***** *****	***** *****	***** *****	***** *****	***** *****
Macro-har- monic rhythm	d				F	g	D	

It is important that a lengthy movement such as this be concluded on an emotional plane of sufficient intensity and duration that the whole structure is brought to a balanced and satisfying conclusion. Often a coda is placed after the recapitulation for this purpose. In the present work, however, the composer has chosen a different solution: (1) the second theme is returned at a fortissimo dynamic level and proceeds without a break to the closing theme; (2) a new layer of figuration in the organ part of an energetic, motoric character is added to the recapitulation of the second theme; and (3) a new transition, written to lead to the altered second theme, generates considerable momentum and tension through the use of polymodality, sequence, rapid modulation, and motoric rhythms. The new transition, the recast second theme, and the closing theme with its extended final cadence come together as one unit of great intensity and excitement that is twice the length of the closing theme of the exposition.

The chart in Figure 7 outlines the structure of the first movement and concludes the analysis of this movement.

CHAPTER IV: ANALYSIS OF
SECOND MOVEMENT - ANDANTE SOSTENUTO

The second movement of the Konzert is 119 measures in length and constructed in a composite ternary form, the first part of which is a series of four chorale-like phrases for the strings (6 plus 6 plus 5 plus 8) interspersed with three phrases in differing styles for the organ (7 plus 6 plus 4). The second part of the ternary form is a fugue (beginning in m. 41), and the third part, beginning in m. 83, is a return of the first with minor variations. The outer parts of the form are in the basic tonal center of A, use muted strings, have the tempo indication andante sostenuto, and are restrained to a dynamic range of pianissimo to mezzo-forte. The fugue, in the key of C minor, moves at a somewhat quicker tempo (poco con moto). The string parts in the fugue are unmuted and the music utilizes the wider dynamic range of forte to piano to molto fortissimo to pianissimo. The metrical organization throughout the movement is $\frac{4}{4}$.

Part I: Andante sostenuto The principal organizing factors which exist between the seven phrases comprising part one seem, at first glance, to be limited to the unity provided by the shared style and texture of the four orchestral phrases, and the repeat, with a different cadence, of phrase one as phrase seven. A detailed analysis of each phrase in turn will be undertaken at this point to discover other elements which might be present to bind these phrases together.

A reduction of the string parts from the first phrase of the second movement (mm. 1-6) is reproduced in Example 42.

Example 42: Orchestra part, mm. 1-6

1 2 3 4 5 6

a: i v¹¹ i⁷ v¹¹ i⁷ i₆ iv⁷ i₆ ii a: VI⁷(add 6) i¹¹ ii⁷

G: iii v¹¹ I¹¹(add 2)
b₉(add 6)

Through m. 4 the phrase is in the Dorian mode on A (the C# in m. 2 and D# in m. 4 are chromatic passing tones), with the harmony in the first two measures alternating between tonic and dominant chords. A iv⁷ chord (a minor-minor-seventh) in m. 3 leads through a tonic six-chord to a B minor triad (m. 4:1), the pivot chord in a modulation to G major at the end of the fourth measure. The dominant in this progression is a D¹¹_{b9} and the tonic either a G¹³ or an added-note chord (G [add 2 and 6]): the latter analysis is probably more descriptive of what is heard. The key center returns to A in mm. 5 and 6 through a major submediant seventh, tonic eleventh, and supertonic seventh (a: VI[add 6] i¹¹ ii⁷).¹

The motivic basis for the first phrase is M3A. The motive, as illustrated in Example 2 and transposed to A, is compared to the first

1 Two other analyses of these three chords can be considered: (1) a chromatic modulation to a half-cadence in E minor (♯II⁷[add 6] iv¹¹ v⁷) with the v⁷ possibly a secondary dominant in A minor, or (2) a modulation to B minor (bV⁷[add 6] vii¹¹ i⁷), which would imply a Phrygian approach to the tonic (half-step down to B in the viola part and a whole-step up to B in the cello-bass part).

two measures of the phrase melody in Example 43.

Example 43: Motivic analysis, mm. 1-6



The relationship is clear, although the motivic use in the phrase is disguised by intervallic and rhythmic alterations.

The second phrase is given to the organ and structured as a trio. The pedal part has a figure of four quarter-notes (A, G, F#, and A), a contracted form of the retrograde-inversion of M2, which is treated sequentially in four tonal stages (on A, G, F, and E). A descending scale in quarter-notes leads to M2 in m. 12, recalling the Phrygian form of that motive from the first movement. The middle voice, given to the left hand part, is an ostinato of four eighth-notes (A, B, C, D) repeated seven times. In m. 10 the ostinato is treated sequentially with transpositions to B and C#. It is inverted in m. 11 beginning on G and continues in a scale passage leading to G on the first beat of m. 13.

The right hand part (upper voice) of the trio is a florid melody the first two measures of which are reproduced in Example 44. Included in the example are M3AI (transposed) and Sm(3A-II)--the latter as it is found in m. 26 of the first movement at the beginning of the second theme. In Example 44A the melodic contours of the motive (M3AI) and phrase are similar, but one of the characteristic melodic motions of the motive--a leap of a third or fourth followed by stepwise motion in the opposite direction--is missing in the phrase melody. The second

example (44B) suggests that only the submotive is the generating element. This use of only a few notes to serve as a skeleton for a longer, more complex melody can be found in many organ works.²

Example 44: Motivic analysis, mm. 7-8

A. M3AI (transposed)

B. Organ part, right hand, m. 7

C. Sm(3A-1I), m. 26, first movement

The melody of the phrase, after rising in m. 10 to A, a P4 above its starting note, concludes in m. 11 on A, a P5 below its beginning.

The mode employed in m. 7 in all three voices of the second phrase is the Dorian mode on A. The pedal part assumes Aeolian mode on A in

2 Three examples include passages from the Fantasia super "Komm, heiliger Geist" (BWV 651) of Johann Sebastian Bach (asterisks indicate notes from the chorale tune upon which each example is based):

the chorale prelude on "Es ist ein Ros" from Opus 11 of Johannes Brahms:

and the setting of "Nun danket alle Gott" of Sigfrid Karg-Elert:

m. 8 (the tonal center is A in all voices throughout the phrase), as the upper voice does on the last eighth-note of m. 9. The pedal part, with the B $\flat$ in m. 11, is in the Phrygian mode. The middle voice is modally vague in mm. 11 and 12. The cadence in mm. 12-13 is linear: the upper voice, to A in m. 12, the bass voice to A in m. 13 (first beat), and the middle voice to G on the first beat of m. 13.

The third phrase of the *Andante sostenuto* elides with the second on the downbeat of m. 13. The melody as found in the first violin part is reproduced in Example 45.

Example 45: Motivic analysis, mm. 13-17

The close motivic relationship of the melody of the third phrase to portions of the first movement is illustrated in this example: under the first measure of the phrase melody is placed a retrograde-inversion form of Sm(3A1) as this submotive is found in m. 26 of the first movement (at the beginning of the second theme). Under the second measure of the phrase the same submotive is placed, but only in its inverted form. Both references to the submotive are transposed to make the similarity clear. The third measure of the phrase uses a retrograde form of M2 which is imitated in the second violin part at the lower fourth with a time interval of two beats. The first measure of the bass part of the third phrase is a repetition of the third measure of the bass part of

the first phrase; an ornamented form of M2 is used in the second measure.

The phrase begins in A (Dorian mode) on a tonic seventh chord, and progresses through a series of root position and first inversion seventh chords to a $\text{a}^{\#7}$ on the first beat of m. 15, and to a cadence on a G(add 2) chord. Root movement is primarily by second, as illustrated in Example 46.

Example 46: Harmonic progression, mm. 13-18

m. 13:	1	2	3	4	14:	1	2	3	4	15:	1	16:	1	3
chord														
analysis:		a^7	c^7	b_5^6	c		b^7	c_5^6	$\text{D}^{\#7}$	$\text{a}^{\#7}$		$\text{a}^{\#7}$		D^{13} e(add 4)

m. 17:	2	18:	1
		F^{13}	
		G(add 2)	

The Dorian mode is sustained from the beginning of the third phrase for about a measure and one-half with a modulation to G major commencing in m. 14. The last three chords preceding m. 18 are functionally analyzed as an extended dominant, shown in Example 47.

Example 47: Harmonic analysis, mm. 15-17

m. 15	16: 2	17	18	
chord				
analysis:		$\text{a}^{\#7}$		D^{13} e(add 4)
			F^{13}	
				G(add 2)

function				
analysis:	G:		$\frac{\text{vii}^7}{\text{v}}$	
			$\text{v}^{13}[\text{vi}(\text{add } 4)]$	
			$\text{VII}^{13}]$	
				I(add 2)
			V	I

The fourth phrase begins on the second beat of m. 18 as a brief fugato that ends on the second beat of m. 24. The subject is shown in

Example 48 with a transposed form of the first violin part from m. 3 of the second movement.

Example 48: Derivation of fourth phrase, mm. 19-20



The texture of the fugato is four-part with six entries of the subject (in the alto, soprano, tenor, bass, alto, and soprano voices). The key center is E, and the entries, with one exception, are on tonic and dominant pitches (E, E, B, E, A, and B). A half-cadence is reached on the third beat of m. 22 (the actual end of the fugato), and a brief transitional passage modulates to a D(add 6) chord in preparation for phrase five. The root movements of this modulation are the reverse of those at the end of phrase three, as shown in Example 49.

Example 49: Comparison, harmonic progressions, mm. 16-18 and mm. 23-24

	m. 16:2	4	17:2	18:1
root movements, phrase three:	D ¹³	e	F ¹³	G(add 2)
	m. 23:	3	4	24
root movements, phrase four:	(G) F ₆	e ₄ ⁶	D(add 6)	

Phrase five begins in m. 24:3 in the Mixolydian mode on D. A reduction of the phrase is given in Example 50. The strength of both the

key and the modal color of the initial measures of the fifth phrase are dissipated on the fourth beat of m. 26 with the $f\sharp^4_3$ chord, which is foreign to the Mixolydian mode on D. The symmetrical root movements in mm. 26-27 (down a minor third, up a tritone, and down a minor third) also contribute to harmonic instability. A modulation back to A minor is suggested by the passage shown in Example 50, but a type of evaded cadence in m. 29 delays the complete recovery of the tonic key of the movement until m. 33.

Example 50: Harmonic analysis, mm. 25-29

Harmonic analysis for measures 25-29:

Measure	Chord Symbols	Roman Numerals
25	a^7	D
26	a^7 , $f\sharp^4_3$	I, iii^4_3
27	C, $Q5$ on A	III, $Q5$ on A
28	F^9 , e^7	$(a:) VI^9 v^7$
29	C^6_4	III^6_4

The thematic basis of the fifth phrase is found in m. 28 of the first movement. This measure is shown, transposed, in Example 51 with the first notes of phrase five. Both melodic fragments are derived from $Sm(3A-1)$.

Example 51: Motivic analysis, phrase five, mm. 24-25

First movement, right hand, organ part

The sixth phrase begins in the tonal area of C in m. 29:2, and concludes in A minor on the downbeat of m. 33. The melody is reminiscent of the melody of the first phrase with which it is compared in Example 52. The notes in m. 1 of this example are transposed for comparative purposes.

Example 52: Comparison, mm. 1-4 and 29-33

V1 I: transposed V1 I: original pitch level

With only three exceptions, the root movement of the fourteen chords supporting the melody of phrase six is by major and minor seconds, as illustrated in Example 53.

Example 53: Harmonic analysis, mm. 29-33

M2

C F⁷ Eb⁹ d⁷ C⁷ b¹¹ a G⁷ a₅⁶ b⁷ G₄⁶ F₄⁶ e⁸⁻⁷ a

* B $\flat$ is a chromatic passing tone Dissonant chord members are circled

The portion of the melody that is in C is harmonized in such a way as to make the melody notes the dissonant chord members. By the first beat of m. 31, however, the Dorian mode on A is established, and the dissonant chord members are located in the tenor voice (beginning with the G^7 chord). This mode is maintained to the end of the phrase except where a F^6_4 chord precedes the minor dominant in the cadence formula in m. 32.

The seventh phrase, beginning in m. 33 (in elision with the cadence of the sixth phrase), is a modified return of the first phrase with the principal alteration coming at the cadence (mm. 36-40). The final sonority (m. 40) sounds like an a(add 4) chord but can be interpreted as a quintal or quartal chord (D-A-E or E-A-D). The chord is scored, however, with A as both the bass note and the bottom of a P5 which causes it to be heard as the root of the structure, supporting the a(add 4) analysis. The final chord is preceded by a Bb (add 6) chord (m. 38) which replaces the penultimate a^{11} of the first phrase. Functioning as an enriched Neapolitan, the Bb (add 6) chord progresses to the tonic through an appoggiatura v^4_3 (m. 39:1). The cadence chords of this phrase (mm. 37-39) are played by the organ instead of the orchestra as in the first phrase.

Only the first and last of the seven phrases that comprise the first part of the second movement are related thematically in a way the listener could easily recognize. Having a common motivic parent does not prevent the third and fifth phrases from sounding different, nor does it make the brief fugato sound as though it is related to the first phrase. The entire group can, therefore, be analyzed as a series of seven through-composed phrases, the last of which recalls the first,

rounding out the part.

Inasmuch as the composer has given great care and attention to detail thus far, it seems appropriate for one to search for a more subtle compositional structure which would unite all of these phrases in one artistic whole. To help, the results of the preceding analysis are summed up as follows:

The instrumentation of the phrases alternates regularly between orchestra and organ. All of the orchestral phrases are similar in style; the organ phrases are all different--trio, fugato, and chorale.

Four phrases begin in the tonality of A (1, 2, 3, and 7); three end on A minor chords (2, 6, and 7).

One pair of phrases is separated by a break at the cadence (1 and 2). Two pairs are cadentially connected by elision (2 and 3, 6 and 7). Three pairs have the second phrase beginning before the last chord of the first is released (3 and 4, 4 and 5, 5 and 6).

Phrases one and seven are thematically the same; phrase six is closely related to the same two phrases.

Phrase four is of a different compositional process and motivic content; it stands alone in a central place among the seven.

Phrases two and three share common motivic cells and have similar contours in the opening measures. They are also related to the same portion of the second theme of the first movement.

Phrase five is thematically unique; however, it shares with phrase three a relationship to $Sm(3A-1)$ and the characteristic of having the second measure be an intensified, freely restated version of the first. The intensification is the result of a very free sequence in phrase three and added notes in phrase four.

As plotted on the chart in Figure 8, this analysis suggests an arch form: phrase one stands alone and is [A]; phrases two and three are united as [B] by their cadential elision, their separations from phrase one by the cadential break and phrase four by the abrupt key change, and their common motivic and melodic properties; phrase four is [C]; phrase five is [B'] because of its constructional and motivic similarities to phrase three; phrases six and seven are [A'].

Figure 8: Structural plan, Part I, mm. 1-40, Second movement

Part I: mm. 1-40

	1	6	7	13	13	18:1	18:2	24:1	24:3	29:1	29:2	33:1	40
	Phrase I	Phrase II	Phrase III	Phrase IV	Phrase V	Phrase VI	Phrase VII						
Keys	a	b ⁷ (ii ⁷ /a)	a ⁷	a ⁷	G e	D (add 6)	D	(III ⁶ ₄ /a)	C ⁶ ₄	a	a	a	a
Connections	complete break elision elision												
Musical texture	four-part chorale	trio	four-part chorale	fugato	four-part chorale	four-part chorale	four-part chorale	four-part chorale	four-part chorale	four-part chorale	four-part chorale	four-part chorale	four-part chorale
Instl. medium	Orchestra	Organ	Orchestra	Organ	Orchestra	Orchestra	Organ	Orchestra	Organ	Orchestra	Organ	Orchestra	Orchestra
Motivic uses	M3A	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.	Sm(3A-1IR); 2nd theme, 1st move.
Suggested structure	A	B	C	B'	A'								

Part II: Poco con moto (fugue) The four-voice fugue which comprises part two of the ternary form is forty-two measures in length, and the last six measures are transitional in character. The exposition is given to the organ part with orchestral participation delayed until the middle and closing entries. The key center of the fugue is C minor, which bears a mediant relationship to the key of the preceding part. The tempo is quicker and the dynamic level louder throughout, until the transition, which begins in m. 75.

The fugue is based upon a modulating subject in two parts, articulated by an eighth-rest and motivically related to M2. The pitch range of the subject is a minor tenth, and it ends an octave higher than it begins. Example 54 illustrates the first entry of the subject.

Example 54: Fugue subject, mm. 41-43



The three forms of M2 from which the fugue subject is crafted are marked with solid brackets in Example 54. A dotted bracket marks the four notes of the subject which would be related to M2 if the direction of the leap were reversed.

The first half of the subject (identified as the subject head, which will be abbreviated SH) does not modulate but does effect the octave register shift. The second half (the subject tail, abbreviated ST) does modulate to a $\frac{V}{V}$ in G minor leading to the entry of the answer in the dominant. A comparison of the two parts of the subject reveals their close similarity. Reversing the direction of one interval in

ST--the descending P⁴ leap--to an ascending P⁴ yields, with the exception of one note, the SH (shown in Example 55).

Example 55: Comparison--SH and ST, mm. 41-43

41

SH

41

SH

ST with perfect fourth inverted

ST with perfect fourth inverted and expanded to perfect fifth

If octave equivalence of pitches is assumed, however, the descending P⁴ should be inverted to a P⁵, which would result in a register shift in ST like that in SH, and a common tonal goal for both halves of the subject.

As it is used in mm. 42 and 43, ST is an intervallic palindrome, shown in Example 56.

Example 56: Interval analysis, ST

C	D	E ^b	B ^b	A	D	C [#]	B
2	1	5	1	5	1	2	

A relationship can also be discerned between SH and the second theme of the first movement which, by extension, also relates the head of the subject to the fifth phrase of the second movement (Example 57).

Example 57: Comparison, SH and second theme, first movement

41

SH: second movement

28

First movement, organ part (right hand), transposed

The exposition of the fugue begins in the soprano voice on the second half of the first beat of m. 41. The first answer, in the dominant, is real and enters in the alto voice on the third beat of m. 43. There is no countersubject. The first answer which ends on G#, is one note shorter in length than the subject, and is connected to the next entry in m. 47 by a one-measure link. Because the answer is real, a modulation to E minor, the $\frac{V}{V}$ of D minor and the next step in the circle of fifths, is already under way in m. 45. The modulation is left incomplete and the tonality directed back to the tonic key (C minor) as G# (the pivotal note in a modulation to D minor) is caused to become, enharmonically, A $\flat$ on the first beat of m. 46, and E $\flat$ instead of E $\sharp$ (the expected pitch if the modulation to D were allowed to continue) is played in the soprano voice.

The link in m. 46 outlines an A $\flat$ major sonority, the VI of C minor, and leads to the third entry of the subject in m. 47. A dominant-tonic cadence in C minor eventually occurs midway through this statement (m. 48:1-2). The link and the tenor entry are depicted in Example 58.

Example 58: Link and third subject entry, mm. 46-48

cm: VI ————— iv_4^6 11^9_7 11^6_6 1

This entry (mm. 47 ff.) is in the tonic and also shortened by one note.

Another link (mm. 49:3-51:1) connects the third entry to the answer in m. 51. The link and the first notes of the entry in m. 51 are given in Example 59.

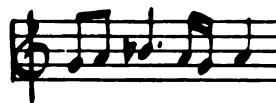
Example 59: Structural and harmonic analysis, mm. 49-51

cm: ii^7
 gm: $v^7 \frac{v^9}{v}$ v III_4^6 ii_4^6 iv_2 $VII_6 i^7$
 ($\frac{v_2}{VII}$)

This link utilizes sequential treatment of ST in mm. 48-50, and of only the last half of ST in mm. 50-51.

A motivic figure begun in the link (in the alto voice on the last beat of m. 49) becomes the basis for most of the polyphony through m. 56. Although its melodic contours vary slightly, the characteristic rhythmic shape is fairly consistent, as shown in Example 60.

Example 60: Generating motive, mm. 56-60



The use of this motive in the link is also marked with brackets in Example 59.

The last answer in the exposition occurs in the bass voice in m. 51. As before, this answer is real up to its last note, which is altered to G $\sharp$. In a manner similar to the treatment of the tenor voice

in m. 49, this voice is extended by sequential repetition of ST (mm. 53-54) and of the last half of ST (m. 55). The exposition of the fugue is extended beyond the conclusion of this fourth entry with a partial entry of the subject in inversion in the alto voice on the first beat of m. 53. This entry, the aforementioned prolongation of the subject in the bass voice, and a brief point of imitation between the soprano and tenor voices using the opening fragment of SH lead to the conclusion of the exposition on a cadence in A minor in m. 56.

The central portion of the fugue contains a group of middle entries for the orchestra and an episode for the organ. These middle entries begin with a two-voice texture (in stretto at the distance of one beat) utilizing SH in the viola part on A, and SH(I) in the first violin part on E (tonal inversion). The next entry of SH in the viola part follows the first after an eighth-rest but on C# and with register shifts so that the line will not conflict with the continuation of the violin part above. A complete entry of the subject begins in the second violin part on E in m. 59. This line is extended as before with sequential treatment of the last portion of the tail of the subject which leads to a cadence in B minor on the fourth beat of m. 62. The progression to the cadence uses stepwise root movement: D $\alpha\#_6$ b (m. 62:3-4).

Overlapping this orchestral cadence is the start of the episode in the organ part on the third beat of m. 62. The episode is based upon the sequential and imitative use of a four-note motive of descending sixteenth-notes. Each of the first three entrances (on E, F#, and B) is made up of a pair of these motives (Example 61).

Example 61: Episode motive, mm. 62-63



The descending sixteenth-note motive is then used singly nine times in mm. 64-66. The source of this motive is the inversion and extension of the first three notes of the fugue subject. The episode, which concludes on the second beat of m. 66 on an a_6 (add 4) chord, contains several examples of root movement by second and third, as well as by fourth and fifth (Example 62).

Example 62: Episode, mm. 62-66

Chord symbols for Example 62:

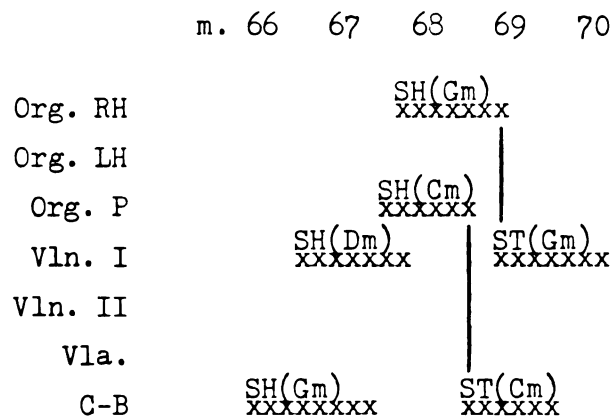
- Measure 62: b
- Measure 63: E A b e $F\#$ G
- Measure 64: A b C
- Measure 65: G^7 a F^7 G F C
- Measure 66: C^7 F^7 e

Cross-relations occur frequently, but harmonically dissonant elements are usually resolved in a normal way.

Up to m. 66 (the beginning of the closing section of the fugue), any complete statement of the subject has been restricted to the organ or the orchestra parts. In the closing section, however, the subject is begun several times in one instrumental medium and concluded in the other. The section begins with four appearances of SH, in stretto; two

are in the orchestra part (on G and D) and two are in the organ part (on C and G). The pitch levels of these entries are widely spaced: in the cello-bass and first violin parts in the orchestra, and pedal and upper right hand parts in the organ. As soon as SH is completed in the organ pedal part, the cello-bass part of the orchestra begins ST in the same key, thus completing the entire subject. In a similar fashion, the first violin part begins ST as soon as the head of the subject is concluded in the upper organ voice, completing another entrance of the subject. These two entries of ST are, of course, also in stretto. All the entries are shown in the diagram in Example 63.

Example 63: Subject treatment, mm. 66-70



The two entries of ST in the orchestra part (mm. 68:3 and 69:1) are extended through sequential treatment of their final notes. A cadence in E minor is accomplished through a minor v^7 on the last eighth-note of m. 69.

The closing section of the fugue continues in m. 70 with a complete entry of the subject on E (inverted) in the organ pedal part. This entry is followed with another in stretto in the upper manual part (SH only) two beats later in the same key, and with a partial entry one beat

later in the tenor voice (first six notes only). The subject in the pedal part is extended by sequential treatment of its last three notes, freely mirrored in the top voice, leading to a cadence on a $b(\text{add } 2)$ chord in m. 74. This cadence is also approached by one last entry, in inversion, of the first three notes of the subject on the fourth beat of m. 72.

The next orchestral entry overlaps the cadence in the organ part (m. 74) and manifests further fragmentation of the subject. The first notes of both the head and tail of the subject occur simultaneously (the latter inverted and with octave shifts), with ornamentation, added notes, and trills. The passage is shown in Example 64 with notes of the fugue subject marked with asterisks.

Example 64: Fragmentation of subject, mm. 74-75

The musical score for Example 64 consists of four staves. The top staff (Soprano) begins in measure 74 with a half note G4, followed by a quarter note A4, and then a half note B4. In measure 75, it continues with a quarter note C5, a quarter note D5, and a half note E5. The second staff (Alto) begins in measure 74 with a half note F#4, followed by a quarter note G4, and then a half note A4. In measure 75, it continues with a quarter note B4, a quarter note C5, and a half note D5. The third staff (Tenor) begins in measure 74 with a half note E4, followed by a quarter note F#4, and then a half note G4. In measure 75, it continues with a quarter note A4, a quarter note B4, and a half note C5. The bottom staff (Bass) begins in measure 74 with a half note D4, followed by a quarter note E4, and then a half note F#4. In measure 75, it continues with a quarter note G4, a quarter note A4, and a half note B4. The score includes various musical notations such as notes, rests, and trills. The subject is marked with asterisks (*). The Soprano staff shows the subject in measure 74 and its fragmentation in measure 75. The Alto staff shows the subject in measure 74 and its fragmentation in measure 75. The Tenor staff shows the subject in measure 74 and its fragmentation in measure 75. The Bass staff shows the subject in measure 74 and its fragmentation in measure 75. The score includes various musical notations such as notes, rests, and trills.

The movement in both contrary and similar motion of the various voice lines in mm. 74-75 creates several harmonically complex chords, but A as the tonal center is clearly established. The cadential formula using a lowered supertonic-to-tonic progression (Bb to A) at the end of m. 75 in the orchestra part recalls the frequent use of this half-step motion

in cadences in the first movement. The fugue reaches its climax in this passage: the tension is caused to build gradually from m. 56 through the use of stretto, inversion, and fragmentation of the subject. In mm. 74-75 the decoration, fragmentation, and dynamics all combine to produce the most intense moment of the second movement.

The music becomes transitional in character with the entrance of the organ part on beat three of m. 75. Beginning in A minor with slightly reduced dynamics (forte instead of molto fortissimo) and in elision with the orchestral cadence, the passage uses ST in the soprano voice accompanied by overlapping, descending stepwise motives in the lower voices which reflect the inversion of the opening notes of the tail of the subject. This passage moves through a harmonic progression that ends on a c $\sharp$ (add 4) chord which could, in this context of increasingly vague tonalities, be spelled as a quintal chord on F $\sharp$. The progression is given in Example 65.

Example 65: Harmonic progression, mm. 75-76

	m. 75:	3	4		76:	1	2	3
chord								
analysis:		a	e	F ⁷		d ⁷	c $\sharp$ ⁷	c $\sharp$ (add 4) or quintal on F $\sharp$

The orchestra part overlaps this cadence with a brief passage that continues the character of the orchestral material in m. 74. Parallel P⁴s in the upper string parts ascend stepwise against descending P⁵s in the lower string parts, resulting in a series of complex sonorities which render the tonality in the transitional measures still more obscure. This passage is illustrated in a reduction in Example 66.

Example 66: Reduction of orchestra part, mm. 76-77:1

76 77

Q4 on C# E7 Q5 on Eb d¹¹ (no 3rd)

With a further reduction in dynamics and gradual slowing of the tempo, the organ part enters in m. 77. The passage is similar to that started in the organ part in m. 75: the tail of the fugue subject is located in the soprano voice (a minor third higher than in m. 75), accompanied with parallel P4s in the left hand of the organ part. The lower strings enter with the organ in m. 78 creating a series of chords made up of P4s, P5s, and A4s (Example 67).

Example 67: Reduction of orchestra part, m. 78

78

P5
P4
A4

A4
P4
A4

P4
A4

P4
P4

The transition begun on the third beat of m. 75 is completed in mm. 79-82: the dynamics are reduced further to pianissimo and the tempo

is reduced ritard. molto. With the conclusion of the phrase in m. 78, all vestiges of the fugue are gone. A melody in the first violin part begun in m. 78 descends from B $\flat$ (m. 79:2), accompanied by a $b^{\#7}$ chord and a C $\sharp$ minor triad, to E (m. 80), the dominant note of the next part of the second movement. This E is sustained almost three measures and is embraced by symmetrical progressions (marked with brackets in Example 68).

Example 68: Reduction of orchestra part, mm. 79-82

References to $Sm(3A-1)$ created by the symmetrical movements are noted with the brackets in the example.

The graph in Figure 9 diagrams the fugue in terms of its use of the subject, SH, and ST. Several observations can be made:

The exposition comprises 45% of the almost thirty-five measures of the fugue proper. This is largely the result of the short middle-entry section.

All of the complete entries of the subject except the one in the middle section are in either the tonic or dominant key areas. This includes the inverted entry in m. 70 which is in C major, although starting on the note E.

The level of musical tension begins to increase with the introduction of sixteenth-note movement in the episode, m. 62. Other contributing factors to this increase in tension are the frequent use of stretto, increasingly rapid alternation between instrumental colors, and the phrase overlapping which denies any opportunity for a relaxation of tension at cadences.

The harmonic language of the exposition and middle-entry sections of the fugue is clearly tonal, though enriched with many extended tertian chords and stepwise root movement; the tonal properties are strengthened by strong cadences in mm. 56 and 62.

The highest degree of intensity is reached in the fugue through the closing entry section, although there is no chord or cadence that can be pointed out as the culmination of the form. The sense of firm tonal footing cultivated in the exposition and middle-entry sections is weakened at the beginning of the closing section by the polytonal feeling resulting from the overlapping sequential use of SH and ST (mm. 66-70). Further weakening occurs in mm. 74 and 75, and the frequent use of quintal and quartal sonorities from m. 76 and the symmetrical structure in mm. 80-81 cause the sense of tonality to be almost entirely destroyed. The gradual loss of this tonal foundation, while contributing to the composer's effort to create excitement and motion through m. 75, provides no base on which the accumulated energy of the fugal process can reach a solid conclusion. The energy and musical tension, instead, are allowed to dissipate over the transitional measures (mm. 76-82), providing a gradual preparation for the return of the first part of the ternary form.

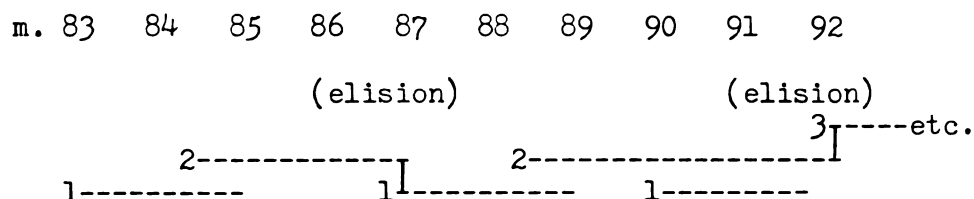
[illegible]

112

Part III: A tempo primo Following a double bar, the first part of the movement is brought back as the third part to complete the large ternary form. In most essential respects, the return is faithful to the original musical material: the phrases, instrumentation, and musical marks (tempo, dynamics, registration, and use of mutes) are the same, as is most of the harmonic language. There are changes made, however, as noted in the following paragraphs.

(1) the first phrase is separated by rests into three two-measure segments and the second phrase is separated into two segments. These five phrase fragments are then alternated with each other, as the diagram in Example 69 demonstrates.

Example 69: Phrase structure, mm. 83-92



Phrase overlapping and points of elision are indicated in Example 69. The third fragment of the first phrase contains the cadence portion of that phrase, which is altered so as to end in the tonic and to be harmonically parallel to the cadence of the second phrase sounding with it. The cadence chord of the second phrase (the end of the second fragment) elides in m. 92 with the beginning of the third phrase.

(2) The cadence of the fourth phrase is altered to finish in the tonic and the original cadential extension (mm. 23-24) is omitted. The progression in the altered form of the cadence is shown in Example 70.

Example 70: Harmonic analysis, mm. 100:4-101:3

	m. 100:4	101:1	2	3	
chord analysis:	f# ⁷ ₂	b ⁹	e ⁴ ₃	a(add 6)	
function analysis:	a: $\frac{v_2}{ii}$	ii ⁹	v ⁴ ₃	i(add 6)	

(3) The sixth phrase overlaps with the last two measures of the fifth phrase, the cadence of which is altered and shortened to fit with the harmony of phrase six.

(4) The seventh phrase is more extensively altered and becomes a coda to the movement with an increase in length from eight to twelve measures. Several other changes are made in the seventh phrase as well.

(A) The beginning, as defined at the onset of the melody in the first violin part, is delayed by one measure. In this space is placed an anticipatory extension of the seventh phrase comprising three imitative entries in stretto of the first measure of the melody of the first violin part (m. 109). The imitations are on A (cello-bass part), E (second violin part), and A (viola part). (B) An extra measure is interpolated into the body of the phrase. This extra measure follows the first measure (not including the anticipatory extension) and is melodically based upon the sequential treatment (with intervallic expansion) of the first measure of the first violin part. (C) A re-statement of the first two measures of the second phrase occurs with the added measure. (D) Additional material is given to the organ and orchestral parts in the fifth measure (formerly the fourth). The orchestral progression which leads to a G(add 2 and 6) chord in m. 113 is freely imitated in m. 114 but leading to an F# minor triad. Over the orchestral cadence in m. 113

and the extension in m. 114 and for two additional measures is an elaboration in the organ part of the second phrase of the second movement which leads to the cadence in mm. 117-119 (Example 71). The notes that make up the g_5^6 chord are the same as those which make up the $Bb(\text{add } 6)$ chord in the corresponding place in the earlier cadence (m. 38). The different analysis reflects a changed perception of the sonority resulting from the different spacing of the pitches above the bass Bb . The presence of the appoggiatura v_3^4 does not mask the Phrygian nature of the cadence: a half-step descent in the bass parts to the tonic and a whole-step ascent to the tonic in the upper voices.

Example 71: Harmonic analysis, mm. 117-119

	m. 117:	2	4	118:	1	3	119:	1
chord								
analysis:		b^{ii}	g_5^6		(e_3^4)	$a(\text{add } 4)$		$a(\text{add } 4)$
function	a:							
analysis:		ii^{11}	vii_5^6		(v_3^4)	$i(\text{add } 4)$		$i(\text{add } 4)$

The chart in Figure 10, which presents a diagram of the formal structure of the entire second movement, clearly shows the multi-level ternary structures: tonal centers (A, C, A), textures (homophonic, polyphonic, homophonic), structures (first part--seven different phrases; second part--one theme in fugue; third part--seven phrases), and dynamics (pp to mf, f to molto ff, pp to mf).

Figure 10: Formal structure, Second movement

Part	40 41 82 83 119		
	A	B	A
	Seven phrases I a II b III c IV d V e VI a' VII a A	Fugue (trans)	Seven phrases I-II a-b III c IV d V e VI a' Coda: I-II a plus b
Macro-harmonic rhythm	A minor	C minor	A minor
Dynamics	pp mf	f ff	pp mf pp

CHAPTER V: ANALYSIS OF
THIRD MOVEMENT - ALLEGRO ENERGICO

Movement three of the Konzert is composed in the form of a seven-part rondo employing the basic structure A B A C A B A. The fundamental tonal area of the 146 measure movement is D, with various modes used throughout. Sections A and B are written in $\frac{6}{8}$ meter; section C alternates irregularly between $\frac{6}{8}$ and $\frac{9}{8}$. Many instances of hemiola and other rhythmic irregularities occur, however, within these metrical parameters. Allegro energico written at the beginning of the movement characterizes the vigorous, even bravura nature of the music.

Principal theme The principal theme of the rondo, labeled A, is twenty-seven measures in length, and utilizes simple three-part form. Part one (a) is constructed as a two-phrase, thirteen measure period (6 plus 8, with phrase elision) which closes on a D major chord in m. 13. Part two (b), in A $\flat$ major, is fashioned as a seven measure phrase which begins in m. 13 with imitative counterpoint, becomes transitional in m. 17 (with a modulation back to D major), and connects without a break to the return in m. 21 of the thematic material from the second phrase of part one (a'). The structure of the recurrence of part one, which begins on the downbeat of m. 21 in D major, is that of a seven measure phrase with a final cadence on an F $\sharp$ chord with the third omitted (m. 27:1), which leaves the first statement of the principal theme harmonically open. The structure of the principal theme is

illustrated in Figure 11.

Figure 11: Formal structure, principal theme, mm. 1-27,
Third movement

1							27:1	
A principal theme								
1	5	6	13:1	13:2	17	21	21	27:1
a				b			a'	
<u>phrase one</u>			<u>phrase two</u>	imitation (transition)		phrase two only		

Two new motives are introduced in the first part of the principal theme. Although the new motives are related to ones previously identified, their use is distinct and consistent enough to warrant classification. The first, M6, is outlined by the first three notes of the movement as found in the first violin part (Example 72).

Example 72: Motivic analysis, mm. 1-2



Intervallic qualities in the motive are not always consistent, but the important characteristics (the two leaps in succession and the incisive articulation of the three-note figure) are, and these help differentiate this motive from the head of M5 to which it is obviously related. The second motive, M7, is found in the right hand of the organ part in m. 5 with the beginning of the second phrase of the principal theme (Example 73). M7 is also related to an earlier motive, M3A, the relationship of which is also illustrated in Example 73.

Example 73: Motivic analysis, mm. 5-6



The first phrase of the third movement, reproduced in Example 74, is stated by the orchestra alone. The phrase begins and ends in the tonal center of D, with the intermediate harmonies moving from lesser to greater degrees of functionalism. The second chord in m. 1 is analyzed as a quartal chord on F under a D pedal point, which is created by the repeated use of the note D in the first violin part in mm. 1-2. The $ab^{\circ 7}$ chord on the first beat of m. 2 is spelled with an augmented-sixth interval, and the resolution is the normal one for such a sonority. The base triad, however, is diminished and not equivalent to any of the traditional augmented-sixth structures. Although these chords and the balance of the harmonies in mm. 1-3 are not strongly related to each other in a functional sense, the last three measures of the phrase are clearly in the key of D, which is affirmed with a minor dominant in m. 5.¹ The key center is never in question, especially with the addition of the organ part in m. 5. The fact that the minor dominant in the orchestra part is preceded with a major submediant (of D minor) also adds strength to the cadence.

¹ The orchestra parts have only the dominant note (A); the completion of the chord as a minor dominant is provided by the entrance of the organ part in m. 5, the first chord of which is C $\sharp$, E, G, creating a v^7 with the A in the orchestra part.

Example 74: Harmonic analysis, orchestra part, mm. 1-6

Harmonic analysis for measures 1-6:

1	2	3	4	5	6
d	E $\flat$ ⁹ (no 3rd)	A $\flat$ ⁷ (A6 of G)	G	d ₆	E $\flat$ ⁹ G
			C		C#

C#	C	B $\flat$	a		d
d: vii	IVII	VI	v		I

The leaping, dance-like character of the first phrase contrasts with the character of the second phrase of the period, given to the organ. Also in the tonal center of D, the beginning of the second phrase overlaps the last two measures of the first. The character of the two phrases contrasts sharply, with the second phrase utilizing step-wise motion and melodic doubling in thirds to achieve its musical ends. While the harmonic organization of the first phrase is structured

in terms of the major and minor scales, the second phrase employs Phrygian, Mixolydian, and Aeolian modes. Melodic doublings in the uppermost voice create a series of planed major triads, each layer of which is written in the Phrygian mode. The lower voice, in the left hand part, begins in Mixolydian mode on D. Example 75 illustrates this phrase through m. 9. The second triad in the melodic stream (D Major) contains the mode finals; the layers of melody then are in the Phrygian mode on D, F#, and A. The expected melodic goal of B $\sharp$ in the lower voice in m. 7 is altered to B $\flat$, putting this measure in G minor (Aeolian mode).

Example 75: Modal analysis, organ part, mm. 5-9

The image shows a musical score for an organ part, measures 5 through 9. The score is written on two staves (treble and bass clef). Above the staff, there are annotations for modal analysis. A bracket labeled 'Phrygian Mode' spans measures 5, 6, and 7. Below the staff, there are two brackets: 'Mixolydian Mode on D' spanning measures 5 and 6, and 'Aeolian on D' spanning measures 7 and 8. The notes in the upper voice are mostly chords, while the lower voice has a more melodic line. The key signature changes from one sharp (F#) to two sharps (F# and C#) between measures 6 and 7, and then back to one sharp (F#) between measures 8 and 9.

The remainder of the second phrase of the principal theme is presented in Example 76. The planed chords of the first half of the phrase are contrasted in the second half with imitative entries in four parts of Sm(5-2) which begin on the second beat of m. 9. Each of the entries

is in Aeolian mode, but with different key centers, which results in the cross-relations found in m. 10.

Example 76: Motivic analysis, organ part, mm. 9-13

The first entry (m. 9:4) is in Aeolian mode on D, the second entry Aeolian mode on G, and the third and fourth entries Aeolian mode on C. The first four notes of each entry are melodically the most characteristic and, when compared with the third, fourth, sixth, and seventh notes of M7, can be seen as continuations or extensions in rhythmic diminution of the basic contour of the melody in the right hand part as found in mm. 5-6 (shown in Example 77).

Example 77: Motivic analysis, mm. 9-10

The cadence of the first part of the principal theme occurs on the first beat of m. 13 in D major. It is characterized by a use of hemiola

in m. 11 and the Phrygian approach to the tonic in m. 12 (from the half-step above and the whole-step below). The cadence is illustrated in Example 76, with the Phrygian movement bracketed.

Part two of the principal theme (b) begins in the orchestra part with four measures of imitative counterpoint using the motive shown in Example 78.

Example 78: Generating motive, mm. 13-14



The motive enters first in the viola part on C, followed in the second violin part on F, and the first violin part on F#. The use of the figure continues in m. 17 in the left hand of the organ part with intervallic contraction, to which a busy figuration is added in the right hand part that is reminiscent of the figuration found in the recapitulation of the first movement at the point of the return of the second theme (m. 141). This figuration is treated in a quasi-sequential fashion through m. 19 and leads into the return of the first part of the first theme in m. 21.

As adumbrated earlier, part two of the principal theme begins abruptly on a V^9 chord of $A\flat$ major, a tonality removed by the distance of a tritone from the strong D major cadence with which part one ends. The dynamics likewise change to mezzo-forte (from forte), and the character marks indicate grazioso. $A\flat$ as a tonal center is sustained through m. 15 with the progression shown in Example 79.

Example 79: Harmonic progression, mm. 13-15

	m. 13:	4	14:	1	2	4	15:	3	4
function analysis:	Ab:		v ⁹		I ⁴⁻³ _{vi₆}	v ₆		v ⁹	I

Non-tertian harmony is utilized in m. 16 (Example 80).

Example 80: Harmonic analysis, mm. 16-17:1

Q5 on C# Q5 on D Q4 on F e₂ α#(add 4)

The chords in m. 16 cause a degree of harmonic dissolution which destroys the Ab tonality and prepares the way for the E minor-minor seventh chord on the last eighth-note on m. 16, which functions as a supertonic seventh chord in the coming key center of D. The next four measures follow this supertonic chord with suggestions of functional progressions as shown in Example 81.

Example 81: Harmonic analysis, mm. 16:6-21

	m. 16:6	17:1	4	18:	4	19:	5	20	21
chord analysis:	e ₂	α#(add 4)	α# ⁴ ₃	d ⁶ ₄	Bb	A	D		
function analysis:	d:	ii ₂	#vii(add 4)	#vii ⁴ ₃	i ⁶ ₄	VI(⁶ ₄)	V	I	

A relationship can be found between the Ab harmony in the first measures of part two and the basic D tonality of the movement--the former being an enharmonic $\frac{V}{vii}$ of the latter--although it is doubtful that the

listener would recognize it as such, even though a vii(add 4) chord is indeed reached in m. 17.

The return of part one (a') in m. 21 begins with thematic material from the original second phrase. The planed chords, still in Phrygian mode, are placed in the left hand of the organ part and the figuration, begun in m. 17, is continued in the right hand part. The restatement of the thematic material from the first phrase is delayed until the third measure of the return, where it enters in the orchestra part in the tonic key (D). The tonal goal of the return is changed, however, from D to F# (m. 25). This new tonal area is approached from an A⁹ chord on the last two eighth-notes of m. 24 with the same hemiola figure found earlier. The cadence is affirmed in m. 25 through the first eighth-note of m. 27. Approach to the F# cadence chord is again Phrygian in nature, with the tonic overtaken from the whole-step below and the half-step above. Example 82 presents the last three chords of m. 26 and the first chord of m. 27. Brackets outline the Phrygian movement to the cadence.²

2 The third chord in Example 82 (which is a reduction of the organ part) is analyzed as an e_3^4 (add 6) chord. Although the root of the chord (E) also appears to be the bass note of the chord, the actual bass is the B below middle C: this pitch is in the pedal part, and with a 16' stop on, it sounds an octave lower than written.

Example 82: Harmonic analysis, organ part, mm. 26:4-27:1



The structure and characteristics of the principal theme of the rondo are charted in Figure 12. The first part of the theme is harmonically closed, the second part is open, and the return of the first part is open, though the cadence is final.

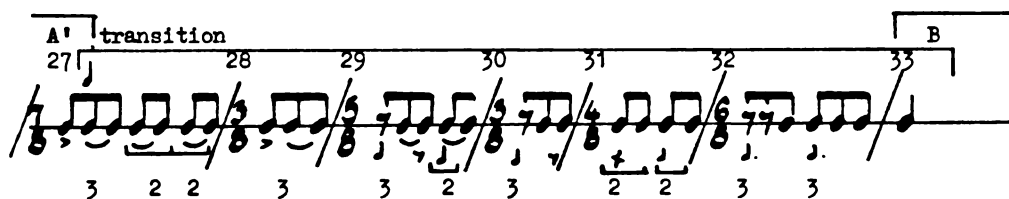
Figure 12: Principal characteristics, principal theme, mm. 1-27:1, Third movement

A. Principal theme: mm. 1-27:1

Part	1 13:1 13:2 21 21 27:1			
	A principal theme			
Structure	a	b	a'	
	Two-phrase period	Single extended phrase	Single phrase	
Keys/Cadences	d D d	Ab A	D	f#
Cadence types	over- lapped	half (con- tinuous motion) harmonically open	harmonically open	final
Dynamics	f	mf	f	ff
Instl. <u>Org</u> Dialogue <u>Orch</u>	xxxxxxxxxxxxx xxxxxxxxxxxxx	xxxxxxxxxxxxx xxxxxxxxxxxxx	xxxxxxxxxxxxx xxxxxxxxxxxxx	xxxxxxxxxxxxx xxxxxxxxxxxxx
Macro-har- monic rhythm	d	Ab	D	f#

A transition beginning in m. 27 (in elision with the final cadence of the principal theme) leads to the first episode of the rondo in m. 33. The transition is seven measures long and effects a change in key center from F# to F $\flat$. The character of the music is altered also through the lowering of the overall dynamics from fortissimo to piano, a thinning of the texture with pizzicato playing in the lower strings, and omission of the organ altogether. The solid rhythmic drive that generated such energy in the principal theme is dissipated by the transition in preparation for the more pastoral quality of the first episode. The dissipation is accomplished through the frequent alternation of duple and triple meters and omission of notes on normally accented beats (Example 83).

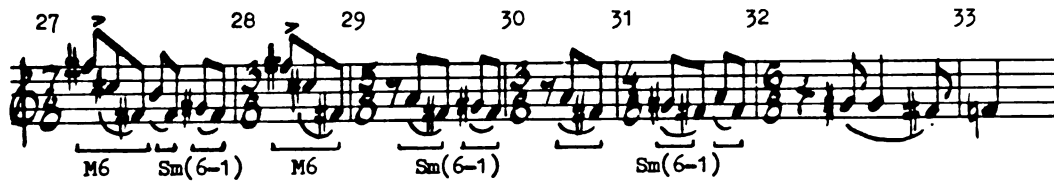
Example 83: Rhythmic structure, mm. 27-33



The rhythmic structure is fractured in mm. 27-28 by the introduction of asymmetrical elements. This breakup continues in mm. 29-30 with the omission of notes on accented beats. The fifth measure is an extension of the fourth (analogous to the first $\frac{7}{8}$ measure), and the sixth measure re-establishes the basic $\frac{6}{8}$ meter of the movement.

Motivically the transition is constructed from M6 and submotives of M6 with varying degrees of intervallic change. The first violin part of the transition is shown in Example 84.

Example 84: Motivic analysis, first violin part, mm. 27-33



The modal basis of the transition from the downbeat of m. 27 through m. 31 is Aeolian on F#. A D# in m. 32 does not belong in the mode and initiates a modulation, through a $D^{\#7}_{\#4-3}$ chord to an F(third omitted) chord on the downbeat of m. 33. This cadence also employs the descending half-step-to-tonic movement, this time in the first violin part. The fifth scale degree is approached through a descending half-step movement in the second violin part (C).

First episode The first episode of the rondo, labeled B, begins in m. 33 in the key of F (Mixolydian mode) and concludes on a half-cadence on the second beat of m. 38. The texture is that of a duet on the organ manuals which suggests imitation by inversion, accompanied by quarter-note chords in the orchestra part. The dynamic level is piano.

This part of the third movement bears a strong resemblance to the second theme of the first movement (mm. 26-36) in the following ways: (1) the textures are similar (with a melodic duet over quarter-note chords); (2) the organ is the principal thematic instrument with the orchestra performing a subordinate role; (3) the two voices of the duet in the organ part are briefly imitative in inversion, as they were in the second theme in the development section of the first movement; (4) the initial melodic cell which generates the two melodic groups is identical (the first five notes from m. 26 of the first movement are compared in Example 85 with the first five notes from m. 33 of the third

movement);

Example 85: Motivic analysis, mm. 33-35

(5) although of different metrical structures, gentle pastoral qualities are shared by both themes; (6) both themes are subordinate in their respective movements and stand in sharp contrast to the principal themes of those movements.

The harmony of this episode begins in Mixolydian mode on F with the first beat of m. 33. The next three chords in the orchestra part (c_6 f g_6) are functional in this mode and are accompanied by an F pedal point in the cello-bass part. With the second beat of m. 35, these continuing orchestral chords become non-functional and non-tertian (Example 86).

Example 86: Harmonic analysis, mm. 35-37

m. 35: 4 36: 1 4 37: 1

chord		quartal	quintal	quartal	(quartal)
analysis:		on F	on E (C# omitted)	on A	on A

These non-functional chords lead to several extended tertian chords which conclude the phrase with a somewhat more functional formula

(Example 87).

Example 87: Harmonic analysis, mm. 36:4-40

	m. 36:	4	37:	1	4	38:	1	4	39:1 - 3	40: 1
chord analysis:		quartal on A		(^{Q4} _{on A})	G ¹¹		f ⁴ ₃	E ⁹ _{#5}		(Bb ⁷) a ¹¹
function analysis:	a:			#VII ¹¹		#vi ⁴ ₃	v ⁹		(bII ⁷) i ¹¹	

The ⁹_{#5} E⁹_{#5} is an altered dominant in A (constructed as a whole-tone dominant);³ the root of the chord is E and the raised fifth degree (B[#]) is in the bass and notated enharmonically as C[#]. The resolution of the chord to the a¹¹ on the first beat of m. 40 is suspended briefly by the passage in the organ part in m. 39 in which a lowered supertonic-seventh chord (bII⁷) is implied.

The modal usage in m. 33 is Mixolydian mode on F in the orchestra part and the right hand of the organ part. The left hand part is in the Mixolydian mode on B^b. From m. 33 to m. 38 all of the notes of both organ and orchestra parts can be grouped into the same Mixolydian mode; the final of the mode is shifted several times, however, as shown in Example 88. The modal groups, which are circled in Example 88, overlap to some degree, resulting in cross-relations and double-inflections. The selection of E as the root of the altered dominant chord in m. 38 (see Example 87) is supported by the presence of the mode final on E at the same time. (C[#], spelled as B[#] in the analysis of the chord, is omitted from the cluster of pitches included in the last group of those

3 Ulehla, Contemporary Harmony, pp. 215-224.

in Mixolydian mode on E because it is not part of that mode.)

Example 88: Modal analysis, mm. 33-38

The musical score for Example 88, measures 33-38, is shown with handwritten annotations in purple ink. The first system (mm. 33-38) consists of a treble and bass staff. The second system (mm. 39-44) consists of a treble, two middle, and a bass staff. The annotations identify modal regions: 'Mixolydian on E' (mm. 35-36), 'Mixolydian on F' (mm. 37-38), 'Mixolydian on B $\flat$ ' (m. 34), 'Mixolydian on F' (mm. 39-44), and 'Mixolydian on E' (mm. 45-46).

The use of hemiola is also a component in the thematic element of this episode: examples include the right hand of the organ part in m. 34, and the left hand of the organ part in m. 35 (both also are illustrated in Example 88).

A transition beginning with the upbeat to m. 39 links the first episode of the rondo with the recurrence of the principal theme. The aforementioned similarities to the first movement are continued. The

transition between the second and closing themes in the exposition of the first movement begins with an upbeat (to m. 37) into a passage for the organ part containing two streams of parallel thirds in contrary motion and marked at a slightly slower tempo. Only six measures later are the original tempo and character recovered. The transition following the first episode in the third movement also begins with a slowing of the tempo and a decrease in dynamics in a passage for organ alone with initial movement in major thirds. As before, also, the original tempo is not recovered until six measures later.

The continuation of the transition in m. 40 makes sequential use of a rhythmic retrograde of the first two measures of the theme of the first episode (with slight intervallic adjustments). These two rhythmic patterns are juxtaposed in such a way as to create two $\frac{9}{8}$ measures but notated as three $\frac{6}{8}$ measures. The pattern is begun yet a third time on the second beat of m. 42, but it is not completed.

The harmony of mm. 40-41:1 is tertian: $a^{11} b^9 c^7 \alpha\#$ (add 4[substitute for the third]). From the second beat of m. 41 through m. 42 the four instrumental voice parts are paired in contrary motion: first and second violin parts in descending P4s, and the viola and cello-bass parts in ascending P5s. These voice lines lead to a quintal chord on F# in m. 42. The bass line (mm. 40-42) is an intervallic palindrome: $A_2 B_1 C\sharp_1 C\# (1) D_1 D\#_1 E_2 F\#$. (The C# and D are separated by an eighth-rest.) The last beat of m. 43 contains an enharmonic $b\flat^{d7}$ chord which functions as a bii^{d7} to the first chord of m. 44. This is another cadence in which the tonic is approached through a descending half-step from above and an ascending whole-step from below.

Principal theme The first return of the principal theme, labeled A', begins in m. 44 in the tonal area of A, the dominant key of the movement, and is composed of material from the original second phrase, i.e., the planed triads and imitative entries of mm. 5-12. The material of the original opening phrase is used in fragmentary form in the orchestra part to accompany the organ part. The recurrence of the principal theme concludes with a cadence in C major in m. 56.

The return remains in the tonal area of A through m. 49:1, with the harmonies broadly functional in that key. The parallel triads are not all major, as they were in the exposition of this material: in m. 46 and m. 47 the quality of the triads freely alternates between major and minor.

A modulation to G minor occurs in mm. 49-50 (Example 89). The V_4^6 on the third beat of m. 49 becomes a $\frac{vii^7}{V}$ in G minor with the introduction of C# in the lower strings.

Example 89: Harmonic analysis, mm. 49-51

48 49 50

A: i^7 II_5^6 v_6 iv^{11} IV_4^6 v_4^6

G: $\frac{vii^7}{V}$ v^7 i $\frac{IVII}{IV}^7$ v i

The modulation to G minor is followed by three imitative entries in the organ part in m. 52 which are almost identical to those in mm. 9-11 (with slight chromatic adjustments and note-order changes). The hemiola in m. 53 signals the final cadence of the principal theme as before, but the cadence is delayed one measure during which a modulation to C major occurs. Although the cadence is approached by contrary, step-wise movement (as has frequently occurred earlier), the color of Phrygian mode is absent because the descent to the tonic is by

whole-step (Example 90).

Example 90: Cadence and harmonic analysis, mm. 55:4-56

56

C_5^6 b_4^6 a^9 a^{11} Bb^7 C

The relationships between the first episode, the return of the principal theme, and related transitions are shown on the chart in Figure 13.

Figure 13: Principal characteristics, mm. 27-56:4, Third movement

Transition, First Episode (B), transition, Principal Theme (A'), mm. 27-56:4

27	33	33	38:4	38:6	44	44	56:4
(transition)		B first episode		(transition)		A' principal theme	
transitional extension of principal theme cadence		Single phrase		Two contrasting phrases		Extended phrase	
f# (Aeolian)		F (Mixolydian)	$\text{E}^9_{\#5}$ ($\text{V}^9_{\#5}/\text{a}$)	Bb^7 a $\text{bb}^{\circ 7}$ ($\text{bi}^{\circ}/\text{a}$)	A	C	
linear Phrygian harmonically open		half harmonically open		half Phrygian harmonically open		final harmonically open	
ff mf p		p		pp mf pp	mf		
xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx	
		F			A		
Macro-harmonic rhythm							

An anticipatory transition begins on the fourth beat of m. 56 in elision with the cadence illustrated in Example 90. The transition is constructed as an extended orchestral phrase of light, bouyant quality characterized by low volume levels and graceful melodies in the first violin and cello parts accompanied by pizzicato chords in the second violin and contrabass parts. A gradual ritard beginning in m. 63 leads to the end of the transition on a b^{11} chord in m. 65; a double bar separates the transition from the following episode.

After opening with an inverted statement of M6 in the first violin part, a new motive (M8) is introduced in the transition. The comparison in Example 91B shows that the new motive is related to Sm(5-3); it is identified separately in this transition in anticipation of extensive use later in the second episode of the rondo (Example 91A).

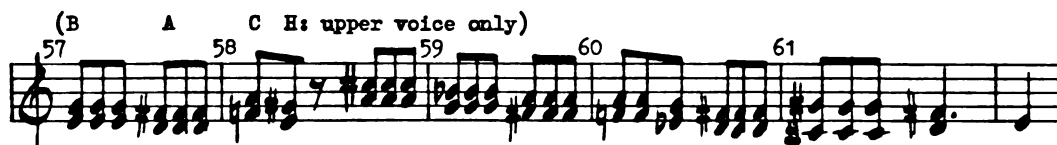
Example 91: Motivic analysis, mm. 56-61

Example 91 consists of two parts, A and B, showing musical notation for measures 56 to 61. Part A shows measures 56 to 61, with measures 59 and 60 highlighted as 'Fragment 1' and 'Fragment 2' respectively. Part B shows measures 60 and 61, with measure 60 highlighted as 'M6I' and measure 61 as 'M8'.

The harmonic course of the transition includes a shift in tonal center from C major (m. 56) to a half-cadence in the key of E minor (on the b^{11} chord in m. 65, the minor dominant). The modulation is accomplished in a linear fashion by each voice line independently. The first violin part reaches the tonal area of E in m. 61 at the conclusion of two complementary melodic fragments which are also indicated in Example 91 (mm. 59-61). The second violin part, divisi, is heard in a series of

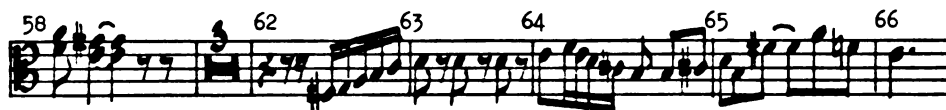
pizzicato major and minor thirds that begin in m. 57, and come together in unison on E as a tonic in m. 62 (which is the first time the note E is sounded in the second violin part after m. 58:2).⁴ This portion of the second violin part is shown in Example 92.

Example 92: Second violin part, mm. 57-62



Except for a brief doubling of the second violin part in m. 58, the viola part is silent until the upbeat of m. 63. Here, analyzed apart from the rest of the orchestra parts, it begins in G major. A modulation to B minor occurs in m. 64 and the line leads, through an ornamented resolution in m. 65, to the tonic note (E) in m. 66 (Example 93).

Example 93: Viola part, mm. 58-65



The cello part enters in m. 58 with a melody that spins out M7 in the key of G minor. In m. 61 the key center shifts to E minor with two ascending P4s and a step-wise descent to the tonic pitch (sounded by the contrabass), followed by movement to the dominant note (B). This part is illustrated in Example 94.

⁴ Curiously, the top line of thirds (mm. 57-58) outlines the intervallic equivalent of the letters that make up the name BACH. See footnote, page 49, chapter three.

Example 94: Cello part, mm. 58-63



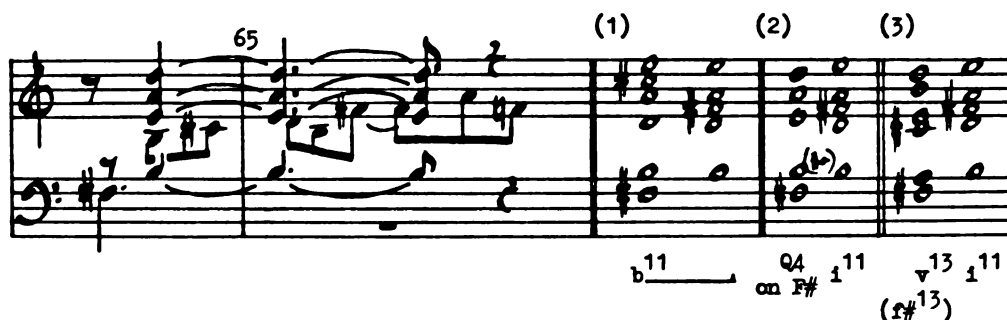
The contrabass part, in one of the few times it has a solo line, moves from B minor in m. 63 to F# in m. 64, which is analyzed as a linear $\frac{V}{V}$ in E minor (Example 95).

Example 95: Contrabass part, mm. 62-64



The last two chords of the transition are illustrated in Example 96.

Example 96: Cadence, mm. 65-66, with alternative harmonic analyses



As shown in Example 96, the penultimate chord of the transition, the second beat of m. 64, has two, perhaps three, possible analyses: (1) a b^{11} with the fifth in the bass--in this analysis, this chord and the final chord in the transition (m. 65) are really the same sonority; (2) a quartal chord on F#; (3) an $f\#^{13}$ functioning as a v^{13} of the b^{11} in m. 65. The first of the three analyses is probably best, because

four common chord members are tied across from one chord to the other. The only difference between the chords is the absence of F# in the bass of the second chord, making it difficult for the ear to hear them as substantially different harmonies.

Second episode The second episode and central part of the rondo (mm. 66-78) is composed as a two-phrase period (10 plus 3) in parallel construction. After opening in the key center of E (Dorian mode), the episode concludes in D, a sonority bearing a dominant relationship to the next part of the movement. The tempo of the episode is slower than that of the rest of the third movement, and double bars (at the beginning of m. 66 and at the end of m. 78) clearly define the length of the part.

The first phrase of the second episode comprises three semi-phrases, each introduced with three dotted-rhythm chords in the strings, with the primary thematic material given to the organ part. The motivic basis of the phrase, anticipated in the preceding transition, is M8, the characteristic use of which, as found in the organ part, is illustrated in Example 97 (mm. 66-69).

Example 97: Motivic and harmonic analyses, mm. 66-75

66 67 68

M8 (moving notes) M8

M8I M8I

es: i (Dorian mode on E through m. 71) i¹¹

Example 97: (continued)

Musical score for Example 97 (continued), measures 69-71. The score is written for piano (p) and includes a grand staff (treble and bass clefs) and a lower staff (bass clef). The key signature is one sharp (F#). The time signature is 6/8. The score is divided into measures 69, 70, and 71. Measure 69 is marked with a left-pointing arrow and the label (M8). Measure 70 is marked with a left-pointing arrow and the label (M8I). Measure 71 is marked with a left-pointing arrow and the label (M8). The lower staff contains figured bass notation: (e:) for measure 69, VII⁹(add 6) for measure 70, and IV⁹ for measure 71. The score includes various musical notations such as notes, rests, and accidentals.

Example 97: (continued)

72 73 74 75

a: III(C:IV₂I₄⁶₄⁶₄ I₄₋₃) N $\frac{V^7}{IV}$ IV⁷ 11⁷ III N 1₄⁶ v⁷ 1₄⁶ v⁹ ¹
(add 2)

The motive is used in the first two semiphrases in both the tenor and alto voice parts in a tonal mirror against a tonic pedal point (E) in the soprano and bass parts. In the second semiphrase the pedal part outlines a minor third on E with a hemiola. In the third semiphrase, M8 is treated to two-part imitation and extension in a developmental fashion. The lengthy phrase is concluded with a cadence in the tonal center of A (m. 75).

The second, shorter phrase of this period serves to round out this part of the rondo by balancing the fragmented quality of the first phrase and by affirming the tonal destination of the episode. The musical materials of the second phrase are similar to those utilized in the first phrase (rhythmic chords in the orchestra and the mirroring of M8 in the organ).

The second phrase, and the episode, terminate on a half-cadence in m. 78:5 on an A¹¹ chord, which functions as a V¹¹ to the return of the principal theme in D minor in m. 79. (The original tempo and dynamic level are also recovered during this measure.) The absence of any corresponding type of cadence in mm. 66-70 supports the foregoing analysis that the first four measures of this episode are components of a single long phrase and not two short, independent phrases.

The harmony of this episode is functional in the broad sense. As illustrated in Example 97, the harmonic analysis of mm. 66-75 places a modulation from E (Dorian mode) to A minor in m. 72, where the mode ceases being Dorian on E. This pivotal measure bears a mediant relationship to both tonal areas and, except for the dominant and subdominant harmonies, exists diatonically in either. The tonic chord in m. 75:4 contains an added second, a substitute for the third.

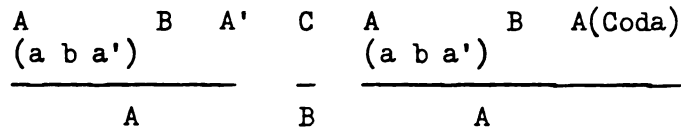
A chart of the second episode and the preceding transition is presented in Figure 14.

Figure 14: Principal characteristics, mm. 56:4-78, Third movement
Transition, Second Episode (C), mm. 56:4-78

	56:4	65	66	78
Part	(transition)			C second episode
Structure	Extended phrase			Two phrases (parallel construction)
Keys/Cadences	C major	$\text{v}^{11}\text{b}^{11}/\text{e}$	e a	$(\text{v}^{11}/\text{d})^{\text{a}}$
Cadence types	half harmonically open			half harmonically open
Instl. <u>Org</u> Dialogue <u>Orch</u>	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx			xxxx xxxx xxxxxxxxxxxx xx xxx xx xx
Macro-harmonic rhythm				e

Principal theme - first episode - coda The remaining portion of the third movement of the Konzert provides a recurrence, with alterations, of the first three parts of the movement (principal theme - first episode - principal theme) by which the rondo is brought to completion. The formal result of the return of these three parts is the creation of a very broad three-part plan in which the outside parts are themselves composite ternary forms, as diagrammed in Figure 15.

Figure 15: Formal outline, third movement



Because the largest portion of the recurrence is unchanged from the initial appearance, the following paragraphs will be concerned with only the alterations.

Principal theme The first phrase of the first part of the principal theme is lengthened with the addition (beginning in m. 81:4) of a measure of M6, inverted, and a second statement of M5, transposed up a major sixth. These interpolations lead to an extension of the material originally found in m. 4, the purpose of which is to effect a modulation back to the tonic key, an adjustment made necessary by the additions described above. The cadence in the strings at the end of the first phrase is also altered as shown in Example 98. Tonic harmony does not occur at this point in the orchestra part as it did before (m. 6); instead, the note A is tonicized (mm. 86-88). The actual role of this A as a dominant note in m. 88 is apparent only when it is juxtaposed with phrase two (in the organ part) the beginning of which (in D major) overlaps phrase one (mm. 87-88).

Example 98: Cadence, orchestra part, mm. 86-88

The musical score for Example 98 shows measures 86, 87, and 88. Measure 86 is a whole rest for the piano. Measure 87 features a piano introduction of a G major triad. Measure 88 concludes with a sustained G major triad. The notation includes a grand staff and a separate bass line, with a piano (p) dynamic marking.

The tonal goal of the cadence concluding the return of the principal theme in m. 110 is changed from F# to G minor. The rewriting begins on the last beat of m. 106 and leads through C major in m. 108 to G minor in m. 109, which is affirmed in m. 110. The return of the first phrase material in the orchestra part (alluded to in m. 106) is largely omitted. The first measure of the transition, which is based upon the same motive and submotives, is interpolated, instead, before the cadence (m. 108).

The transition proper begins in m. 110 in the tonal area of G and progresses immediately to F major (Example 99).

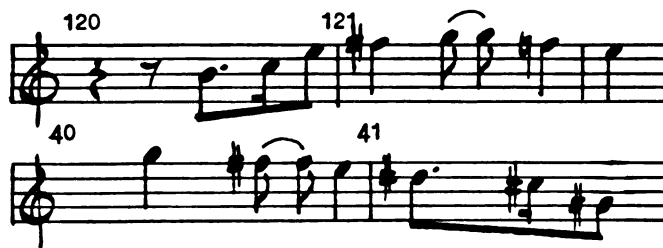
Example 99: Harmonic progression, mm. 110-115

	m. 110:	4	111:1	3	112:1	4	113:1	4	114:1	4	115:1
chord											
analysis:		g	F	a ⁷	F	a ⁷	d ⁷ Eb	f ⁴ ₃ g ⁶ ₅	F		

First Episode (B) The musical content of this part of the rondo is basically unchanged from the first occurrence (mm. 33-38), but the instrumentation is altered. The melody which first occurred in the left hand of the organ part (m. 34) is given in the return to the solo cello part, and the quarter-note detached chords which first appeared in the orchestra part in the same measures are given to the organ part where they are heard in a sustained, legato texture. The phrase ends in A minor (m. 120) instead of on an altered dominant chord as before.

The transition linking the first episode to the principal theme was constructed in the first appearance (mm. 39-43) in two phrases, the first for the organ and the second for the orchestra. The order is reversed in the restatement of the transition and the orchestral phrase is both greatly abbreviated and in a melodic retrograde (Example 100).

Example 100: Comparison, first violin part, mm. 40-41 and mm. 120-121



A third phrase is added to the transition and is illustrated in Example 101. The two violin parts, in unison, have a rising sequential passage based motivically on the first measure of the melody of the

first episode (m. 30); all notes used are from the pentatonic scale on A. The lower string parts freely mirror this passage with descending sequential figures, the last four notes of which, in each case, have identical interval structures.

Example 101: Motivic analysis, mm. 124-126

The function of the third phrase of the transition, inasmuch as it immediately follows the quasi tranquillo and reduced dynamic level of the second phrase, is to return to the original tempo, dynamics, and vigorous character of the principal theme in preparation for the coda in m. 127.

Principal theme (coda) The final return of the principal theme is replaced in the rondo form by a coda (beginning in m. 127) which develops the thematic material from the first two phrases of the principal theme (mm. 1-13). The structure of the coda is that of a three-phrase

period (8 plus 6 plus 6) with the first and third phrases in parallel construction, and the second phrase a cadenza-like passage growing out of the first. The cadences are non-final, non-final, and final, respectively. The organ part from the first phrase of the coda is reproduced in Example 102.

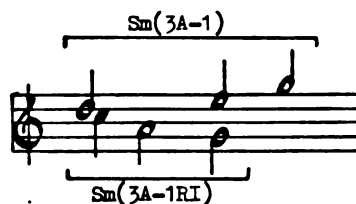
Example 102: Organ part, mm. 127-134

The musical score for Example 102 is written for organ and consists of two systems of staves. The first system contains measures 127, 128, and 129. Measure 127 is marked with a 'D(Phrygian):' in the right hand. The second system contains measures 130, 131, 132, and 134. Measure 131 is marked with an 'E:' in the right hand. Measure 132 is marked with a 'G:' in the right hand. The left hand part in measure 131 is marked with a 'G:' in the bass. The score shows complex chordal textures and melodic lines.

In a reflection of mm. 5-8 of the third movement, the right hand part in mm. 127-134 is composed initially in the Phrygian mode (through m. 131:1) and in the general key center of D. With the second chord of m. 131, however, the key center of the right hand part shifts to E minor, then (on the first chord of m. 133) to G major. The left hand part of the coda, unlike mm. 5-8, is a free mirror canon of the right to m. 130. From m. 130 to m. 134 a non-canonic mirror occurs. The pitch

centers of the left hand part (different from the right hand part) are C major (mm. 127-128, first chord), A major (mm. 128-130), and G major (mm. 131-134). The two streams of triads present fluctuating and, in mm. 129-130, conflicting key centers. These polytonal implications disappear in m. 133 as both chord streams focus on the same pitch center. The macro-harmonic rhythm of these changes of key center is plotted in Example 103, revealing the concealed existence of two forms of $Sm(3A-1)$.

Example 103: Key-center analysis, mm. 127-134



The orchestra part of mm. 127-130 is reproduced in Example 104. Single statements of M6 in mm. 127, 128, and 129 are interspersed with sixteenth-note upbeats which are taken from the transition (m. 124) with rhythmic diminution. The high level of excitement and energy present at this point in the coda is reflected in, and partly caused by the rapid shifts in the harmonic quality in these four measures. The shifts of mode, key center, and the use of a measure built upon a symmetrical scale are noted in Example 104.

Example 104: Motivic and mode analysis, mm. 127-130

Phry. on D Pent. on C Phry. on D Pent. on C Symmetrical Scale* Phrygian on D

Variants of $Sm(1A-1)$ (as found in the transition, mm. 124-126) and treated to rhythmic diminution.

* $d_2 e_2 f\sharp_1 g_2 a_1 b_2 (c)_2 d$

The six sixteenth-notes based on M8 at the end of m. 130 are sequentially extended in the orchestra part for four additional measures. These sequential stages conclude in a linear, unison cadence on the note E in m. 135. This note is the root of an e^7 chord in the organ part the top note of which (D) becomes the first note in the second phrase of the coda. The second phrase is constructed from sequential use of $Sm(5-2)$ in the manner of a cadenza, which continues in the organ part the rush of sixteenth-notes begun in the strings in m. 130. M8 occurs three more times in mm. 136, 137, and 138, leading to the non-final cadence in m. 139.

Measure 139, constructed from M4R and its mirror, contains two chords: the first is a French sixth on F (spelled with an Eb) which

progresses to the second, an augmented triad on $E\flat$. The resolution of the augmented-sixth chord is irregular in that the upper note of the augmented interval, $D\sharp$ ($E\flat$), is sustained into the second chord as an $E\flat$ instead of resolving up to $E\natural$. The F and A of the first chord do resolve down a major second to $E\flat$ and G. The progression is illustrated in Example 105.

Example 105: Chord progression, m. 139



The tonic finally recurs in the coda in the third phrase (m. 140). After an upbeat sweep of sixteenth-notes, one last statement of the head of the first two phrases of the principal theme is presented together with a continuation of the motoric sixteenth-note motion in the orchestra part. The tumultuous drive to the final cadence, begun in m. 127, continues to the last chord without a ritard. Even in the final cadence, however, the modal language is mixed, with the Mixolydian mode of the final cadence not appearing until the third sixteenth-note of m. 144. Prior to that (m. 140), both the Dorian mode (in the orchestra part) and Phrygian mode (in the organ manual part) are used. Measures 141 to 143 are altered chromatically so much that they disguise and avoid specific modal determinations.

A chart of the structure of the last three parts of the rondo (principal theme - first episode - coda) is given in Figure 16.

Figure 16: Principal characteristics, mm. 79-146, Third movement

Principal Theme (A), transition, First Episode (B), transition, Coda (A')

Part	79	96:1	96:2	103	104	110:4	110:4	115	115	120	120:4	126	127	146
	(transition)													
Structure	A principal theme													
	a	b	a'	B episode										
	Two-phrase period	Single extended phrase	Single phrase	Three contrasting phrases										
Keys/Cadences	d	Ab	A	D	g	F	F	F	a	e	b	e ⁷	Eb	D
	final har. closed	half (continuous motion) har. open	final har. open	final har. open	final har. open	final har. open	final har. open	final har. open	linear har. open	half half final har. closed				
Dynamics	f	mf	f	f	mf	pp	p	p	p	f	ff	fff		
Instl. <u>Org</u> Dialogue <u>Orch</u>	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Macro-harmonic rhythm	d	Ab	D	D	F	F	F	F	F	D	D	D	D	D

The chart of the formal structure of the third movement which is presented in Figure 17 suggests several observations:

As pointed out in Figure 15, the seven parts of the rondo are organized thematically in such a way as to connote a broad ternary form.

Analysis of the macro-harmonic rhythm reveals the use of keys in mediant relationships for the sections of the movement made up of the principal theme and the first episode (A and B). The middle part of the movement (C) is in the supertonic key, which might be analyzed as a secondary-dominant tonal area.

The rondo makes extensive use of transitions to link the various thematic components, and of harmonically open cadences to conclude each part and each transition. These compositional devices give continuity and a sense of uninterrupted, even compelling motion to a form the precursor of which (the seventeenth-century French rondeau) was a highly sectionalized structure.

With the completion of the analysis of the third movement, some comparisons can be made of the three movements (using Figures 7, 10, and 17) which reveal interesting structural similarities. Although the movements are written in keys a fifth apart, most of the thematic groups within the three movements are related through mediant keys. In the exposition of the first movement, the mediant relationships are between the first and second themes, and the first and third themes. The three primary parts of the second movement are composed in mediant relationships as are the principal theme and first episode of the third movement. The recapitulation of the first movement and the last three parts of the third movement (A B Coda) have the same macro-harmonic rhythm: D F D. The central portions of both the first and the third movements (the development in the former and the second episode in the latter), in keeping with the normal developmental and/or contrasting nature of these sections, do not consistently utilize the pattern of mediant relationships to surrounding theme groups or to the tonic key.

The entire concerto, as shown in Figure 18, is constructed as a work of three large parts related at tonic and dominant pitch levels, each part of which is also a large ternary form with internal parts in mediant key relationships. Some of the internal parts are also structured as composite ternary forms.

Figure 18: Formal design, Konzert für Orgel und Streichorchester

Concerto
(d)

First Movement (d)	Second Movement (a)	Third Movement* (d)
Exposition Dev. Recap. 1 2 3 1 2 3	7 phrases Fuga 7 phrases	PT El PT E2 PT El PT
d b f d F D	a c a	1 2 3 1 2 3
		d F A e d F D

*PT - Principal theme; El - Episode one; E2 - Episode two

CHAPTER VI: MUSICAL LANGUAGE OF THE
KONZERT FÜR ORGEL UND STREICHORCHESTER

Any thoughtful musical composition is a product of contrasting types of influence and compositional philosophy, the manifestations of which act to guide and inform the composer's artistic inclinations. In the case of the Doppelbauer Konzert, the chapters of analysis have revealed the types of influence on this work to include Baroque polyphonic and melodic practices, the thematic organizational processes utilized in the solo instrumental concerti of the Classical period, the composer's own search for a harmonic theory that is useful, artistically sound, and capable of expressing adequately his musical ideas, and the philosophy of practicability in music

Baroque influences It is not surprising that Doppelbauer's music is so strongly influenced by the artistic traditions embodied in the music of J. S. Bach and W. A. Mozart, living and working as he has in the geographical heart of the culture that nourished those traditions. The effects on the Konzert of eighteenth-century polyphonic practices are most immediately obvious in the frequent use and organization of fugato and fugal processes. Almost without exception, the sections of fugato and fugue (and even the seemingly casual points of contrapuntal imitation) utilize entries at the fifth (above and below), often with real answers. The fugue in the second movement, which is placed as a keystone in the center of the Konzert, employs the additional devices

of stretto and inversion, common tools of the Baroque composer.

A less obvious parallel with the Baroque melodic/thematic style which generally relied on an encompassing and sweeping continuity is found in the nature of some of the thematic material of the Konzert.¹ The first theme of the first movement (mm. 1-11), a single phrase which spins out urgently from its inception to m. 9, illustrates one of the most common means of Baroque intensification: the avoidance of cadences through phrase extension.² No intermediate cadential pause divides these nine measures into complementary components; tension and musical momentum are cultivated instead through repetition (mm. 2 and 3), shift of tonal center and motivic fragmentation (m. 4), repetition and use of shorter motives (m. 5), sequence (m. 6), imitation (mm. 7 and 8), and, perhaps most important, a relentless rhythmic drive which is allowed to pause only at the cadence. That the use and placement of this fantasia-like phrase structure are logical, and even necessary, is clear when it is remembered that within these first ten measures are contained five of the eight motivic building blocks of the entire piece, an unlikely occurrence had the opening phrase been fashioned as a clear and balanced four measure entity.

A phrase employing a similar, nonperiodic design is found in the organ part in mm. 5-13:1 of the third movement. From the onset of the phrase to its cadence in m. 13, the listener is led through five measures of planed triads, a series of imitative entries in sixteenth-notes, and a very striking hemiola, all with no clue as to where the cadence eventually will occur.

1 Charles Rosen, The Classical Style (New York: W. W. Norton, 1972), p. 57.

2 Ibid., p. 50.

Classical influence The solo instrumental concerti of the Classical period contain so many structural variables as to make difficult the creation of one precise formal model with which either works of the Classical or any other period can be compared. Some general architectural characteristics can be inferred, however, and used as bases for discussion.

The formal organization of the classical concerto (as often defined by the Mozart concerti) comprised three movements: an opening movement using sonata-form, a slow central movement often in a ternary form, and a fast third movement of, for the listener at least, a less-taxing character often constructed in rondo form. This pattern also describes the basic formal organization utilized in the Doppelbauer Konzert, particularly with regard to the first and third movements. (The second movement, apart from the slower tempo and broad three-part form, has no Classical period equivalent.) The first movement employs (with some exceptions noted below) a clear, almost "text-book" sonata-form structure, while the rondo used in the third movement shares many characteristics of the fully-developed classical rondo, including extensive use of transitional passages between theme areas to achieve a sense of continuous motion throughout the form.³

In addition to phrases which are developed with traits of Baroque nonperiodic amplification, some linear components of the Konzert, including many secondary voices lending support to primary themes, are cast in melodic molds that possess certain characteristics usually identified with melodic techniques of the Classical period. These

3 Jere T. Hutcheson, Musical Form and Analysis (Boston: Allyn & Bacon, 1972), II, pp. 79-80.

characteristics include clear, orderly phrase structures that are not improvisatory or free, and balanced melodic contours in which tension is created and relaxed through the rise and fall of the melodic arch.⁴ Indeed, one of the essential qualitative observations that can be made of the work is that its thematic elements, the first ten measures notwithstanding, are melodies, or tunes, that, if not always singable, are cogent and easily remembered. An example can be found in the second theme of the first movement, mm. 26-30. Each of the three stages of melodic ascent (mm. 26-29) is melodically balanced: the level of musical tension increases in each of the stages, the result of rising pitch goals and continuous motivic expansion. Following a culmination on B $\flat$ in the third stage, the phrase descends back to the initial B $\natural$ in m. 30. Example 106A plots the melodic curve of the phrase, and illustrates each stage. Example 106B defines the pivotal notes of the phrase, and Example 106C the manner in which the use of increasingly wide intervals in the melody parallels the increase in tension. The conclusion of the phrase with a D5 in m. 30 has much the same effect as a half-cadence, inasmuch as further melodic movement is expected in order to complete the theme area. Similar balanced contours are exhibited by the same phrase material as it is utilized in the development of the first movement (mm. 88-97).

⁴ Paul O. Harder, Bridge to Twentieth Century Music (Boston: Allyn & Bacon, 1973), p. 40; Charles Rosen, The Classical Style, p. 29.

Example 106: Melodic analysis, mm. 26-30, first movement

The image displays a melodic analysis of measures 26-30 from the first movement. It consists of three staves labeled A, B, and C. Staff A shows the original melodic notation with measures 26, 27, and 28 marked. Below the notation is a wavy line representing the melodic contour. Staff B shows the pitch classes of the melody. Staff C shows the intervallic structure with labels: P4, m6, P5, m7, m9, P4, and A4.

The use of balanced melodic contours in both principal and subordinate portions of the musical fabric can be traced back to the melodic character of the motives from which much of the linear component of the Konzert is generated. Several of these motives (M2, M3, and M5) also have balanced melodic shapes which are incorporated into the melodies and themes they foster. (These motives are defined in Chapter Three, pages 23 to 26.)

The use of an extended, improvisatory type of phrase construction at the beginning of the first movement (and the beginning of the third movement) while utilizing other types elsewhere in the work is another example of the composer's inventive spirit, and should be viewed not as a 20th-century aberration of a classic formula (sonata form), but an adaptation of this formal process to serve logical 20th-century needs.

If the parallels to Classical practice are pursued further, however, problems in comparison arise. For example, (1) the harmonic language employed in the Konzert is not based on the strong foundation of

an inevitable dominant-tonic progression (as is the harmony of the 18th-century concerto) which controls the micro-harmonic rhythm of cadence formulas, and frequently the macro-harmonic rhythm of both the keys of themes within parts of movements and of the keys of the movements within the work. However, the Doppelbauer Konzert (as the analyses illustrated in Figures 7, 10, 17, and 18 reveal) usually employs mediant relationships between theme groups, restricting to the basic key centers of the three movements a classical dominant-tonic design. (2) The exposition of the first movement of the Classical concerto almost always begins with an orchestral tutti during which are presented the principal themes of the movement. At the conclusion of this tutti section, which ends in the tonic key, the solo instrument is brought in and the principal thematic material restated, divided between the soloist and the orchestra. Doppelbauer, on the other hand, gives the organ and orchestra separate and unique portions of the thematic material which are not normally exchanged from one instrumental medium to the other. The organ part and the orchestra part are both brought in at the outset of the work, and no repetition (in the form of an exposition) of the principal thematic material occurs. (3) The compositional procedure in the Classical concerto plays the solo instrument as a foil to the orchestra, with the shared musical material the common ground upon which they alternate. In contrast, the Doppelbauer Konzert provides the organ and orchestra with discrete musical identities; the consequent concertation takes place between both the instrumental media and the musical materials with which each is identified. It is significant that the only occasions in which these thematic identities are interchanged (first movement: the recapitulation of the second theme, and second movement:

middle and closing-entry sections of the fugue) are also the climactic moments of the respective movements.

Twentieth-century influence It is in the character of the harmony that is employed in the disposition of the several Baroque and Classical attributes of the Konzert that the work asserts its twentieth-century origins. This harmony, imbued as it is with free melodic and harmonic chromaticism, poly-modality, non-functional chord successions, and chords constructed as non-tertian (quintal and quartal) entities, is an early product of a continuing search by the composer for an acceptable form of artistic expression between the poles of traditionalism on the one hand, and the avant-guard on the other.⁵

It is the composer's opinion that traditional approaches to the use of available sound materials are depleted because they are too limited in attitude, seeking as they do to change the listener's intellectual perspective toward musical materials that otherwise remain the same.⁶

The quest for alternatives has required of him a full understanding of the historical aspects of the literature and theory of music, and an intensive study of the products of twentieth-century composers to assure a responsible knowledge of new techniques and developments. Doppelbauer fears nothing so much as the stagnation of routine artistry, and is not afraid to incorporate into his compositional vocabulary any technique that serves his purposes. As a consequence, impressions similar to those of Gregorian Chant are seen in the sacred choral writing through the subordination of music to the content of text, and the imposition of

⁵ Josef Friedrich Doppelbauer, "Grundsätze und Ausblicke," in Josef Friedrich Doppelbauer: Werkverzeichnis (Vienna: Doblinger Verlag, 1978), p. 13.

⁶ Ibid.

text-rhythm on the musical lines; from Johann Nepomuk David come the interest and skill in extensive motivic variation and development; from J. N. David and Paul Hindemith come tendencies toward complex contrapuntal structures (an inheritance extending, without doubt, as far back as the seventeenth and eighteenth centuries) that is balanced by the movement of French composers (Ravel, Messiaen, and Franck) away from extended passages of complex polyphony;⁷ the influence of classic formal clarity is enlivened with study of the works of the neo-classic composers of the second Viennese school (especially Schonberg and Berg) which helped cultivate an awareness of the merits of a more equal valuation of the twelve notes in the tempered octave, and of the possibilities inherent in bitonality, polytonality, and the use of contrasting sound layers.⁸

Although he utilizes certain serialist techniques, Doppelbauer clings tenaciously to tonality, not out of timidity, but out of a judiciousness grounded in the belief that the human mind is physiologically disposed toward tonality.⁹ With reasoning based, in part, on the study of non-European folk music, he has rejected atonality as a musical form of expression because it appears to be nothing more than a form of sound-geometry, the product of which is speculative, in opposition to the basic hearing pattern of mankind, and, at this point, musically exhausted.¹⁰

7 Rudolf Walter, "Doppelbauer," MGG, Supplement, 1827.

8 Walter Kolneder, "Leben, Werk, und Wollen," p. 5.

9 Doppelbauer, "Grundsätze und Ausblicke," p. 12

10 See Paul Hindemith, Craft of Musical Composition (4th. ed.; New York: Schott, 1970), pp. 1-50 for a detailed discussion of the natural basis for the division of sounds into the octave and the fifth, and by extension, into the twelve equal divisions of the octave.

The search, therefore, for this acceptable form of expression between the extremes of unchanging traditionalism (or perhaps more accurately, conventionalism) and the amusical avant-guard has led, in the organ music of Doppelbauer, to the synthesis of tonality and the free use of modes, chords, and all twelve pitch classes into a harmonic style the composer describes as modally-oriented panchromaticism.¹¹

In more recent years, this artistic quest has led Doppelbauer to the belief that current musical theory rests on a fictional premise (equal temperment) and that the future of musical composition might very well lie in the study of the possibilities contained in the finer shades (smaller degrees) of pitch differentiation that the human ear can perceive. Such efforts, which would displace the mechanical division of the octave into twelve (or even twenty-four) equal parts, could probably be undertaken only in an adaptable medium, a cappella choral music, for example.¹² It is not yet possible to say where such explorations will lead, but the composer feels the development will continue, if slowly.¹³

Philosophy of practicability All of the streams of influence which bear upon the organ music of Doppelbauer are disciplined by the need for this literature to be practicable, i.e., made accessible technically and aesthetically to performer and listener, while yet meeting the need for which the music is composed. This philosophy has at least some of its

11 Josef Friedrich Doppelbauer, "Wurzeln meines Orgelschaffens," an unpublished monograph sent by the author to this writer in the spring, 1980.

12 Paul Hindemith rejects theoretical systems which divide the octave into more than twelve equal parts (Hindemith, Craft of Musical Composition, pp. 50-52.).

13 Doppelbauer, "Grundsätze und Ausblicke," pp. 13-14; for a brief survey of the efforts in the field of micro-tonal music, including discussions of the contributions of Richard Stein, Ivan Vyshnegradsky, Alois Haba, and Juan Carillo see H. H. Stuckenschmidt, Twentieth Century Music, pp. 38-47.

basis in the experiences of the composer while employed at St. Johannes-Kirche in the period immediately after the war.¹⁴ The inadequate quality of the choral library and the frequent unavailability of printed music left him with little recourse but to compose the required choral and organ literature himself. Thus forced onto his artistic conceptions was the need for possible and practical realizations with the resources then at his disposal. This sensitivity to the problems of performance is evident in the organ literature, and the resulting music, while often complex and of considerable difficulty, is idiomatic to its instrument and not so burdened with technical and musical problems as to inhibit performance unduly.

In terms of the Konzert, this practical concern for a work playable, listenable, and affordable has led to an orchestral score which (1) demands only traditional, though extensive, playing skills (no unusual performance techniques or extra-musical sounds are required of the orchestra players) and (2) can be realized with an ensemble as small as fourteen performers (four first violins, four second violins, three violas, two cellos, and one contrabass) plus the organist. The ideal number for a performance depends, of course, on the size of the hall, the quality of the personnel, and the nature of the organ being used (the orchestral tutti must be dynamically equivalent with the full principal chorus of the organ including mixtures and chorus reeds). A three-manual organ of modest size and of a classic disposition is required for performance, a reasonable expectation which, when considered with the relatively small orchestra necessary, allows for church, as well as university and concert hall performance.

¹⁴ Walter Kolneder, "Leben, Werk, und Wollen," p. 5.

The question concerning the likelihood that the listener will understand and react to the Konzert as an artistic-emotional event, and not merely as an intellectual exercise of a skillfully-crafted musical sculpture, is quite subjective and certainly open to diverse opinion. In the writer's experience, however, the artistic merits of the work easily transcend the technical and musical challenges it presents, with performers and audience alike stimulated intellectually and moved emotionally. It deserves a far wider hearing in the United States than it has received to date.

The place of Josef Doppelbauer in the wide spectrum of composers of the twentieth-century admittedly is described best as middle-of-the-road. Rejecting atonal compositional techniques and the many experiments attempting to include non-musical or extra-musical sound resources in the artistic vocabulary as amusical, and traditional or conventional approaches to composition as tired and worn, he searches for his own language by developing fresh avenues to the establishment of tonality, by casting his harmonies and melodies in forms and processes the ear can absorb and comprehend (that these processes and forms were arrived at years earlier in no way inhibits their usefulness and organizational value), and by writing so that the audience might understand while being intellectually challenged and enjoy while being musically stimulated. The masterful control of counterpoint and fresh, natural inventiveness found in his organ music places Doppelbauer in the vanguard of that small group of Austrian composers (including Franz Kropfreiter, J. N. David, Anton Heiller, and Helmut Eder) who have earned, for contemporary Austrian church music, the respect of musicians around the world.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Arnold, Corliss Richard. Organ Literature: A Comprehensive Survey. Metuchen: The Scarecrow Press, Inc., 1973. 656 p.
- Doppelbauer, Josef Friedrich. Brief, unpublished analytical commentaries concerning Partita (1955), Toccatina, Toccata und Fuge in E Minor in Memoriam Maurice Ravel, Ornamente, Fantasia I, Fantasia II, Sonatine fur Orgel, and Suite Breve sent by the composer to this writer in 1980.
- . "Grundsätze und Ausblicke," in Josef Friedrich Doppelbauer: Werkverzeichnis. Vienna: Doblinger Verlag, 1978. 32 p.
- . Konzert fur Orgel und Streichorchester. Vienna: Doblinger Verlag, c1965 [1958]. 50 p.
- . Wurzeln meines Orgelschaffens. Unpublished comments on his compositional philosophy sent in 1980 by the author to this writer.
- Grove's Dictionary of Music and Musicians. Fifth edition, edited by Eric Blom. New York: St. Martin's Press, 1955. Article, "Concerto."
- Harder, Paul O. Bridge to Twentieth Century Music. Boston: Allyn & Bacon, 1973. 287 p.; paper.
- . Harmonic Materials in Tonal Music. 3rd ed., in 2 vols. Boston: Allyn & Bacon, 1977. 301; 317 p. [each vol. paged separately]; paper.
- Harvard Dictionary of Music. Second edition, revised and enlarged, edited by Willi Apel. Cambridge: The Belknap Press of Harvard University Press, 1969. Article, "Concerto."
- Hindemith, Paul. The Craft of Musical Composition. Translated from the German by Arthur Mendel. 4th ed., in 2 vols. New York: Schott Music Corp., 1937. Revised edition copyright 1945.
- Hutcheson, Jere T. Musical Form and Analysis. In 2 vols. Boston: Allyn & Bacon, 1972. 341; 335 p. [each vol. paged separately]; paper.
- Kolneder, Walter. "Leben, Werk, und Wollen," in Josef Friedrich Doppelbauer: Werkverzeichnis. Vienna: Doblinger Verlag, 1978. 32 p.

- Kratzenstein, Marilou. Survey of Organ Literature and Editions. Ames: The Iowa State University Press, 1980. 246 p.
- Rahn, John. Basic Atonal Theory. New York: Longman, Inc., 1980. 158 p.; paper.
- Rosen, Charles. The Classical Style. New York: Norton, 1972. 467 p.
- Stuckenschmidt, H. H. Twentieth Century Music. Translated from the German by Richard Deveson. New York: World University Library, 1969. McGraw-Hill Book Company. 248 p.; paper.
- Ulehla, Ludmila. Contemporary Harmony. New York: The Free Press, 1966. 534 p.
- Veinus, Abraham. The Concerto. New York: Dover, 1964. 1st ed. appeared in 1945. 317 p.; paper.
- Walter, Rudolf. "Der Orgelkomponist," in Josef Friedrich Doppelbauer: Werkverzeichnis. Vienna: Doblinger Verlag, 1978. 32 p.
- . "Doppelbauer," in Die Musik in Geschichte und Gegenwart. Edited by Friedrich Blume. Kassel: Barenreiter, 1973. Band 15, Supplement. 1900 columns.