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"Etudes Pour Piano - Premier Livre", by Gyorgy Ligeti, And, "The Song of Glory", an Original Opera in One Act.

James Martin Guthrie
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**“Études pour piano” - Premier livre, by György Ligeti and
“The Song of Glory”, and original opera in one act**

Guthrie, James Martin, D.M.A.

The Louisiana State University and Agricultural and Mechanical Col., 1989

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Ann Arbor, MI 48106

**ÉTUDES POUR PIANO - PREMIER LIVRE, BY GYÖRGY
LIGETI AND *THE SONG OF
GLORY*, AN ORIGINAL OPERA IN ONE ACT**

A Dissertation

**Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Musical Arts**

in

The School of Music

**by
James Martin Guthrie
B.MUS., Louisiana State University, 1982
M.MUS., Louisiana State University, 1984**

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ABSTRACT

This dissertation consists of two parts. Part I is an analytical survey of a composition entitled *Études pour piano - premier livre*, (1985) by György Ligeti. Part II is an original composition entitled *The Song of Glory*, An Original Opera in One Act.

Études pour piano - premier livre by György Ligeti is a collection of six pieces for piano. The etudes won the 1986 University of Louisville Grawemeyer Award -- the largest cash award for composition. The etudes feature continuous motion and cross-accentuation which creates polyrhythmic effects. The purpose of part I is to survey the compositional techniques and materials used in the music. The survey will illustrate the interrelationships among the pieces by comparing the elements and procedures of composition. The analysis is descriptive in nature dealing objectively with the elements of melody, harmony, rhythm, form, and counterpoint. The structures employed in the etudes are often of such a nature as to elude the terminology and concepts of a singular common practice period. Therefore, the methods of analysis incorporate a

diversity of heuristic procedures. The analysis is not intended to present an exhaustive investigation of the music, but an overview of the compositional techniques.

The Song of Glory, An Original Opera in One Act, is scored for chamber orchestra and soloists. The libretto, written by the composer, depicts the pathos of Scott's South Polar Party of 1912. The instrumentation calls for woodwinds, horn, trombone, one percussionist, and strings. The vocal requirements are two tenors, two baritones, and one bass. The instrumentation reflects a concern for economy. It is calculated to be effective, offering timbral variety and strength, yet economical enough for typical university new-music performance resources. The action takes place in three scenes separated by orchestral interludes. In scene I, the scenario is established as the characters reflect on their situation. In scene II, the ghost of a former sojourner who died earlier in the expedition appears to all but the captain. One character dies after leaving the tent to meet the specter. In scene III, the captain continues journal entries while the remaining characters perish.

INTRODUCTION

This dissertation consists of two parts. Part I is an analytical survey of a piano composition entitled *Études pour piano - premier livre*, (1985) by György Ligeti. Part II is an original composition entitled *The Song of Glory*, An Original Opera in One Act.

Études pour piano - premier livre by György Ligeti is a collection of six pieces for solo piano composed in 1985. The composition won the 1986 University of Louisville Grawemeyer Award -- the largest cash award for composition in the world. The collection represents the composer's only major work for piano to date. The etudes feature the use of continuous motion, and cross-accentuation, each in a different way to create polyrhythmic effects. The purpose of part I is to survey the compositional techniques and materials used in constructing the music. The survey illustrates the interrelationships among the pieces by comparing the elements and procedures of composition.

The first etude, *Désordre*, is a perpetual motion etude featuring polyrhythmic writing, dual modality, canonic imitation, and shifting accents. In the second

etude, *Cordes vides*, melodic and harmonic motion is controlled by perfect fifths that appear throughout the piece. Chromatic motion serves as a foil to the streams of perfect fifths. the third etude, *Touches bloquées*, features an unusual rhythm-generating technique whereby keys are depressed silently and scalar passages are played through the depressed areas. The result is a forced disjunct rhythmic character. The fourth etude, *Fanfares*, features horn-fifth figures, cross accentuation, and polyrhythmic writing that unfolds over a constantly repeated octatonic ostinato pattern. The fifth etude, *Arc-en-ciel*, exploits chromatic melodic motion construction, tertian harmonic structures and polymetric rhythms. The sixth etude, *Automne à varsovie*, features multi-layered descending chromatic lines and the perpetual motion figures are reminiscent of the piano playing techniques of Chopin.

The study is an effort to survey the over-all style and structure of the etudes, types of verticle structures, rhythmic organization, and melodic construction. The analysis is primarily descriptive in nature dealing objectively with the elements of melody, harmony, rhythm, form, and counterpoint. The musical structures employed in the etudes are often of such a nature as to elude the terminology and concepts of a

singular common practice period. Therefore, the method of analysis relies not on any single convention, but freely incorporates a diversity of heuristic procedures. Areas of particular structural significance are analyzed in detail. All unusual notational innovations and special effects are explained. The analysis illustrates not only the larger framework of the etudes, but also, in instances of particular structural importance, the micro aspects.

The Song of Glory, An Original Opera in One Act, is scored for chamber orchestra and soloists. The libretto, written by the composer, is designed to depict the pathos of Scott's South Polar Party of 1912. It is not intended to be a historically accurate depiction nor is it calculated to effect a judgement of any of the characters.

The instrumentation calls for woodwinds, 1-1-1-1, horn, trombone, 1 percussionist, and strings. The vocal requirements are 2 tenors, 2 baritones, and 1 bass. The instrumentation reflects a concern for economy of forces. It is calculated to be effective, offering timbral variety and strength, yet economical enough for typical university new-music performance resources. The music features text painting and quotations from past musical eras. Though no conscious attempt is made to emulate

Ligeti's style, the influence of his writing may be seen in the use of pitch continuums and cluster-like harmonies, and hemiola patterns. The exploitation of the horn-fifth figure, particularly near the end, is similar to Ligeti's use of the figure in *Fanfares*.

The action takes place in three scenes. In scene I, the dramatic scenario is set up as the characters each reflect on their situation. In scene II, the ghost of P.O.Evans (who died enroute to their position) appears to all but the captain. Titus Oates leaves the tent to meet Evans and dies of exposure in the snow. In scene III, the captain continues journal entries while the remaining characters die. The captain perishes in the end.

PART ONE

***ÉTUDES POUR PIANO* - PREMIER LIVRE,
BY GYÖRGY LIGETI**

CHAPTER I

DÉSORDRE

The first etude in the collection is entitled *Désordre* (disorder). The title page of the original manuscript contains descriptions of various rhythmic dimensions. These descriptions, scribbled in the margins, are discarded titles.

Étude polyrythmique
Pulsation
Stroboscope
Mouvement irrégulier
Contraction-Dilatation
Pulsation irrégulier
Déplacement
Ordre-Désordre¹

The title *Désordre* describes the displacement of various well-ordered structural parts. Rather than a lack of order, the piece displays order on more than one level. Two well-ordered systems unfold in the same space. The effect of the procedural multiplicity is disorder. *Désordre* is a perpetual motion etude featuring polymetric

¹ György Ligeti, *Études pour piano - premier livre*, facsimile edition 7428, (Mainz : Schott, 1986), cover.

writing,² dual modality, canonic imitation, and shifting accents. *Désordre* is dedicated to Pierre Boulez (b.1925).

The formal structure of *Désordre* follows a basic ternary pattern of A B A'. The outer sections (A and A') are linked by the presence of stable measures and melodic similarities. They are also linked by stable rhythmic groupings and phrasing. The A' section differs from the A section by the presence of harmony and a higher LH range.³ Further, metric adjustments are made in the LH instead of the RH. Section B is set apart from the outer sections by increased metric instability. Moreover, the use of extreme ranges, and shorter phrases are unique to section B.

Figure 1 is a graph showing the ranges of the formal sections and illustrates the pitch continuum exploited by each hand. As figure 1 shows, each section is strongly defined by its particular movement along the pitch continuum. In section A the two hands occupy parallel ranges. By contrast, the ranges move in contrary motion in section B. Parallel motion is again established

² Though no time signatures exist in the score, they have been added to the musical examples here as a reference aid. Time signatures are determined by the number of eighth-note pulses contained within the barlines.

³ LH and RH are abbreviations for Left Hand and Right Hand.

in section A', though the entire range is now much higher.

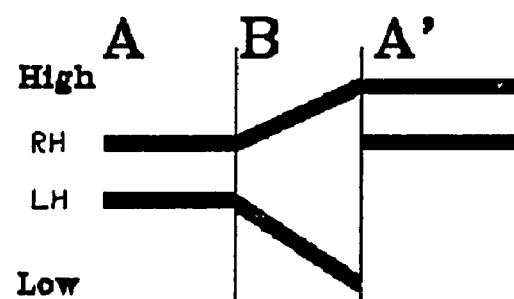


Fig. 1. Pitch Continuum

Section A (mm. 1-43)⁴ features constant 8/8 measures in the left hand. The time signatures as shown in this analysis do not imply a sense of meter. The signatures are procrustean, offering a means to examine the organization of the music. Barlines are shifted by imposing a measure of 7/8 in the right hand every fourth measure. (See figure 2). As the shifting continues throughout section A the RH lags the LH by an ever-increasing interval. The phrasing of the eighth note scalar passages that intervene between melodic (accented) notes, is directly dependent upon the duration of the

⁴To facilitate references to specific measures in the score, a dual numbering system is necessary. All references to measure numbers refer to the RH measures unless specified as an LH measure number.

melodic units. As a result, the melodic rhythm is directly linked to the ostinato-like pattern.



Fig. 2. *Désordre*, mm. 1-7.
Shifting Barlines.

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Section B (mm. 44-99) is the most rhythmically unstable section of the piece. It features the most frequent and widely varied metric changes. Both hands are assigned measures containing differing numbers of pulses. Section B subdivides further into three subsections.

Subsection B-1 (mm. 44-56) features metric canonic imitation where the RH measures are imitated by the LH at 3 measure intervals. The measures become gradually shorter with each change. In figure 3, the measure is converted to 6/8 at measure 47 in the RH. The metric change is emulated by the LH at measure LH 47. The RH

measure is altered to 5/8 at measure 50. The change is imitated by the LH at measure LH 50. The imitation ends at measure 54 where the 5/8 passage in the LH is abbreviated by one measure. The abbreviated passage serves to realign the barline.



Fig. 3. *Désordre*, mm. RH 47-53.
Metric Canonic Imitation.

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Subsection B-2 (mm. 57-74) is in a constant 6/8 measure with the measures askew by 1.6 measures. (One measure + one eighth note). Metric stability separates subsection B-2 from subsections B-1 and B-3.

Subsection B-3 (mm. 75-100) is characterized by metric instability. At 83, the RH and LH alternate between 6/8 and 5/8. The strict exchange is broken at 89 (4/8, RH). Barlines are realigned at measure 94. Here,

both hands are in 4/8.

Section A' marks a return to the stable measures of section A. The section can be subdivided into three subdivisions.

Subsection A'-1 (mm. 100-117) is metrically stable with both parts in 8/8. Here, the music returns to the melodic style of section A but without the metric shifts caused by the insertion of eighth notes. In subsection A'-2 (mm. 118-141) barlines are shifted by imposing measures of 9/8 in the LH every fourth measure. Thus, an inverse association with section A results where a measure of 7/8 was imposed in the RH every fourth measure. The inverse association is shown in figure 4. Here, the rhythm from section A appears on the left and the rhythm from section A' appears on the right.

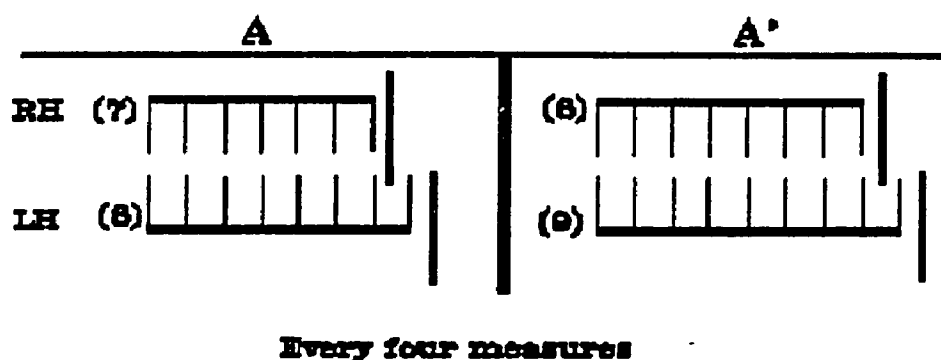


Fig. 4. Comparison of Shifting Barlines.
Between Sections A and A'.

In subsection A'-3 (mm. 142-154) beginning at 142, each

measure in the LH is increased by one eighth note until the penultimate measure. The incremental augmentation increases from the normal measure of 8 and ends with a measure of 24 eighth notes. The final subsection, with its exaggerated augmentation, acts like a coda (tail section) to the entire piece. The melody in the RH consists of a three-phrase period. Initially, the period is 14 measures in length, however it appears in diminution in section B. The period is repeated 14 times throughout the piece and is transposed up one step pandiatonically at each repetition. The initial statement of the melodic period is shown in figure 5.

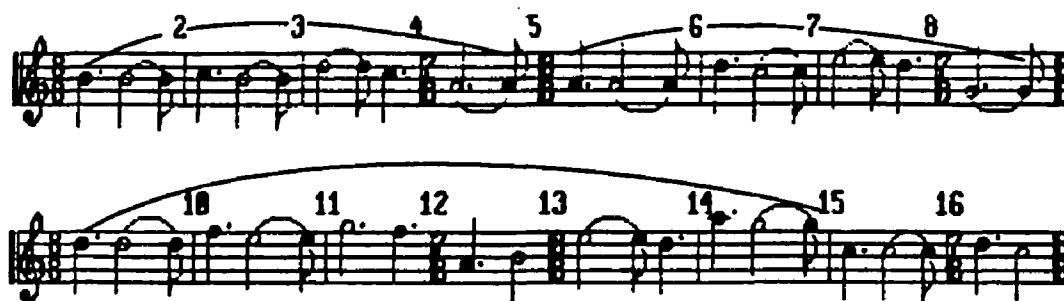


Fig. 5. Melodic Period.

Phrase 1 is a 4-measure antecedent phrase, and phrase 2 is a 4-measure consequent phrase. Phrase 3 is six measures long and is unstable in nature. The instability of phrase 3 is due to the absence of a

terminal point. There is no point of repose as with the preceding phrases. The first three measures of phrase 3 are similar in construction to the preceding phrases in the distribution of trochaic and iambic rhythms.⁵ The fourth measure forms a link to a two-measure extension. The periodic identity is maintained throughout the sections of metric instability by preservation of the trochaic and iambic rhythmic relationship.

In section B (mm. 44-99) a gradual diminution in note values leads to a temporary dissolution of the melodic rhythm (measure 92). Here, the periodic identity is suggested by a mixture of long and short note values.

The countermelody (bass line) in sections A and B runs in contrary motion to the melody. In section A' the countermelody runs comparatively parallel to the melody. The countermelody is exclusively pentatonic;⁶ while the melody is entirely pandiatonic (white keys only). The periodic and phrase structure of the countermelody is

⁵ The terms "trochaic" and "iambic" are used here in a simplified sense referring to localized arrangements of short and long note values. "Iambic" signifies the succession short-long; whereas "trochaic" signifies the opposite (long-short). Though the specific note values may change, the trochaic and iambic relationships are useful in identifying phrase structures.

⁶ This is the "Diatonic pentatonic" scale identified by Vincent Persichetti in *Twentieth Century Harmony* (New York: W.W.Norton & Company, 1961), 50. The scale is spelled: C,D,E,G,A. The LH part uses the F-sharp transposition which contains black keys exclusively.

identical to the melody through the first statement of the period. In later periods, however, an additional 4-measure phrase is inserted between the 3rd and 4th phrases. The extra phrase in the later repetitions causes the melody and countermelody to disassociate and react asynchronously with respect to periodicity.

The organization of the countermelody follows a definite pattern based upon an intervallic relationship of the initial pitches of each phrase. A significant design can be seen in figure 6 where the first note of each phrase is extracted for comparison.



Fig. 6. Countermelodic Organization.

A pattern comprised of an ascending minor-third followed by repeated notes is repeated six times. The pattern of ascending minor thirds followed by repeated notes is

broken at measure 91 where the C-sharp is repeated only once. From here on, the pattern incorporates a single repeated-note figure until it dissolves at measure 142, where the G-sharp is not repeated.

Rhythmically, the piece is a perpetual motion exercise in eighth notes delineated by phrase groupings that depend upon the melodic rhythm. The eighth note scale passages are arranged around the melodic notes such that no repeated notes occur and the pattern is idiomatically designed for the piano.

The general rhythmic impression is that of superimposed trochaic and iambic patterns undergoing a continuing systematic shifting in phase relations. The iambic rhythmic pattern occurs more often than any other. The trochaic pattern is the second most often encountered rhythmic pattern.

Section B features a gradual increase in the attack density continuum. The increase results in diminution and temporary disruption of the melodic phrase structure. As diminution is encountered, the trochaic and iambic identities begin to be replaced with single note values. The replacement process is used here rather than the more common procedure of diminution that would produce shorter note values (e.g., sixteenth notes). Here, the shortest note value remains constant (the eighth note), but higher

levels of periodic organization are absorbed by the diminution. In figure 7 the periodic identity caused by the iambic and trochaic interplay is recognizable in the statement beginning at measure 85. The period beginning at measure 92 (figure 7) exhibits the disruptive diminution.



Fig. 7. Temporary Disruption of Phrase Structure.

The period beginning at measure 99 returns to the original rhythmic values found in the beginning of the piece. The disruption, the increased attack density, and use of extreme ranges is unique to section B.

The harmony in section A is a result of the combined melodic and counter-melodic action. The general harmonic effect is the result of the pentatonic black-key counter-melody in the LH superimposed against the pandiatonic white-key melody in the RH. The superimposed relation remains in force throughout sections A and B. In

Section A', chords appear first as melodic and countermelodic paralleling (mm. 99-111), then the harmonic texture is thickened into 3-part (mm. 112-118) then four- part paralleling (mm. 119-151). The doubling of the countermelody is increased only to 3-parts (LH measure 116). Triads, where they appear in the LH, are either F-Sharp major or D-Sharp minor. These two triads are the only ones available using only black keys. Similarly, all quartal structures found in the LH are based on G-Sharp, A-Sharp, and D-Sharp.

The two-part paralleling (mm. 99-111) displays a mixture of oblique, contrary, and parallel motion. An extract of the vertical structures in the entire A' section without the ostinato-like patterns appears in appendix 1. Occasionally, the LH and RH parts combine incidentally to form vertical structures that contain triads. At measure 100, an A-Major triad in first inversion appears on the second beat. Often, a clear triad would result if it were not for the key signature of B major (or G-sharp minor) in the LH part. At the downbeat of measure 105, an A-Major triad in first inversion with an added A-sharp appears. The A-sharp appears due to the key signature. A brief polytonal implication occurs here where the pitches in the RH combine to form an A7 chord (3rd omitted) while the LH

A very accurate description of the piece is the composer's own discarded title: Contraction-Dilation.⁷ The effect of contraction is clear in sections A and B. Here, ever-decreasing metric values lead to temporary annihilation of the phrase structure. The effect of dilation is evident throughout section A' where the LH is assigned increasing metric values at regular intervals (see figure 4, page 11). The dilation effect is further enhanced in the final section where each measure is increased by one additional eighth note.

In summary, *Désordre* (disorder) describes the displacement of various well-ordered structural parts. Rather than a lack of order, the piece displays order on more than one level. Two well-ordered systems unfold in the same space. The effect of the procedural multiplicity is disorder. *Désordre* is a perpetual motion etude featuring polymetric writing, dual modality, canonic imitation, and shifting accents.

The formal structure of *Désordre* follows a basic ternary pattern of A B A'. The outer sections (A and A') are linked by the presence of stable measures, melodic similarities, and rhythmic groupings and phrasing. Section A' differs from the section A by the presence of

⁷György Ligeti, *Etudes pour piano - premier livre*, facsimile edition 7428, (Mainz: Schott, 1986), cover.

harmony and a higher LH range. Moreover, metric adjustments made to LH instead of RH. Section B differs from the outer sections by the appearance of increased metric instability. Also, the use of extreme ranges and shorter phrases are unique to section B.

CHAPTER II

CORDES VIDES

The second etude in the collection is entitled *Cordes vides* (open strings). The etude features wide and varied use of perfect fifths. The title "open strings" is descriptive of the perfect fifths found throughout the piece that give the impression of stringed instruments tuning.

Thematic development in the traditional sense is not present. Emphasis is on atmospheric quality with streams of fifths intermingling with chromatic inflections. *Cordes vides* is dedicated to Pierre Boulez.

The form of *Cordes vides* is a continuous variation in three sections. Each section develops the perfect fifth relationships in a different way.

Section I (mm. 1-11) serves as an exposition.¹ Here, the music appears in constant eighth-note motion. The LH phrases are 7 eighth notes in length (except in the 1st group), while the RH phrases are of varying lengths. The melody (RH) and countermelody (LH) appear in

¹ The term "exposition" here is used in the generic sense, not in connection with the sonata form.

accented quarter notes and positioned as the first note of each phrase. Cross accentuation occurs between the two hands. The appearance of accented notes gradually decreases until in section II the last accented melodic note occurs in measure 21. The accented notes usually create the vertical interval of a third or sixth.²

Chromatic motion serves as a foil to the streams of perfect fifths that would otherwise dominate the texture of entire piece. A figure consisting of broken parallel fifths that move chromatically appears in measure 1 (see figure 9).

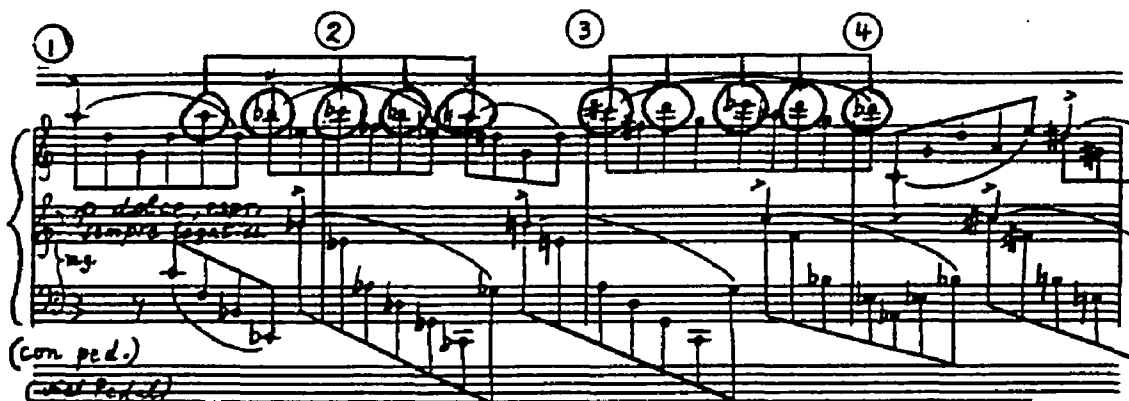


Fig. 9. *Cordes vides*, mm. 1-4,
Palindromes Constructed with the
Broken Parallel Fifths Figure.

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The broken parallel fifths figure is a prominent feature

² There are two exceptions occurring at measure 1, 2, and measure 8.

in later sections of the piece. It appears throughout section I in both hands.³ Short melodic palindromes built on the broken parallel fifths figure occur in the RH (mm. 1-2 & 3-4). In figure 9, the palindromes are highlighted by brackets.

Section II (mm. 11-29) consists of four subsections. These subsections are short but distinctly separate in content and treatment of the material. The subsections overlap making the formal divisions difficult to hear.

Subsection II-A (mm. 11-17, beginning on the 6th eighth note of measure 11) is separated from the previous section by the appearance of simultaneous open fifths in the RH. The open fifths correspond to the open e^2 , a^1 , and d^1 strings of the violin. At mm. 14-15 (figure 10) the fifths in the LH correspond to all four open strings of the viola. The three lowest open strings of the viola occur again at measure 15 in the RH. As seen in figure 10, the title is graphically portrayed in mm. 14-15 where the open strings of both stringed instruments occur. A triplet figure is introduced in the RH in measure 12. The triplets dominate the RH part throughout the subsection while the LH part remains dominated by eighth note

³ Additional appearances of the broken parallel fifths figure in section I occur in mm 4-5, measure 6, measure 7, measure 9, measure 10, and measure 11.

motion. The broken parallel fifths figure appears in the LH (measure 15) forming a palindrome. The palindrome begins on the fourth eighth note of measure 15 (see figure 10). The broken parallel fifths figure appears again in the RH in measure 16. Unlike the exposition, here the phrase lengths in the LH are irregular.

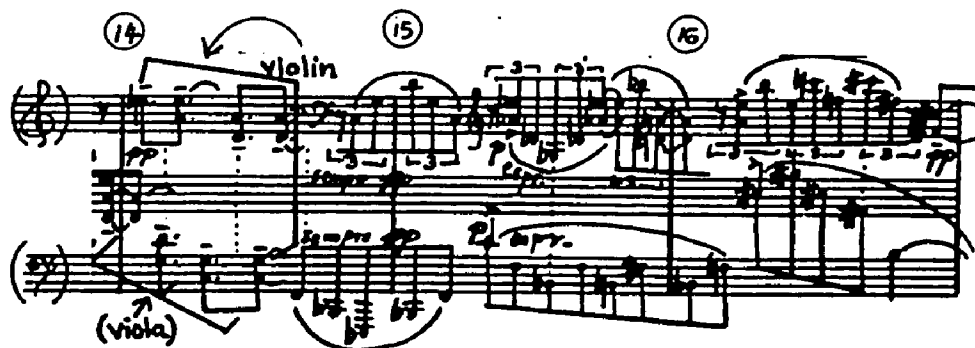


Fig. 10. *Cordes vides*, mm. 14-16.
Open Strings.

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Subsection II-B (mm. 17-20) begins on the second eighth note of measure 17 and ends on the second beat of measure 20. Unlike the previous subsection, subsection II-B is characterized by ascending streams of fifths in both hands. The assignment of the triplets is reversed from the previous subsection. In figure 11, the triplets appear mostly in the LH part while the RH is given duplets. At measure 17, the RH figure almost completes

the circle of fifths. The ascending circle of fifths begins on *g* (measure 17) and ascends by eight consecutive fifths to the *d-sharp*² in measure 18. The circle continues enharmonically to the *f*² in measure 18. The broken parallel fifths figure appears in the LH in mm. 17, 18, 19, and 20 and in the RH in mm. 18, 19, 20 and 21.

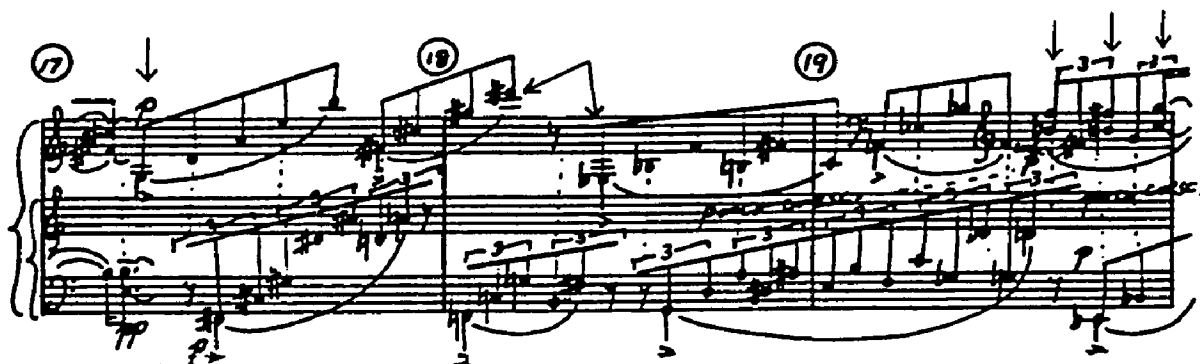



Fig. 11. *Cordes vides*, mm. 17-19.
Ascending Fifths.

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The figures are exchanged between the hands in a manner resembling *Stimmtausch* (voice exchange). The broken parallel fifths figure beginning on *d* in measure 18 in the LH (see figure 11) is extended to form an ascending chromatic scale passage in fifths. The passage continues to the *d*² in measure 19. The parallel fifths figuration in the RH in measure 19 is altered so the fifths occur

simultaneously rather than consecutively. A momentary cessation of motion occurs on the second beat of measure 20. Here, the eighth note triplet rest in the LH corresponds to the second half of the quarter note in the RH. The cessation of motion and the "subito piano" indication immediately following it serve to start a new subsection.

Subsection II-C (mm. 20-25) begins on the second beat of measure 20 and ends on the downbeat of measure 25. Overlapping occurs as the subsection begins with a continuation of the broken parallel fifths figure and *Stimmtausch* from the previous subsection. The distinguishing characteristic of the subsection is the appearance of a repeated-note figure () that is introduced two and one-half beats into measure 21 in the RH. The repeated-note figure is so named because each statement begins with a repeated note in the melody. The repeated-note figure is sequenced and transposed eight consecutive times. The music here (measure 21) is a variation of the altered parallel fifths figuration found in measure 19. The fifths in measure 19 occur simultaneously rather than consecutively. In measure 21, the fifths also occur simultaneously, but the melodic motion is no longer exclusively chromatic. The melody in the first three statements of the repeated-note figure

consists of a repeated-note followed by an ascending whole step and a descending perfect fourth (see figure 12). In the next three statements, (mm. 23-24) the ascending whole step is replaced by an ascending half step and the descending fourth is replaced by a descending fifth. In the final statement, a descending fourth replaces the descending fifth of the previous pattern.



Fig. 12. *Cordes vides*, mm. 21-25.
Repeated-note figure.

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The broken parallel fifths figure appears three times in the LH in mm. 23, and 24. In measure 24 the music is almost in a four-voice texture. The bass line is paralleled at the fifth causing consecutive parallel fifths. The alto is also paralleled at the fifth. On the first and second beats the soprano is paralleled at the

fifth instead of the alto. Here, the LH part contains elements of all previous sections. Ascending streams of fifths, the broken parallel fifths figure, and the triplet patterns are all present.

Subsection II-D (25-29) begins on the downbeat of measure 25 and ends on the second beat of measure 29. Overlapping occurs at measure 25 as the last statement of the repeated-note figure from the previous subsection appears in the RH. Here, the broken parallel fifths figure in the LH gives way to a descending arpeggiated figure. Subsection II-D features extreme dynamics, extreme vertical density, and rhythmic complexity. The ascending pattern at mm. 25-26 is the focal point of the movement as manifested by 3-note chords by fifths, extreme dynamics, density, extreme range, and rhythmic complexity. The music builds to and recedes from the focal point. The rhythmic complexity is a development of the triplet pattern first encountered in subsection II-A where it consists mostly of eighth note triplets superimposed upon regular eighth notes. In measure 26 a rhythmic diminution occurs where sixteenth note triplets are superimposed upon sixteenth notes. Also in figure 13, the dynamic indication "crescendo molto" also serves to enhance the importance of the focal point. The attack density and rhythmic complexity peak at measure 26.

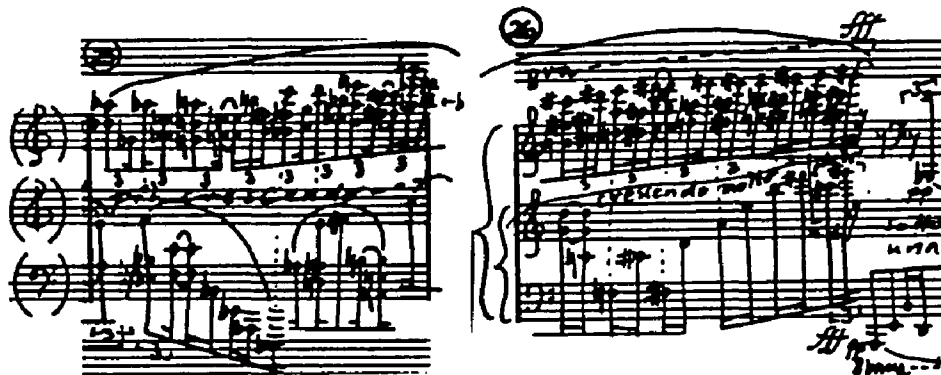


Fig. 13. *Cordes vides*, mm. 25-26.
Focal Point - Section II.

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In measure 27, the three-note chords by fifths that were encountered in the previous measure are developed horizontally in both hands. A passage in four voices (see figure 14) in measure 28 exhibits the most rhythmically complex passage in the piece. Four separate strata of durations are superimposed. Here, eighth note and sixteenth note triplets in the RH occur simultaneously with eighth notes and sixteenth notes in the LH. The soprano and tenor voices move in mostly chromatic stepwise motion, while the alto and bass voices proceed predominantly by leap. The passage is unique -- it is the only passage in the composition where four distinct separate voices occur. The bass and tenor parts descend while the alto and soprano remain in the same general range. The passage is somewhat reciprocal to the quasi

four-voice episode in measure 24.

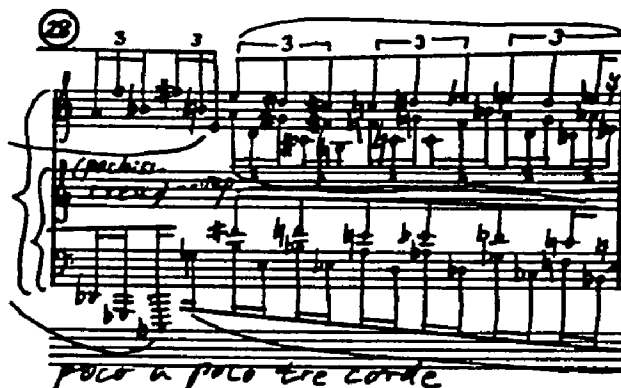


Fig. 14. *Cordes vides*, measure 28.
Four-Voice Texture.

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In measure 24, ascending motion builds tension as the music moves toward the focal point. In measure 28 the descending motion serves to relax tension as the music moves away from the focal point.

Section III (mm. 29-39) begins on the second beat of measure 29 (marked "F sonoro") and ends in the last measure of the piece. Section III features 32nd-note motion. The dynamic level in section III is softer and static harmony can be found. The general appearance of section III is somewhat deceptive where at first glance the 32nd note passages seem to suggest a denser more active texture. However, these passages are quiet and often very harmonically static.

Section III can be divided into two subsections. Subsection III-A (mm. 29-32) begins on the second beat of measure 29 and ends on the fourth beat of measure 32. The subsection features streams of fifths in both hands that set up a static harmony. The harmony consists of pitches arranged exclusively in fifths. The harmony introduced on the second beat of measure 29 remains static until the fourth beat of measure 30. A series of chromatic adjustments suddenly interrupts the harmonic stability at measure 31. In figure 15, points of interruption are marked by an X. The chromatic interruptions, occurring at eighth note intervals, form a descending sequence that outlines the tritone. The pitches involved in the descending sequence in the RH of measure 31 are anticipated in the LH on the fourth beat of measure 30.



Fig. 15. *Cordes vides*, mm. 29-31.
Chromatic Interruptions.

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The appearance of the broken parallel fifths figure in the LH in mm. 31 and 32 serves to further destabilize the harmony. The presence of the melodic tritone following an extended harmonically static period highlights the instability and gives the passage a transitional character.

Subsection III-B (mm. 32-39) begins on the fourth beat of measure 32 and extends to the end of the piece. The subsection features a thinner texture. The 32nd-note motion is assigned to the LH forming a quasi-*Stimmtausch* effect with the previous subsection.

The subsection appears as a coda (tail-section) to the entire piece. The coda could be given the status of a fourth section, but its brevity and the strong presence of elements from other sections (32nd-note motion in the LH) suggest a subsection. The character of the coda is further enhanced by the presence of a melodic line in style foreign to the rest of the piece.

The melodic passage with its wide leaps is reminiscent of natural horn passages based on the lower overtone series. The short melody based on fifths is introduced in measure 32 in the RH (see figure 16).

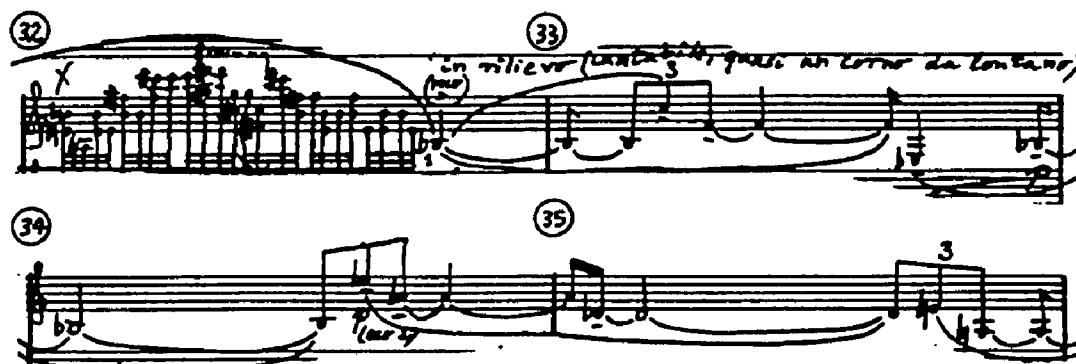


Fig. 16. *Cordes vides*, mm. 32-35.
Melodic Passage in the Coda.

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The character of a horn passage is further suggested by the range and the Italian instructions appearing in the score at measure 33.⁴ *Lontano* (distant, far away) passages are often very lyrical and smooth. The melodies usually begin and end with long note values. The phrases often contain ties over the barline, ties to and from triplet figures, and a variety of triplet and non-triplet figures. Figure 17, an excerpt from *zehn Stücke für Bläserquintett*⁵, shows a passage that is similar in many respects to the melody in figure 16. Both melodies contain wide leaps, ties, triplet figures, and long note

⁴ *in rilievo* (cantabile, quasi un corno da lontano)
In relief (Song-like, somewhat like a far away horn)

⁵ György Ligeti, *zehn Stücke für Bläserquintett*, Studien - Partitur Edition Schott 6304, (New York: Schott Music Corp, 1968), 31.

values. The ranges of the two melodies are also similar.⁶

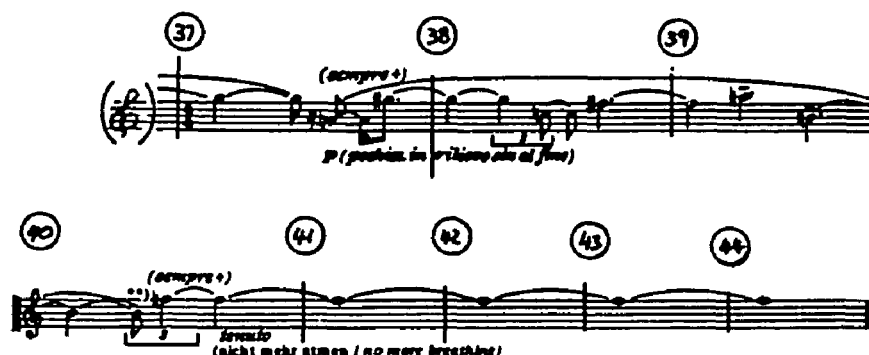


Fig. 17. *Zehn Stücke für Bläserquintett*,
Piece No.8, mm. 37-44.

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The open-string fifths first encountered in section II return at measure 36. Here, the pitches correspond to the open strings of the viola (see figure 18). Also at measure 36, the LH pattern becomes more stable with fewer chromatic shifts. The LH pattern, consisting of reiterated open fifths in sixteenth note triplets, finally settles onto the lowest possible pitches of the piano. The note values become longer and gradually all rhythmic motion stops.

⁶ The music in figure 6 is in F and sounds a perfect fifth below the indicated pitches.

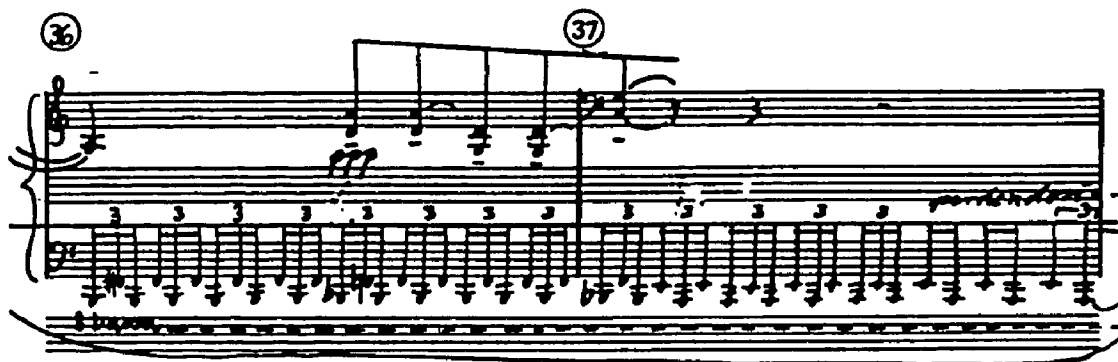


Fig. 18. *Cordes vides*, mm. 36-37.
Open Strings in the Coda.

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In summary, the composition is divided into three sections. Section I sets forth the main ideas to be developed in the later sections. The interval of a perfect fifth appears throughout the piece in many ways. Section I also introduces a broken parallel fifths figure that serves as a foil to the streams of perfect fifths.

Section II is divided into four short subsections. In subsection II-A, open fifths based on the open strings of the violin and viola appear. Also, the triplet figure is introduced. In subsection II-B, ascending streams of perfect fifths occur in triplet patterns. In subsection II-C, a repeated-note motive is introduced. In subsection II-D, a dense texture, extreme dynamics, extreme range, and 3-note chords by fifths interact to create a focal

point or climax.

Section III, subdued by contrast to the previous section, is divided into two short subsections. In subsection III-A, 32nd-note motion is introduced in the RH and a harmonically stable pattern based on fifths is created. Subsection III-B is the coda (tail section) of the entire piece. It contains 32nd-note motion from the previous section and a melody in a style foreign to the rest of the piece. The melody has wide leaps and is reminiscent of natural horn passages based on the lower overtone series.

The general harmonic effect of the entire piece is that of streams of perfect fifths interrupted by frequent chromatic alterations. Rhythmically, the piece moves continuously from simple eighth note motion in section I, to the more complicated triplet patterns in section II, to the less complicated rhythms in section III.

CHAPTER III
TOUCHES BLOQUÉES

The third piece is a perpetual motion etude entitled *Touches bloquées* (blocked keys). The etude is dedicated to Pierre Boulez. The title refers to a technique of piano playing whereby prescribed keys are held down silently with one hand while the other hand plays patterns that involve some of the held keys. The composer has provided a reference to the technique in the score.¹ The technique, illustrated by Henning Siedentopf,² is an attempt to produce self-propelling rhythm. Rhythm is produced as blocked keys interfere with the normal execution of key patterns.

The roles of the player and instrument are reversed. The musician is the mechanical producer of uniform figures and the instrument, by pre-programmed intervals, is the actual individualizing factor. This technical procedure, the automation of rhythm, relieves the

¹György Ligeti, *Études pour piano, premier livre*, Facsimile edition, ED 7428, (Mainz: B. Schott's Söhne, 1986), 13. A translation of all manuscript notes appears in appendix 5.

²Henning Siedentopf, "Neue Wege der Klaviertechnik," *Melos* 40 (1973): 143-146.

musician of the need to reproduce rhythm. He needs no longer check the multi-faceted, broken rhythm, or read along with the score. These troubles are removed for him by the partly-blocked keyboard.³

Figure 19 illustrates the technique. In figure 19 (example a) the keys g^1 , a^1 , and c^2 are held down silently with the LH while the ascending five-note sequence of eighth notes is played by the RH.

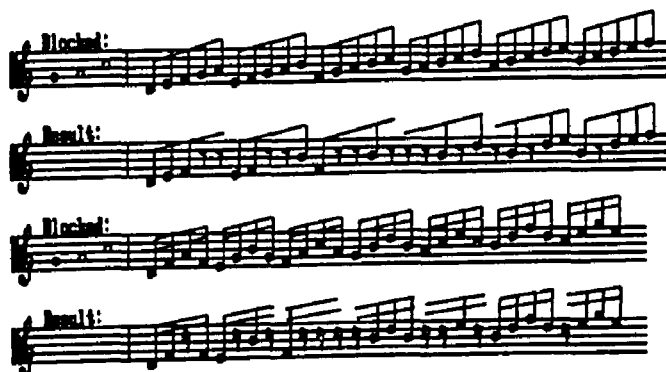






Fig. 19. Examples of Key Blocking Technique.

The resultant rhythm is shown on the second stave where eighth rests indicate the blocked keys. In figure 19 (example b) the pattern (third stave) consists of a sequence of broken triads in sixteenth notes. The resultant rhythm is shown on the fourth stave. The composer provides the following explanation of how the technique occurs in the piece:

³Siedentopf, *Neue Wege*, 145.

The  -etc. note succession is played as fast as possible (ex: still faster). The succession of the notes will be interrupted by a small pause where the small note heads show the non-sounding keys. Sounding and non-sounding notes will be played with the same speed, so that the short pause represented by the small note heads are as long as the sounding notes. Relatively longer pauses originate by placement of several non-sounding notes one after another. The length of the pause is automatically regulated.⁴

The blocked keys in *Touches bloquées* are indicated by diamond-shaped notes in the LH (). Small note heads appearing in the scalar passages show where the blocked keys occur in the ostinato-like passages.

The normal notehead [] means that the note sounds. The small note head [] means that though the key is to be struck, the note doesn't ring because the corresponding key will already be played and held down in the other part.⁵

The measures vary in length and no time signatures are to be found anywhere in the piece. The composer provides the following explanation:

Barlines: There are no meters in this piece. The barlines serve only as orientation. They have neither metric

⁴ Ligeti, *Études pour piano*, 12.

⁵ Ibid., 11.

nor articulatory function. The durations of the individual bars are derived solely from the number of successive attacks (of both the free and blocked keys); therefore the bars have varying durations.⁶

The movement can be divided into three main sections that produce an incipient ternary form.⁷ Section A (mm. 1-71) divides into four subsections.

Subsection A-1 (mm. 1-23) is characterized by eighth note motion in RH. The ostinato-like scalar figuration has a very chromatic appearance,⁸ but the actual sound (produced by the normal-sized noteheads only) contains many whole-steps. These whole-steps (and skips beginning in measure 6) give the music a quasi-diatonic sound. Rhythmically, the appearance of continuous eighth note motion is deceiving since only the normal notes produce sound. The small notes indicate blocked keys and represent eighth rests. Figure 20 illustrates the actual sound.

⁶ Ligeti, *Etudes pour piano*, 13.

⁷ The A section is disproportionately larger than the other sections:

A section: 71 measures

B section: 19 measures

A' section: 23 measures

The imbalance of length is the reason for the designation of "incipient" ternary.

⁸ It is entirely chromatic until ms 6.



Fig. 20. Actual Sound of RH mm. 2-5.

In subsection A-2 (mm. 24-40) the eighth note motion is assigned to the LH. The alternate assignment of the eighth note pattern between the two hands is repeated in the next two subsections. In subsection A-3 (mm. 41-51) the eighth note pattern returns to RH and in subsection A-4 (mm. 52-71), it returns to the LH.

Section B, marked "Poco Meno Presto" (mm. 72-91), features shorter measures, and dramatic parallel octave passages that are not found in other sections of the piece. The extreme dynamics, high pitches, and alternating areas of the pitch continuum in a quasi-antiphonal manner are also foreign to the other sections. Section A' "Tempo I" (mm. 92-115), marks a definite return to the texture and procedures of section A. Section A' contains the longest measures of the entire piece.⁹ Unlike section A, the eighth note pattern in

⁹Measure 106 (of the A' section) is the longest measure in the entire piece. It contains 22 eighth-notes.

section A' features more skips and leaps.

All adjacent normal notes (sounding notes) appearing in the ostinato-like patterns are slurred together.¹⁰ Figure 21 lists all normal notes that occur adjacently throughout the piece.

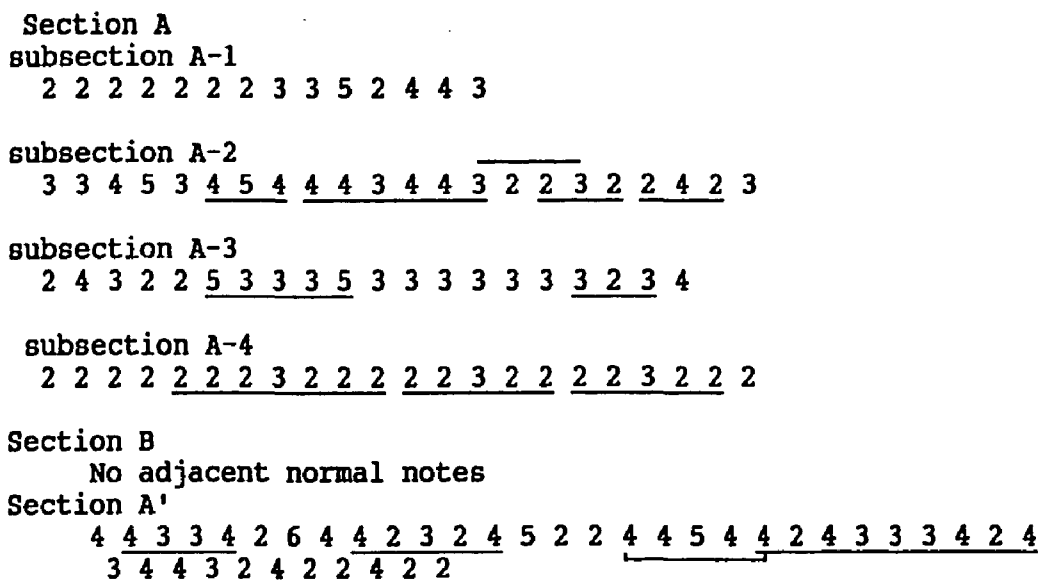


Fig. 21. Adjacent Normal Notes (Sounding Notes, Palindromes Underlined).

Figure 21 shows numbers of occurrences of adjacently placed normal notes only. For example, the number 2 would indicate two normal notes occurring consecutively without small notes between them. Likewise the number 5 would mean five consecutive normal notes.

¹⁰ Normal-sized noteheads indicating sounding pitches as opposed to the small-sized note heads which serve to show the rhythmic position of the blocked keys.

The adjacent normal notes (sounding notes) are occasionally arranged in palindromic order. The palindromes are underlined in figure 21 (above). Most of the adjacent normal note palindromes appear in section A'. Only six occur in section A and none are to be found in section B. The wide variety of patterns, irregular placement, and lack of exact repetitions in these palindromes suggest an intuitive rather than a precompositional or structural approach to their construction.

The actual rhythm that is generated by the blocked-key technique begins in a manner that suggests minimalism. The rhythmic sequence found in mm. 2 and 3 is repeated 6 times consecutively. The pattern changes at measure 14 where an additional pulse is introduced. The pattern is abandoned by measure 17 where irregular appearances begin to make the rhythmic patterns unpredictable. As the patterns become more unpredictable, the music loses the minimalist effect. The next appearance of a stable rhythmic pattern is found at measure 52. Here, a regular alternation between one and two-note figures separated by eighth rests (caused by the blocked-keys) continues to measure 56. The pattern returns at measure 60 and ends at measure 63. The rhythm in section A' is unpredictable. The rhythmic phrases here

are of widely varying lengths and the negative spaces provided by the blocked-keys are less prominent than in section A.

The musical texture is generated by three distinct levels of rhythmic activity. Level I consists of the eighth note ostinato-like pattern that relies on the blocked-key technique to generate self-propelled rhythm. Level II is represented by the staccato-note passages. A third level is generated by notes that are struck normally but held down to form blocking keys.

The third level introduces the only long note values to be found. Here, the blocked keys provide a negative space that prevents the notes in level I from sounding. As more adjacent keys are blocked, negative clusters -- blank areas in the pitch continuum are formed. The negative spaces are often very lengthy. The first negative cluster (beginning in measure 1) is held until measure 24. The negative E-flat minor triad beginning in measure 51 continues until measure 65. The extreme length of the negative spaces produces the effect of a negative pedal point. The use of negative space acts as a foil to the other textural levels in two ways. First, the blocked pitches prevent the notes in level I from forming an uninterrupted chromatic scalar passage. Second, the extreme length of the negative spaces acts as

a rhythmic foil against the fast notes of the other two textural levels.

Occasionally, the texture is reduced to two levels. The staccato notes of level II are abandoned at measure 65 leaving two levels -- level I (the ostinato-like eighth note pattern) and level III (the negative spaces formed by the blocked keys).

The use of the pitch continuum follows a definite pattern. Section A begins in the middle of the continuum. Gradually, the music moves downward until it arrives at the lowest pitch of the piano in measure 71. In figure 22, patterns in the upper, middle, and lower areas of the continuum are presented alternately in section B.



Fig. 22. *Touches bloquées*, mm. 82-87. Alternating Areas of the Pitch Continuum.

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In section A' the continuum returns to the middle area of

the piano. The music moves gradually downward toward the end of the piece, but not as far as in section A.

Three-note chords appear to increase the density of level I in mm. 47-51. In measure 47 and the first half of measure 48, tertian chords appear in first inversion. Second inversion tertian chords appear mm. 48 and 49. The second chord in measure 49 is a root position minor seventh chord without the third. The chords from here on are built exclusively on black-keys. The chords in mm. 50-51 (see figure 23) alternate between tertian triads and 3-note quartal chords. In figure 23, the trichords occur as punctuations at the ends of adjacent normal note (sounding note) figures.¹¹

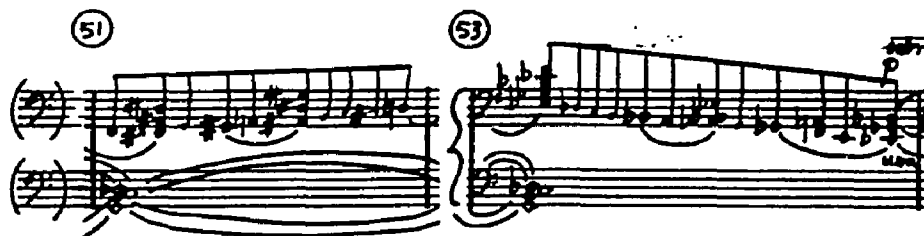


Fig. 23. *Touche bloquées*, mm. 50-51.
Trichords.

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¹¹ The term "trichord" indicates a three-note vertical structure. The term is inclusive of triads, quartal chords, or any vertical 3-note pitch collection.

The chords are not arranged in a hierarchical sense of key area as in tonal music. They appear rather as sudden interjections that underscore the melodic notes appearing as the top note of each chord.

The melody (generated by the top chord-notes of level I) begins in measure 42. Here, the top notes of the dyads form a melodic entity that continues to measure 52. The melody reaches two peaks. The first occurs at measure 47 (figure 24) where the high note is approached by an ascending chromatic step. The second apex occurs on the downbeat of 51 where the highest note of the melody occurs. The second peak is reinforced by a four-note chord.

The melodic motion is interrupted by the single normal notes and the blocked keys. The melody begins with a repeated note (mm. 42-43) then proceeds in stepwise motion until measure 45. Here, the melody moves primarily by leap. A connection between the horizontal and vertical structures emerges as the melodic notes at measure 46 begin to outline tertian chords.

The melodic notes in measure 46 present an enharmonic spelling of an E-flat major chord. The melodic notes in mm. 47 and 48 outline a B-minor triad in first inversion. The B-minor triad in first inversion also appears vertically in measure 47 (figure 24, 2nd eighth

note).

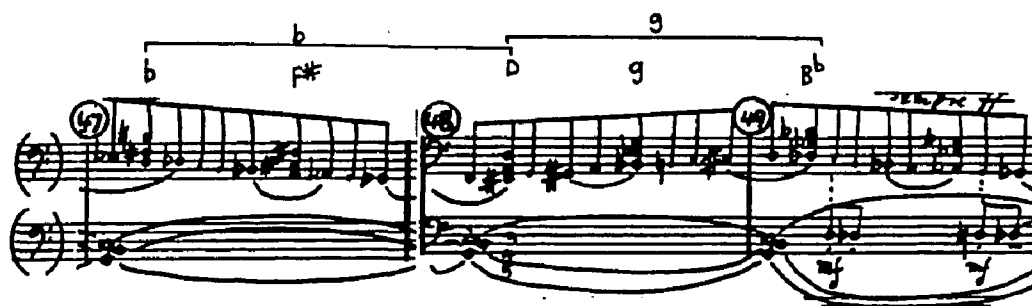


Fig. 24. *Touches bloquées*, mm. 47-49.
Trichords.

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The melodic notes of mm. 48 and 49 (1st beat) outline a G-minor triad in second inversion. An E-flat minor seventh chord is outlined enharmonically by the melodic notes in mm. 49-51. Concurrently, an enharmonic spelling of a D-sharp quartal chord in root position is outlined in mm. 50 and 51 (1st beat). The vertical chord on the downbeat of measure 51 is anticipated by the horizontal presentation of the chord tones.

The most contiguous melodic structures occur in section B. Here, the notes follow one another without interruption by blocked keys. However, the melody is constructed in very short phrases that never exceed five notes in length. The phrases are separated by short pauses.

The melody in section B begins with 3-note and 4-note descending segments. The melody is doubled in octaves from measure 75 to the end of the section. The last appearance of the 4-note figure occurs at measure 77. At measure 78 a 3-measure pattern appears consisting measures of 3, 2, and 5. The pattern is repeated in mm. 81-83. The general melodic direction is retained during the repeat. The dynamics gradually increase reaching an extreme level in measure 84 (*sempre FFF*). From here on, the section remains at the increased dynamic level. Minor seconds are added throughout the section as an accentuation device. Each phrase contains one note that is accentuated by the addition of a minor second. The accents caused by the presence of minor seconds often shift from one measure to the next creating an unexpected accentuation pattern.

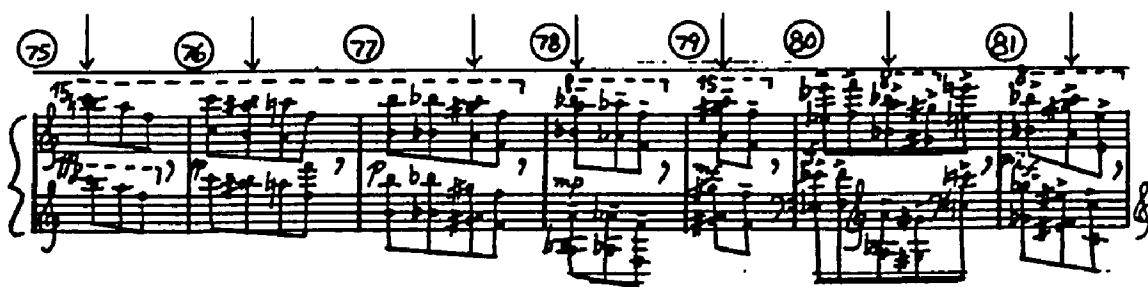


Fig. 25. *Touches bloquées*, mm. 75-81.
Shifting Accents.

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In figure 25 the minor seconds cause an irregular accentuation to occur. At mm. 83 and 84 the minor second accents occur on the third pulse while in measure 85, the accent occurs on the fourth pulse. The accent returns to the third pulse in measure 87.

The staccato notes of level II are a middle area between level I and level III. The staccato notes unfold at a much slower rate than the adjacent normal notes in level I and at a much faster rate than the blocked-key notes of level III. Level II begins in measure 3 in the LH. At first, the staccato notes are anticipated in level I (the perpetual motion eighth note passage). Figure 26 shows the imitative connection between the two textural levels.

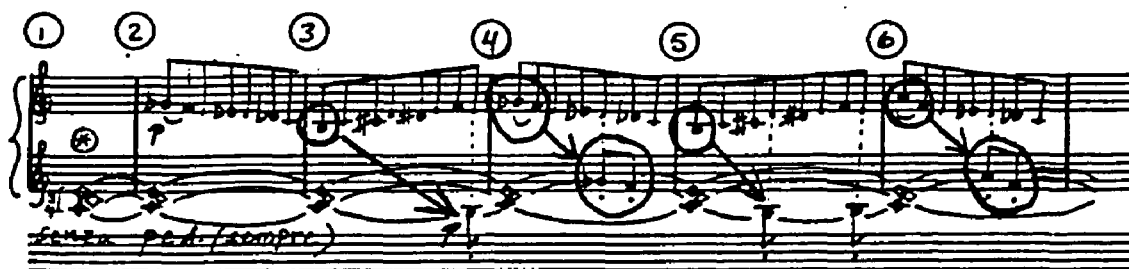


Fig. 26. *Touches bloquées*, mm. 1-6.
Imitative Connection Between
Textural Levels I and II.

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At measure 9 the staccato notes begin to deviate from the

imitative role. The final clear imitation occurs at measure 18.

At measure 24 the staccato notes begin to form a recognizable melodic structure. Two melodic elements -- A two-note chromatic motive, and a single note motive, appear in various guises. The two-note motive ends at measure 35 but reappears in measure 48.

In section A' the single-note melodic motive of level II returns, but the two-note motive is absent. A three-note figure occurs in mm. 101 and 102 but is immediately discontinued. At measure 106 a four-note melodic palindrome occurs. The palindrome is sequenced, appearing down a half-step in mm. 107 and 108.

The most unusual idea in the etude is the generation of rhythm using the blocked keyboard technique. The piece proceeds in three distinct textural levels. Level I is generated by the eighth note passages. Level II is less rhythmically active than level I. It is formed by staccato notes that begin in an imitative manner but soon branch off to become a distinctly separate entity. Level III is formed by the blocked keys producing long negative spaces. The piece is divided into three sections. Section A is divided into four subsections by the alternation between the hands of an ostinato-like figure in eighth notes. Section B is the

climax of the movement featuring short measures, extreme dynamics, and alternating use of the pitch continuum.

Section A' is similar to the first except that the blocked-key ostinato-like pattern is no longer generated by chromatic passages, but includes skips as well.

CHAPTER IV

FANFARES

The fourth piece is a perpetual motion etude entitled *Fanfares*. It is dedicated to the German pianist Volker Banfield. The title *Fanfares* refers to the melodic phrases, particularly where horn-fifths are quoted or implied, or where passages of open fifths and fourths occur. Also, the antiphonal effects caused by hand exchange allude to the title. Parallel fifths and open fifth/fourth combinations that suggest of the sound of brass instruments are frequent. The combinations occur low in the overtone series, and are therefore more readily identified with the brass family than the other higher-overtone oriented families such as woodwinds.

An ostinato figure consisting of an ascending octatonic scale is repeated throughout the movement. Unlike the more common octatonic scale built by alternating half steps and whole steps, the scale here is constructed with two identical disjunct tetrachords.¹ The tetrachords are identical to the first tetrachord of the major scale. Throughout the piece, the first tetrachord

¹The scale is spelled : C,D,E,F,F#,G#,A#,B.

always begins on C and the second tetrachord always begins on F-sharp. The notes of the scale are always accented in rhythmic palindromic groups of 3+2+3, providing a steady rhythmic pulse over which the melodic structures develop. The effect of the music is similar to improvised jazz where a soloist is free to create rhythmic variances while a steady rhythmic background is maintained. The composer indicates that the ostinato should play a background role allowing the melodic figures to protrude.²

Horn-fifths, fragments of horn-fifths, and modified fragments of horn-fifths appear throughout the piece.³ Figure 27 is an example of an authentic horn-fifth figure.

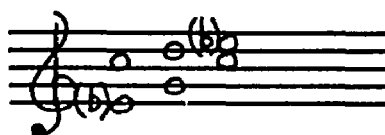


Fig. 27. Authentic Horn-fifth Figure.

An authentic horn-fifth figure follows the intervallic and tonal scheme of the example in figure 27. Fragments

² György Ligeti, *Études pour piano-premier livre*, (Mainz: Schott, 1986), 17. A complete translation of the manuscript notes appears in the appendix.

³ *Harvard Dictionary of Music*, 2nd ed., s.v. "Parallel (consecutive) fifths, octaves."

of horn-fifths are incomplete passages that follow the intervallic and tonal scheme of figure 27. An example of a horn-fifth fragment is shown in figure 28. The minor 6th occurring on the last beat of measure 2 leads to the perfect fifth on the downbeat of measure 3 forming a fragment of a horn-fifth in the key of Db major.

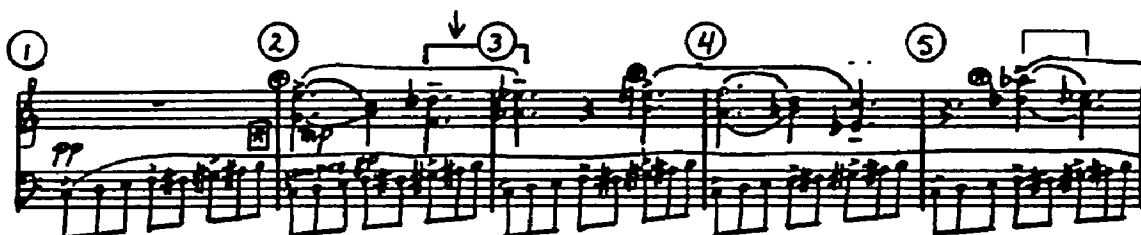


Fig. 28. *Fanfares*, mm. 1-5.
Horn-fifth Fragment.

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In measure 5 (see figure 28) the perfect fifth followed by the minor third forms a modified horn fifth fragment that resembles the horn-fifth by virtue of the intervals. However, the fifth and third belong to different key areas.

Occasionally, a horn-fifth fragment is elided with a modified horn-fifth fragment as in figure 29. The first two structures of measure 7 are a modified horn-fifth fragment.



Fig. 29. *Fanfares*, measure 7. Elision of Horn-fifth Fragment with Modified Horn-fifth Fragment.

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The fifth and the third belong different key areas. The minor third acts as a pivot chord becoming the first interval of an authentic horn-fifth fragment. The minor third is followed by a perfect fifth on E. The horn-fifth fragment is, therefore, in the key of a-minor.

Fanfares is cast in a sonata-rondo form (ABACABA), which is modified by the abbreviation of the recapitulation. Further, the traditional sonata-rondo episode (C) is expanded into a ternary development section. The formal structure of *Fanfares* is shown in table 1. Unlike the traditional 18th century sonata-rondo form, the exposition is not repeated and the traditional tonic-dominant key relationship is not present.

TABLE 1

FANFARES -- FORMAL STRUCTURE

| | | |
|------------------------|------------------------------|------------------------------|
| Exposition (mm. 1-87) | Development (mm. 88-171) | Recapitulation (mm. 171-214) |
| Section A (mm. 1-45) | Subsection I (mm. 88-116) | Section A (mm. 171-202) |
| Section B (mm. 46-63) | Subsection II (mm. 116-137) | Section B (mm. 202-214) |
| Section A' (mm. 63-87) | Subsection III (mm. 137-171) | |

The exposition (mm. 1-87) consists of three sections (A,B,A') like the traditional sonata-rondo form. Unlike the traditional form, the exposition here contains no themes or transitional passages. Instead, two contrasting melodic passages are introduced.

In section A (mm. 1-45) the melodic phrases are synchronized with the accents in the ostinato pattern. The most common melodic interval in section A is the 2nd, followed by the third. No melodic sixths or sevenths occur in section A. Horn-fifth fragments and modified horn-fifth fragments occur often throughout section A. The basic melodic units are the quarter note and dotted-quarter note. The melodic passage in exposition A employs longer note values and fewer leaps than the melodic passage in section B.

In section B (mm. 46-63) melodic accentuation becomes unsynchronized with ostinato. The eighth note becomes the basic melodic unit as opposed to the quarter note and dotted-quarter note motion of section A. The melody in section B appears in shorter note values, and

is more intervallically disjunct. Melodically, sections A and B differ in the following ways: in section B, note values are shorter, intervals are wider, and melodic figures are accented independently of the ostinato accents. These features can be seen in figure 30, an excerpt from the melody in section B. Figure 30 shows three melodic phrases appearing over three statements of the ostinato pattern. The ostinato remains constant, with accents forming a pattern of 3+2+3. The phrasing and cross-accentuation of the melodic phrases in the RH create a polymetric effect. The first melodic phrase is grouped in a 6/8 pattern. The second phrase (beginning on the seventh eighth-note of measure 51) is also grouped in a 6/8 pattern.

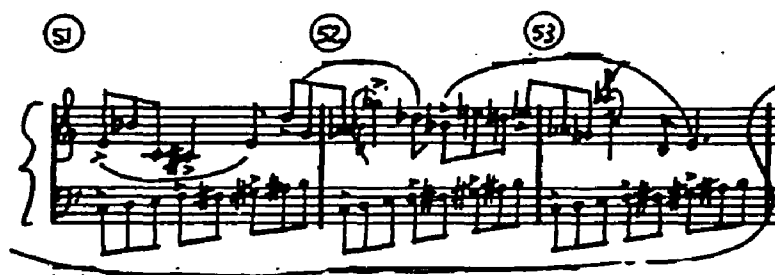


Fig. 30. *Fanfares*, mm. 51-53. Polyrhythmic Passage in Section B.

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The third phrase (beginning on the fifth eighth note of

measure 52) is grouped in a pattern of 9/8. The composer provides a reference note in the score at measure 51 that clarifies his intentions:

The articulation of the melodic phrases is independent of the bar lines. The bars lines are only for synchronization of the two hands.⁴

In section A' (mm. 63-87) the melodic phrases are synchronized as they were in section A. The chord density and dynamic levels form an inverse relationship to section A. In section A the dynamic intensity and chord density increases toward the end of the section, while here, the dynamics and chords decrease as the section progresses.

The development section (mm. 88-171) resembles the traditional sonata-allegro form in that it draws upon motivic ideas from the exposition as a point of departure.⁵ The sonata-rondo form contains a contrasting episode (C). Here, the form is modified by replacement of the episode with a development section. The development

⁴György Ligeti, *Études pour piano*, 18.

⁵The term "development" (borrowed from the sonata-allegro form) is used here rather than the corresponding sonata-rondo term "episode" due to the great length of the section. Further, the character of the music is more closely related to the exposition and not "episodic" in nature.

section (mm. 88-171) is comprised of three subsections.

In subsection I (mm. 88-116) horn-fifth fragments from section A are developed by combining the shorter note values of section B with the longer values of section A. In figure 31, eighth note motion applied to the horn-fifth fragments appears in the LH. The second circled figure in figure 31 is an authentic horn-fifth figure.

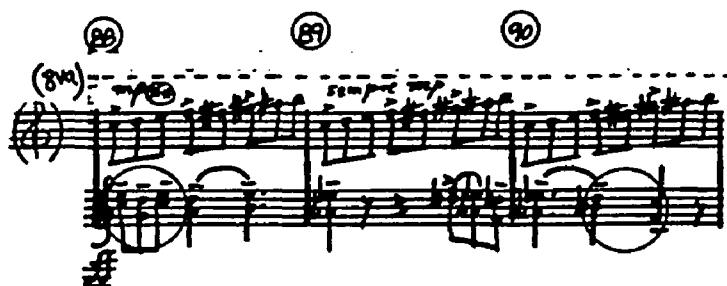


Fig. 31. *Fanfares*, mm. 88-90. Development of Horn-fifth Fragments.

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In subsection II (mm. 116-137) the polyrhythmic melodic groupings of 3+2+2 in the RH produce cross accentuation with the 3+2+3 pattern in the LH. In figure 32 the cross-accentuation can be seen between the two hands. The RH is accented in groups of 3+2+2. Horn-fifths fragments are circled.

Subsection III (mm. 137-171) begins with a two-

measure interlude where the ostinato appears alone. The melody returns at measure 139 developing the polyrhythmic idea from section B, but with the closer intervals of section A.

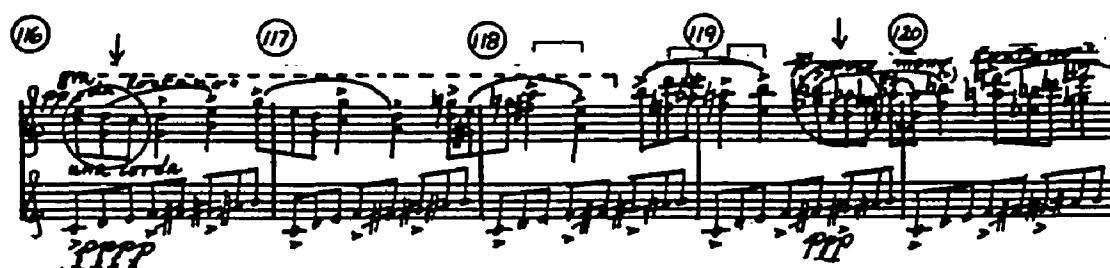


Fig. 32. *Fanfares*, mm. 116-120. Polyrhythmic Passage in Development Subsection II.

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At measure 148, the quarter note melodic motion of section A begins to reappear at the end of the phrases. Horn-fifth figures and fragments occur consecutively at the end of the development section (measure 167). The combination of elements from both sections B and A culminates in the final four measures where the horn-fifth fragments appear in eighth note motion. In figure 33 the appearances of the horn-fifth fragments are circled. The appearance of the fragments here is a development of the horn-fifth figures first encountered in the exposition.



Fig. 33. *Fanfares*, mm. 167-171.
Consecutive Horn-fifth Fragments.

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In the exposition, the figures appear in long note values and are interspersed with foreign elements (see figure 26). Here, the figures appear in rhythmic diminution (eighth-notes) and are authentic horn-fifth fragments rather than modified horn-fifth figures.

The recapitulation (mm. 171-214) resembles the traditional sonata-rondo form recapitulation in that a distinct return of previous material occurs. Also, like the traditional form, the material is transfigured with a new sense of vitality as manifested by the development process. The recapitulation features a distinct return to the longer melodic note values of the A section but with extreme dynamics. The recapitulation is abbreviated, (the A' section does not return) exact restatements of previous melodic material are not found, and there is no

sense of a return to a tonic key area. The recapitulation consists of two sections. Recapitulation section A is the climactic section (mm. 171-202), and recapitulation section B is the coda (mm. 202-214).⁶ The coda features melodic elements of section B.

Recapitulation section A (mm. 171-202) begins with horn-fifth fragments and modified horn-fifth fragments in quarter note motion. The appearance of the fragments here bears a strong resemblance to the beginning of section A. In figure 34 the appearance of the horn-fifth fragments and modified horn-fifth fragments appear in each phrase. An authentic horn-fifth figure occurs at measure 174. The quarter note motion is a manifestation of section B where cross-accentuation occurs.



Fig. 34. *Fanfares*, mm. 171-175.
Recapitulation.

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⁶ The designation "recapitulation" is used to differentiate between sections of the exposition (e.g., section A) and the recapitulation (e.g., recapitulation A).

Here, the accentuation and steady rhythmic motion contributes to the strength of the melodic statement. The sudden dynamic increase ("FF sub.") and the longer note values provide a definite contrast to the previous sections. The contrast also tends to strengthen the sense of return.

As the section continues the melody undergoes rhythmic augmentation (see figure 35). Rhythmic augmentation begins at measure 189 and continues until measure 199 where the rhythmic motion comes to a complete halt. The climactic point of the entire piece occurs at measure 197 where the augmentation and dynamics reach extreme proportions ("ffffff"). After a two-measure link (mm. 200-201), recapitulation section B (the coda) begins.



Fig. 35. *Fanfares*, mm. 189-192.
Rhythmic Augmentation in
Recapitulation Section A.

Recapitulation section B is a short section that acts as a coda to the entire piece. Here, authentic horn-fifth figures and horn-fifth fragments return. In figure 36 the authentic horn-fifth figures are circled and the horn-fifth fragments are shown by an arrow.

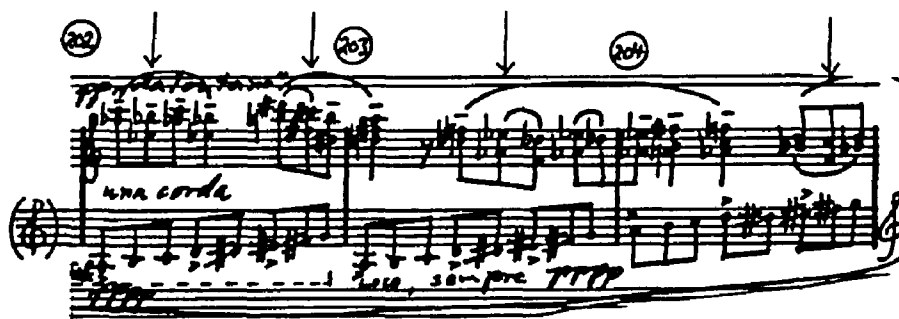


Fig. 36. *Fanfares*, mm. 202-204.
Authentic Horn-fifth Figures and
Horn-fifth Fragments in the Coda.

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The last appearance of an authentic horn-fifth figure occurs at 208 in E-major. The movement ends with an augmented modified horn-fifth fragment. The horn-fifth fragments occur in the eighth note values of section B. The dynamics, in contrast to the previous section, range from "pppp" to "pp." An authentic horn-fifth figure occurs in eighth notes at measure 208, and the piece ends with an augmented modified horn-fifth figure.

The general harmonic language suggests an

asystematic approach as no specific harmonic system or language is followed. As seen in figure 37, tertian triads (a), prime set-forms (b), and non-prime pitch collections (c) occur throughout the piece in no particular hierarchical order.⁷

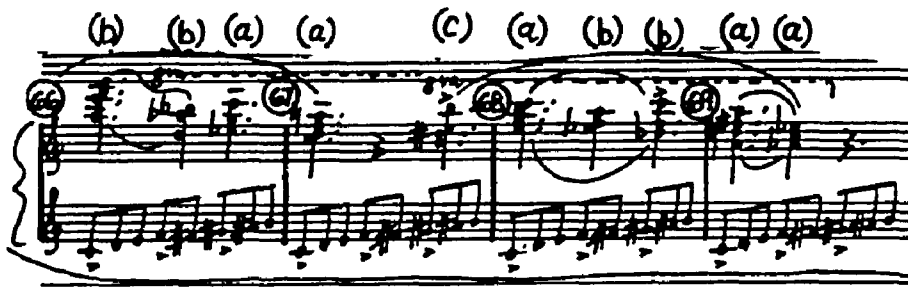


Fig. 37. *Fanfares*, mm. 66-69.
Harmonic Structures.

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Figure 37 shows a sample of the kind harmonic succession encountered in the piece. Tertian harmonic structures occur sporadically and out of the context of traditional harmony. Major and minor triads occur often. These are most often related to the key of D. However, no extended tonal center is perceived as a result of these triads due to lack of functionality. All harmonic structures are

⁷ Allen Forte, *The Structure of Atonal Music*, (New Haven and London: Yale University Press, 1973), 179.

parallel harmonizations of the melody. The harmonies are always carefully spaced to accommodate the technical limits of the pianistic hand positioning.

The most common contrapuntal device is the *Stimtausch*-like hand exchange where the ostinato is traded from hand to hand throughout the composition. Figure 38 shows a typical occurrence of the device.



Fig. 38. *Fanfares*, mm. 149-152.
Hand Exchange.

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The ostinato is transposed up one octave and the melody is transposed down. The antiphonal effect is reminiscent of polychoral brass music.

In summary, the fourth etude is a perpetual motion piece entitled *Fanfares*. The title *Fanfares* refers to the melodic phrases where horn-fifth figures, horn-fifth fragments, and modified horn-fifth fragments appear. Moreover, antiphonal effects caused by the *Stimtausch*

like hand exchange that appears throughout the piece suggests the sound of brass instruments.

An ostinato figure consisting of an ascending octatonic scale is repeated throughout the movement. The scale is constructed with two identical disjunct tetrachords. It is always accented in palindromic groups of 3+2+3, providing a steady rhythmic pulse over which the melodic structures develop. The effect of the music is similar to improvised jazz where a soloist is free to create rhythmic variances against a steady rhythmic background. The movement is cast in a modified sonata rondo form. The exposition consists of three sections, the development section is divided into three subsections, and the recapitulation is divided into two sections.

In section A of the exposition the melodic phrases are synchronized with the accents in the ostinato pattern. The basic melodic unit is the quarter note and dotted-quarter note. In section B melodic phrases become unsynchronized with the ostinato where polyrhythmic passages occur. Here, the melodic unit becomes the eighth note. In section A' the phrases are again synchronized and the melodic passage unfolds once again in quarter notes and dotted-quarter notes.

The development section is comprised of three

subsections. In subsection I the horn-fifth fragments from section A are found in the rhythmic style of section B. In subsection II the phrases become shorter (3 pulses each). The melodic line is phrased in groups of 3+2+2 causing cross accents to occur. In subsection III cross-accentuation and horn-fifth fragments are interwoven.

The recapitulation features a distinct return to the longer melodic note values of the A section but with extreme dynamics. The section is divided into two sections -- the climactic section (recap. A), and the coda (recap. B). The coda features melodic elements of section B.

The harmonization of the melody suggests an intuitive approach as no specific harmonic system or language is followed. Tertian triads, prime set-forms, and non-prime pitch collections are found throughout the piece in no particular hierarchical arrangement.

The horn-fifth figure, horn-fifth fragments, and modified horn-fifth fragments are found throughout the piece. Melodically, sections A and B differ in the following ways: in section B, note values are shorter, intervals are wider, and melodic figures are accented independently of the ostinato accents. Melodic phrases are independent of the barlines. The tension produced by the difference in accentuation between the melody and the

ostinato is similar to jazz improvisation. The most common contrapuntal device is the *Stim~~mt~~tausch*-like hand exchange where the ostinato is traded from hand to hand throughout the composition.

CHAPTER V
ARC-EN-CIEL

The fifth piece in the collection is entitled *Arc-en-ciel* (rainbows). A rainbow forms an arc of various color-bands in the sky. The music portrays the image of a rainbow with a multi-stranded rhythmic texture. Also, a recurring descending chromatic line helps to evoke the image of an arc. The piece is dedicated to Louise Sibourd.

The form of the composition is through-composed. The piece is very brief (only 24 measures) and the texture changes very little from section to section. Differences between the sections are subtle and difficult to hear.

The piece can be divided into four sections. Section I (mm. 1-6) introduces the main melodic and harmonic material. Section II (mm. 6-13) exploits the descending chromatic line and introduces chromatic passages. Section III (mm. 13-19) contains elements of the previous sections and introduces a melody-dominated cantilena style. Section IV (mm. 20-24) is a coda (tail section) that contains elements from previous sections.

The main material as introduced in section I (mm. 1-6) is notated in 3/4 but the material in the LH is grouped in a pattern that suggests 6/8 (or 12/16). The composer has indicated the dual phrasing scheme by including the figure 2/♩. in parentheses next to the meter signature. The rhythmic texture is set forth in four strands, each hand having two parts each. The music is in four voices with the main melody in the soprano voice. A countermelody appears in the bass part. The alto and tenor parts proceed in 16th note motion. The lines are phrased such that the measure is divided into two equal parts by the LH and three equal parts in the RH. Thus, a hemiola caused by cross-accents, cross-phrasing, and compound rhythms is created.



Fig. 39. *Arc-en-ciel*, measure 5.
Rhythmic *Stimmtausch*.

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The tenor and bass parts exchange 16th note motion and

longer note values in a manner resembling a rhythmic *Stimtaush*. In figure 39 eighth notes and 16th notes are exchanged between the tenor and bass parts.

In measure 2, a descending chromatic line appears in a variety of note values. The note values become less varied at measure 3 (figure 40) and the line becomes less melodic and more scalar.

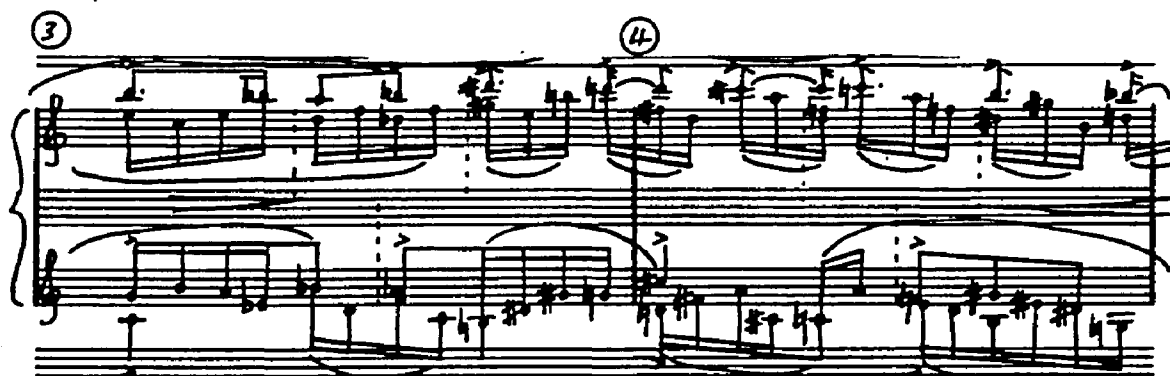


Fig. 40. *Arc-en-ciel*, mm. 3-4.
Descending Chromatic Line.

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The line here is in dotted eighth notes. The alto part is phrased in groups of three 16th notes to support the melody. The phrasing causes the RH part to become unsynchronized with the LH and to negate the barline. Thus, the passage is beamed over the barlines where necessary. The descending chromatic line returns at measure 5 where it begins in eighth note values and ends

in a quintuplet figure.

The harmony in section I features an abundance of 7th chords that gives the harmony a sound that is reminiscent of late Romantic music and popular music. The voices move predominantly within the chord tones with very few non-harmonic tones. The harmonic succession avoids dominant-tonic relationships and is atypical of common practice harmonic procedures. A harmonic progression that is introduced in measure 1 (figure 41) recurs many times throughout the piece.



Fig. 41. *Arc-en-ciel*, measure 1.
Change of Chord Quality.

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The progression does not involve root movement, but is a change in chord quality over the same root.

In measure 1 (figure 41) the pitch collection of the first beat forms a major-major seventh chord on C. On beat 2, the introduction of B-flat and E-flat changes the

pitch collection to form a minor-minor seventh chord. The progression occurs again in measure 4. Here, a D major-major seventh chord occurring on the first beat progresses to a d minor-minor seventh chord on beat 2.

In measure 5 a short progression of chords with roots a fifth apart appears. Figure 42 shows the progression: A major-minor seventh (A7), E7, B minor. The movement of chords with roots a fifth apart imparts a strong sense of harmonic motion. The progression helps delineate the cadence. The D-flat chord (D-flat 7th) on the last eighth note of measure 5 progressing to the A-flat chord (A-flat minor-minor 7th) on the downbeat of measure 6 forms a plagal cadence. The cadence is enhanced by a crescendo and a quintuplet figure. The quintuplet forms a cadential ornament.

Fig. 42. *Arc-en-ciel*, mm. 5-6.
Root Progression by Fifths.

The beginning of section II (mm. 6-13) is marked by a "subito piano" (suddenly softly) indication. The range suddenly shifts up an octave. The descending chromatic line appears at measure 7. Here, it is arranged in groups of three half-steps. The groups are separated by non-chromatic intervals. The line appears in dotted eighth note motion at measure 9. The pattern of three half-steps is broken at measure 10 where F-natural occurs instead of G-flat. The focal point of the entire movement as manifested by increased density and dynamics, occurs in measure 11. Here, a passage in contrary motion leads to the third beat that begins a statement of the descending motive.

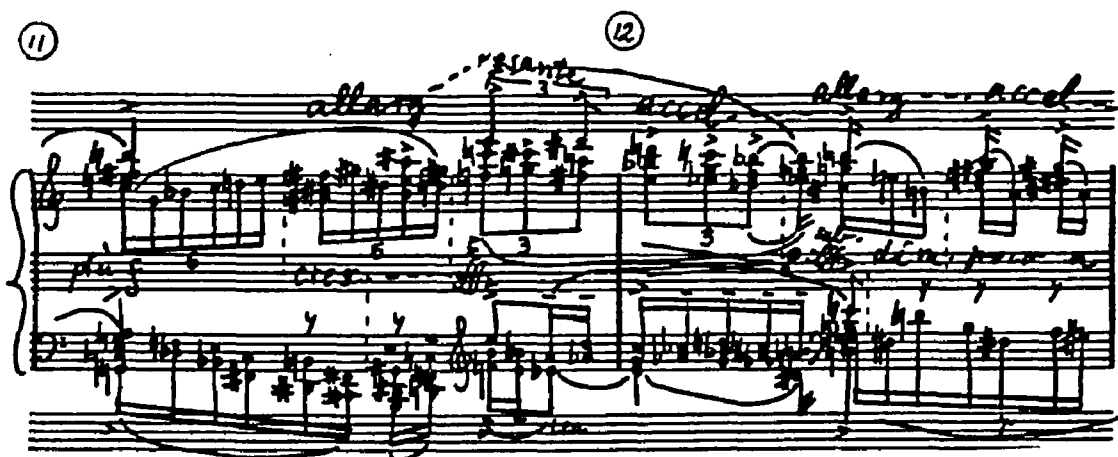


Fig. 43. *Arc-en-ciel*, mm. 11-12.
Focal Point.

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The focal point (figure 43) is made to stand out by a

crescendo and an allargando. The texture is thickened by the use of paralleling. It is marked "pesante" and assigned a dynamic level of *fff*. The chromatic melody line proceeds with occasional non-chromatic steps occurring throughout the piece.

Tertian structures give way to chromatic passages. Occasionally, tertian chords are found in section II, but these are exceptional. Where they are found, the chords are more complicated than those of section I. The chord on the downbeat of measure 11 (shown in figure 41) is a C major seventh chord with an added 6th and an added sharped-9th. In measure 6, (figure 44) a B minor 7th chord with a sharped-9th occurs during the second beat (4th eighth note).

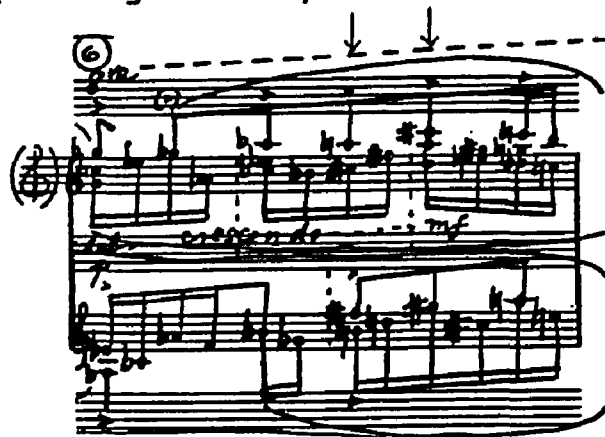


Fig. 44. *Arc-en-ciel*, measure 6.
Tertian Chord in Section II.

The chord is followed by a D major¹ 7th chord with a : sharpened-5th. These types of added-note chords are common in popular music.

The general harmonic and melodic texture is panchromatic. Chromatic passages (see figure 45) result from the simultaneous movement of chromatic lines appearing in the various parts throughout the section. In figure 43, the chromatic passages are typical of the harmonic practices in section II. The bass part contains meandering skips. The chromatic passage defeats any sense of hierarchical tertian harmonic progression and is foreign to any sense of key.

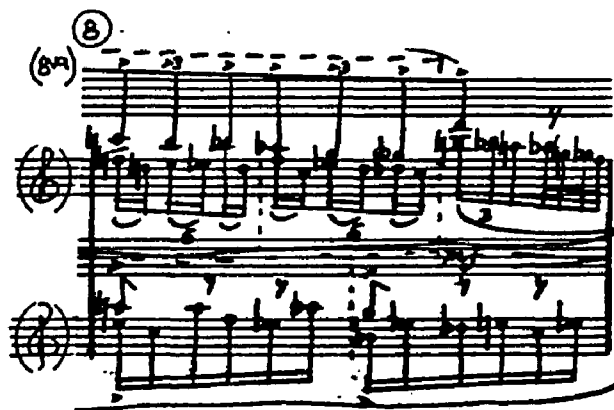


Fig. 45. *Arc-en-ciel*, measure 8.
Chromatic Passage.

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¹ The third of the triad is missing, but the F-sharp occurring just previous to this chord will give the impression of a "major" chord.

The rhythmic texture in section II is expanded to include quintuplets and sextuplets on a regular basis rather than as cadential ornaments.

Section III (mm. 13-19) combines elements of sections I and II. The section begins on beat three of measure 13 at the "A Tempo" (resume previous tempo) indication. The melody here shows a strong similarity to the initial melody in section I. Like the melody in section I, the melody is supported by tertian harmony and begins with a dotted eighth - 16th note motive. Tertian harmony returns, but is not as consistent as the harmony in section I. Here, chromaticism soon obscures the tertian harmonies.



Fig. 46. *Arc-en-ciel*, mm. 13-14.
Tertian Chords and Chromatic Passage
Beginning at Section III.

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The harmonic progression in figure 46 shows an E major-

major 7th chord followed by a G chord in first inversion.² The progression is followed by a chromatic passage.

At measure 16 a succession of four-note tertian chords appears in the LH. As seen in figure 47, the homophonic texture causes the melody to stand out. The cantilena (melody-dominated) style where the melody is supported by seventh chords is common in popular music. Section III is brought to a close by a cantilena style passage marked *poco rallentando*.

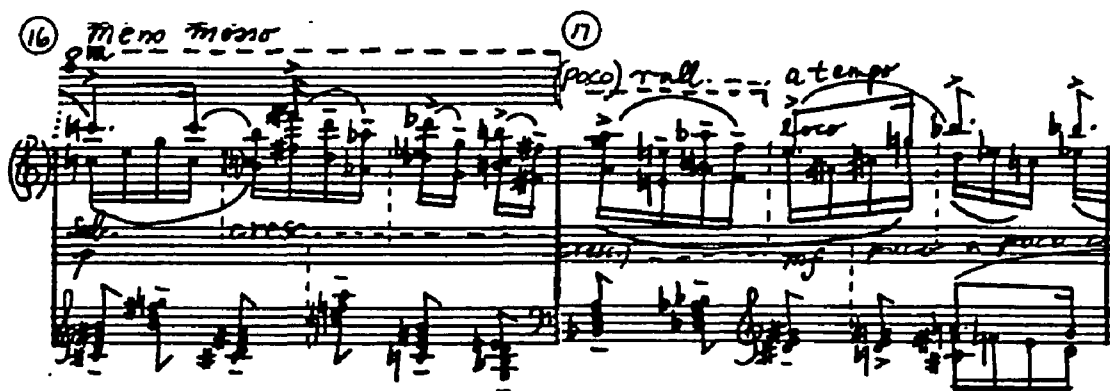


Fig. 47. *Arc-en-ciel*, mm. 16-17.
Cantilena Style Passage.

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Section IV (mm. 20-24), is a coda (tail section) marked

²The chord contains both major and minor 7ths.

"a tempo, con tenerezza" (resume previous tempo, with tenderness). The character of a coda is enhanced by its brevity, its similarity to section I, and it's combination of elements from the previous sections. The dynamics are very quiet throughout giving the music a mysterious echo-like quality -- almost as if it were an echo of the previous sections. The coda begins with a melody similar to the one from section I. On the down beat of measure 20 (see figure 48) is a C-sharp major-major 7th chord (with an added 6th). The beginning of section IV is similar to the beginning of section I where a change of chord quality occurs over the same root.

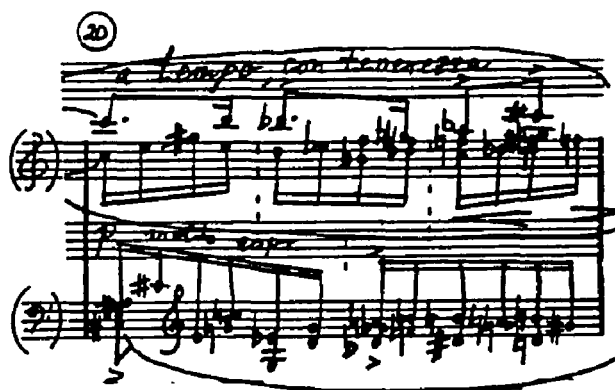


Fig. 48. *Arc-en-ciel*, measure 20.
Beginning of Section IV.

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On the fourth 16th note (measure 20, figure 48) a C major-major 7th chord is followed by a C minor-minor 7th

chord (with an added 9th).³ Like the progression seen in measure 1 (figure 39), the chord quality changes over the same root. A chromatic passage follows that obscures any sense of tertian harmony. As section IV progresses, the dynamics become increasingly quieter until the end which is marked "quasi niente" (almost silently). As the diminuendo proceeds, the range becomes high. In measure 23 successive tertian chords are followed by a chromatic passage. Gradually, the texture becomes very thin until finally the piece ends on a dyad.

In summary, the piece portrays the title rainbows by a multi-stranded rhythmic/melodic texture and by a recurring descending chromatic line. The piece is through-composed and is divided into four sections. In section I tertian harmony is used to support a melodic line. Also, the descending chromatic line is introduced. In section II tertian harmony gives way to chromatic structures and the descending chromatic line appears several times. The end of the section is the focal point of the entire piece. The focal point is supported by extreme dynamics, higher range, chord density, and a more pronounced tempo marked "pesante." In section III elements of the previous two sections are found. A new

³ The root is missing from the chord, but will be heard from the previous chord since the sustain pedal is used.

cantilena style is introduced that is common in popular music. Section IV features elements of the previous sections. The piece ends with progressively quieter dynamics and a continuously rising chromatic passage. The texture at the end becomes gradually thinner.

CHAPTER VI
AUTOMNE A VARSOVIE

The sixth piece in the collection is entitled *Automne à varsovie* (Autumn in Warsaw). References to both "Autumn" and "Poland" are suggested by the music. Multi-layered descending chromatic lines suggest falling leaves or snow which is associated with Autumn. A reference to Polish music is the perpetual motion 16th-note figure that is reminiscent of the piano playing techniques of Chopin. The reflective nature of the music is also similar to the music of Chopin. The composer explains:

Chopin, acting as my model, came to my aid: the spiritual and poetic content and the concrete nature of the instrument and hands do not form constraints as my compositional imagination is unconsciously pre-programmed by these technical and anatomical factors.¹

Moreover, phrases containing uneven numbers of notes are a trademark of Chopin. In Chopin's music, such phrases

¹György Ligeti, trans. Sid McLauchlan, record jacket notes for *Études pour piano*, performed by Volker Banfield (Wergo 60134-50, 1987).

can occur alone or against even divisions of the beat. Another reference to Poland is found in the composer's dedication which reads: "dédiée à mes amis Polonais" (dedicated to my Polish friends).²

The piece is divided into three large sections of unequal lengths. Table 2 shows the formal divisions of the piece.

TABLE 2

AUTOMNE À VARSOVIE -- FORMAL STRUCTURE

| Section I (mm. 1-30) | Section II (mm. 30-61) | Section III (mm. 62-122) |
|----------------------|------------------------|--------------------------|
| I-A (mm. 1-9) | II-A (mm. 30-40) | III-A (mm. 62-85) |
| 1 (mm. 2-3) | 1 (mm. 30-31) | 1 (mm. 62-64) |
| 2 (mm. 3-5) | 2 (mm. 31-36) | 2 (mm. 64-67) |
| 3 (mm. 5-9) | 3 (mm. 36-40) | 3 (mm. 67-85) |
| I-B (mm. 9-17) | II-B (mm. 41-54) | sub 1 (mm. 73-74) |
| 1 (mm. 10-11) | 1 (mm. 41-43) | sub 2 (mm. 74-75) |
| 2 (mm. 12-14) | 2 (mm. 43-54) | sub 3 (mm. 76-84) |
| 3 (mm. 14-18) | II-C (mm. 55-62) | III-B (mm. 85-97) |
| I-C (mm. 18-24) | 1 (mm. 55-56) | 1 (mm. 85-87) |
| 1 (mm. 18-19) | 2 (mm. 56-58) | 2 (mm. 87-93) |
| 2 (mm. 19-21) | 3 (mm. 58-62) | 3 (mm. 93-97) |
| 3 (mm. 21-24) | | III-C (mm. 98-107) |
| I-D (mm. 25-30) | | 1 (mm. 99-105) |
| 1 (mm. 25-26) | | 2 (mm. 105-107) |
| 2 (mm. 26-28) | | III-D (mm. 107-122) |
| 3 (mm. 28-30) | | 1 (mm. 107-112) |
| | | 2 (mm. 112-122) |

Sections I (mm. 1-30, four subsections) and II (mm. 30-61, three subsections) are nearly the same length, but section III (mm. 62-122, four subsections) is twice as

² György Ligeti, *Études pour piano, premier livre*, (Mainz: B. Schott's Söhne, 1986), 28.

long as either of the first sections (60 measures). The unequal lengths form a particular pattern (short-short-long) that recurs on the phrase level in section I.³ The particular short-short-long pattern is abandoned in section I-D, but an antecedent-consequent relationship between the first phrase and the other phrases is maintained (except section III-C). The relationship is exaggerated in section II-B where phrase 1 is only three measures long, but phrase two extends through eleven measures.⁴

The phrase lengths are determined by the phrase demarcations that are indicated by the composer. Often, the phrase markings overlap (beginning in section I-D, phrases 2-3) obscuring the sense of phrasing. Where overlapping occurs, the phrase markings are very difficult to hear.

Aside from the unequal lengths, sections I and II contain tonal references by virtue of the pedal points that reiterate pitches. The pedal points are less frequent in section III. Additionally, unlike the first

³ Sections I-A, I-B, I-C, I-D, and the three sub-phrases of section III-A exhibit the antecedent-antecedent-consequent arrangement of phrases.

⁴ The antecedent-consequent relationship between the first phrase and the remainder of the section is maintained exclusively throughout the piece except for section III-C.

two sections, the subsections in section III all begin quietly and end with a crescendo.

Each of the four subsections of section I consists of three phrases that the composer has delineated with phrase marks. Each phrase contains a descending melodic line. The phrases are arranged such that two short phrases are followed by a longer phrase (short-short-long).

Subsection I-A (mm. 1-9) begins with a one-measure introduction that establishes a 16th-note pattern of ascending octaves on E-flat. The first melodic phrase is introduced in the RH in measure 2. The melody, which is doubled at the octave, is characterized by its descending direction. It proceeds mostly by semitone, though occasionally other intervals come into use.

In phrase 2 (mm. 3-5) the melody is repeated and extended by one note. Phrase 3 is significantly longer than the previous phrases. The phrase structure has the effect of two antecedent phrases followed by a longer consequent phrase. The final note of phrase 3 (in measure 9) is harmonized by a tritone -- a prominent interval in later sections.⁵ Here, the 16th-note figure changes from the E-flat pedal point to the D. The change of pedal

⁵ Particularly in subsection II-C where the melody is paralleled at the tritone.

point after such a long iteration of one pitch is reminiscent of 13th century organum.

The phrasing of the 16th-note passage is changed in measure 9 (see figure 49). The second group of 16th-notes (the last group on E-flat) contains only three notes instead of four. The phrasing causes the pattern to be shortened by one 16th-note requiring beaming and phrasing across the barlines. The shortened pattern obliterates the perception of the barlines as the music unfolds independently of any sense of meter.

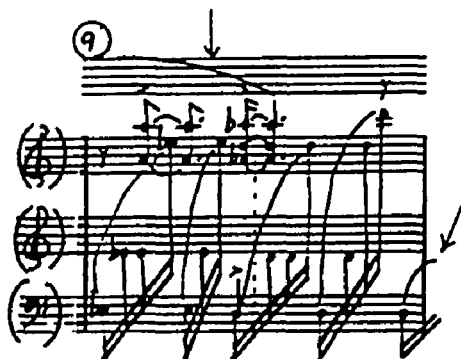


Fig. 49. *Automne à varsovie*, measure 9.
Change of Phrasing in 16th-note
Figure.

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Subsection I-B (mm. 9-17) begins with last note of the previous subsection forming an elision. A one-half measure introduction (or re-introduction corresponding formally with the introduction to subsection I-A)

establishes a new pedal-point on D. The first melodic phrase in the subsection is marked "molto cantabile." Consisting of three phrases arranged in the antecedent-antecedent-consequent pattern (short-short-long) of subsection I-A, the compositional procedures in subsection I-B are similar. The melody is paralleled by two lines instead of one line as in subsection I. The additional paralleling occurs usually at the interval of a fifth below the higher melodic note. In phrase 2 the 16th-note figure is truncated again in measure 11 where only three 16th-notes are grouped on the third beat. Also in measure 11, the 16th-note figure includes an interval of a fifth that marks the first occurrence of a non-octave interval in the figure. The fifth occurring as the lowest interval gives the impression, at least temporarily, of a tonal center on G.

An upward stem on the bass note shows the first note of a countermelody whose second note does not occur until phrase 3 in measure 13. The countermelody is perceived in phrase 3 (see figure 50). The grouping of the 16th-note pattern is changed in measure 14 where a group of six is followed by two groups of five 16th-notes. The pitch of 16th-note figure shifts to A-flat for the remainder subsection I-B.

A tonal implication of the key of G is suggested by

the progression of the pedal-point notes. At measure 15, the A-flat would be the root of the neapolitan chord and the presence of the C in the bass the first inversion.

The counter melody ends in measure 15 with the final appearance of the upward stemmed note in the LH. The counter melody (except for the first note) is shown in figure 50.

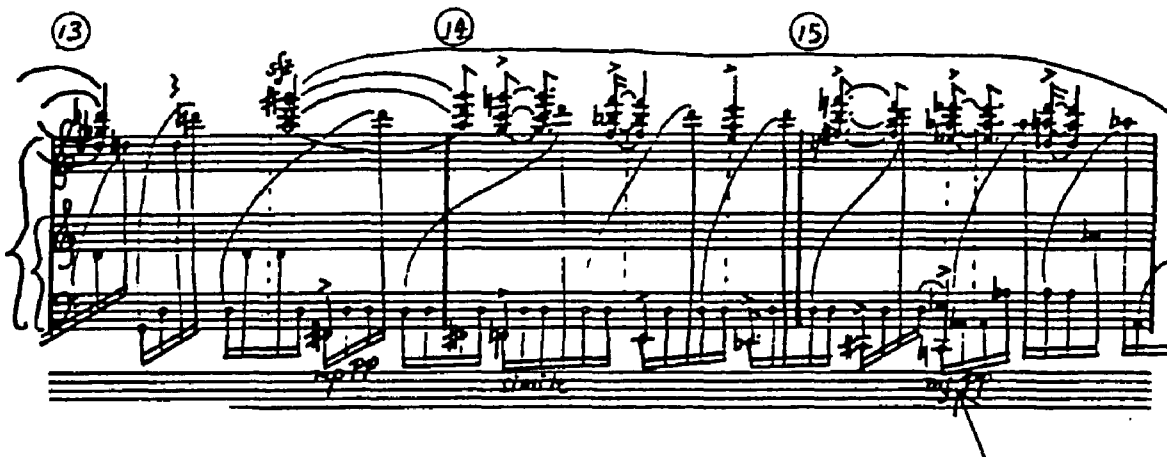


Fig. 50. *Autumn & Varsovie*, mm. 13-15
Counter melody.

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Additional melodic doubling occurs at measure 16 where tertian chords are temporarily formed. For example, in the RH, a B-flat minor triad in first inversion is followed by an E minor chord triad in first inversion with a 9th in the bass.

The counter melody, which stopped in measure 15, returns in measure 17 in the interior voice (LH). The

basic note value in the countermelody is the dotted eighth-note. The melody and countermelody are supported by the 16th-note figure. The countermelody is shifted to the bass in measure 18 and the 16th-note figure is transformed temporarily into a repeated note figure in groups of four. The repeated note figure was anticipated in measure 2 with the initial occurrence of a repeated note in pairs. While repeated notes continue to appear in later sections, the figure at measure 21 is the first one consisting entirely of repeated notes. Subsection I-C (mm. 18-24) features *Stimtausch* (voice exchange) where the countermelody is exchanged between the bass and the interior part (see figure 51).

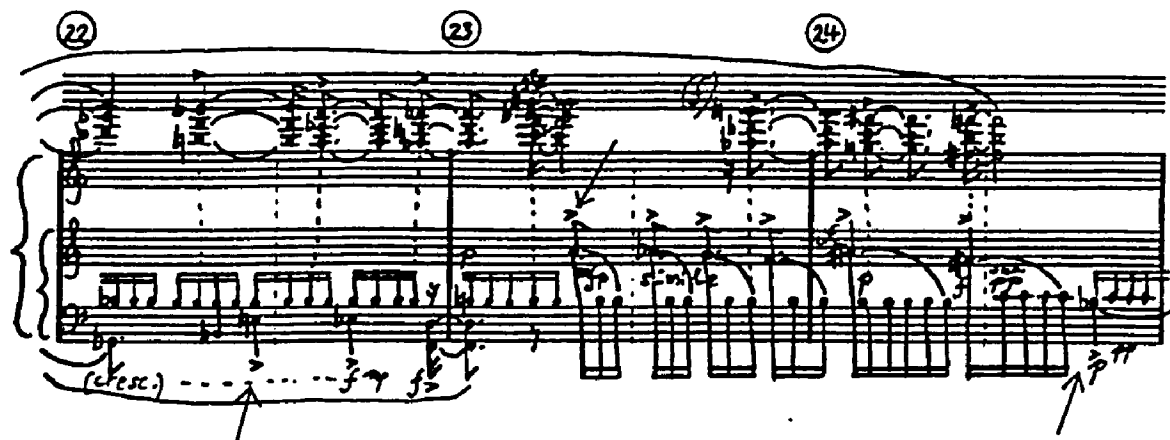


Fig. 51. *Autonne & varsovie*, mm. 22-24.
Stimtausch.

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In measure 18 the melody and countermelody are

accentuated to suggest a hemiola effect.⁶ The hemiola effect figures prominently in later sections, particularly in section III.

Subsection I-D (mm. 25-30) consists of three phrases in the RH. The beginning of phrase 1 (mm. 25-26) is marked "cantabile." Unlike the previous subsection, the melody appears without paralleling. The quintuplet repeated note figure (and countermelody) actually begins on the last beat of measure 24.

In phrase 2, which is marked "sempre pp," phrase overlapping occurs where the countermelody is given a phrase mark that extends throughout the rest of the section. Phrase 3 (mm. 28-30) is indicated by the phrase marking of the melody. The melodic phrase, being a more prominent feature than the overlapping phrase below it, is considered as the generative factor in determining the formal structure.

The character of section II differs little from that of section I. Section II features a wider use of phrase overlapping, it contains longer phrases than

⁶ Actually a sesquiquarta figure -- 5 against 4. The term "hemiola effect" will be used henceforth to describe rhythmic patterns in which the simultaneous occurrence of even and odd numbers of notes appears.

section I, and it introduces phrase-nesting.⁷

In subsection II-A (mm. 30-40) melodic paralleling returns. The countermelody appears in the interior part forming a phrase that is twice the length of the antecedent melodic phrases. The end of the countermelody phrase corresponds to the end of phrase 2 in measure 36. In phrase 3, the countermelody forms sub-phrases and exhibits phrase overlapping at measure 40.

Subsection II-B (mm. 41-54) consists of two phrases of unequal length that are delineated by phrase marks. The hemiola effect in phrase 1 is caused by cross accentuation between the melody (grouped in 5) and the countermelody (grouped in 3).

In phrase 2 (mm. 43-54) the countermelody is shifted to the interior part. The density is increased in measure 45 where an additional countermelody appears in the LH and another melodic strand appears in the RH. Here, the LH has the 16th-note figure as the lower part and a countermelody as the upper part. The phrasing of the 16th-note figure becomes increasingly longer until the end of the section. Groups of four appear at measure 47 and groups of five occur at measure 48. In measure 49 the figure appears in groups of six. The dynamics begin

⁷ Phrase-nesting is said to occur when a phrase contains at least two sub-phrases. A clear example can be seen in section II-A, phrase 3 (mm. 36-40).

to increase in measure 51 and groups of seven appear at measure 52. After the appearance of the two groups of eight 16th-notes at measure 53, the grouping jumps disjunctly to a single group of eleven that ends the subsection and forms the focal point of the section.

In figure 52 the melody and countermelodies continue to descend through the range of the 16th-note figure creating a complicated and dense texture that precedes the climax in measure 54. The augmentation effect caused by ever-increasing groups of 16th-notes also contributes to the climax. Figure 53, a redrawing of figure 52 with the 16th notes omitted, is provided to clarify the voice leading activity.

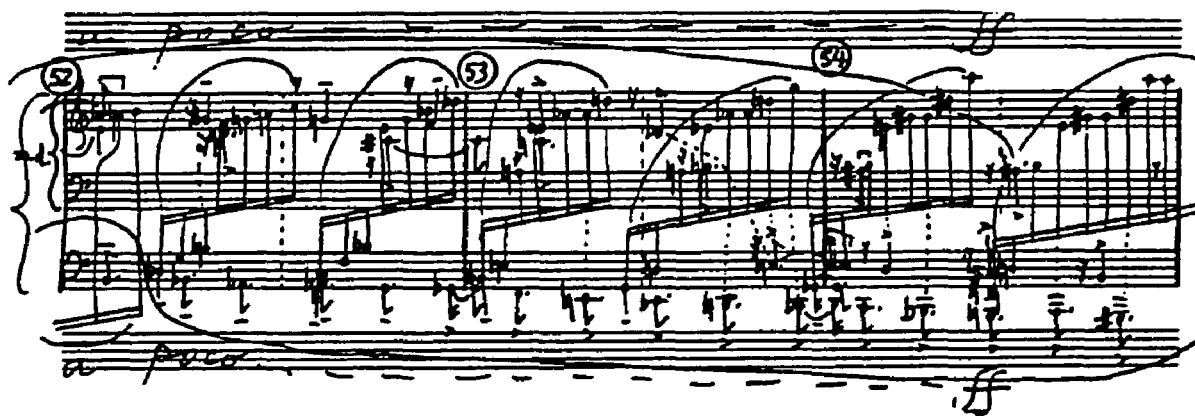


Fig. 52. *Automne à Varsovie*, mm. 52-54.
Focal Point of Section II.



Fig. 53. Redrawing of *Autonne & varsovie*,
mm. 52-54, With 16th-Note
Passages Omitted.

In subsection II-C (mm. 55-61) the music suddenly becomes thin and quiet. The 16th-note motion and the countermelodies end, leaving a skeletal melody that is paralleled at an interval of 5 and one-half octaves. Dyads appear occasionally providing a temporary increase in density. The descending melodic figure in the bass is somewhat reminiscent of the "Ground Bass" patterns appearing in music of the Baroque era (e.g., the chaconne). The Baroque ground bass patterns often feature descending chromatic lines. Where these occur at the beginning of a work, they are often stated alone -- without accompaniment.

The subsections of section III (mm. 62-122) differ

from those of the other sections in that they all begin quietly and build dynamically to dense focal points. Moreover, the music in section III features passages with more than three simultaneous distinctly separate melodic strands. Passages such as these suggest an expanded hemiola effect where instead of accents of 3 against 2 (hemiola), we find other combinations (e.g., sesquiquarta, etc.).

In subsection III-A (mm. 62-85) the 16th-note motion in the RH part reiterates the tritone (F-B) that closed the previous section. All phrases in subsection III-A are delimited by phrase markings. The phrase lengths are unequal, and phrase-nesting becomes more frequent (phrase 3 contains three sub-phrases).

In phrase 1 (62-64) the descending melodic figure in the LH is doubled at the octave. Here, at measure 63, an interior ascending figure is introduced between the octave doubling of the melody. In phrase 2 (mm. 64-67) the interior ascending figure introduced in phrase 1 (62-64) returns. Here, the first melodic note is accompanied by a major seventh and the rest of the phrase is doubled at the octave. The appearance of the major seventh anticipates the melodic parallelism in phrase 3 (mm. 67-85). In phrase 3 (mm. 67-85) the reiterated 16th-note pattern begins to ascend chromatically as the melody is

paralleled at intervals other than the octave. Unlike the previous phrases, the interior ascending figure loses its distinct identity. The density of the melodic paralleling is increased to four notes at measure 72.

At measure 73 (figure 54) the density is suddenly increased as the melodic figure occurs on three distinct levels. The melody with its unusual doubling continues in the lower LH part while a countermelody in quarter note motion appears in the interior part.

The phrase marks over the interior part show sub-phrases that are nested into phrase 3 and occur in the familiar short-short-long pattern. The lengths of the sub-phrases are as unequal as the lengths of the phrases. Another countermelody appears in the top of the RH part in accented eighth notes.



Fig. 54. *Automne à Varsovie*, mm. 73-75.
Cross Accentuation.

The eighth note countermelody consists of the first note of each group of 16th-note figures. The cross accentuation forms a pattern that resembles the hemiola, but is more complex (see figure 54). In figure 54, the cross accentuation forms a pattern of 5 (RH) against 4 (LH, upper voice) against 7 (LH, lower voice).

At measure 77, the bass line separates into two distinct melodic strands. The separation produces a five-voice texture (see figure 55) and expands the hemiola effect. Here, the accentuation produces a pattern of 3 (RH) against 4 (LH, upward stems) against 7 (LH, downward stems) against 5 (LH lowest voice).



Fig. 55. *Autumn & Varsovie*, mm. 77-78.
Five-Voice Texture.

The density is reduced in measure 82 where the countermelody that had downward stems in measure 80 merges with the bass part. The bass part is paralleled in measure 83, increasing the density until the end of the section.

The beginning of subsection III-B (mm. 85-97) is marked "sub. pp." In phrase 1 (mm. 85-87) three melodic strands appear in different time values that form a hemiola-like pattern of 3 (RH) against 5 (LH, bass line) against 7 (LH, middle staff) against 4 (LH, middle staff, beginning on beat two, measure 86). A 16th-note figure is introduced that consists of two repeated notes and a 16th-note rest. The figure is anticipated in measure 43 where a similar figure occurs.

In phrase 2 (87-93) melodic strands of differing note lengths enter one at a time. The staggered entrances of different note values give the effect of a mensuration canon. At measure 91 the melody in the top voice begins to ascend while the bottom voice continues to descend. The end of phrase 2 overlaps the beginning of phrase 3.

In phrase 3 (mm. 93-98) the contrary melodic motion, the crescendo, and the phrase marking of the third and fourth canonic entrances that began in phrase 2 continue to the end of phrase 3. The beginning of phrase 3 (2nd beat of measure 93) corresponds to the new line in

the RH consisting of dotted-eighth notes separated by 16th-rests. Diminution occurs as the 16th-note figure is phrased in groups of two at measure 95. The diminution helps to drive the music toward the focal point at measure 98.

Subsection III-C (mm. 98-107) begins with a repeated-note pedal point in 16th-notes. Staggered melodic entrances occur in mm. 100, and 101 starting a passage of inverted canonic imitation. Here, the voices proceed in different note values in the manner of a mensuration canon. In figure 56, a graphic representation of the note lengths of the different voices illustrates the mensuration canon effect.

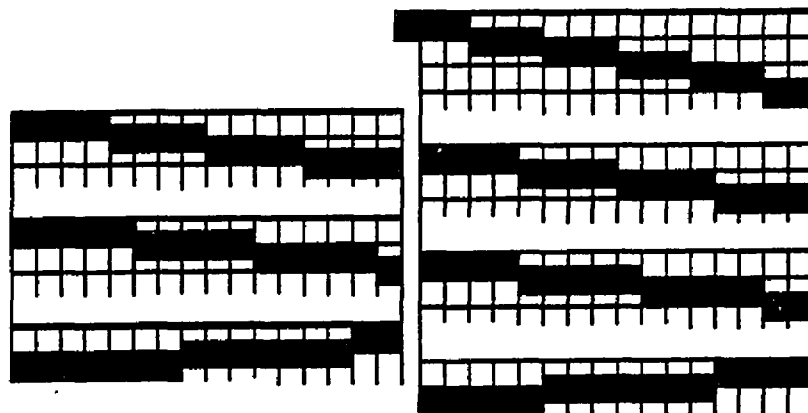


Fig. 56. Graphic Representation of Mensuration Canon Effect in *Autonne à Varsovie*, mm. 103-104.

The ascending melodic line in the LH and the descending line in the RH give the impression of a canon in inversion. The repeated-note figure introduced as a pedal point also begins to ascend, functioning as a countermelody. The contrary motion causes the voices to begin to cross and the texture becomes very complex. Crossed voices can be seen in measure 104 where the *b-flat* in the lower RH part overlaps the *b-natural* in the upper LH part. In measure 105 the 16th-note figure is assigned to both hands with the melody corresponding to the exterior accented notes of the figures. The figures soon become asynchronous as phrases of four notes in the RH are superimposed upon phrases of three notes in the LH. The superimposition causes a hemiola effect and produces rhythmic instability. The instability helps to thicken the texture as the phrase is driven to its conclusion by a short crescendo. The contrary melodic motion is retained throughout the phrase.

Subsection III-D (mm. 107-122) begins with the marking "subito pp." The phrase markings overlap such that a clear division into phrases is tenuous. However, subsection III-D can be roughly divided into two phrases.

In phrase 1 (mm. 107-112), the melody appears within the range of the 16th-note figure creating a passage in which the melody and accompaniment often

cross. As the phrase progresses, an additional melodic strand is introduced in the RH (measure 108) causing textural asynchronicity. The contrary melodic motion (between the hands) continues until measure 109 where descending melodic motion takes over.

A division can be made at measure 112 where the 16th-note figure is changed to three-note groups. Here, the two phrase marks in the RH stop completely and begin new phrases. The point is further distinguished by a sudden increase in dynamic level to "FF." The music builds continuously from here to the end of the piece.

The two melodic strands in the RH become synchronized at measure 116 and remain together for the rest of the piece. The countermelody in the LH becomes synchronized with the RH melody at measure 117. The range becomes increasingly lower and the piece ends with a descending chromatic scale in which both hands continue to descend until the lowest possible note is reached. The final note of the piece is the subcontra A in measure 122. It is marked "aufhören wie abgerissen."⁸

In the sixth etude the title "Autumn in Warsaw" is suggested by multi-layered descending chromatic lines and Polish musical references. The descending lines suggest falling leaves or snow and the perpetual motion figures

⁸Cut short suddenly.

are reminiscent of the piano playing techniques of Chopin. Further, phrases containing uneven numbers of notes are a trademark of Chopin. In Chopin's music such phrases can occur alone or against even divisions of the beat. The piece is divided into three large sections.

In section I the main melodic figure consisting of a descending quasi-chromatic line is introduced. The 16th-note figure is also introduced. Melodic doubling is introduced in subsection I-B. The device of *Stimtausch* (voice exchange) is introduced between the bass and interior part in subsection I-C. In subsection I-D double phrasing is introduced.

In section II the descending melodic motive continues to be developed, appearing throughout the section. In subsection II-C the texture is thinned by elimination of the interior parts and the 16th-note motion.

In section III, each subsection begins quietly and ends with a crescendo. Subsection III-A has the melody in the LH instead of the RH and the hemiola effect is caused by simultaneous appearances of different melodic strands. In subsection III-B the melodic strands appear in staggered entrances as in a mensuration canon. Melodic contrary motion gives the appearance of an inverted canon where the LH melodic strands begin to ascend instead of

descend. The contrary motion causes complicated passages involving voice-overlapping. Subsection III-C is a short but complex subsection that features a repeated-note pedal point. Descending melodic motion prevails in the subsection III-D and the piece ends with a descending chromatic scale.

CHAPTER VII

SUMMARY AND OBSERVATIONS

Summary

The first etude in the collection is entitled *Désordre* (disorder). The title describes the displacement of various well-ordered structural parts. Rather than a lack of order, the piece displays order on more than one level. Two well-ordered systems unfold in the same space producing the effect of disorder. *Désordre* is a perpetual motion etude featuring polymetric writing, dual modality, canonic imitation, and shifting accents.

The formal structure of *Désordre* follows a basic ternary pattern of A B A'. The outer sections (A and A') are linked by the presence of stable measures, melodic similarities, rhythmic groupings, and phrasing. The A' section differs from the A section by the presence of harmony and a higher LH range. Also, metric adjustments here are made to LH instead of RH. The B section differs from the outer sections by the appearance of increased metric instability, use of extreme ranges, and shorter

phrases.

The second etude in the collection is entitled *Cordes vides* (open strings). The etude features wide and varied use of perfect fifths. The title "Open Strings" is descriptive of the perfect fifths found throughout the piece that give the impression of stringed instruments tuning. The piece is divided into three sections. Section I sets forth the main ideas to be developed in the later sections. Section I also introduces chromatic motion which serves as a foil to the streams of perfect fifths.

Section II is divided into four short subsections. In subsection I, open fifths based on the open strings of the violin and viola appear. Also, a triplet figure is introduced. In subsection II ascending streams of perfect fifths occur in triplet patterns. In subsection III, a repeated-note motive is introduced. In subsection IV, a dense texture, extreme dynamics, extreme range, and 3-note chords interact to create a focal point or climax.

Section III, subdued by contrast to the previous section, is divided into two short subsections. In subsection I, 32nd-note motion is introduced in the RH and a harmonically stable pattern based on fifths is created. Subsection II is the final section of the entire piece. It contains 32nd-note motion from the previous section and a melody in a style foreign to the rest of

the piece. The melody has wide leaps and is reminiscent of natural horn passages based on the lower overtone series.

The general harmonic effect of the entire piece is that of streams of perfect fifths interrupted by frequent chromatic alterations. Rhythmically, the piece moves continuously from simple eighth-note motion in section I, to the more complicated triplets patterns in section II, to the less complicated rhythms in section III.

The third piece is a perpetual motion etude entitled *Touchez bloquées* (Blocked keys). The title refers to a technique of piano playing whereby prescribed keys are held down silently with one hand while the other hand plays patterns which involve some of the held keys. The most unusual idea in *Touchez bloquées* is the generation of rhythm using the blocked keyboard technique. The musical texture is generated by three distinct levels of rhythmic activity. Level I is the written eighth note ostinato-like pattern which relies on the blocked-key technique to generate rhythm. Level II is represented by the staccato-note passages. A third level is generated by notes which are struck normally but held down to form blocking keys. The piece is divided into three sections. Section I is divided into four subsections by the alternation between the hands of an ostinato-like figure in eighth-notes. A

secondary staccato motive which imitates the blocked-key rhythm is also introduced. Section II features short measures, extreme dynamics and quasi-antiphonal use of density and the pitch continuum. Section III is similar to the first except that the ostinato-like pattern is no longer generated by chromatic passages, but includes skips as well.

The fourth etude is a perpetual motion piece entitled *Fanfares*. The title *Fanfares* refers to the melodic phrases where horn-fifths are quoted or implied or where passages of open fifths and fourths occur. Also, antiphonal effects caused by *Stimmtausch* (voice exchange) allude to the title.

An ostinato figure consisting of a particular ascending octatonic scale is repeated throughout the movement. The scale is constructed with two disjunct tetrachords. It is always accented in palindromic groups of 3+2+3, providing a steady rhythmic pulse over which the melodic structures develop. The effect of the music is similar to improvised jazz where a soloist is free to create rhythmic variances while a steady rhythmic background is established. The movement is cast in sonata rondo form. The exposition consists of three sections (A, B, and A'), and the development section is also divided into three sections. The recapitulation abbreviated and

divided into two subsections.

In section A of the exposition the melodic phrases are synchronized with the accents in the ostinato pattern. The basic melodic unit is the quarter note or dotted-quarter note. In section B melodic phrases become out of phase with the ostinato. The melodic unit becomes the eighth-note. In section A' the phrases are again synchronized.

The development section is comprised of three sections. In development section I the horn-fifth fragments from section A are found in the rhythmic style of section B. In development section II the phrases become shorter (3 pulses each). The melodic line is phrased in groups of 3+2+2 causing hemiola-like cross accents to occur. In development section III cross-accentuation and horn-fifth fragments are interwoven.

The recapitulation section features a distinct return to the melodic procedures of the A section but with extreme dynamics. The section consists of two subsections which are the climactic section, and the final subsection which features melodic elements of the B section of the exposition.

The harmonization of the melody suggests an intuitive approach as no specific harmonic system or language is followed. Tertian triads, prime set-forms,

and non-prime pitch collections are found throughout the piece in no particular hierarchical arrangement.

Horn-fifth figures consisting of exact horn-fifths, horn-fifth fragments, and modified horn-fifth fragments are found throughout the composition.

Melodically, section B differs from section A in the following ways: in section B note values are shorter, intervals are wider, and melodic figures are accented independently of the ostinato accents. Melodic phrases are independent of the barlines. The tension produced by the difference in accentuation between the melody and the ostinato is similar to jazz improvisation. The most common contrapuntal device is the *Stimtausch* effect where the ostinato is traded from hand to hand throughout the piece.

The fifth etude portrays the title *Arc-en-ciel* (rainbows) by a multi-stranded rhythmic texture and by a descending chromatic figure. The piece is through-composed and is divided into four sections. In section I tertian harmony is used to support a melodic line. Also, a descending chromatic line is introduced. In section II tertian harmony gives way to non tertian harmonies and the descending chromatic line appears several times. The end of the section is the focal point of the entire piece which is supported by extreme dynamics, higher range,

greater chord density, and a more pronounced tempo, marked "pesante." In section III elements of the previous two sections are found. A new cantilena style (melody dominated) is introduced which is common in jazz performance practices. Section IV features elements of the previous sections. The piece ends with progressively quieter dynamics and a continuously rising chromatic passage. The texture at the end becomes gradually thinner.

In *Autonne a varsovie* (Autumn in Warsaw) the title is suggested by multi-layered descending chromatic lines and Polish musical references. The descending lines suggest "Fall" and the perpetual motion figures are reminiscent of the piano playing techniques of Chopin. Moreover, phrases containing uneven numbers of notes are a trademark of Chopin. In Chopin, such phrases can occur alone or against even divisions of the beat. The piece is divided into three large sections.

In section I the main melodic figure consisting of a descending quasi-chromatic line is introduced. The 16th-note figure is also introduced. Melodic doubling is introduced in the second subsection. *Stimtausch* (voice exchange) is introduced between the bass and interior part in subsection III. In subsection IV double phrasing is introduced.

In section II the descending melodic motive continues to be developed. It appears throughout the section. In subsection II the texture is thinned by eliminating the interior parts and the 16th-note motion. In subsection III the melody is in the LH instead of the RH. The texture becomes thick in subsection IV where the melodic strands are accentuated as a somewhat expanded hemiola.

In section III, each subsection begins quietly and ends with a crescendo. The hemiola patterns become more complex. Melodic contrary motion appears where the LH melodic strands begin to ascend instead of descend. The contrary motion causes complicated passages and voice-overlapping. Descending melodic motion takes over in the last subsection at the piece ends with a descending chromatic scale.

Observations.

The most salient feature of the etudes is the rhythm. The music is often cross accented such that a polymetric is heard.

At the center of my compositional intentions in the etudes lies a new conception of rhythmic articulation.¹

Each etude employs perpetual motion as a technique analogous to the African additive pulse technique. Similarly, the European hemiola and similar rhythmic combinations is suggested in each piece by cross accentuation.

Here [in African music], of course, there are no measures in the European sense of the word, but instead one finds two rhythmic levels: an underlying layer consisting of fast, even pulsations which are however not counted as such but rather felt, and a superimposed layer of occasionally symmetrical but more often asymmetrical patterns of varying length, though always whole multiples of the basic pulse....
...I...was able to outwit our perception and accomplish this [fusion of European and African polyrhythmic hemiola technique] ... by imposing a "European" accent pattern onto the non-accentuated "African" pulsation.²

The composer acknowledges the general influence of recordings of African music and the piano music of Conlon Nancarrow (b.1912), but suggests that the etudes are not

¹György Ligeti, trans. Sid McLauchlan, record jacket notes for *Etudes pour piano-premiere livre*, performed by Volker Banfield (Wergo 60134-50, 1987), 8.

²Ibid., 10.

a directly resultant of those influences.³ A similarity can be drawn between the polyrhythmic and multi-tempo techniques found in the etudes to the rhythmic ideas found in the mechanical player-piano music of Conlon Nancarrow. Often (most significantly in *Désordre* and *Automne à Varsovie*) Ligeti's melodic line is primarily a vehicle for cross-accentuation which produces the polyrhythmic effect. The expanded melodic role finds a parallel in Nancarrow's music.

I don't think of a line, but a collection of temporal relationships and, in fact, the melodic line is simply a crutch in order to realize certain temporal ideas.⁴

Unlike Nancarrow's music which is mathematically oriented, Ligeti's is based on intuition.

Moreover, in my music one finds neither that which one might call "scientific" nor the "mathematical" but rather a unification of construction with poetic, emotional imagination.⁵

Another significant difference between Ligeti's work and

³ Ibid., 9.

⁴ Conlon Nancarrow, *Selected Studies for Player Piano*. Peter Garland, ed. (Berkeley: Soundings Press, Spring-Summer 1977), article by Roger Reynolds, 28.

⁵ Ligeti, Wergo jacket notes, 9.

Nancarrow's is the medium itself. Nancarrow's music is .
for the mechanical player-piano which is technically far
superior to the technical limits of a human performer.

That which is eminently new in these pieces is
the possibility of a single interpreter being able
to produce the illusion of several simultaneous
layers of different tempi.⁶

Figures 56 and 57 are a comparison between Ligeti's
polyrhythmic writing and Nancarrow's. Both excerpts
involve asymmetrical groupings of pulses per measure
between the hands. .

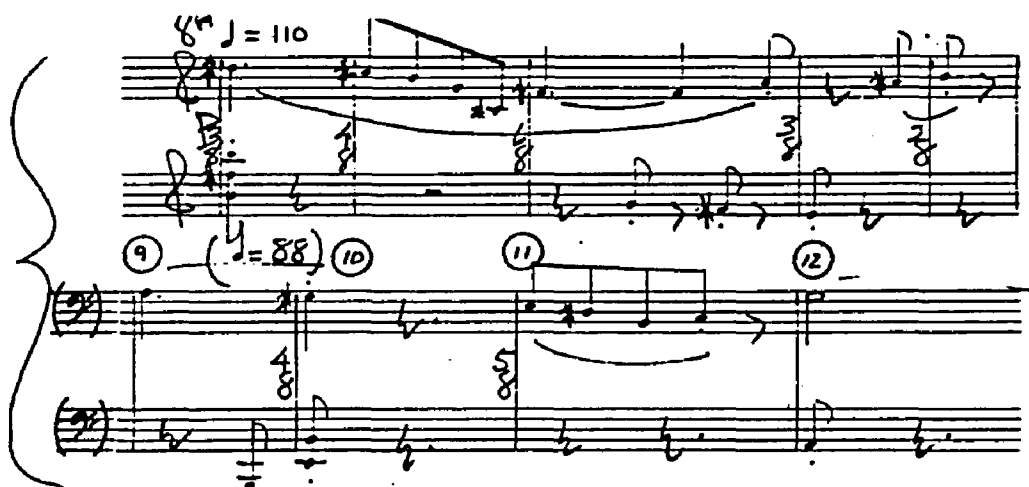


Fig. 57. Nancarrow, *Study No. 14*, mm. 9-12.
Polyrhythmic Excerpt⁷

Nancarrow COLLECTED STUDIES FOR PLAYER PIANO © 1984. Reprinted, by permission, Soundings Press.

⁶ Ibid., 10.

⁷ Conlon Nancarrow, *Collected Studies for Player Piano*, Vol. 5, (Santa Fe: Soundings Press, 1984) 81.



Fig. 58. *Automne à Varsovie*, measure 86.
Polyrhythmic Excerpt.

Ligeti *ETUDES POUR PIANO - PREMIER LIVRE* © B. Schott's Soehne, Mainz, 1986. All Rights Reserved. Used by permission of European American Music Distributors Corporation, sole U.S. and Canadian agent for B. Schott's Soehne, Mainz.

Nancarrow's excerpt, however, makes technical requirements beyond the human performer's technical abilities. Also, Nancarrow's excerpt employs two different distinct tempi between the hands. The RH (the upper two staves) are marked quarter note = 110, while the LH (lower two staves) is marked quarter = 88.

In the first etude, the European hemiola is suggested by the accents while the African additive pulse is suggested by the ostinato-like patterns. The second etude is not strictly speaking polymetric since the measures are given a 4/4 time signature throughout the piece. However, the asynchronous phrase lengths and irregular accentuation imposed upon the perpetual motion of eighth

notes produces a polyrhythmic effect. Again, a Euro-African fusion is suggested by irregular accentuation (suggesting hemiola) and additive pulse (perpetual motion).

The third etude is polyrhythmic by virtue of the appearance of a different number of pulses in each measure. More important, the music proceeds on three different rhythmic levels. The Euro-African fusion is implied by imposing a series of irregular accents (staccato-notes) against another series of irregular accents produced by the key-blocking technique. These accents combine to produce a texture of cross-accentuation suggestive of the European hemiola.

In the fourth etude, the measures remain constant (8/8) but the irregular melodic phrasing and cross-accentuation produce the polyrhythmic effect. Again, the cross-accentuation suggests the European hemiola while the perpetual motion and asynchronous phrasing suggests the African additive pulse technique.

The hemiola technique is implied in the fifth etude by cross-accentuation. The additive pulse technique is suggested by the perpetual motion 16th notes.

In the sixth etude, the measures remain constant (4/4), but the accents conceal the bar lines producing the polyrhythmic effect. A multi-tempo effect is produced

by the cross-accent patterns in the melody and frequently changing phrasing in the perpetual motion figures.

I combined the romantic hemiola technique with the principle of the African additive pulse in the *Warsaw Étude* in order to produce illusions of different simultaneous tempi.⁸

The perpetual motion 16th notes suggest the additive pulse technique where occasionally a pulse is added or subtracted. The irregularity of phrasing serves to further the illusion of polyrhythm.

The odd-numbered études are strictly polyrhythmic. While numbers 1 and 3 do not have time signatures they are polyrhythmic by virtue of the quantitative contents of the measures. The fifth étude has a time signature of 3/4 against 2 dotted quarters. The even-numbered études are assigned regular time signatures (4/4 in each case) but the cross-accentuation and irregular phrasing of the ostinato-like patterns produce the polyrhythmic effect. The informally descriptive title "polyrhythmic études" which has come into common use is therefore justified.

Aside from the polymetric writing and the influence

⁸ Ibid., 11.

of African rhythm, the influence of jazz is clear. The effect of the music in the fourth etude is similar to improvised jazz where a soloist is free to create rhythmic variances while a steady rhythmic background is established. The tension produced by the difference in accentuation between the melody and the ostinato is similar to jazz improvisation.

In the fifth etude the harmony in section I features an abundance of 7th chords which gives the harmony a sound similar to late Romantic music and modern popular music. Another similarity to jazz occurs where a cantilena (melody dominated) melodic style is supported by seventh chords.

The composer suggests that the six etudes may be programmed individually or as a cycle.⁹ He states:

If the complete cycle is to be performed, the original order should be retained so as not to undermine its overall form: see for example the 'collapsing' finale of the 'Warsaw Étude', which acts as a coda to the entire piece.¹⁰

The descending chromatic passages at the end of the finale occur in an inverse relationship to the finale of the first etude which ends with ascending chromatic

⁹ Ibid., 12.

¹⁰ Ibid.

motion. Another important consideration in the total form is the tempo relationship between the pieces which affects the pacing of the music (i.e. fast, slow, fast, very fast, slow, fast). Melodic chromaticism also ties the pieces together, particularly etudes 2,3,5, and 6. The palindromic tempo arrangement reflects a concern for the general symmetry.

... the five pieces are and remain, with their polyrhythmic energy and precision-playing, outwardly extremely personal and spiritual documents which only a Ligeti can have managed.¹¹

¹¹ Erich Limmert, "Rückblick auf die Tage neuer Kammermusik Braunschweig," *Das Orchester*; Organ der Deutschen Orchestervereinigung, 34 (February 1986): 156.

PART TWO

***THE SONG OF GLORY, AN ORIGINAL
OPERA IN ONE ACT***

PREFACE TO PART TWO

Dramatic Characters

Captain Scott (SC).....tenor
Lieutenant Bowers (BW).....tenor
Dr. Wilson (WL).....baritone
Captain Oates (OT).....baritone
Petty Officer Evans (PO).....bass

Synopsis

Prelude

The stage is dark at the beginning of the prelude except for ultraviolet light. As the music progresses, the stage lights gradually illuminate the backdrop that depicts a distant group of Antarctic nunataks (mountain peaks). A tent with its door-flap shut appears in the

center of the stage.

Scene I

Bowers lights a candle that illuminates the characters who are huddled inside the tent. As the candle light grows in intensity, a spotlight is focused on the characters. The characters in are in trouble. They are tired, starving, frostbitten, and rapidly approaching death. Dr. Wilson, a physician, tends to Oates' eyes. Bowers stirs an empty kettle, imagining that there is food to be prepared. Scott, who ignores all the other characters, complains about the weather. At the end of the scene, Scott extinguishes the candle and closes the tent flap.

Interlude I

During the music the characters (who are now concealed inside the tent) apply white stage make-up. As a result, when they reappear in scene II, they appear more frozen than in scene I.

Scene II

The tent door-flap opens and Bowers lights the candle. Scott reflects on the weather and begins writing journal entries. The ghost of P.O.Evans (a fellow sojourner who died a few days earlier) appears outside the tent. Oates leaves the tent in an attempt to find P.O.Evans and dies in the snow. Scott extinguishes the candle and closes the tent flap.

Interlude II

The remaining characters apply more white make-up while concealed in the tent.

Scene III

The tent door-flap opens and Bowers lights the candle. The captain continues the journal entries as each character weakens and dies. Bowers and Wilson in turn disappear into their sleeping bags. At the end, Scott opens his shirt (to facilitate rapid freezing) and dies.

Staging

The stage is covered with artificial snow. The snow is distributed unevenly across the floor so that drifts occur. A drift should be placed near the edge of stage-left. The drift should be deep enough to cover the character who will crawl into the snow to die.

The characters (except for P.O.Evans) should be clad in costumes that resemble Antarctic sledging attire. The costumes should consist of lightweight material so as not to overheat the performers. A slanted platform is placed in the tent upon which the characters sit.

Wilson and Oates stay in the left and center of the tent near the bottom of the platform. Bowers sits on the right with a kettle and candles. Scott sits on the top of the platform never interacting with the other characters. Wilson and Oates engage in dialog. Bowers directs his lines toward Scott.

P.O. Evans enters from stage-left standing upon a wheeled step-ladder that is covered from view. The ladder, with the character, is pushed out slowly by stage-hands, and likewise removed at the end of the scene. The character is shrouded in smoke.

Instrumentation

Flute (fl) doubles on Alto flute in g (alto)
 Oboe (ob) doubles on English Horn in f (eh)
 Clarinet (cl)
 in B-flat
 Bassoon (bsn)
 French Horn (cor)
 in f
 Trombone (trb)
 Percussion (prc) one player:

4 timpani (timp)
 Bass Drum (BD)
 Tenor Drum (tenor)
 Suspended Cymbal (sus cym)
 Gong (gong)
 Vibraphone (vibe)
 Marimba (mar)
 Xylophone (xyl)
 Antique Cymbals (ant cym)
 Glockenspiel (glock)
 Chimes (chimes)
 Celesta (celesta)
 Piano (pno)

Strings

Violins I and II (vl)
 Viola (vla)
 Cello (vc)
 Double Bass (db) with low C extension

The score is transposed.

Accidentals carry through the measures.

Sprechstimme (half spoken) passages are notated with a small "x" above the noteheads.

The "RND" symbol appearing over a rest indicates rest of an indeterminant length.

A number appearing after the "RND" symbol indicates a maximum length.

Material that is enclosed in a box is to be repeated.

The duration of boxed material is indicated with a dotted line.

The Song of Glory
Prelude

James Guthrie
1989

flute

oboe

clarinet
in Bb

bassoon

horn
in f

trombone

percussion

I
violins

II

viola

cello

double bass

72

72

72

pp cresc p SD pp cresc...p SD pp cresc...p SD pp cresc...

fl

ob

cl

bsn

cor

trb

(tr)-----

prc

p dim.....ppp

I

vl

II

vla

mp

vc

mp

lv

db

p

Detailed description: This is a musical score for page 129. It features ten staves. The first four staves are for woodwinds: flute (fl), oboe (ob), clarinet (cl), and bassoon (bsn). The next two staves are for horns: cor (cornet) and trb (trumpet). The sixth staff is for percussion (prc), with a trill (tr) indicated by a dashed line. The seventh staff is for strings, with first violins (I) and second violins (II) grouped together. The eighth staff is for viola (vla). The ninth staff is for violin (vc). The tenth staff is for double bass (db). The score includes various dynamics: p (piano), mp (mezzo-piano), and ppp (pianissimo). There are also markings for 'dim' (diminuendo) and 'lv' (lento). The percussion part has a trill (tr) indicated by a dashed line. The string parts have a 'p' marking at the beginning. The double bass part has a 'p' marking at the beginning and a 'lv' marking later.

fl

ob

cl

bsr

cor

trb

pp cresc. *f* dim....

prc

tr

pp dim.

I

vl

II

vla

vc

db

arco

pp

Detailed description: This is a page of a musical score, page 130. It contains ten staves. The first four staves are for woodwinds: flute (fl), oboe (ob), clarinet (cl), and bassoon (bsr). The next two staves are for horns: cor (cornet) and trb (trombone). The cor part has dynamics: *pp* cresc. *f* dim.... The trb part has dynamics: *pp* and *dim.*. The next staff is for percussion (prc), with a trill (tr) and dynamics: *pp* and *dim.*. The bottom four staves are for strings: Violin I (I vl), Violin II (II vl), Viola (vla), and Violoncello (vc). The db (double bass) staff is at the bottom, with dynamics: *arco* and *pp*. The score is in common time, with a key signature of one flat (B-flat). The woodwinds and strings play a rhythmic pattern of eighth and sixteenth notes. The cor and trb parts have a melodic line with a crescendo and decrescendo.

fl

ob

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

p cresc..... f din.

mp cresc..... f din..... pp

din..... pp

p cresc..... mf din..... pp

pp

cresc..... mf din..... mp

cresc..... mf din..... mp

cresc..... mf din..... mp

cresc..... mf din..... mp

mp cresc..... f din..... pp

timp

fl

ob

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

dim.....pp

p

pp

p

cresc.....f

cresc.....

cresc.....

cresc.....

cresc.....

p

Detailed description: This is a page of a musical score, page 132. It contains staves for various instruments. The woodwind section includes flute (fl), oboe (ob), clarinet (cl), bassoon (bsn), cor Anglais (cor), and trumpet (trb). The brass section includes a prelude (prc). The string section includes Violin I (I), Violin II (II), Viola (vla), Violoncello (vc), and Double Bass (db). The flute, oboe, and prelude parts are mostly rests. The clarinet part begins with a dynamic of *dim.....pp*. The bassoon part begins with a dynamic of *p*. The cor Anglais part begins with a dynamic of *p* and includes a crescendo marking *cresc.....f*. The trumpet part begins with a dynamic of *pp*. The Violin I and II parts both include a crescendo marking *cresc.....*. The Viola part includes a crescendo marking *cresc.....*. The Violoncello part includes a crescendo marking *cresc.....*. The Double Bass part begins with a dynamic of *p*.

musical score for page 133, featuring woodwinds, brass, and strings. The score is written for the following instruments:

- fl (flute)
- ob (oboe)
- cl (clarinet)
- bsn (bassoon)
- cor (cor Anglais)
- trb (trumpet)
- prc (percussion)
- I vl (Violin I)
- II vl (Violin II)
- vla (viola)
- vc (violin)
- db (double bass)

The score includes dynamic markings such as *cresc.* (crescendo), *ff* (fortissimo), *dim.* (diminuendo), and *p* (piano). The woodwinds and strings are marked with *ff* and *cresc.* in the first measure, followed by *dim.* and *p* in the second measure. The brass instruments (cor, trb) are marked with *f* and *dim.* in the first measure, followed by *p* in the second measure. The strings (vl, vla, vc, db) are marked with *cresc.* in the first measure, followed by *dim.* and *p* in the second measure. The percussion (prc) is marked with *cresc.* in the first measure, followed by *dim.* and *p* in the second measure.

fl

ob

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

dim.....p

mp

p

cresc.....

p

pp

dim.....mp

cresc.....

dim.....mp

cresc.....

dim.....mp

cresc.....

dim.....mp

cresc.....

pizz

arco

mp

p

Detailed description: This is a page of a musical score, page 134. It contains staves for various instruments. The woodwind section includes flutes (fl), oboes (ob), clarinets (cl), bassoon (bsn), cor Anglais (cor), and trumpet (trb). The percussion section includes a snare drum (prc). The string section includes Violin I (I), Violin II (II), Viola (vla), Violoncello (vc), and Double Bass (db). The score shows a musical passage with dynamic markings such as *dim.* (diminuendo), *mp* (mezzo-piano), *p* (piano), *pp* (pianissimo), and *cresc.* (crescendo). The woodwinds and strings play melodic lines, while the percussion provides rhythmic support. The double bass part includes markings for *pizz* (pizzicato) and *arco* (arco). The woodwinds and strings have a *dim.* marking followed by a *mp* marking, and then a *cresc.* marking. The percussion part has a *pp* marking. The double bass part has a *pizz* marking followed by an *arco* marking.

[illegible]

fl
din.....p

ob
din.....p

cl

bsn
din.....p mp

cor

trb
din.....p mp

prc

I
Dve
din.....p

II
din.....mp

vla
din.....mp

vc
din.....mp

db
din.....p mp

Detailed description: This is a page of a musical score, page 136. It contains staves for various instruments. The woodwind section includes Flute (fl), Oboe (ob), Clarinet (cl), Bassoon (bsn), Cor Anglais (cor), and Trumpet (trb). The brass section includes Percussion (prc). The string section includes Violin I (I), Violin II (II), Viola (vla), Violoncello (vc), and Double Bass (db). The score shows a dynamic change from piano (p) to mezzo-piano (mp) for several instruments. The woodwinds and strings are marked with 'din.....p' and 'din.....mp'. The brass instruments (bsn, trb) are marked with 'mp'. The percussion (prc) and cor anglais (cor) staves are empty. The violin I staff has a 'Dve' marking above it. The violin II staff has a 'din.....mp' marking. The viola staff has a 'din.....mp' marking. The violoncello staff has a 'din.....mp' marking. The double bass staff has a 'din.....p' marking and a 'mp' marking.

fl

ob

cl

bsn

cor

trb

prc

I

II

vla

vc

db

rit.....

slower = 66

mp

cresc.....

rit.....

slower = 66

vibs

pp

con sord.

pp

con sord.

pp

con sord.

pp

con sord.

pp

pizz. lv

arco

p

fl

ob

cl

bsn

cor

trb

prc

I

VI

II

vla

vc

db

dim.....pp

pp cresc.....

Detailed description: This is a page of a musical score, page 138. It features ten staves. The first six staves are for woodwinds: flute (fl), oboe (ob), clarinet (cl), bassoon (bsn), cor Anglais (cor), and trumpet (trb). The seventh staff is for percussion (prc). The next four staves are for strings: Violin I (I), Violin II (II), Viola (vla), and Violoncello (vc). The final staff is for double bass (db). The woodwind parts have various melodic lines with slurs and ties. The string parts are playing a rhythmic pattern of eighth notes. The percussion part has a simple rhythmic line. Dynamic markings include *dim.....pp* for the clarinet and *pp cresc.....* for the cor Anglais.

fl

ob

cl

bsn

cor

trb

prc

I

II

vla

vc

db

chimes

lv

np

f

dim.

dim.....np

dim...

fl
ob
cl
bsn
cor
trb
prc
I
vl
II
vla
vc
db

p
....p
p
pp
cresc.....mp
cresc.....mp
cresc.....mp
cresc.....mp
mp

trp
pp

The musical score for page 140 includes staves for flute (fl), oboe (ob), clarinet (cl), bassoon (bsn), cor Anglais (cor), trumpet (trb), percussion (prc), and strings (I, vl, II, vla, vc, db). The woodwinds and strings are marked with *p* (piano) or *....p* (very piano). The percussion part features a *trp* (triangle) and *pp* (pianissimo) marking. The string parts (vl, II, vla, vc) are marked with *cresc.....mp* (crescendo to mezzo-piano). The double bass (db) part is marked with *mp* (mezzo-piano).

This page of a musical score features the following staves and markings:

- fl** (Flute): Staff 1
- ob** (Oboe): Staff 2
- cl** (Clarinet): Staff 3
- bsn** (Bassoon): Staff 4
- cor** (Cor Anglais): Staff 5
- trb** (Trumpet): Staff 6
- prc** (Percussion): Staff 7
- I vl** (Violin I): Staff 8
- II vl** (Violin II): Staff 9
- vla** (Viola): Staff 10
- vc** (Violoncello): Staff 11
- db** (Double Bass): Staff 12

Key markings and dynamics include:

- dim.** (diminuendo) in the Cor Anglais staff.
- p** (piano) in the Bassoon, Percussion, and Double Bass staves.
- pp** (pianissimo) in the Cor Anglais and Trumpet staves.
- pizz.** (pizzicato) in the Violin I, Violin II, Viola, Violoncello, and Double Bass staves.
- tr.** (trill) in the Percussion staff.
- mp** (mezzo-piano) in the Double Bass staff.

52 Bowers lights the candle

142

fl
cresc. *ff*
(tr)-----
din.

ob
cresc. *ff*
(tr)-----
din.

cl
cresc. *ff*
(tr)-----
din.

bsn
cresc. *ff*
mp

cor
cresc. *ff* mp mp

trb
cresc. *ff* p p

prc
p cresc. *f* *ppp* sul pont. mp

I
cresc. *ff* *fp*

vl
arco

II
cresc. *ff*

vla
cresc. *ff*

vc
arco *ff* pizz. mp arco

db
arco *ff* mp arco

fl
dim.....pp

ob
dim.....pp

cl
dim.....pp

bsn
mp cresc.....

cor
mp

trb

sc
Such

I
vl
II
dim.....p

vla
p

vc
p

db
pizz 3

mf

fl

ob

cl

bsn

cor

trb

prc

sc

weather!

I

VI

II

vla

vc/db

f *dim.....p* *fp* *dim.....*

f *dim.....p*

ff *f* *fp*

mar

p cresc.....f

sul pont. *ord.*

ff *sul pont.* *ord.* *cresc.....ff* *p*

ff *sul pont.* *ord.* *cresc.....ff* *p*

ff *sul pont.* *mp* *cresc.....ff* *p*

ff *p*

sfz *dim.....p* *f cresc...ff*

fl
ob
cl
bsn
cor
trb
prc
SC
I
vl
II
vla
vc/
db

mp
din.....p
pp cresc...mp
din.....mp
mp
mp
timp
mp
Such weather!
pizz.
mp
pizz.
mp
pizz.
mp
f

A detailed musical score for Act II, Scene I. The score includes staves for Flute (fl), Oboe (ob), Clarinet (cl), Bassoon (bsn), Cor Anglais (cor), Percussion (perc), Bassoon/Wind (BW), Violin I (I vl), Violin II (II vl), Viola (vla), Violoncello (vc), and Double Bass (db). The music features complex rhythmic patterns, including triplets and sixteenth notes. Dynamic markings such as *cresc.*, *din.*, *p*, *mp*, *f*, *ff*, *plaz*, and *np* are used throughout. A vocal part enters with the lyrics "Ready for dinner Sir?". The score is written in a standard musical notation style with a key signature of one flat and a common time signature.

fl *mf* cresc.....*ff* *Dve*

ob *din.... p*

cl. *mf* cresc.....*ff*

bsn *din.*

cor *p*

trb *p*

prc *ED* *p*

sc *na-----gined such low tem-para-tures?*

I *pizz* *arco* *Dve*

vi *pizz* *arco*

II *pizz* *arco*

vla *sul pont.* *ord*

vc/db *fp* *din.....p* *pizz* *arco*

This musical score page, numbered 150, contains ten staves of music. The instruments are labeled on the left: fl (flute), ob (oboe), cl (clarinet), bsn (bassoon), cor (cor Anglais), trb (trumpet), prc (percussion), vl I and II (violin), vla (viola), vc (violin), and db (double bass). The percussion staff is marked with 'chimes' and 'loco'. The woodwinds and brass play melodic lines with various articulations and slurs. The strings provide a rhythmic and harmonic foundation, with the violins and viola featuring more active patterns. The double bass and cello play a steady bass line. The percussion part includes chimes and a 'loco' section. The score is written in a standard musical notation style with a key signature of one flat and a common time signature.

fl
ob
cl
bsn
cor
trb
prc
WL
vli
vla
vc
db

mp
mp
mp
din.
mp
pp
timp 3
mp
p
mp
E--le-----ven niles!
non div
din....pp
non div
non div
non div
pizz 3
mp
p
mp

musical score for page 151, featuring woodwinds (flute, oboe, clarinet, bassoon, cor, trumpet), percussion (timp, prc, db), strings (vli, vla, vc), and vocal soloists (WL). The score includes various dynamics (mp, p, pp, non div, pizz) and articulations (din., 3).

fl
ob
cl
bsn
cor
prc
OT
WL
vli
vla
vc
db

P *tiwp* *3* *mp* *P*

May as well be a will-

E---le---ven willco!

non div *cresc. ff* *mp* *cresc.*

non div *mp* *cresc. ff* *mp* *cresc.*

non div *mp* *cresc. ff* *mp* *cresc.*

non div *mp* *cresc. ff* *mp* *cresc.*

pixx *3* *mp* *P*

[illegible]

fl.

ob.

cl.

bsn.

cor.

trb.

prc.

WL.

I

vl

II

vla.

vc/
db.

0vb

sfz

pp

le-ven niles.

Detailed description: This is a page of a musical score, page 154. It features twelve staves. The first seven staves are for woodwinds and brass: flute (fl.), oboe (ob.), clarinet (cl.), bassoon (bsn.), cor Anglais (cor.), trumpet (trb.), and percussion (prc.). The eighth staff is for a vocal soloist (WL). The next three staves are for strings: Violin I (I), Violin II (II), and Viola (vla.). The final staff is for the double bass and cello (vc/db). The key signature has one sharp (F#). The time signature is 2/4. The score includes various musical notations such as notes, rests, and dynamic markings. A '0vb' marking is present above the clarinet staff. 'sfz' (sforzando) markings appear on the flute, oboe, bassoon, cor Anglais, trumpet, and percussion staves. 'pp' (pianissimo) markings appear on the percussion and vocal staves. The vocal line has the lyrics 'le-ven niles.' written below it. The woodwinds and brass parts have many rests, while the strings and percussion are more active.

fl mf cresc.....**ff** dim.....**p**

ob mf cresc.....**f** dim.....**p**

cl loco mf cresc.....**f** dim.....**p**

bsn mf cresc.....**f** dim.....**p**

cor mf cresc.....dim.....**p**

trb mf dim.....**pp**

prc timp mf cresc.....**f** dim.....**mp**

I mf dim.....**p**

II mf cresc.....**ff** dim.....**p**

vla mf cresc.....**ff** dim.....**p**

vc mf cresc.....**ff** dim.....**p**

db mf cresc.....**ff** dim.....**p**

fl
wp cresc..... f din..... pp

ob
fp din.

cl
wp cresc..... f din..... pp

bsn
f wp

cor
mf

trb
mf

ant cym

prc
wp

BW
Cheer up Sir! We'll pull

I
sul pont p

VI
sul pont p

II
p

vla
mf

vc/
db
mf pizx

ob

cl

bsn

cor

chimes

prc

BW

through.

SC

It is-----n't my fault

I

vl

II

din.....pp

din.....pp

vla

din.....pp

plxx

vc

plxx

db

fl
ob
cl
cor
trb
prc
sc
ord
I
vl
II
vla
vc
db

fl: *ff*

ob: *ff*

cl: *cresc. ff*

cor: *din. pp*

trb: *mp cresc. ff*

prc: *mp*

sc: *mp*

ord: *It isn't my fault?*

I: *fp din. pizx arco ff*

vl: *fp din. pizx arco ff*

II: *fp din. pizx arco ff*

vla: *pizx arco ff*

vc: *pizx arco ff*

db: *pizx arco ff*

cresc. ff

fl *loco*

ob

cl

cor

trb

prc *tlmp*

BW

SC *ff*

I

vl

II

vla

vc/db

mp

Bea-dy

It is-a't my fault!

This musical score page, numbered 159, contains staves for the following instruments and voices: Flute (fl), Oboe (ob), Clarinet (cl), Cor Anglais (cor), Trumpet (trb), Percussion (prc, marked *tlmp*), Bassoon (BW), Vocal Soloist (SC), Violin I (I), Violin II (II), Viola (vla), and Violoncello/Double Bass (vc/db). The woodwinds and strings play sustained notes with *sfz* (sforzando) markings. The percussion part features a melodic line. The vocal soloist has a vocal line with lyrics: "It is-a't my fault!" and "Bea-dy". The flute part is marked *loco*. The bassoon part has a *ff* (fortissimo) marking. The strings are marked *mp* (mezzo-piano).

fl

ob

cl

bsn

cor

perc

BW

I

II

vla

vc

db

for dinner

Sir?

sfz

p

mp

f

fl
ob
cl
bsn
cor
trb
prc
OT
I
vl
II
vla
vc/
db

El--e--ven miles

pp
p
pizz
arco
fp

Detailed description: This is a page of a musical score, page 161. It features ten staves of music. The first four staves are for woodwinds: flute (fl), oboe (ob), clarinet (cl), and bassoon (bsn). The next two are for brass: cornet (cor) and trumpet (trb). The seventh staff is for a percussionist (prc) with a complex rhythmic pattern. The eighth staff is for a soloist (OT) with the lyrics 'El--e--ven miles'. The final four staves are for strings: Violin I (I), Violin II (II), Viola (vla), and Violoncello/Double Bass (vc/db). The string section includes markings for 'pizz' (pizzicato) and 'arco' (arco). Dynamics include 'pp' (pianissimo), 'p' (piano), and 'fp' (fortissimo). The score is written in a standard musical notation with various note values, rests, and articulation marks.

fl
ob
cl
bsn
cor
trb
prc
WL
I
vl
II
vla
vc/
db

at those eyes sol-dier

pp
p
dim.....pp
pp
fp
p
pp
pp
mp
cresc....
cresc....
cresc....
mp

Detailed description: This is a page of a musical score, page 163. It contains staves for various instruments and vocal parts. The woodwind section includes Flute (fl), Oboe (ob), Clarinet (cl), Bassoon (bsn), Cor Anglais (cor), Trumpet (trb), and Piccolo (prc). The string section includes Violin I (I), Violin II (II), Viola (vla), and Violoncello/Double Bass (vc/db). There is also a vocal line (WL) with lyrics. The score includes dynamic markings such as pp (pianissimo), p (piano), mp (mezzo-piano), fp (fortissimo), and cresc. (crescendo). There are also markings for 'dim.' (diminuendo) and 'cresc.' (crescendo). The vocal line has lyrics 'at those eyes sol-dier'. The woodwinds and strings have various musical notations including notes, rests, and slurs.

fl *ff* *fp cresc....ff* *fp*

ob *din.....pp*

cl *din.....pp*

bsn *din.....pp*

cor *pp* *din.....pp* *p*

trb *din.....pp* *pp*

prc *ant cum* *timp*

OT *A high price for a few lusc po-nies.*

I *cresc...mf* *din....p* *din.....pp*

II *cresc...mf* *din....p* *din.....pp*

vla *cresc...mf* *din....p* *din.....pp*

vc/
db *din.....pp* *pizz*

The musical score is for page 164. It features a full orchestral arrangement with woodwinds (flute, oboe, clarinet, bassoon, cor Anglais, trumpet, trombone), percussion (snare drum, cymbal, triangle, tom-tom), strings (Violins I & II, Viola, Violoncello/Double Bass), and a vocal soloist. The score includes dynamic markings such as *ff*, *fp*, *cresc.*, *pp*, *p*, *mf*, *fz*, and *pizz*. The vocal line has the lyrics "A high price for a few lusc po-nies." The woodwinds and strings play melodic lines with various articulations and dynamics. The percussion provides rhythmic support with patterns on the snare, cymbal, and triangle.

senza tempo
The Dr. examines Oates' eyes

165

Musical score for page 165, titled "senza tempo" with the subtitle "The Dr. examines Oates' eyes". The score is for a full orchestra and includes a percussion section. The instruments listed on the left are: fl (flute), ob (oboe), cl (clarinet), bsn (bassoon), cor (cor Anglais), trb (trumpet), prc (percussion), I vl (violin I), II vl (violin II), vla (viola), vc (violin), and db (double bass). The percussion part includes a timpani (timp) and a snare drum (prc). The score is divided into two systems. The first system contains the woodwinds (fl, ob, cl, bsn), strings (cor, trb, I vl, II vl, vla, vc), and percussion (timp, prc). The second system contains the strings (I vl, II vl, vla, vc) and double bass (db). The tempo is marked "senza tempo" at the beginning of the first system. The key signature is one flat (B-flat). The time signature is not explicitly shown but is implied to be 4/4. The score features a variety of musical notations, including eighth notes, sixteenth notes, and rests. A dynamic marking of "pp" (pianissimo) is present at the beginning of the percussion part. A bracket labeled "END 5" is placed over the percussion part. A vertical line divides the score into two systems. A triangle symbol is located above the first system. The page number "165" is in the top right corner.

fl

ob

cl

bsn

cor

trb

timp

prc

I vl

II vl

vla

vc

db

pp

END 5

pp

fl

ob

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

The musical score for page 166 features a woodwind section with flutes (fl), oboes (ob), clarinets (cl), and bassoons (bsn). The clarinet part is the most active, with a melodic line in the first staff and a more rhythmic, lower-register line in the second staff. The brass section includes cornets (cor), trumpets (trb), and a percussionist (prc). The string section consists of first and second violins (I, vl), second violas (II), viola (vla), violin (vc), and double bass (db). A triangle symbol is positioned above the first staff, indicating a specific performance instruction. The score is divided into two measures by a vertical bar line.

fl

ob

cl

bsn

prc

OT

SC

I

II

vla

vc

db

could've known?

We should--'ve known

Oys-----

loco

acc

sfz

sf

mp

arco

fl *dim.....pp* *ff* *dim.....pp* *68*

ob *dim.....pp* *p* *dim.....pp*

cl *dim.....pp* *p* *dim.....pp*

bsn *mp* *cresc....f* *68*

cor *dim.....pp*

prc *trip* *3* *3*

OT *solo* *mp* *I cannot*

WL *mf* *We should've kept bet' ter re-cords.* *68*

I *68* *dim.....pp*

vl *dim.....pp*

II *f* *3*

vla *mf* *3* *3* *3* *3* *dim.....pp*

vc/
db *mf* *3* *3* *3* *3* *cresc....f* *dim.....pp*

fl

ob

cl

bsn

cor

trb

OT

feel my feet.

BW

cab-ba-gas and

I

vi

II

vla

vc/
db

fl
ob
cl
bsn
cor
trb
prc
BW
SC
vli
vla
vc/db

fudge.

As luck would have it.

pizz

sfz

p

FR

SONG

p

pizz

sfz

pizz

sfz

pizz

sfz

fl mp

ob

cl

bsn

cor

trb

prc

sc

God guard who guards this cab-bage?

I

vl

II

vla

vc/
db

p

p

p

p

Detailed description: This is a page of a musical score, page 172. It features ten staves. The first four staves are for woodwinds: flute (fl), oboe (ob), clarinet (cl), and bassoon (bsn). The next two are for brass: cornet (cor) and trumpet (trb). The seventh staff is for percussion (prc). The eighth staff is for a solo voice (sc), with the lyrics "God guard who guards this cab-bage?". The bottom four staves are for strings: Violin I (I), Violin II (II), Viola (vla), and Violoncello/Double Bass (vc/db). The flute part begins with a dynamic marking of mp . The string parts (vl, vla, vc/db) have a dynamic marking of p starting in the fourth measure. The vocal part has a dynamic marking of p at the beginning. There are two rehearsal marks, each consisting of a vertical line and the number 58, located at the beginning of the flute staff and the vocal staff.

rit. $\text{♩} = 48$

fl pp

ob pp

cl pp

bsn pp

prc $\text{rit.} \dots \text{timp.} \dots \text{pp}$ $\text{♩} = 48$

OT pp spoken

WL pp $\text{F---le---ven hun---dred watercress salad.}$

rit. $\text{♩} = 48$

I p

vl p

II p

vla p

vc p

db p pp

pizz

Interlude I

♩ = 100

fl

eh

cl

bsn

♩ = 100

cor

trb

vibe

prc *mp* *6* *simile*

♩ = 100

I

vl

II

vla

vc

db

fl

eh

cl

bsn

cor

trb

prc

mp

I

vl

II

vla

6 simile

vc

db

Detailed description: This is a page of a musical score, page 175. It contains ten staves for different instruments. The first staff is for flute (fl), which is mostly empty. The second staff is for euphonium (eh), showing a triplet of notes in the second measure. The third staff is for clarinet (cl), also empty. The fourth staff is for baritone saxophone (bsn), featuring two triplet markings over notes in the first and second measures. The fifth staff is for cornet (cor), empty. The sixth staff is for trumpet (trb), empty. The seventh staff is for percussion (prc), showing a continuous rhythmic pattern of eighth notes. The eighth staff is for violin I (I), with a 'mp' (mezzo-piano) dynamic marking. The ninth staff is for violin II (II), empty. The tenth staff is for viola (vla), showing a sixteenth-note triplet in the second measure with the instruction '6 simile' above it. The eleventh staff is for violoncello (vc), empty. The twelfth staff is for double bass (db), empty.

fl

eh

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

din.....

din.....p

din.....p

3

Detailed description: This is a musical score for page 176. It features ten staves. The first four staves are for woodwinds: flute (fl), euphonium (eh), clarinet (cl), and bassoon (bsn). The next two staves are for brass: cornet (cor) and trumpet (trb). The seventh staff is for percussion (prc), showing a continuous rhythmic pattern. The eighth and ninth staves are for strings: Violin I (I), Violin II (II), and Viola (vla). The tenth staff is for the double bass (vc) and double bass (db). The euphonium (eh) and viola (vla) parts have a dynamic marking of *din.....*. The double bass (vc) and double bass (db) parts have a dynamic marking of *din.....p*. The double bass (db) part also features a triplet of eighth notes marked with a '3' and a bracket.

alto

177

Musical score for measures 177-178. The score includes staves for the following instruments: fl (flute), eh (English horn), cl (clarinet), bsn (bassoon), cor (cor Anglais), trb (trumpet), prc (piccolo), I vl (Violin I), II vl (Violin II), via (viola), vc (violin), and db (double bass). The key signature has one flat (B-flat). The time signature is 4/4. The score shows a melodic line in the woodwinds (flute and English horn) and a rhythmic pattern in the piccolo. The double bass part includes a dynamic marking of *dim.* (diminuendo) followed by a *p* (piano) marking.

fl

eh

cl

bsn

cor

trb

prc

I vl

II vl

via

vc

db

dim......*p*

fl
eh
cl
bsn
cor
trb
prc
I
vl
II
vla
vc
db

fl: *dim.....p*

eh: *dim.....p*

cor: *mf* *cresc.....ff* (trill)

prc: *dim.....pp* *mf* (trill)

I: *mf* *cresc.....ff* (trill)

II: *mf* *cresc.....ff* (trill)

vla: *mf* *cresc.....ff* (trill)

vc: *mf* *cresc.....fff* (trill)

db: *mf* *cresc.....ff* (trill)

Detailed description: This is a page of a musical score, page 178. It contains staves for various instruments: flute (fl), euphonium (eh), clarinet (cl), bassoon (bsn), cor (cornet), trumpet (trb), piccolo (prc), Violin I (I), Violin II (II), Viola (vla), Violoncello (vc), and Double Bass (db). The score is divided into two measures. The first measure shows the flute and euphonium playing a melodic line that decrescendos from a medium dynamic to piano. The piccolo, Violin I, Violin II, Viola, Violoncello, and Double Bass all play a similar melodic line that decrescendos from mezzo-forte to piano or pianissimo. The cor and trumpet parts enter in the second measure, playing a melodic line that crescendos from mezzo-forte to fortissimo, with a trill figure. The woodwinds (fl, eh, cl, bsn) are silent in the second measure.

fl

eh

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

The musical score for page 179 includes staves for flute (fl), euphonium (eh), clarinet (cl), bassoon (bsn), cor, trumpet (trb), percussion (prc), violin I (I), violin II (II), viola (vla), violoncello (vc), and double bass (db). The flute, euphonium, and bassoon parts feature a triplet of eighth notes in the first measure. The clarinet part has a continuous eighth-note pattern. The string section (violin I, violin II, viola, violoncello, and double bass) is currently blank.

fl *pcc.* *p*

eh

cl

bsn *p*

cor *din.* *p*

trb *din.* *pp*

prc

I *din.*

vl *din.*

II *din.*

vla *p cresc.*

vc *cresc.*

db *cresc.* *ff*

fl

eh

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

mp

ff

plz

mp

Detailed description: This is a page of a musical score, page 181. It contains ten staves for different instruments. The first four staves (fl, eh, cl, bsn) are mostly empty. The fifth staff (cor) and sixth staff (trb) have musical notation with a *mp* dynamic marking. The seventh staff (prc) is empty. The eighth staff (vl) and ninth staff (II) are grouped with a brace and have musical notation. The tenth staff (vla) has musical notation with a *ff* dynamic marking. The eleventh staff (vc) has musical notation with a *ff* dynamic marking. The twelfth staff (db) has musical notation with a *plz* dynamic marking and a *mp* dynamic marking.

fl *alto*

eh

cl

bsn

cor *dim.....p*

trb *dim.....pp*

prc *p*

I

vl

II

vla *6* *p* *cresc.....mp*

vc

db *pizz* *p*

Detailed description: This is a page of a musical score, page 182. It contains staves for various instruments. The woodwind section includes Flute 1 (fl) with an 'alto' marking, Flute 2 (eh), Clarinet (cl), Bassoon (bsn), Cor Anglais (cor) with a 'dim.....p' marking, and Trumpet (trb) with a 'dim.....pp' marking. The string section includes Percussion (prc) with a 'p' marking, Violin I (I), Violin II (II), Viola (vla) with a '6' marking and a 'p' to 'cresc.....mp' dynamic marking, Violoncello (vc), and Double Bass (db) with a 'pizz' (pizzicato) marking and a 'p' dynamic marking. The percussion part shows a complex rhythmic pattern. The woodwinds and strings have various melodic and harmonic lines. The double bass part has a few notes, including a pizzicato figure.

fl

eh

cl. 6

bsn

cor

trb

prc

I

vl

II

vla

vc

db

Detailed description: This is a page of a musical score, page 183. It contains ten staves of music. The instruments are labeled on the left: fl (flute), eh (English horn), cl. (clarinet), bsn (bassoon), cor (cor Anglais), trb (trumpet), prc (percussion), vl (violin), vla (viola), vc (violin), and db (double bass). The fl, eh, and prc staves are empty. The cl. staff has a melodic line with a sixteenth-note run marked with a '6'. The bsn, cor, and trb staves have a similar melodic line. The vl and vla staves are grouped together with a brace. The vla staff has a continuous sixteenth-note pattern. The vc and db staves have a simple melodic line.

fl

eh

cl

bsn

cor

trb

prc

chimes

I

vl

II

vla

vc

db

dim.....p

dim.....pp

dim.....p

dim.....pp

mp

cresc.....mp

dim.....mp

mp

mp

mp

Rit.....molto..... 185

fl

eh

cl

mp

bsn

Rit.....molto.....

cor

trb

chimes

perc

Rit.....molto.....

I

vi

II

vla

vc

dim.....p

db

p

a tempo

fl

eh

cl

bsn

a tempo

cor

trb

prc

a tempo

I

vl

II

vla

vc

db

mp *cresc.....f* *dim.....p*

p *cresc.....f*

dim.....pp

dim.....pp

loco

p cresc.....mp

dim.....pp

plxz

mp

fl *picc.*

eh

cl *dim.....pp*

bsn

cor

trb

prc

I

vl *loco*

II

vla

vc

db

The musical score is for page 187. It features a woodwind section with fl (flute), eh (English horn), cl (clarinet), and bsn (bassoon). The cl part includes a dynamic marking of *dim.....pp*. A brass section includes cor (cor Anglais) and trb (trumpet). A string section includes prc (piccolo), vl I (violin I), vl II (violin II), vla (viola), vc (violin), and db (double bass). The vl I part has a *loco* marking. The score is written in a single system with a repeat sign at the end of the first measure.

fl

eh

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

p

non div

p

Detailed description: This is a page of a musical score, page 188. It contains staves for various instruments. The woodwind section includes Flute (fl), English Horn (eh), Clarinet (cl), Bassoon (bsn), Cor Anglais (cor), and Trumpet (trb). The percussion section includes Percussion (prc). The string section includes Violin I (I), Violin II (II), Viola (vla), Violoncello (vc), and Double Bass (db). The percussion part features a complex rhythmic pattern with many sixteenth notes. The string parts have some notes with slurs and dynamic markings like *p* (piano) and *non div* (non diviso).

fl
eh
cl
bsn
cor
trb
prc
I
vl
II
vla
vc
db

ba.
din.....mp
cresc.
ba.
din.....mp
ba.
din.....mp

Detailed description: This is a musical score for page 189. It features ten staves. The first six staves are for woodwinds: Flute (fl), English Horn (eh), Clarinet (cl), Bassoon (bsn), Cor Anglais (cor), and Trumpet (trb). The seventh staff is for Percussion (prc), which includes a snare drum part with a 'cresc.' (crescendo) marking. The next three staves are for strings: Violin I (I), Violin II (II), and Viola (vla). The final two staves are for Cello (vc) and Double Bass (db). The Violin I and II parts have a 'ba.' (basso continuo) line above them. The Flute, Violin I, and Violin II parts have a 'din.....mp' (diminuendo... mezzo-piano) marking. The Percussion part has a 'cresc.' marking. The score is divided into two measures by a vertical line.

fl

eh

cl

bsn

cor

trb

prc

I

II

vl

vla

vc

db

con sord

loco

3

3

Detailed description: This is a page of a musical score, page 190. It features ten staves. The first four staves are for woodwinds: flute (fl), euphonium (eh), clarinet (cl), and bassoon (bsn). The next two are for horns: cor and trb. The sixth staff is for percussion (prc), showing a complex rhythmic pattern. The seventh and eighth staves are for violins I and II (vl), with a bracket on the left. They include the instruction 'con sord' (con sordina) and 'loco' (loco). The ninth staff is for viola (vla), and the tenth is for double bass (db). The score is divided into two measures by a vertical line. The first measure contains the woodwind and string parts, while the second measure is mostly empty for the woodwinds and horns, with some activity in the strings and percussion.

fl

eh

cl

bsn

cor

trb

prc

I

vl

II

vla

vp

vc

db

fl
eh
cl
bsn
cor
trb
prc
I
vl
II
vla
vc
db

dim.....p
dim.....p
p
p

The musical score for page 192 includes staves for flute (fl), euphonium (eh), clarinet (cl), bassoon (bsn), cor (horn), trumpet (trb), percussion (prc), Violin I (I), Violin II (II), Viola (vla), Violoncello (vc), and Double Bass (db). The woodwinds and euphonium parts feature a crescendo marked 'dim.....p'. The trumpet part has a dynamic change from 'p' to 'mp'. The Viola part has a dynamic change from 'mp' to 'p'. The percussion part is marked 'prc'.

db

vc

vla *f*.....*cresc.*

vl I

vl II

prc

cor *dim.*.....*ppp*

trb *dim.*.....*ppp*

bsn

cl

eh

fl

fl *fp* (rit).....

eh *p*

cl

ban *p*

cor (rit).....

trb

prc *china* *pp*

I *(rit).....*

vi *(rit).....*

II *(rit).....*

vla *din.....p*

vc *p*

db *p*

fl *fp*

ob *fp*

cl *fp*

bsn *sfz*

cor *sfz*

trb *sfz*

prc *p*

SC *mp* *sf*

I *plxz*

VI *plxz*

II *plxz*

vla *plxz*

vc/db *plxz*

It's this wai-----ting, this in-fer-nal wai---

[illegible]

fl
ob
cl
bsn
cor
trb
prc
SC
I
vl
II
vla
vc/
db

fp *dim....pp*
fp *dim....pp*
fp *dim....pp*
sfz *sfz*
sfz *sfz*
p
pizz *It's a pi-ty The luck doesn't come our way.*
pizz *pizz* *pizz*
arco *arco*
pizz

The musical score is for page 198. It features a woodwind section with flutes (fl), oboes (ob), clarinets (cl), and bassoons (bsn). The woodwinds play a melodic line with triplets and dynamic markings of *fp* (fortissimo piano) and *dim....pp* (diminuendo to pianissimo). The brass section includes a cor Anglais (cor) and a trumpet (trb), both playing *sfz* (sforzando) chords. The string section consists of a piccolo (prc), solo cello (SC), first and second violins (I, vl and II, vl), viola (vla), and violin/contrabass (vc/db). The strings play a rhythmic accompaniment with *pizz* (pizzicato) and *arco* (arco) markings. The vocal soloist (SC) sings the lyrics "It's a pi-ty The luck doesn't come our way." The score is written in a single system with multiple staves.

This image shows a page from a musical score, likely for a symphony orchestra. The score is written for multiple instruments, including woodwinds, brass, strings, and percussion. The notation is in standard musical notation, with notes, rests, and various dynamic markings. The page is numbered 92 in the top right corner. The instruments listed on the left side of the page are: fl (flute), ob (oboe), cl (clarinet), bsn (bassoon), cor (cor Anglais), trb (trumpet), prc (percussion), I (string I), vl (string II), II (string III), vla (viola), vc (violin), and db (double bass). The score includes various musical notations such as notes, rests, and dynamic markings like 'ff', 'p', 'f', 'cresc.', and 'dim.'.

(tr) (stagger breathing) rit.....

fl

ob (tr)

cl (tr)

bsn

prc timp -3- rit.....

WL mp

OT (sprechtime) For dogs no,

Eleven miles wouldn't be far for the dogs. rit.....

I (tr)

vl (tr)

II (tr)

vla (tr)

vc

db -3- rit.....

[illegible]

[illegible]

rit..... $\text{♩} = 72$

fl
ob
cl
bsn
cor
trb
WL
BW
I
II
vla
vc/
db

mp cresc..... f din... p mp
mp cresc..... f din... p mp
mp cresc..... f din... p mp
mp din..... p mp din... p
rit..... $\text{♩} = 72$
mp
p
din... pp
mp
Let's have a look at those
A bit of Al-ba-tross Sir?
mp cresc..... f din... p
mp cresc..... f din... p
rit..... $\text{♩} = 72$
p cresc..... f din.
p cresc. f din.

rit.....♩=68 ♩=72

fl
cresc.....f dim.....p

ob
cresc.....f dim.....p

cl
r-3-7

bsn
mp

cor
rit.....♩=68 ♩=72
mp

trb
p

prc
pno
bbs
mp

WL
eyes, sol-dier. Now then

OT
mp

vla
rit.....♩=68 You should-v's left me in my bag yes-ter-day. ♩=72
dim.....pp mp

vc
dim.....pp

db
dim.....pp mp dim.....pp

fl

ob

cl

bsn

cor

trb

perc

SC

(secco recitative - spoken as if writing)

The risks I have taken... never seemed excessive. loco

I

II

vla

vc/db

fl

ob

cl

bsn

cor

trb

prc

sc

It's a pity the luck never came our way. loco

I

II

vla

vc/db

fl =72 ff

ob ff

cl ff

bsn

cor =72

trb ff

prc

SC =72 ff

We are showing that Eng-lish men...can still...die.

I ff

vl ff

II ff

vla

vc/
db ff

Enter: P.O. Evans

fl

ob

cl

bsn

cor

trb

perc

PO

I

vl

II

via

vc/
db

Ho there! What's all this? What's

rit.....=66 *ovs* *loco* 211

fl *mp* *mp*

ob *mp*

cl *mp*

bsn *--3--* *p*

trb *rit.....=66* *p*

prc *(tr)*

WL *It's P.O.!*

PO *all this? Bug-ger up con old boy!*

BW *Wh...* *That voice!*

rit.....=66

I *ovs* *mp*

vl *mp*

II *ovs* *mp*

vc/db *--3--*

This musical score page, numbered 211, contains staves for the following instruments and voices: Flute (fl), Oboe (ob), Clarinet (cl), Bassoon (bsn), Trumpet B (trb), Percussion (prc), Woodlow (WL), Piano (PO), Bassoon/Wind (BW), Violin I (I), Violin II (II), and Violoncello/Double Bass (vc/db). The score includes various musical notations such as rests, notes, and slurs. Performance markings include 'rit.....=66' (ritardando to 66 bpm), 'ovs' (overblow), 'loco' (loco playing), 'mp' (mezzo-piano), and 'p' (piano). A triplet of eighth notes is indicated by '--3--'. The vocal parts (WL, PO, BW) have lyrics: 'It's P.O.!', 'all this? Bug-ger up con old boy!', and 'Wh... That voice!'. The percussion part (prc) is marked with '(tr)' for triangle. The string parts (I, II, vc/db) also feature triplet markings.

fl
cresc. *f* dim... *p*

ob
cresc. *f* dim... *p*

cl
cresc. *f* dim... *p*

bsn
dim... *p*

cor
pp

trb
pp

WL
mp
Per-haps he was-n't quite

BW
f
How can it be?

I
vl
fp

II

vla

vc/
db

68

fl $\text{♩} = 72$ mp

ob mp

cl mp

bsn

cor $\text{♩} = 72$

trb p

WL mp

OT *dead,* gliss mf 3

$\text{♩} = 72$ No! No! No! It's just not pos-si-ble. How did he sur-vive?

I vl

II

vla

vc/db 3 p

fl

ob

cl

bsn

cor

trb

OT

WL

PO

vll

vla

vc/
db

68 72

P

PP

ff

P. O.!

ff

P. O.!

ff

Well, Scott!

mp

mp

mp

fl *fp cresc. ff*

ob *fp cresc. ff*

cl *fp cresc. ff*

bsn *dim...p*

cor *mp cresc. f* *p cresc. f*

trb *mp cresc. f* *p cresc. f*

OT

PO *captain! How are you going to explain this?*

I *pp* *f* *mp*

vi *f* *mp*

II *f* *mp*

vla *fp cresc. ff* *mp*

vc/db *dim...pp*

Walt! P.D.!

Bye-----loco

217

fl
cresc. *f* *sfz*

ob
cresc. *f* *sfz*

cl
cresc. *f* *sfz*

bsn
f

cor
sfz *sfz*

trb
sfz *sfz*

WL
No! Ti-tus! No! No!

PO
I'm coming out! Hold on P. O.!

I
mf cresc ff sfz

II
mf cresc ff sfz sfz

vla
mf cresc ff sfz sfz

vc/db
ff *dim.....p*

219

fl

ob

cl

bsn

cor

trb

perc

PO

I

II

vla

vc/db

Keep writ-ing Scott! You have a lot of ex-plain-ing to do! It's

(Ove) -----

1800

fl

ob

cl

bsn

cor

trb

prc

PO

all you have left! He-ros like you dream of fail-ure you ig-

I

vl

II

vla

vc/
db

fl

ob

cl

bsn

cor

trb

prc (tr)

PO

I

vl

II

vla

vc/db

mored every war-ning and jeo-r-dized your men? Why did you need so much

Detailed description: This is a page of a musical score, page 221. It features ten staves. The first six staves are for woodwinds and brass: flute (fl), oboe (ob), clarinet (cl), bassoon (bsn), cor (cornet), and trumpet (trb). The seventh staff is for percussion (prc) with a tritone (tr) symbol. The eighth staff is for piano (PO). The next three staves are for strings: Violin I (I), Violin II (II), and Viola (vla). The final staff is for vocal parts (vc/db). The music is in 2/4 time. The key signature has one flat (B-flat). The score includes various musical notations such as notes, rests, and dynamic markings. A vocal line is present on the eighth staff, with the lyrics: "mored every war-ning and jeo-r-dized your men? Why did you need so much".

fl

bsn

cor

trb

prc

BW

WL

PO

company for a blood-y au-t-oids mis-sion?

I vl

II vl

vla

vc/db

51

54

51

54

pp

Ti---tus! Ti---

Ti-----tus! Ti---

223

fl

ob

cl

bsn

cor

BW

WL

OT

I

II

vla

vc/
db

♩=48

tust Ti--tust

tust Ti--tust

pp

pp

pp

pp

I'm just going out-side and may be some time.

224

Qates crawl out of the tent and into the snow.

fl

ob

cl

bsn

cor

trb

chimes

prc

I

vi

II

vla

vc

db

This musical score page contains measures 225 through 228. The instruments and vocal parts are arranged as follows from top to bottom:

- dp** (Double Bass): Measures 225-228.
- vc** (Violoncello): Measures 225-228.
- vla** (Viola): Measures 225-228.
- vi** (Violin): Measures 225-228, with sub-staves **I**, **II**, and **III** indicated.
- prc** (Percussion): Measures 225-228.
- trb** (Trumpet): Measures 225-228.
- cor** (Cornet): Measures 225-228.
- bsn** (Bassoon): Measures 225-228.
- cl** (Clarinet): Measures 225-228.
- ob** (Oboe): Measures 225-228.
- fl** (Flute): Measures 225-228.

Measure 225 features a key signature change to one sharp (F#) and a time signature change to 3/4. Measure 226 includes a **chimes** effect. Measure 227 includes a **div** (divisi) instruction for the strings. Measure 228 concludes the section.

fl *loco*

ob *mp* *3*

cl *mp* *3*

bsn *p* *3*

cor *p* *3*

trb *p*

prc

PO *ff*

Well, my pret-ty fel-low, a man who sits in his tent in the Ant-arctic

I *Over*

vl

II

vla *fp*

vc/db *3*

fl

ob

cl

bsn

cor

trb

prc

PO

I

vi

II

vla

vc/
db

and whis-pers a-bout the sea-ther is not fit to command!

Detailed description: This is a page of a musical score, page 227. It contains staves for various instruments and a vocal line. The instruments listed on the left are: fl (flute), ob (oboe), cl (clarinet), bsn (bassoon), cor (cor Anglais), trb (trumpet), prc (percussion), PO (piano), I (violin I), vi (violin II), II (violin II), vla (viola), and vc/db (viola/contrabass). The score is written in 2/4 time. The key signature has one sharp (F#). The vocal line is written in a soprano clef and includes the lyrics "and whis-pers a-bout the sea-ther is not fit to command!". The music features various musical notations including notes, rests, slurs, and dynamic markings like 'p' (piano) and 'f' (forte). There are also some markings like '(tr)' for trills and '3' for triplets.

Exit : P.O. Evans, lights dim.

228

fl

ob

cl

bsn

cor

trb

Pno

prc

PO

I loco

vl

II

vla

vc/
db

The musical score for page 228 is arranged in a standard orchestral format. It includes staves for woodwinds (flute, oboe, clarinet, bassoon, cor, trumpet), brass (trumpet), piano (piano, percussion), strings (violin I and II, viola, violoncello/double bass), and a soloist (P.O. Evans). The score features various musical notations such as notes, rests, and dynamic markings. The soloist part is marked 'loco' and includes a 'P.O.' marking. The percussion part is marked 'Pno' and 'prc'. The string parts are marked 'vl', 'II', 'vla', and 'vc/db'. The woodwind parts are marked 'fl', 'ob', 'cl', 'bsn', 'cor', and 'trb'. The piano part is marked 'Pno'. The percussion part is marked 'prc'. The soloist part is marked 'I loco' and 'P.O.'. The score is for page 228, as indicated by the page number in the top right corner.

Interlude II

fl *alto* *f* *dim.....p*

eh *f* *dim.....p*

cl *dim.....*

bsn *dim.....*

cor *mp*

trb *p*

prc

I

vl *dim.....p*

II

vla *dim.....p*

vc *dim.....p*

db

The musical score for Interlude II is written for a full orchestra. The woodwind section includes flutes (fl), euphonium (eh), clarinet (cl), and bassoon (bsn). The brass section includes cornet (cor) and trumpet (trb). The string section includes piano (prc), violin I (I), violin II (II), viola (vla), violoncello (vc), and double bass (db). The score is in 3/4 time and features a key signature of one flat. The woodwinds and strings play a melodic line with a crescendo and decrescendo, while the brass section provides harmonic support. The score is marked with dynamics such as *f* (forte), *mp* (mezzo-piano), and *p* (piano), and includes a *dim.....p* (decrescendo) marking. The woodwinds and strings also feature triplets and slurs.

fl

eh

cl

bsn

cor

trb

pp

prc

I

vl

II

vla

mp

vc

mp

db

mp

Detailed description: This is a musical score for page 230, measures 1 through 4. The score is written for a large ensemble. The woodwind section includes Flute (fl), English Horn (eh), Clarinet (cl), Bassoon (bsn), Cor Anglais (cor), and Trumpet (trb). The brass section includes Percussion (prc). The string section includes Violin I (I), Violin II (II), Viola (vla), Violoncello (vc), and Double Bass (db). The woodwinds and strings have various musical notations, including triplets and dynamic markings. The percussion part is mostly rests. The string parts have some movement, with the viola and cello/bass parts showing more activity.

This musical score is for the 'The Swan' movement from the Suite for Piano and Orchestra by Camille Saint-Saëns. The score is arranged for a full orchestra and includes a harp. The instruments listed on the left are: fl (flute), eh (English horn), cl (clarinet), bsn (bassoon), cor (cor Anglais), trb (trumpet), prc (horn), I (Violin I), II (Violin II), vla (viola), vc (violin), and db (double bass). The score is written in 3/4 time and begins with a key signature of one flat (B-flat). The woodwinds (fl, eh, cl, bsn) play a melodic line marked 'dim..p'. The strings (I, II, vla, vc, db) play a rhythmic pattern marked 'fp' (fortissimo) and 'cresc.' (crescendo). The harp (harp) plays a sustained chord marked 'ff' (fortissimo). The score is divided into measures by vertical bar lines.

musical score for page 232, featuring woodwinds, strings, and percussion. The score is written for the following instruments:

- fl (flute)
- eh (English horn)
- cl (clarinet)
- bsn (bassoon)
- cor (cor Anglais)
- trb (trumpet)
- prc (percussion)
- I (Violin I)
- vl (Violin)
- II (Violin II)
- vla (viola)
- vc (violin)
- db (double bass)

The score includes various musical notations such as dynamics (*plcc.*, *f*, *cresc.*, *ff*), articulation (*tr*), and phrasing (*3*).

fl

eh

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

The musical score is arranged in a system of staves. The instruments are listed on the left: fl (flute), eh (English horn), cl (clarinet), bsn (bassoon), cor (cor Anglais), trb (trumpet), prc (piccolo), vl I (violin I), vl II (violin II), vla (viola), vc (violin), and db (double bass). The score is divided into three measures. The first measure shows the initial notes for each instrument. The second measure shows the continuation of the melody. The third measure shows the final notes of the section. The score includes various musical notations such as notes, rests, and dynamic markings.

fl

eh

cl

bsn

cor

trb

pp

prc

I

vl

II

vla

vc

db

Detailed description: This is a page of a musical score, page 234. It contains ten staves. The first six staves are for woodwinds and brass: flute (fl), euphonium (eh), clarinet (cl), bassoon (bsn), cor (horn), and trumpet (trb). The flute staff is empty. The euphonium and clarinet staves have a melodic line with triplets in the first two measures, marked with a forte (f) dynamic. The bassoon staff has a similar melodic line, also marked with a forte (f) dynamic. The cor staff has a melodic line with a forte (f) dynamic. The trumpet staff has a melodic line with a piano (p) dynamic. The seventh staff is for the percussion (prc) and is empty. The eighth staff is for the first violin (I) and the ninth staff is for the second violin (II). Both violin staves have a melodic line with triplets in the first two measures, marked with a forte (f) dynamic. The tenth staff is for the viola (vla) and is empty. The eleventh staff is for the violoncello (vc) and is empty. The twelfth staff is for the double bass (db) and is empty. The page number 234 is in the top right corner.

fl

eh

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

p

cresc.

cresc.

cresc.

cresc.

cresc.

cresc.

The musical score is arranged in a system of staves. The woodwind section includes flutes (fl), euphonium (eh), clarinet (cl), bassoon (bsn), cor Anglais (cor), and trumpet (trb). The percussion section includes a snare drum (prc). The string section includes Violin I (I), Violin II (II), Viola (vla), Violoncello (vc), and Double Bass (db). The bassoon (bsn) and trumpet (trb) parts begin with a triplet of eighth notes marked *p*. The string section (I, II, vla, vc, db) enters with a triplet of eighth notes and a *cresc.* marking. The woodwinds (fl, eh, cl) are silent in this section.

The image displays a page from a musical score for 'The Swan' by Camille Saint-Saëns. The score is written for a large orchestra and vocal soloists. The instruments and voices listed on the left are: fl (flute), eh (English horn), cl (clarinet), bsn (bassoon), cor (cor Anglais), trb (trumpet), prc (horn), I vl (Violin I), II vl (Violin II), vla (viola), vc (cello), and db (double bass). The score includes various musical notations such as notes, rests, and dynamic markings like 'pizz.' (pizzicato), 'cresc.' (crescendo), and 'ff' (fortissimo). The music is in 3/4 time, as indicated by the time signature at the top left. The key signature has one flat (B-flat major or D minor). The score is arranged in a system with multiple staves, and the music is written in a clear, professional notation style.

alto

fl

eh

cl

bsn

cor

trb

prc

I

vl

II

vla

vc

db

div...p

pp

div

This musical score page, numbered 237, contains ten staves. The instruments and parts are labeled on the left: fl (flute), eh (English horn), cl (clarinet), bsn (bassoon), cor (cor Anglais), trb (trumpet), prc (percussion), I (violin I), vl (violin II), II (violin III), vla (viola), vc (violin), and db (double bass). The flute part has an 'alto' marking above it. The English horn and clarinet parts have 'div...p' markings. The cor part has a 'pp' marking. The violin I and II parts are bracketed together. The violin part has a 'div' marking. The double bass part has a 'div' marking. The percussion part is empty. The score is written in a standard musical notation with various dynamics and articulations.

fl
eh
cl
bsn
cor
trb
prc
I
vl
II
vla
vc
db

cresc.....*f* dim.....
cresc.....*f* dim.....
cresc.....*f* dim.....
pp
celesta
dim....p
dim....p
fp
fp

Detailed description: This is a page of a musical score, page 238. It contains staves for various instruments. The woodwind section includes Flute (fl), English Horn (eh), Clarinet (cl), Bassoon (bsn), Cor Anglais (cor), and Trumpet (trb). The string section includes Violin I (I), Violin II (II), Viola (vla), Violoncello (vc), and Double Bass (db). There is also a Preceding Cello (prc) and a Celesta. The woodwinds (fl, eh, cl) have a crescendo leading to a forte (f) dynamic, followed by a decrescendo (dim). The Cor Anglais (cor) plays a half note chord marked piano-piano (pp). The Celesta plays a triplet of eighth notes. Violins I and II have a decrescendo (dim) leading to piano (p). The Cello and Double Bass have a fortissimo (fp) dynamic.

fl
p

eh
p

cl
p

bsn

cor
pp

trb

prc

I
vl
II

vla

vc
pp

db
pp

Detailed description: This musical score page, numbered 239, contains ten staves of music. The first four staves are for woodwinds: flute (fl), euphonium (eh), clarinet (cl), and bassoon (bsn). Each of these staves begins with a piano (p) dynamic marking. The fifth staff is for cor (horn) with a pianissimo (pp) dynamic marking. The sixth staff is for trb (trumpet). The seventh staff is for prc (percussion). The eighth and ninth staves are for violins I and II (vl I and II), which are bracketed together. The tenth staff is for viola (vla). The eleventh staff is for violin (vc) with a pianissimo (pp) dynamic marking. The twelfth staff is for double bass (db) with a pianissimo (pp) dynamic marking. The music is written in a common time signature and features various musical notations including notes, rests, and dynamic markings.

240

fl (tr) *fp* *dim.....pp*

ob *fp* *dim.....pp*

cl (tr) *fp* *dim.....pp*

bsn *mf cresc.....ff* *dim....p* *mp*

cor *dim.....pp* *mp*

trb *dim.....ppp* *pp*

prc (tr) *p* *tr* *tr* *tr*

I *p* *cresc.....*

vl *non div.*

II *p* *cresc.....*

vla *ff* *p* *cresc.....*

vc *mf* *mf cresc.....ff* *dim...pp* *plaz*

db *mf* *mf cresc.....ff* *dim...pp* *plaz*

[illegible]

fl

ob

cl

bsn

cor

trb

WL

BW

I

vl

II

vla

vc/
db

8va

mp

loco

p

p

pp

mp

It's not worth it!

We are out of tid-bits and cab-bage Sir.

15va

pp

8va

pp

dim.....p

dim.....p

plizz

arco

fp

fl
dim.....pp

ob
dim.....pp

cl

bsn
p

cor
p

trb
pp

prc
lv

WL
It was-n't worth the risk. This is not how I wanted

I
loco

vl
loco

II

vla
mp

vc/
db
mp

Detailed description: This is a page of a musical score, page 244. It features ten staves. The first four staves are for woodwinds: flute (fl), oboe (ob), clarinet (cl), and bassoon (bsn). The next three staves are for brass: cor (cornet), trb (trumpet), and prc (trombone). The seventh staff is for a vocal soloist (WL). The eighth and ninth staves are for violins I and II (I, vl, II). The tenth staff is for viola (vla). The eleventh staff is for the double bass/vibraphone (vc/db). The vocal soloist has two lines of lyrics: "It was-n't worth the risk." and "This is not how I wanted". The woodwinds have dynamic markings of "dim.....pp". The brass instruments have dynamic markings of "p" or "pp". The strings have dynamic markings of "loco" for the violins and "mp" for the viola and double bass. The score is written in a standard musical notation with various notes, rests, and articulation marks.

fl *mp* *dim.....pp*

ob *mp*

cl

bsn *p* *mp*

cor *mp* *dim.....pp*

trb *p* *lv*

prc *china* *mp* *mp*

WL

At least we have our specimens

BW *mp* It's a pity Sir.

vli *sul pont.* *pp* *dim.....ppp*

vla *mp*

vc/db *p*

fl

ob *dim.....pp*

cl

bsn *dim.....pp*

cor

trb

prc *pp*

sc *mp* *cresc. f*

I *ppp*

II

vla *dim.....pp*

vc/db

It's the wait-ing, be-ing made to

Detailed description: This is a page of a musical score, page 247. It features a variety of instruments and vocal parts. The woodwinds include flute (fl), oboe (ob), clarinet (cl), bassoon (bsn), cor Anglais (cor), and trumpet (trb). The woodwinds are mostly silent, with oboe and bassoon having a *dim.....pp* marking. The percussion section includes xylophone (xyl) and snare drum (prc), both marked *pp*. The strings consist of Violin I (I), Violin II (II), and Viola (vla). Violin I is marked *ppp*, and Viola has a *dim.....pp* marking. The vocal part (vc/db) has lyrics: "It's the wait-ing, be-ing made to". The vocal line starts with a *mp* marking, followed by a *cresc. f* marking. The score is written in a single system with three measures.

fl

ob

bsn

cor

trb

prc

SC

wait? It's not our fault?

BW

I can't feel my legs.

I

vl

II

vla

vc/db

fl
ob
cl
bsn
cor
trb
prc
sc
I
vl
II
vla
vc/db

mp
dim.....pp
mp
dim.....pp
pp
dim.....ppp
pp
dim.....ppp
glock r-3- lv
mp
pp
p
p
mp
We are ve-ry near it now.

Detailed description: This is a page of a musical score, page 251. It contains staves for various instruments and vocal parts. The instruments listed on the left are flute (fl), oboe (ob), clarinet (cl), bassoon (bsn), cor (cornet), trumpet (trb), percussion (prc), snare drum (sc), Violin I (I), Violin II (II), Viola (vla), and Violoncello/Double Bass (vc/db). The score includes dynamic markings such as mp (mezzo-piano), pp (pianissimo), dim (diminuendo), and ppp (pianississimo). There are also performance instructions like 'glock r-3- lv' and 'We are ve-ry near it now.' for the vocal parts. The music is written in a standard musical notation with treble and bass clefs, and various note values and rests.

fl

ob

bsn

cor

trb

pp

tenor

pp

WL

wp

Poor Ti----

BW

wp

p

pp

Sir, Sir, Sir,

I

wp

vl

II

wp

vla

wp

vc/
db

wp

Detailed description: This is a musical score for page 252. It features ten staves. The first five staves are for woodwinds: flute (fl), oboe (ob), bassoon (bsn), cor Anglais (cor), and trumpet (trb). The sixth staff is for a tenor voice, marked 'pp'. The seventh staff is for a woodwind (WL), marked 'wp'. The eighth staff is for a woodwind (BW), marked 'wp', 'p', and 'pp', with lyrics 'Sir, Sir, Sir,' and 'Poor Ti----'. The next three staves are for strings: Violin I (I), Violin II (II), and Viola (vla), all marked 'wp'. The final staff is for Violoncello/Double Bass (vc/db), marked 'wp'. The score includes various musical notations such as notes, rests, and dynamic markings.

[illegible]

fl

ob

cl

bsn

cor

trb

perc

sc

I

II

vla

vc/db

It's loco not my fault the weather was so

Bowers disappears into bag.

256

fl
ob
cl
cor
trb
WL
BW
SC
I
vl
II
vla
vc/
db

dim.....pp
dim.....pp
dim.....pp
pp
At least poor Ti-tus
God save the king!
bad.
plxz
sfz sfz

Wilson disappears into bag.

258

Musical score for measures 257-258. The score includes parts for Flute (fl), Oboe (ob), Clarinet (cl), Bassoon (bsn), Cor Anglais (cor), Trumpet (trb), Percussion (prc), Violin I (I), Violin II (II), Viola (vla), Violoncello (vc), and Double Bass (db). The key signature is one sharp (F#). The tempo is marked 144. The score features a 'rit.' (ritardando) marking at the end of measure 257 and a 'p' (piano) marking at the beginning of measure 258. The percussion part includes a (tr) (trill) marking. The double bass part includes a 'p' (piano) marking.

fl

ob

cl

bsn

cor

trb

prc

I

II

vla

vc

db

rit.....

p

(tr)

144

fl

ob

cl

bsn

cor

trb

pp

prc

timp

p

SC

There's no ac---counting for it? Had we lived,

I

vl

II

np

vla

np

pixx

vc/db

pixx

np

fl
ob
cl
bsn
cor
trb
prc
sc
I
vl
II
vla
vc/db

mp
dim...
dim...
mp
mp
ppp
ppp
mp
mp

I should-'ve had a tale to tell A tale

Detailed description: This is a page of a musical score, page 260. It features a series of staves for various instruments and a vocal line. The instruments listed on the left are flute (fl), oboe (ob), clarinet (cl), bassoon (bsn), cor (horn), trumpet (trb), percussion (prc), solo cello (sc), Violin I (I), Violin II (II), viola (vla), and voice/cello/double bass (vc/db). The score is written in a key with one sharp (F#) and a 3/4 time signature. The vocal line has the lyrics "I should-'ve had a tale to tell A tale". Dynamics include mp (mezzo-piano), dim... (diminuendo), and ppp (pianissimo). There are also triplets indicated by a '3' over a bracketed group of notes.

261

Scott opens his shirt.

fl

ob

cl

bsn

cor

trb

perc

SC

I

II

via

vc/
db

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APPENDIX 1

DÉSORDRE - VERTICAL STRUCTURES,
SECTION A'

This musical score is for a piece titled "DÉSORDRE - VERTICAL STRUCTURES, SECTION A'". It consists of six systems of staves, each containing two staves. The notation is complex, featuring many beamed notes and rests. The score is marked with measure numbers 99, 107, 115, 122, 128, and 125. There are also markings for "8ve" (octave) and "15ma" (fifteenth). The key signature is one sharp (F#).

99

107

8ve

115

8ve

122

15ma

8ve

128

8ve

125

Handwritten musical score for a multi-stemmed instrument, possibly a harp or lute, with six staves. The notation includes various notes, rests, and accidentals. Measure numbers 131, 136, 141, 148, and 153 are visible on the left margin. The score is written in a historical style with a key signature of one sharp (F#).

Staff 1: Measure 131, marked "Ove".
Staff 2: Measure 131.
Staff 3: Measure 136, marked "Ove".
Staff 4: Measure 141, marked "15a".
Staff 5: Measure 148.
Staff 6: Measure 153, marked "15a".

APPENDIX 2

MANUSCRIPT NOTES TO *TOUCHES BLOQUEES*

Trans. James Guthrie

Page 11

*Depress key silently and hold

Depress key normally and hold

Depress key normally and hold; while the muted note is tied over to the next bar.

The normal notehead means that the note sounds. The small note head means that though the key is to be struck, the note doesn't ring because the corresponding key will already be played and held down in the other part.

Page 12

The |||| -etc. note succession is played as fast as possible (ex: still faster). The succession of the notes will be interrupted by a small pause where the small note heads show the non-sounding keys. Sounding and non-sounding notes will be played with the same speed, so that the short pause represented by the small note heads are as long as the sounding notes. Relatively longer pauses originate by placement of several non-sounding

notes one after another. The length of the pause is automatically regulated.

Page 13

The idea of moving key-blocks comes from Henning Siedentopf's paper "Neue Wege der Klaviertechnik" (New Ways of Piano Technique), Melos, Mainz, 40. jg.1973, Heft III, s.143-146.)

Barlines: There are no meters in this piece. The barlines serve only as orientation. They have neither metric nor articulatory function. The durations of the individual bars are derived solely from the number of successive attacks (of both the free and blocked keys); therefore the bars have varying durations.

Page 14

** The left hand reaches over the muted, held note.

*** ' = Very short pause, equivalent to approximately two attacks.

APPENDIX 3

MANUSCRIPT NOTES TO *FANFARES*

Trans. James Guthrie

page 17

The ostinato figure is consistently accented as 3+2+3 even in the pianissimo sections.

The beginning of the bar is no more accented than the end of the bar: a "bar" feeling should not occur.

*The phrases in the right hand are accented to give the impression that the beginnings of the bars coincide with the beginnings of the phrases.

**The same holds true for the left hand where phrases occur. This principle is in effect throughout the entire piece.

*Dynamic balance : the melodic phrases are constantly highlighted; the ostinato always remains in the background.

*The accents in the phrases are stronger than in the ostinato.

page 18 (ms 51)

The articulation of the melodic phrases is independent of the bar lines. The bars lines are only for synchronization of the two hands.

The ostinato will further stress the independence of the phrases.

*Ostinato completely in the background.

page 19

** Ostinato somewhat "closer."

page 20

*see footnote, page 2. (notes 3 & 4) Important till the end of the piece.

page 22

*Grace-note played together with the other chord-tones.

page 23

The ostinato remains entirely in the background in spite of the ff in the left hand.

**The ostinato remains consistently and completely in the background "quasi lontano."

APPENDIX 4
LIBRETTO TO *THE SONG OF GLORY*

Prelude

Scene I

[Bowers lights the candle]

Scott : Such weather!

Bowers : Ready for dinner sir?

Scott : Who could've imagined such low
temperatures?

Wilson : (to Oates) Eleven miles!

Oates : May as well be a million.

Wilson : (to himself) Eleven miles.

Bowers : Cheer up sir, we'll pull
through.

Scott : It isn't MY fault!

Bowers : Ready for dinner sir?

Oates : Eleven miles seems a high price to
pay...

Wilson : Let's have a look at those eyes,
soldier.

Oates : (lying down) A high price for a few lame ponies.

[Wilson inspects Oates' eyes & applies eye drops]

Scott : Such weather!

Bowers : Celery...and onions!

Scott : Who could've known?

Oates : We should've known!

Wilson : We should've kept better records!

Oates : I cannot feel my feet.

Bowers : cabbages... and... fudge.

Scott : As luck would have it.

Bowers : God guard who guards this cabbage!

Wilson : Eleven miles to go.

Oates : Eleven hundred.

Wilson : Watercress salad.

[Scott extinguishes the candle]

Interlude I

Scene II

[Bowers lights the candle]

Scott : It's this waiting...this infernal
waiting I cannot bear!

Bowers : Perhaps we should recalculate.

Scott : It's a pity the luck doesn't come our
way.

Oates : Eleven miles wouldn't be far for the
dogs..

Wilson : For dogs, no, for deadmen, an eternity.

Oates : I cannot feel my legs.

Bowers : I'll have no regrets sir!

Scott : ...we are very near it now.

Bowers : A bit of Albatross, sir?

Wilson : Let's have a look at those eyes,
soldier.

Oates : You should've left me in my bag
yesterday.

Wilson : Now then! Give it a rest, man.

Scott : (writing) The risks I have taken never
seemed excessive...
It's a pity the luck doesn't come our
way...! We are showing that Englishmen

can still die...

P.O.Evans : [enters stage-left] Ho there! What's all
this? Bugger up, con old boy!

Bowers : That voice!

Wilson : It's P.O.!

Bowers : How can it be? We buried him last week!

Wilson : Perhaps he wasn't ... quite ... dead!

Bowers : No!...No!...No!, it's just not possible.

Oates : How did he survive...?

Bowers &

Wilson : P.O.!...P.O.!...P.O.!

P.O.Evans : Well, Scott! What a jolly mess this!

Wilson : Is that you? P.O.?

P.O.Evans : I can't hear you, Captain! How are you
going to explain this?

Oates : Wait P.O.! I'm coming out!
[begins to untie the tent flap]

Bowers : No!...Titus!...No!

Oates : Hold on P.O.!

Wilson : No Titus! it's only an illusion!

P.O.Evans : Keep writing Scott! You have a lot of
explaining to do! It's all you have
left! Heros like you dream of failure!
You ignored every warning and
jepordized your men. Why did you need so

much company for a bloody suicide mission?

Bowers &

Wilson : Titus!...Titus!...Titus!

Oates : I'm just going outside...
and may be some time.

[Titus crawls out of the tent door and continues to stage-left where he "freezes" in a snow drift.]

P.O.Evans : Well, my pretty fellow, a man who sits in his tent...in the Antarctic...and whimpers about the weather...is not fit to command!

[exit stage left]

[Scott extinguishes the candle]

Interlude II

Scene III

[Bowers lights the candle]

Scott : I fear we have shot our bolt.

Bowers : We are out of tidbits...and...
cabbage...Sir.

Wilson : It's not worth it. It wasn't worth the risk. This is not how I wanted to die!

Scott : It's a pity the luck doesn't
come our way...

Bowers : It's a pity, sir.

Wilson : At least we have our specimens.

Scott : It's the waiting...being made to
wait...it's not our fault!

Bowers : I can't feel my legs, sir.

Wilson : At least...we have our...specimens.

Scott : I shall have not suffered any pain.

Bowers : It just isn't fair, sir.

Wilson : Poor Titus!

Scott : We are very near it now.

Birdie : Sir!...Sir!...Sir?

Wilson : Poor Titus... At least we have our
specimens.

Scott : It's not my fault... the weather was so
bad.

Bowers : God save the King.
[disappears into sleeping bag]

Wilson : At least...Poor Titus!... we
have...our...specimens.
[disappears into sleeping bag]

Scott : There is no accounting for it...Had we
lived...I should have had...a tale to
tell...a tale...to...tell...

VITA

The author was born on 24 October, 1953 in Portsmouth, Virginia. After graduating in 1970 from York High School in Yorktown, Virginia, he entered the United States Air Force 564th Tactical Air Command Band where he served as an instrumentalist. Completing his tour of duty in 1974, and an interim period as an instrumentalist in the popular music field, Guthrie entered Louisiana State University in 1978 and studied composition under Kenneth B. Klaus and Dinos C. Constantinides. Receiving the Bachelor of Music degree from LSU in 1982, and the Master of Music degree from LSU in 1984, Guthrie entered the Graduate School in pursuit of the Doctor of Musical Arts degree. Receiving a graduate assistantship, Guthrie served as instructor of freshman and sophomore composition classes at LSU.

Guthrie first received recognition for his work in 1981 with his *Elegy for Violin and Piano*. The 36th LSU Festival of Contemporary Music sponsored the performance.

His first orchestral piece, entitled *The Armed Man*, won a performance by the Alabama Symphony Orchestra. The orchestra gave the first performance during the 1982

Region IV Convention of the American Society of University Composers.

Guthrie's *Diabolus in Tertia for Violin Alone* won the Kenneth B. Klaus Young Composers Competition in 1981. The 37th LSU Festival of Contemporary Music in 1982 hosted the premiere performance.

Guthrie conducted the University of Miami Symphony Orchestra in the premiere of his second symphonic piece, *Sinfonia Contraposa*. The 1983 American Society of University Composers Region IV Convention was the event's sponsor.

His *Concerto for Flute and Wind Ensemble* was performed at the 39th LSU Festival of Contemporary Music in 1984. The performance was given by soloists of the LSU Wind Ensemble.

The 1985 Tenth Annual Fall Crafts Festival was the setting for the premiere performance of the composer's *Two Movements for Octet*. The event was sponsored by the River City Festivals Association.

The LSU New Music Ensemble commissioned Guthrie's *Sinfonia 1986* for the 1986 American Music Week Concert. The piece was also performed at the 1989 National Convention of the Sonneck Society.

Sinfonia Dialectica, a large orchestral work, was a prize winner in a 1987 contest sponsored by The LSU

School of Music for the dedication of the new LSU music building. The LSU Symphony Orchestra gave the premiere performance at the 42nd Festival of Contemporary Music (1987).

Five Bagatelles for Piano, was performed at the Music Teachers National Association New York National Convention in 1987. The performance was given by pianist Stephen Brown.

Trio for Flute, Violin and Piano was performed at the 43rd LSU Festival of Contemporary Music in 1988. It also received a performance at the 3rd Annual Festival of New Music sponsored by the Cultural Arts Center of New Orleans.

Four Mysterious Images for viola and piano was given during a 1988 concert which was made possible in part by a grant from the National Endowment of the Arts. The concert featured music of composer Robert Rollin and selected LSU composers.

Guthrie was commissioned to provide television theme music for a Louisiana Public Broadcasting project entitled *Masterminds*. This music was realized on the Synclavier II computer music system at the LSU computer music studio.

Romanesque, a movement from the composer's *Octatonic Studies For Piano*, was performed in Alabama at the Festival

of New Music sponsored by the Montgomery School of Fine Arts in 1989.

He is a past president of the LSU Student Chapter of the Society of Composers, Inc., and a member of Phi Kappa Lambda.

DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: James Martin Guthrie

Major Field: Music

Title of Dissertation: ETUDES POUR PIANO - PREMIER LIVRE, BY GYORGY LIGETI AND
THE SONG OF GLORY, AN ORIGINAL OPERA IN ONE ACT

Approved:

Dina Coubertin
Major Professor and Chairman

L. G. Hembry
Dean of the Graduate School

EXAMINING COMMITTEE:

Wallace McKenzie

Mary Hansard

Stephen B. C.

John E. Dillman

Jay Kohnke

Date of Examination:

September 22, 1989