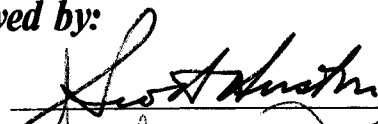


UNIVERSITY OF CINCINNATI

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I hereby recommend that the thesis prepared under my supervision by Ronald Jay Toering
entitled "A Performance Interpretation of the Sonata For Trumpet and Piano by Donald H. White and a Comparison of Donald White's Sonata with the Trumpet Sonatas of Paul Hindemith and Kent Kennan."
be accepted as fulfilling this part of the requirements for the degree of DOCTOR OF MUSICAL ARTS

Approved by:


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A PERFORMANCE INTERPRETATION OF THE SONATA
FOR TRUMPET AND PIANO BY DONALD H. WHITE AND
A COMPARISON OF DONALD WHITE'S SONATA WITH THE
TRUMPET SONATAS OF PAUL HINDEMITH AND KENT KENNAN

A thesis submitted to the
Division of Graduate Studies
of the University of Cincinnati
in partial fulfillment of the
requirements for the degree of
DOCTOR OF MUSICAL ARTS IN TRUMPET
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1981

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INTRODUCTION

STATEMENT OF THE PROBLEM, PURPOSE AND PROCEDURE

The Problem

Trumpet performers in American colleges and universities generally receive extensive training in the theoretical and stylistic aspects of music from the Baroque, Classical and Romantic periods, which are considered an essential part of musical training. It is regrettable, however, that there is not more emphasis placed on the cultivation of knowledge or preparation of skills which can be used specifically for contemporary music. Inability to understand contemporary styles has helped to create a substantial lack of analytical expertise for the trumpeter, in particular, because much of the solo and chamber music written for trumpet was composed after 1900. Music of the present century, in spite of its traditional foundation, contains numerous divergent trends which present a special analytical challenge for those who are professional teachers and performers. A special effort must be made to understand and hear

prominent stylistic traits that are found in contemporary repertoire using trumpet. In addition, players with experience in conventional analysis have trouble comprehending the expanded harmonic vocabulary and the variety of harmonic techniques used in contemporary music. What is needed now is the discovery of new ways to apply the concepts of the traditional analytical process and thorough understanding of new analytical systems which have been specifically formulated to deal with contemporary music.

There is another problem which must be addressed by professional trumpet teachers and performers which relates to the performance of contemporary music; in both the educational framework and the private studio experience there is not enough emphasis placed upon relating theoretical analysis to performance interpretation. This interpretative mandate is crucial, for even though many performers do emulate a composer's wishes, too often the interpretative process is based primarily on one of the following: vague general stylistic principles, a recorded performance, a teacher's version, or musical intuition. What is needed to interpret contemporary music correctly is, primarily, an effective synthesis of musical expertise with analysis. Analysis should be completed on two levels: 1) a stylistic level concerned with rhythms, dynamics and phrases; 2) and the structural level concerned with compositional techniques from which an entire work or movement may be generated. More time must be spent by performers and teachers themselves on relating their knowledge

of a work or a composer's writing style to specific performance considerations. Successful interpretation involves more than the technical preparation of one staff of the score or a quick glance at other contributing parts. It requires the formulation of interpretative principles that are based on conclusive analytical evidence and musical intuition which stems from examination of the entire score: its solo lines, the relationship between individual parts, and the role of each member. And whenever possible, these concepts should be related specifically to the overall concept--phrasing, dynamic fluctuation, articulation and tempo variation.

The Purpose

The challenges outlined above have initiated the following discussion and analysis of the Sonata for Trumpet and Piano (1946, published 1967), composed by Donald H. White (1921-). This work was selected for two reasons. First, it represents a masterful expression of fairly recent twentieth-century American composition. In this work expression is created chiefly by the combination of melodies which have inherent developmental possibilities with harmonies that appear in tertian, quartal, and other non-tertian figurations, complicated by occasional chromaticism. White arranges the themes in formal designs and establishes a series of tonal centers which are reminiscent of earlier classical sonatas. Within each movement aural interest is sustained by thematic restatements,

imitative interplay, a variety of accompanying textures, and by the tasteful mixture of major, minor, modal and chromatic scale patterns. Structurally speaking, White's music is clearly governed by a two-voice framework which consists of the principal melody--always discernible--and a strong supporting bass line. Open intervals such as the fourth and fifth as well as the second assume a primary role in melodic patterns and harmonic sonorities.

The second reason for selecting White's sonata is that it offers an appropriate framework to relate descriptive analysis to the interpretative process itself. As stated before, we feel that there is a need for relating scholarly analysis to the performance interpretation of significant trumpet literature, especially from the contemporary period (since 1940). A survey of leading trumpet newsletters and journals, and of periodicals dealing with trumpet performance and instruction, as well as the notation of topics and presentations that take place at trumpet conventions around the country shows that little effort has been spent on theoretical analysis, in-depth reflection about significant works, or ways to relate acquired information to the interpretative process. Furthermore, there is a special incentive to analyze music of a composer who is still alive; often a composer's description of his or her creative process supports analytical conclusions and therefore proves to be of value in stimulating correct performance decisions.

The Procedure

The dissemination of analytical data and interpretative principles relating to Donald White's sonata will be carried out in two ways: 1) by the interpretative analysis of each movement as it unfolds for the listener; 2) and by the brief comparison of the work with two other sonatas equally important to the same genre. In Chapter One the interpretative analysis of each movement in its logical sequence of enactment constitutes the principal portion but is preceded by two smaller divisions: 1) a general description of the composer's background and of the compositional context for the trumpet sonata; and 2) a brief explanation of one particular sonority which assumes harmonic structural significance. The reason for placing emphasis upon harmony only is that in view of the problem already submitted concerning the traditional educational training of trumpeters, harmony proves to be the most difficult and least understood musical element. While melodic, rhythmic, metric, formal and textural elements can be considerably complex in twentieth century music and often include deviations from conventional musical style, there are similarities with music in and analytical procedures of traditional theory or literature courses which make it possible for many performers to understand and interpret most aspects of current repertoire. With harmony, however, there are a number of more or less significant departures from harmonic procedures represented in scores of the past centuries. In support of the natural tendency of modern

composers to diverge from limitations of conventional harmonic practice, Leon Dallin gives the following observation when discussing harmonic progression.

Harmonic progression, like harmonic structure, is characterized by great freedom in the twentieth century. Most of the restrictions recognized in the conventional, tonal writing of the eighteenth and nineteenth centuries and scrupulously observed by the composers of those periods are now regarded as arbitrary. Discarding artificial prohibitions enriches the permissible harmonic structures and progressions enormously. It is not an exaggeration to state that in our time every harmonic relationship as well as every harmonic structure is allowed. This could lead to chaos, but more often freedom of harmonic progression is exercised along logical lines which yield to analysis.¹

White's harmonic plan is not difficult to comprehend; on the contrary, his harmonic formula is simple and its influence is clearly discernible in melodic design and chordal vocabulary and the resulting textural relationship between the two elements in the sonata.

One further procedural item in Chapter One must be emphasized: summaries of each musical element do appear periodically, but only to explain general features of White's compositional style which may illustrate characteristics of all three movements or are pertinent to large scale interpretative decisions. Although the author has considered a broad organization scheme where extensive analysis of each musical element in turn precedes relevant interpretative

¹Leon Dallin, Techniques of Twentieth Century Composition, 2nd ed. (Dubuque, Iowa: Wm. C. Brown Company Publishers, 1964), p. 84.

deductions, we feel that the separation of analysis and interpretative conclusions does not enhance the practical purpose for the reader nor does uniform investigation of musical categories really reflect the compositional process itself. Every composer has a priority of musical elements in mind; while any work can be systematically examined in the context of five musical elements, only in the course of musical action can true interpretative deductions be made. For example, while thorough analysis of contemporary melodic practice would normally include a discussion of general melodic contour and organization, the submission of distinctive twentieth century melodic influences, a discourse on tonal organization, if any, and a delineation of key devices and imitative procedures, any one of these features or even melody itself may be superceded in the actual music by other aspects connected with harmony, rhythm, form, and texture. Because of the existing hierarchy of musical elements that is inherently inseparable from the composer's creative process, in Chapter One White's sonata is analyzed and interpreted section by section with various summarizations of musical elements and pertinent musical features interspersed from time to time. More specifically, conscious effort has been made to be consistent with the following four questions in mind (themselves constituting various stages of preparation): 1) What do performers hear when performing sections of the work?; 2) What do performers see when they prepare passages of

the sonata?; 3) Which musical aspect assumes priority for interpretative deductions?; and 4) What is the best way to express these observations via a text to the reader?

Chapter Two deals with a comparison of the sonata by White with two works that are also well-known and extensively performed representatives of the same genre: the Sonata for Trumpet in B-flat and Piano (1939) by Paul Hindemith (1895-1963) and the Sonata for Trumpet and Piano (1956) by Kent Wheeler Kennan (1913-). All three works display a compositional style which may be regarded as typical of sonata literature for trumpet during the twentieth century, especially during the period from 1935-1960. Generally speaking, style exhibited in these trumpet sonatas can be traced back to musical developments that dealt in many ways with the weakening of traditional functional tonality. Essentially, stylistic elements of the Baroque and Classical periods are combined with harmonic sonorities and melodic-rhythmic techniques that are distinctive to twentieth century music--the result: sonatas with tonal elements which adhere to traditional formal designs, thematic structure, and motivic development but which elevate the elements of rhythm and harmony to a prominent role where expressive dissonance and rhythmic intricacy are the norms. What we attempt to accomplish in Chapter Two is the compilation of compositional similarities and differences in generically identical works that were composed in a seventeen-year time span. It must be noted that now, after the interpretative-

analysis of each section of White's sonata of Chapter One, it makes sense to compare White's sonata with other similar works. Therefore, a collation of form, melody, rhythm, harmony, and texture between these three works constitutes the micro-form of Chapter Two.

Decidedly, analytical comments and interpretative principles are general and categorical rather than specific and sectional; it is hoped that these observations will prepare a proper framework from which a correct evaluative assessment of White's sonata can be made.

Howard Hanson's System of Analysis

In Chapter One and Chapter Two we periodically use a system of analysis conceived by Howard Hanson which is particularly beneficial for the identification of both conventional and non-conventional sonorities found in the sonatas by White, Hindemith, and Kennan. Howard Hanson (1896-), illustrious American composer and prominent teacher at Eastman School of Music, has submitted his method of analysis in a theoretical treatise entitled, Harmonic Materials of Modern Music: Sources of the Tempered Scale. Although this work was written primarily as a compendium of harmonic-melodic material for the young composer, the value of Hanson's work lies in his systematic use of arbitrary symbols to analyze musical intervals which comprise sonorities: letters and numbers quickly and accurately identify the consonant-dissonant qualities, the degree of complexity, and the structure of component parts of sonorities. Applicable to analysis

of modern pieces where tonal relationships are evident either by the limited amount of conventional scale materials and harmonic structures or, in a broader sense, by the implication of tonal centers manifested in various musical ways, Hanson's system proves to be a valuable way for performers to analyze sonorities because it concurs directly with the aural impression. While Hanson's conception is simple, his description involves considerable detail and rather lengthy dissemination because of the comprehensiveness and thoroughness of his investigations. Therefore, the reader is encouraged to study Hanson's text, especially the Preface and Parts I and II, for these sections constitute the inclusive justification for and the basic procedure of his analytical method.

CHAPTER 1

A PERFORMANCE INTERPRETATION OF THE SONATA FOR TRUMPET AND PIANO BY DONALD H. WHITE

Background of Composer and the Sonata

Donald H. White was born in Narberth, Pennsylvania, in 1921. Following graduation from Temple University with a Bachelor of Science degree in Music Education and a tour of duty with the 8th Air Force during World War II, he pursued graduate studies in composition, receiving the Ph. D. degree from the Eastman School of Music at the University of Rochester in 1952. Dr. White has been a member of the faculty of the DePauw School of Music in Greencastle, Indiana, since 1947. While specific teaching duties include composition, theory and twentieth century music literature, Dr. White has been active in various administrative capacities as well: Chairman of the Department of Theory and Composition for 32 years; Director of the DePauw School of Music for 4 years; and Founder and Chairman of the DePauw University Contemporary Music

Festival for 18 years.

Dr. White's catalogue of published and manuscript pieces includes major works in a variety of media with special emphasis, however, in works for winds and percussion. His compositions have been widely performed throughout the United States and in many foreign countries. Performance organizations include the Indianapolis Symphony Orchestra, the Rochester Philharmonic, the Oklahoma City Symphony, the Huntington Chamber Symphony, the Eastman Wind Ensemble, and other major collegiate and high school band and wind ensembles. His works have also been presented on both network and public service radio broadcasts. Recipient of fourteen successive awards from the Standard Awards Panel of ASCAP, Professor White has also been in demand as a guest conductor and as a panelist at state, regional, and national meetings of the College Band Directors National Association, Music Educators National Council, and Music Teachers National Association.

His major teachers in composition have included Vincent Persichetti, Bernard Rogers, and Howard Hanson. In a letter to the author, Mr. White writes about the influence that each of these major figures have had on his creative impetus.

Serious study of composition was begun in January of 1946 at the Philadelphia Conservatory with Vincent Persichetti; he remains a strong influence in creative thought processes. Study continued at the Eastman School of Music through pursuit of graduate degrees with major teachers including Howard Hanson and Bernard Rogers, both of whom exerted tremendous influence in

different ways: Hanson through his organizational concepts of sonorities, and Rogers through his mastery of the art of orchestration.²

In light of White's subjective tribute to the general influence of major American composers, he has also provided strong insight into specific facets of his own compositional process with a published article in the Journal of Band Research in 1978 entitled, "Miniature Set for Band in Retrospect." In spite of the fact that the comments by White are made to the organizational procedures and general analysis of his Miniature Set for Band composed 21 years earlier, many features of formal structure, melodic writing, harmonic structure, metric and rhythmic elements and the textural relationship of the band work also adhere to the musical style exhibited in the trumpet sonata.

Although the publication date of the sonata is 1967, its first performance dates from May 20, 1946. The performance in question occurred at the Art Alliance Auditorium in Philadelphia, Pennsylvania, with Donald H. White, trumpet, and Marjorie Yates, piano. Concerning the background of the work, White writes that the sonata was not written for a specific performance level; rather, his intent was to write a "good solid" work for trumpet and piano that would be adaptable to performance by student as well as professional performers. When asked to recall specific influences incumbent upon

²Donald H. White to Ronald Toering, dated 28 August, 1980.

writing the work, White responded with the following creative considerations in order of priority that were generally influenced through study at the time with Vincent Persichetti; formal elements, harmonic elements, and melodic and rhythmic elements. More explicitly, in terms of the composer's own choice of words, the expression of successive movements in the sonata could probably be described as: 1) declamatory; 2) reflective; and 3) rollicking good humor! While trumpeters will notice a great deal of similarity between White's sonata and the Sonata for Trumpet in B-flat and Piano by Paul Hindemith, White asserts that in spite of now being familiar with the sonata by Hindemith, he had not, however, heard it prior to writing his sonata.

WHITE'S ORGANIZATIONAL USE OF SONORITIES

Under the moods of declaration, reflection, and a rollicking good sense of humor, White creates a piece which is notable for its popular appeal and for its utilization of now typical features of certain twentieth century music. While many typical modern features can be extracted from a conversational discussion of essential stylistic features in the sonata, there is one particular aspect that is fundamental to White's compositional process--that of musical organization by sonorities. Principal sonorities which constitute White's palette of harmonic materials include: triads, seventh chords, and other tertian structures built by superimposed thirds; quartal and quintal sonorities; polychords; and non-tertian chords constructed by the juxtaposition of like and unlike sonorities. Although tertian, quartal, and other non-tertian structures provide a basic color scheme of considerable wide consonant/dissonant range, particular sonorities throughout the work are used for both melodic construction and harmonic structure as basic units; others are used for coloristic purposes only. Typically, prominent sonorities are not conventional, but are particular to the contemporary idiom.

The entire work is structurally related by a single sonority which appears melodically and harmonically in a variety of ways; it is initially introduced as a melodic fourth-chord in the score of both

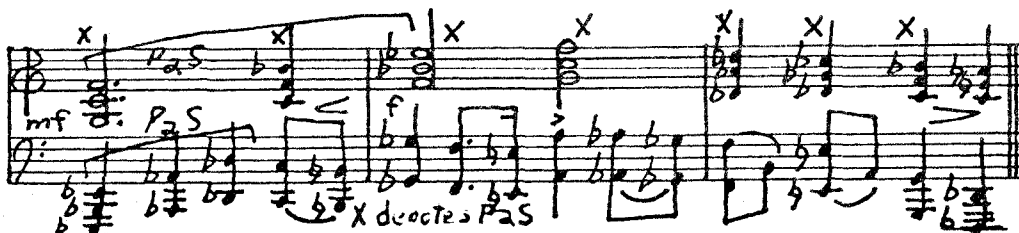
performers.

Example 1: Movement One, Measures 1-2



According to Hanson terminology, the sonority in Example 1 is referred to as p2s. Comprised of stacked or linear perfect fourths, the p2s sonority subsequently reappears in similar interval relationships successively at different pitch levels. Two musical examples illustrate both functional and coloristic use of the p2s sonority. First, a brief passage in the first movement displays the use of the p2s sonority in three ways: 1) as a structural sonority at the beginning of the phrase; 2) as a melodic unit in both hands of the pianist; and 3) as the principal sonority moving in parallel motion in the right hand of the pianist.

Example 2: Movement One, Measures 5-7



Secondly, at the opening of the development section in movement

one, the p2s sonority is manifested melodically in several ways:

1) in rapid sequential patterns; 2) in augmentation of spiralling perfect fourths; and 3) as a structural pillar point at the end of the phrase.

Example 3: Movement One, Measures 61-68



In addition to functional prominence, White also uses the euphonious quality of the p2s entity in direct contradiction to the resonance of tertian sonorities. In the contrasting section of movement one, for instance, p2s sonorities mark the end of the antecedent portion of the trumpeter's melody by abruptly interrupting the basic diet of the preceding tertian chords.

Example 4: Movement One, Measures 36-39



White also achieves variety in harmonic color by making alterations to the basic structure of the p2s sonority in two ways: 1) with the addition of pitches to or the omission of pitches from the basic sonority; and 2) with changes in spacing and doubling. Three illustrations indicate White's variation process. In the first section of movement one White uses doubling and pitch deletion to vary a basic palette of parallel moving p2s sonorities in the right hand of the pianist.

Example 5: Movement One, Measures 11-15



In movement two, doubling of pitches in the p2s sonority as well as the combination of two chords comprised of different perfect fourths

is evident in the pianist's score.

Example 6: Movement Two, Measures 26-28



In movement three the accompaniment of the opening theme displays the p2s sonority in a variety of spacings in reiterated chords and brief melodic fragments.

Example 7: Movement Three, Measures 1-8

The principal technique for harmonic progression for all harmonic structures including the p2s sonority is parallelism. White uses this firmly established feature of contemporary harmony for two reasons: to reduce the functional effect of harmony and to increase its coloristic value. The principle of parallel movement applied to complete sonorities has many applications but is used in White's sonata in primarily two ways: 1) parallel movement of like sonorities in the same direction, more precisely called planing; and 2) parallel

movement of like or unlike sonorities in opposite direction, called fanning. Planing and fanning techniques combined with conventional melodic doubling practices constitute harmonic motivation; numerous examples illustrate the parallel movement of sonorities. In the first movement octaves in the left hand of the pianist are iterated with a p2s related sonority comprised of a perfect fifth and a doubled root in the right hand; chord changes in both parts occur at precisely the same time and move for the most part in opposite direction--hence, fanning technique is exhibited.

Example 8: Movement One, Measures 16-17



In the same movement planing technique is observable with parallel motion of identical tertian chords in both hands of the pianist.

Example 9: Movement One, Measure 130



Finally, both p2s sonorities and triads in either root or second inversion are used in planing fashion in movement two for the accompaniment of a melody which is unrelated in scale material.

Example 10: Movement Two, Measures 39-42



Although White's stylistic use of sonorities is firmly anchored in tonality, he often uses bitonal combinations of unlike sonorities, and of similar structures at distances of dissonant relationships between their tonics in order to cloud tonal function and to enhance dissonant effect. Several examples display the just described relationship. First, in movement one, planing p2s structures in the pianist's part are combined (by computing the distance between their chord roots) at intervals of a major second, a minor second, and a minor third, to provide incidental and varying degrees of dissonance.

Example 11: Movement One, Measures 22-24



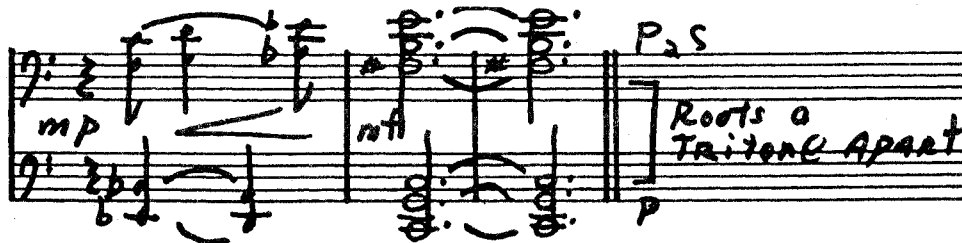
Secondly, White presents important melodic motives in movement two simultaneously in fanning technique at a distance of a dissonant minor second in order to demonstrate his skill of motive manipulation.

Example 12: Movement Two, Measures 18-20



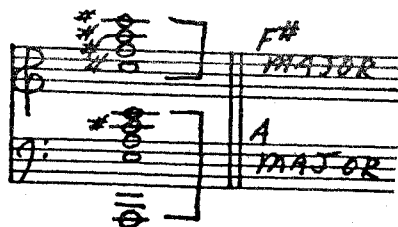
Third, there are also instances where juxtapositions are comprised of p2s related chords whose roots are a tritone apart: in movement two a bichord exists which pits a p2s chord built on f-sharp with a chord of a perfect fifth and a doubled root built on C.

Example 13: Movement Two, Measures 45-47



And finally, perhaps the most striking bichordal juxtaposition is found in the development of movement one where polychords appear. The following example of a polychord uses major triads a major third apart.

Example 14: Movement One, Measure 70



In summation, White uses the p2s formula as a structural and coloristic entity in several ways: 1) as a melodic unit in both prominent and accompanimental material; 2) as functional and incidental structures in the harmonic scheme; 3) for purposes of melodic development; 4) as a structure which can produce variety by alteration without losing its identity; 5) as a principal sonority for parallelism; and 6) in bichordal combinations of melodic units and harmonic structures. From a composer's point of view, the attractiveness of such a sonority is that when used in conjunction with other types of conventional harmonic material, the p2s sonority provides an extremely useful contrast in sound without destroying a basic tonal relationship of conventional practice. In a language where chromaticism dominates melodic and harmonic material, where tonal centers are noticeably vague, and where non-tertian intervals are predominantly manifested in melodic construction, quartal harmonies and bitonal effects, the ambiguity of a sonority comprised of two perfect fourths--each pitch of which could be assertive as a tonic--is particularly beneficial in creating atmospheres that capture the euphonistic dissonance and tonal ambiguity of the contemporary idiom without destroying the sense of conventional resonance or tonal function.

THE INTERPRETATIVE-ANALYSIS OF MOVEMENT ONE

EXPOSITION

White has combined his expanded harmonic vocabulary with conventional melodic practices and traditional formal designs to produce a composition sometimes dissonant, sometimes difficult to comprehend intellectually, but a work that remains energetic, expressive and varified. Each thought is simple enough, but created by a compositional style which demands a complete understanding of past and present compositional techniques. The first movement presents the greatest challenge because of its length; Sonata-Allegro form is used.

Figure 1: Sonata-Allegro Design of Movement One

	Section	Measures
Exposition	Principal Section	1-29
	Transition	30-35
	Contrasting Section	36-61
Development	Section One	61-77
	Section Two	78-97
Recapitulation	Principal Section	98-122
	Transition	123-127
	Contrasting Section	128-148
Coda	Closing Section	149-154

Principal Section: Measures 1-15

In measures 1-15 the principal theme is stated by the trumpeter while the pianist simultaneously projects a slightly different

rhythmic and melodic version of the same theme.

Example 15: Principal Theme, Measures 1-5

Principal Theme: Trumpeter

Principal Theme: Pianist

Marked by diminution of the opening motive and reinforced octave doubling, the pianist's version of the principal theme is used to create a texture in which two equally important melodies are meshed together in an atmosphere of relatively light dissonance. The principal theme also exhibits several features which are used by White to provide the impetus for motivic development and melodic restatement: 1) emphasis on the intervals of the fourth, second, and fifth; 2) motivic structure which produces internal repetition; 3) contrast of bold and lyrical expressions within the theme as indicated by the quick ascent of the opening motive and the subsequent long melodic descent of the second half of the theme; 4) equal relationship between durational rhythm and structural pitches; and 5) clear but irregular phrasing.

Interpretative deductions for the principal theme follow logically from the melodic traits. First, because of the inherent motivic contrast in White's principal theme, it is imperative for the trumpeter and pianist to accentuate contrast within the main theme, taking care to carefully articulate (with more separation) the fanfare motives as marked by ascending fourths or dotted rhythms and, on the other hand, being sensitive to the need for legato articulation with the longer descending portion of the main theme, even if slurs are not indicated. Second, realization that motives are used as constructive units makes it possible for performers to simplify melodic material into easily identifiable cells which can be clearly communicated to the listener and to depict devices that White uses to maintain aural interest: varied repetition, sequential restatements, and the use of parallel chords moving in similar or contrary motion. And finally, soloists can control tonal intensity and individual gradations in volume when they realize that pitches of longer duration are related to the structure of the principal theme itself, that pitches may also be indicators of tonal progressions, and that pitches help to determine overall phrase shape.

After the initial statement of the principal theme, White composes two more variations of the principal theme in measures 5-15, first dividing the melody between trumpeter and pianist, then scoring a version for the pianist only. Besides the obvious

difference in scoring, variety is achieved in two other ways: by adding other voices to the principal theme which move in planing technique and by a change in the accompanying texture. Concerning the addition of voices, the first restatement uses the p2s sonority almost exclusively; the second restatement uses the p2s sonority with its root doubled or without one of its individual pitches. With regard to change in texture, the left hand of the pianist simply projects another melody in octaves that is related to the principal theme in overall shape and by the p2s figure. Moving in conjunction with the right hand of the pianist, the accompanying bass line in bars 5-15 incorporates an alternating effect of stress and relief because of the pattern of harmonic and nonharmonic tones which appears, especially on the primary beats. Remembering that in a style where the p2s sonority is the stable element and therefore its individual pitches are to be considered consonant, it is important to identify those pitches which are not part of the p2s sonority, for these constitute nonharmonic tones, and should be treated as dissonant factors.

The melodic fragment of the trumpeter in measures 6-10 contributes to the alternating effect of tension and relaxation prepared by simultaneous melodic lines in the piano part. Because of pitches which are not found in the accompanying chords of the pianist, the trumpeter must stress the lyrical quality of the fragment in order to bring out the simultaneous dissonance of three

melodies. Vertical tension also makes it appropriate in bars 6-8 for the trumpeter to crescendo, even though one is not indicated.

There are three general interpretative considerations which apply to measures 5-15. 1) If one adheres to the concept that dissonance should be accentuated, then it is desirable for the pianist to project the left hand material in bars 5-9 over the material of the right hand, as long as the accompanying melody does not overshadow the main trumpet theme itself. 2) In view of the low tessitura and octave doubling of the complementary line, a substantial amount of pedaling is necessary to maintain clarity. 3) It is also important for both trumpeter and pianist to realize soft dynamic levels in bars 5-15 where designated and to make sure that when a forte or fortissimo marking is given, that excessive volume does not result; excessive volume only brings out the harsher aspect of White's harmony and minimizes the lyrical aspect of his melody.

Principal Section: Measures 16-29

The melodic material of the trumpeter in measures 16-29 contains motives and short phrases which reflect the principal theme in rhythmic and intervallic construction. Because of the amount of prominent melodic material which is scored for trumpet, the trumpeter, in contrast to bars 5-15, assumes the dominant role in measures 16-29. While the pianist has short melodic fragments, they are

accompanimental figures designed to add variety and textural balance to the thematic material of the trumpeter. Hence, like the trumpeter, the role of the pianist in measures 5-15 is reversed in measures 16-29. In addition, the chief musical technique of the pianist consists of parallel motion. While planing of the p2s sonority is the principal device used to vary prominent melodic material in measures 5-15, a mixture of fanning and planing of chords of more dissonant content occurs in measures 16-29. In spite of the differentiation of sonorities (by alteration of the p2s sonority) in measures 16-29, the complete p2s sonority still appears in the piano part as structural chords on the first beat of the following measures: 18, 21, 24, 26 and 28. Finally, the use of scalar fragments in bars 25-28 provides particular musical interest for three reasons: 1) in view of the previously dominating use of chords, melodic units represent a new way of exposing the p2s sonority; 2) melodic units also refer back to the octave figuration of the pianist's initial statement of the main theme and to the accompanying bass melody of the pianist in bars 5-15; and 3) in addition to providing accompanimental contrast, p2s melodic figuration prepares the listener for the more euphonious quality of chords in the transition section.

Whereas interpretation in the opening fifteen bars primarily deals with thematic considerations of the initial iteration and reiteration of the principal theme, interpretative considerations

in bars 16-29 are concerned with two different features: varied motives in the trumpet part and varied accompanimental sonorities in the piano. For the pianist it is essential to concentrate on maintaining a precise tempo with clear rhythmic patterns, for repetitious rhythms in moderate tempo help to minimize the dissonant clash of melody and harmony, and rhythmic patterns help to reduce the heavy chordal effect of the accompaniment. While it is appropriate for the pianist to change dynamic fluctuation by following the inclination of the rising and falling melodic line, it is better to follow explicitly White's dynamic scheme; otherwise, there is a risk of covering up the entrances of the trumpeter. The trumpeter, on the other hand, must ignore the marcato style of the accompanist; instead, the lyrical nature of the principal theme must be exaggerated, especially in measures 15-21 where lyrical fragments provide an excellent opportunity for rubato. While it may be impossible to decide precisely which pitches should be lengthened, the total lyrical effect is heightened if eighth notes in measures 16-21 are elongated and if crescendos are used through tied pitches. In addition, the use of silence in measure 23 is effectively expressed if the trumpeter mentally crescendos through the eighth-note rests even though there is a break in actual sound.

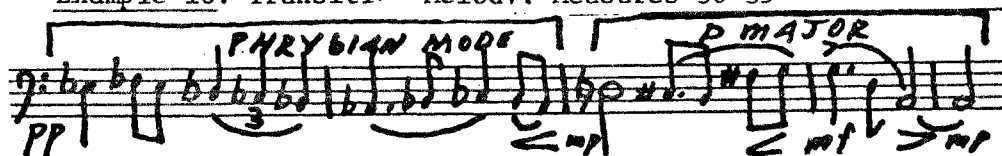
For both performers the overall dynamic scheme is an important aspect to keep in mind when performing measures 16-29, for, even

though dynamic fluctuations may occur within phrases, White's designated dynamic indications clearly show a gradual increase in intensity from measure 21 to measure 29. For the trumpeter it is crucial not to decrescendo too rapidly, otherwise the d-flat' in measure 28 does not have the intensity it requires.

Transition: Measures 30-35

In measures 30-35, changes in color, new sonorities, and a different texture contribute to a well-planned transition from the bold atmosphere previously created to the predominantly lyrical mood heard next. White uses the piano alone at soft dynamic levels to state a bass melody which begins in the Phrygian mode structured on e-flat and finishes using the scale degrees of D major.

Example 16: Transition Melody. Measures 30-35



Two different accompanying sonorities are used by White to enhance the lyric, yet contemplative character of the pianist's melody: pentatonic figurations in measures 30-31 and triplet figures displaying the ambiguous mixture of scale degrees from G major or D minor in measures 32-34. Equally important to the character of the bass line melody is the rhythmic intricacy in measures 30-35: both linear and vertical sesquialtera produce a mood of unhurried, yet persistent movement. In terms of function, the simultaneous and

successive use of two against three is used in the transition section to contrast the driving rhythmic patterns of the principal section with the less pretentious, more flowing rhythms used in the following contrasting division; therefore, there is little need for tempo fluctuation by the pianist, for if the designated tempo is kept, the desired expression is realized.

Of particular interest in White's six-bar transition is the planing of fourths in measures 34-35, for it is reminiscent of the archaic fauxbourdon technique of fifteenth-century French composers. White uses parallel fourths to establish a hollow, almost monotonous atmosphere, which is then quickly broken by a more sonorous mood which begins immediately with the downbeat of measure 36 (here melodies with triadic structure and harmonies with distinctive tertian construction are heard). Harmonically, the significance of measures 30-35 is the assertion of D as the dominant for the tonal level of G in the next section. Appearing first in measure 32 in the bass theme, D is reinforced by the linear application of the p2s sonority in the melody of measure 33, by the numerous iterations of the same pitch in the accompaniment of measures 33-35, and, on beat three of measure 34, by the culminating sonority of the p2s chord with an added g resulting in a p3ns2. Because of the importance of D as a harmonic factor and because of the reappearance of the p2s chord at the end of the transition passage, White has purposefully designated a ritard in measure 34 for the pianist. Pedaling immediately prior to the

chord on beat three effectively isolates the functional significance of the p2s sonority and gives the listener time to interpret D as a dominant pitch.

Contrasting Section: Trumpeter's Material, Measures 36-61

In measures 36-61 White creates the mesmerizing effect of beautifully crafted exuberance by the use of two melodies of eloquent contour and colorful harmonic sonorities. White uses the trumpeter to state melodic material which differs from the principal theme in several ways: greater length, more extensive range, emphasis on seconds and tritones for motivic structure, use of silence for climactic purposes, and a traditional antecedent-consequent phrase structure.

Example 17: Contrasting Themes, Measures 36-56



There are numerous pedagogical and interpretative clues which can be deduced from the contrasting thematic material. First, the overall length and expression of the trumpeter's material make it imperative for the trumpeter to produce a continuous songlike

emission by using legato technique consistently. Second, the compass of an octave and a sixth of pitches in the contrasting material makes it necessary for the trumpeter to form the embouchure in such a way that there is enough flexibility to either iterate pitches in the lower register at soft dynamic levels or to project notes in the upper register at fortissimo dynamic levels; generally, an aperture set for pitches between g' and c'' is best for this passage. Third, clear phrase divisions within the contrasting melodic material make it easier for the listener to sense individual phrases, especially if the trumpeter crescendos through tied notes and half notes and if a gradual increase in volume is projected over the barlines. Another way to initiate the perception of phrase divisions is to produce a slight break in actual sound at two points which would not interfere with the overall expression: immediately prior to g-flat' in measure 41 and just before d' in measure 47. Fourth, the use of silence for internal climaxes makes it appropriate and essential to keep tonal intensity vibrant during pitches just before and after a rest. In two places, particularly, White uses silence, suddenly reduced dynamic levels, and larger melodic intervals to heighten the emotional level of his themes: in measures 39-40 with the descending seventh at a mezzo-piano dynamic level and in measure 53 with the reiteration of g-flat'' an octave lower at a mezzo-piano dynamic level. And finally, because the melodic material in measures 36-56 contains two complete harmonic progressions in the key of g minor (measures 36-44 and

measures 44-55) and a single, albeit brief, modulation to the dominant level in measures 55-56, it is possible for the trumpeter to convey two complementary, yet progressively climactic themes with lyrical content. It is the perception of themes with complete harmonic movement which provides a satisfying resolution to one of the most lyrical sections of the entire movement and which artistically prepares the listener for the section of dramatic growth.

Contrasting Section: Pianist's Material, Measures 36-44

A second way in which White deviates from the declamatory nature of the principal section is by a change in chordal accompaniment. Distinctively more tertian, the chordal scheme in the contrasting section differs from the opening thirty five measures in several ways: 1) more emphasis on chordal style; 2) less usage of the p2s chord; 3) more textural sonorities which add a distinctively "French" color to the passage; 4) the use of the bass voice to reflect melodic patterns of the trumpeter's melody; 5) parallelism applied now to thirds, a technique commonly referred to as gymel; and 6) the utilization of wider range. Harmonically, except for the tonic triads of g minor which appear in measures 36 and 44, tertian chords are generally used without regard to traditional function; when interspersed with other sonorities containing more dissonance, they form a pattern of varying harmonic color which reinforce the emotional impact of the contrasting themes and which help to convey phrase

divisions. In addition, varying features of the harmony enhance turning points at three places in the trumpeter's melody: the melodic tritone in measure 37 is emphasized by the use of sonorous seventh and ninth chords in the accompanying pattern; the effect of the melodic tritone in measure 38 is emphasized by the change in texture to quickly moving thirds; and the tritone in measure 40 is expertly accentuated by the use of strong dissonance which eventually resolves into a major-major seventh chord. Two other factors also influence the alternating moods of tension and relief within the accompanying harmonies of the contrasting theme. First, the bass movement in the left hand of the pianist in measures 40-42 imitates the motivic construction of the theme itself. Secondly, at points marking the middle and end of the consequent portion of the contrasting theme, White reverts to p2s chords which once again illustrate his functional concept of the p2s sonority as a stable element.

There are a number of interpretative principles for the pianist to consider in measures 36-44 of the contrasting section. 1) While dynamic markings in the harmony match particular tension points within the melody, it is more important for the pianist to make sure that the harmonic accompaniment is iterated at precisely the same time as the trumpeter states the contrasting theme; simultaneous articulation by both performers, which can only be achieved if the pianist understands where the trumpeter may vary pitch length, is necessary to realize the combination of coloristic harmony and

expressive melody. 2) Equally important to the pianist matching rubato technique of the trumpeter are places where the pianist can also exercise rubato technique to emphasize particular sonorities. For instance, the recurrent p2s chords in measures 39-43 can be effectively isolated by incorporating a slight ritard; here the delaying tactic clearly separates the antecedent-consequent phrase structure of the first contrasting theme and heightens the effect of a satisfying resolution as well. 3) A final interpretative device can be applied to the harmonic pattern of the consequent portion in measures 40-44; the octave figuration in measures 40-42 contains two non-chord tones which should be emphasized: G-flat in measure 40 and E-natural in measure 41.

Contrasting Section: Pianist's Material, Measures 45-56

After the rhythmically varied return in measures 44-45 of the harmonic pattern used in measures 36-37, White uses already familiar devices to accentuate the trumpeter's theme in measures 45-56. In order of appearance, they are: the fanning of p2s chords in the right hand with open fifths in the left hand of the pianist; the projecting of melodic fragments in octave figuration in both parts; planing of triads or p2s sonorities; and fanning of more dissonant representations of the p2s sonority.

In addition to familiar textural material, several other features in the harmonic accompaniment of the initial contrasting

theme contribute to internal climaxes and the overall lyrical expression of the melody. 1) The chromaticism in measures 46-47 creates a tasteful Lydian mode inflection and a raised leading tone alteration which diverts the listener's attention to the pianist while the trumpeter is sustaining low melodic pitches at a pianissimo dynamic level. Here, the pianist should project the soprano voice over the part of the trumpeter, for the upper part makes the trumpeter's re-establishment as the dominant performer more effective when the melody is resumed on beat four of measure 47 in the trumpet part. 2) After the fanning of harsher sonorities in measures 47-49, White uses brief melodic fragments in octave patterns of relatively light dissonance to provide aural relief and to set up the climax in measure 52. Octave doubling serves to make the articulation of the complete e-flat minor chord in measure 52 more startling and allows the listener to focus on the exciting ascent of the trumpeter to g-flat'' in measure 52. Obviously, legato technique is needed by the pianist; however, it is important to make certain that the iteration of eighth notes exactly coincides with the statement of the trumpeter, even though both parts, at times, call for differing articulations. 3) Silence is again used to reinforce the climactic portion of thematic material, for in measure 49 White uses a single beat of silence to mark the beginning of the final melodic ascent of the trumpeter, and in measure 52 White prepares the fortissimo iteration of the e-flat minor chord with a dotted eighth-note rest.

Equally important to the stunning effect in measures 52-53 is the high tessitura of the accompanying sonorities, for high range marks the highest point achieved by the pianist in movement one thus far.

Clear pedaling and equal iteration of every pitch in chords are needed to ensure a full expressive impact of supporting harmonies.

4) Finally, after a series of triads and seventh chords in measure 53, White uses sonorities of more dissonant content to sustain the level of energy that was previously attained in measure 52. Once again, the g minor chordal pattern is stated in measure 55, but now a modulation to the dominant level takes place. Of crucial importance in bars 52-56 is that the pianist must produce a sweeping effect in five relatively short bars from loud full chords in high range to dissonant sonorities in low range at greatly reduced dynamic levels. Pedaling with legato articulation in mind enhances the dramatic reduction in sound and supports the descending line of the trumpeter.

Contrasting Section: Measures 56-61

In measures 56-61 White uses both melodic fragments and harmonic progressions to complete the rhapsodic mood previously attained and to reminiscently relate to musical events in the preceding twenty measures. More specifically, melodic patterns at relatively low range recapture the atmosphere previously heard in measure 36 while dotted rhythms sustain the persistent rhythmic movement of bars 36-55; on the other hand, colorful harmonic progressions displaying a variety

of conventional sonorities are used in a non-conventional way to sum up the chordal style of the entire contrasting section. Both melody and harmony culminate in bar 61 where, after a major triad is stated, an added D-flat once again adds a dimension of controlled dissonance with the reappearance of the p2s sonority.

Perhaps the most dramatic effect in measures 56-61 is the fermata which occurs over the last chord. The implication of this sign and of the period of silence is three-fold: 1) in this way White attaches special significance to the contrasting themes by providing the feeling of quiet resolution after experiencing one of the most expressive passages in the first movement; 2) because of the inherent dissonant effect of the p2s sonority, the fermata helps to ensure the feeling of expectancy for the listener; and 3) practically speaking, the fermata extends the brief respite of the trumpeter before the dramatic development material which requires considerable physical strength. It must be noted that if the pianist carefully follows White's designated dynamic scheme and pattern of articulation the intended expression is realized. One way, however, to bring out the motivic construction of the melody and to prolong the continuous reduction of energy is to stress the sixteenth notes slightly in measures 57, 58, and 59 and to accentuate the eighth note in measure 60. Also, a slight ritard and longer hesitation than notated between the major triad in measure 61 and the articulation of D-flat in the same measure enhances the feeling of resolution for the listener.

Contrasting Section: Summation

In previous pages, we have submitted interpretative principles based on analytical evidence for the melodic and harmonic material of the contrasting section. Little, however, has been submitted about how the juxtaposition of melody and harmony can lead to performance decisions for the trumpeter. Unlike the principal section, the individual pitches of the trumpeter's melody in the contrasting section are reinforced by the same pitches in the chords of the pianist; or to state it another way, White is clearly concerned with a style in measures 36-61 where harmonies of the pianist truly reflect the melodies of the trumpeter. Therefore, alternating patterns of dissonance and consonance evolve from the number of chord and non-chord tones which exist in the melodic material of the trumpeter. By discovering which pitches of the trumpeter are not found in the score of the pianist, it is possible to determine those pitches which have the most dissonant effect. There are two instances, particularly, where White expertly establishes dissonance in a subtle way: in measures 45-46 with the initial pitch of d' and in measures 55-56 with a' and d'. In order to provide tension, it is necessary to initiate immediately a crescendo in measure 45 and to sustain d' in measure 56 longer than notated--then the listener may hear the tonal resolution. The accentuation of these details, even though they are perhaps not obvious initially, make an important contribution to the interpretation and perception of lyricism.

DEVELOPMENT

The growth section is a dramatic recitative designed to show off the tonal and dynamic abilities of both performers. Even though the trumpeter assumes the prominent role thematically with rondo-like variations of the principal theme, the pianist is chiefly responsible for the excitement in measures 61-97 because of rapid statements of p2s sonorities or scale patterns, the abundance of chordal sonorities which are scored over the entire range of the keyboard, and in bars 87-97, the sesquialtera effect between thematic fragments related to the principal theme and the planing of accompanimental fourths and fifths. The fact that textural devices and sonorities in the accompaniment change so suddenly in the pianist's material makes the highly dramatic quality of the trumpeter's melodic material more convincing. Once again, White uses the p2s sonority in thematic material and chordal formations for structural significance. However, the p2s sonority now shares strategic importance with another entity, a polychord, used for the establishment of tonal pillars and to add yet another sound to the basic assortment of sonorities. In addition, there is differentiation in the development section in the way that individual tertian, quartal or quintal figurations are united. Though interesting effects of White's basic

chordal vocabulary have been featured before, White "pulls out all the stops," so to speak, in an effort to produce a palette of sonorities which produce infinite shades of dissonance. Slow playing of various passages at the piano provides an excellent way for both performers to hear varying relationships, spacings, and registers between highly energized melodies and emotionally charged harmonies in the development section. Furthermore, simplification of the development into two distinct sections makes it easier to analyze significant features of White's compositional style and to make appropriate interpretative deductions as well.

Trumpeter's Melodic Material in Measures 61-77

The trumpeter's melodic material in measures 61-77 comprises three variations of the principal theme. While White's technique of differentiation is important, the nature of the melodic material has more interpretative significance. First, the bravura effect of powerful fanfare figures and aggressive lyrical units in successive statements requires varying degrees of articulative expertise by the trumpeter: precise tonguing for marcato fragments; smooth style for slurred portions; and multiple technique for triplet rhythms. Secondly, in performance the emulation of a precise tempo rather than exercising rubato technique ensures better rhythmic precision and pitch perception for the listener. Of course, being able to play softly where designated helps to reduce the tendency to overblow and

therefore may avoid excessive marcato style and consistently high dynamic levels. Third, the tempo in measures 61-77 and the considerably high level of volume needed for tones in the low range make it imperative for the trumpeter to maintain a rigid embouchure formation, for any movement by facial muscles or pivoting of the jaw may disturb the air stream and create oral obstacles that hinder articulation. Fourth, while the trumpeter must be concerned with projecting the designated dynamic plan for measures 61-77, it is important to conserve articulative skill and dynamic intensity early in the rendition of melodic material, for phrases which present unique technical challenges occur in measures 75-77, where pitch definition and rhythmic precision are essential to the effective representation of melodic material. Two factors in the physical preparation of the trumpeter are related to the general ease of playing in measures 75-77: the embouchure should be set in such a way that the production of sound in the lower register is favored, for with this formation increase in air speed is all that is required to facilitate the upper register of the trumpeter; and eighth notes or tied pitches must be played as abruptly as possible, thus permitting enough time to exercise the rapid tonguing motion that is required to project fast triplets or sixteenth notes that are not slurred. Finally, an interpretative principle already noted in connection with the material of the exposition may be re-stated: notes followed by rests must be sustained longer than notated in order to ensure the

perception of complete phrases. Lengthening pitches for the sake of melodic connection is especially appropriate when applied to b-flat in measure 76 where White scores a full beat of silence to highlight the first portion of the trumpeter's melodic material; sustaining b-flat slightly longer than notated also makes it easier for the trumpeter to maintain the amount of air needed to project low pitches at a fortissimo dynamic level.

Pianist's Harmonic Accompaniment in Measures 61-77

The harmonic scheme in measures 61-77 accentuates the heroic and lyrical aspects of the trumpeter's thematic material by using varying colors and different devices. Two statements summarize the functional use of White's coloristic sonorities. First, chords of dissonant content and sonorities related to the p2s chord are scored in quartal and quintal positions; they are used to provide stability at phrase divisions and periodically within phrases for coloristic purposes as well. While p2s chords, related sonorities, and one polychord are articulated in measures 68, 69, 71, 73, 74, 75, and 76, the linear application of the p2s sonority in measures 61-65, parallel fourths in measure 71, and melodic planing of perfect fifths in measures 76-77 are more important features because they constitute both unification of harmonic material and variation of compositional technique. Secondly, chords of tertian structure, therefore less dissonant in content, appear with lyrical units of the principal

in measures 71-75; in order of succession, tertian structure is evident in four places: 1) in the blues-like melodic fragment of measure 71; 2) in parallel major triads and major-major seventh chords of measure 72; 3) in the major and minor thirds heard in gymel fashion of measure 73; and 4) in the use of major triads, a ninth chord, and an eleventh chord in measures 74-75.

Interpretative concepts can be drawn from the sudden textural changes in harmonic color and harmonic devices of measures 61-77; these changes, perhaps more obvious when the pianist observes the simultaneous differences in rhythmic patterns, occur at five points where the trumpeter reiterates the ascending head motive of the principal theme: 1) in measure 64 where rapidly moving p2s chords in melodic form are abruptly halted by other p2s linear patterns in longer rhythms; 2) in measure 70 where the p2s sonorities in punctuated fashion or descending melodic sixteenth notes are quickly interrupted by the iteration of a polychord built on A; 3) in measures 71-72 where the brief change from parallel fourths to the iteration of sonorous tertian structures takes place; 4) in measure 73 where the texture suddenly advances through parallel tertian sonorities in dotted rhythms to a single quartal chord at a higher range; and 5) in measure 76 where a rapid change in texture from block chords to rapidly descending melodic fifths occurs. The pianist should take care to accentuate the difference between linear and chordal style by using legato technique with limited pedaling for

melodic accompaniment patterns and precise, equal articulation of all members of chords with clear pedaling to effectively isolate chordal interpolations. Like interpretative decisions for the trumpeter, emulation of a precise tempo ensures better rhythmic precision and pitch perception for the listener. It must be noted, however, that a problematic phenomenon of the piano reduces the effect of the augmented version of the principal theme which accompanies the melodic material of the trumpeter in measures 66-68. There is a natural decay in sound when the pianist iterates individual pitches; therefore, thematic perception of the pianist's imitative fragment may be lost when dotted half or half notes are struck. Even though octave doubling is used to reinforce the melodic fragment, it may be necessary for the pianist to institute a crescendo for the entire melody and to make sure that dynamic fluctuation matches the dynamic variation of the trumpeter's statement of measures 64-66.

Measures 78-97

The climax of the development section--hence, the entire first movement--is artistically prepared in measures 78-97 by sequential development of prominent melodic material and by a series of richly scored polychords, tertian chords, and quartal sonorities in the accompanying texture. Chiefly responsible for the continuous buildup of dramatic energy is White's scoring technique of melodic phrases and harmonic sonorities in the extreme registers of both trumpeter

and pianist; of primary importance in the gradual reduction of tension exhibited in measures 78-97 is the use of phrases imitating either the lyrical portions of the main theme or lyrical versions of the principal theme's head motive--both of which are accompanied by planing fourths, fifths, and, occasionally, tritones or minor sixths. For the trumpeter, melodic material in measures 78-84 requires at least a sustained forte sound and the articulative effect of rapid triple tonguing; in measures 84-93 a gradual decrescendo is indicated and consistent legato or slurred articulation is required. Interpretative factors for the pianist, on the other hand, are dependent on several features: variety of sonorities, variety in scoring, different accompanimental devices, the use of linear and vertical sesquialtera, and the role change from accompanist for thematic projections of the trumpeter to soloist of melodic material related to the principal theme. In view of developmental complexity, the careful examination of melodic construction, harmonic techniques, and of the juxtaposition between melody and harmony is needed to acquire enough information to effectively emulate the climax of the first movement.

Measures 78-97: Melodic Material

In the melodies of the trumpeter and pianist in measures 78-84, White varies the opening motive from the principal theme with rhythmic variation and sequential repetition. When material is scored in the

middle to upper range of the trumpeter, it is easy for the trumpeter to project a cumulative dramatic effect of sustained fanfares.

However, it is important to realize that excessive volume does not retain the attention of the listener but succeeds only in dulling the sensation and clouding sectional intricacy. White's intent is realized most effectively by precise accentuation of the elaborate framework and by a strong drive to the cadence in measure 83 with careful consideration in measures 81-82 where softer dynamic levels can be used to emphasize the repetitive development in the melodic material itself.

The trumpeter and pianist both state lyrical versions of the principal theme in measures 84-97. Here, White does not use the open intervals in a traditional fanfare manner but rather in a melodically expressive fashion: he constructs a series of motives employing patterns of fourths and seconds to form a tasteful succession of phrases exhibiting chromatic and rhythmic variety. Whereas fanfare material in measures 78-84 incorporated the use of silence sparingly, rests occupy a substantial portion of time for melodic material in measures 84-93 and contribute much to the depletion of melodic force. It is important to begin the dramatic descent by projecting two eighth notes in measure 84 at the same dynamic level that was previously realized with the statement of material in measures 83-84 and to make certain that volume does not diminish too quickly. A crescendo for the reiteration of the head motive of the principal

theme in measure 90 makes the mezzo-piano dynamic level in measure 89 more noticeable and the implied piano dynamic level in measure 93 more effective.

In measures 89-97 White scores lyrical melodic fragments for the pianist which reflect the construction of the principal theme. Here, rhythmic differentiation, octave reinforcement for some pitches, and a wide compass for the entire fragment are used to develop the initial motive of the principal theme. In addition, the absence of clear melodic material in the left hand of the pianist in measures 91-92 emphasizes the final two measures of the trumpeter's final statement. Also, longer rhythms exhibited in the second lyrical fragment (measures 93-97)--in contrast to the patterns used in measures 89-92--help to produce the aural perception of tempo variation, even though a retardation of tempo is not marked until measure 96. White's cadential tendency is clearly typified by simpler and more pronounced use of musical elements. In conclusion, there are two performance decisions which are to be reached by the pianist in an effort to ensure proper balance and thematic clarity in measures 98-97: state the first melody in measures 89-92 at a higher dynamic level than indicated; and, in melodies of the entire passage, project pitches exhibiting the smallest relative rhythmic value and minimize those pitches which are reinforced an octave lower.

Measures 78-97: Harmonic Material

Harmonically, White uses a variety of color and technique to accompany various thematic portions of measures 78-97. First, support for the fanfare development of the principal theme is accomplished with a variety of chords displaying diversity in range, spacing, doubling, inversion, and dissonance content. Secondly, support for the trumpeter's and pianist's versions of the principal theme is accomplished by fanning of dissonant sonorities and by planing of triplets, the same technique formerly used in measures 30-35. Accompanimental material in measures 85-86 shows independent writing in both parts of the pianist: descending octaves in the left hand with ascending triads or p2s chords in the right hand. The relationship of simultaneous three against two is used in measures 87-97 to form a gradation of varying dissonant clashes with the final lyrical melody of the trumpeter and the two lyrical fragments of the pianist. While several intervals are used in planing style, there seems to be little logic in the choice or order of intervals used. Instead, White uses fourths, fifths, tritones and minor sixths to create a continuous wave of varying color which at times dulls the sensation of the lyrical fragments and at other times makes the melodies sparkle with fresh exuberance. By using harmonic techniques heard previously and by presenting the principal theme in a lyrical syntax, White makes formal reference to the exposition where these techniques and melodic material were introduced. In short, the listener senses not only the

resolution of exciting development but the return of initial moods as well.

Two special directives are suggested in an effort to help the pianist emulate particular musical features in measures 78-97. 1) In measure 80 White uses tertian chords in rich low tessitura to attach special significance to the iteration of the third polychord in movement one; if the pianist elongates the third beat of measure 80, the listener may perceive the dramatic color change between simple and complex tertian sonorities. 2) In measure 97 the rhythm of the G-flat octave in the left hand, the pianissimo dynamic level, and White's directive ("") to pause longer than rhythmically indicated before beginning of the recapitulation are important, for strict observance of these markings helps the listener to sense not only a feeling of repose after the excitement in the development, but the division in micro-form as well.

RECAPITULATION

The recapitulation is virtually a repetition of the exposition except for necessary harmonic changes in transitional harmony prior to the contrasting thematic section and the inclusion of a brief cadential passage in which a fragmented version of the principal theme closes the movement. However, monotony is avoided in several ways: 1) by many dynamic changes in the literal repetition of prominent thematic material; 2) by the introduction, albeit brief, of new material in the closing portion of the principal thematic section; 3) by a shortened repeat of transition material; and 4) by the emphasis on the sub-dominant level in the contrasting section and subsequent closing statement of the principal theme. Typical of Classical sonata literature, fundamental tonal relationships in the sonata remain, but modern practice prevails in the choice of tonal centers.

Figure 2: Tonal Centers in Movement One

	Section	Measures	Tonal Centers	Tonal Relationship
Exposition	Principal Section	1-29	F	Tonic Level
	Transition	30-35	E-flat--D	---
	Contrasting Section	36-61	G	Supertonic Level
Development	Section One	61-77	A-flat	Minor Third Higher
	Section Two	78-97	D	Minor Third Lower

Recapitulation	Principal	98-122	F	Tonic Level
	Section			
	Transition	123-127	A-flat--F	---
	Contrasting	128-148	B-flat	Sub-dominant Level
	Section			
Coda	Closing	149-154	B-flat	Sub-dominant Level
	Section			

Assimilation of macro- and micro-sectional length as well as the identification of thematic order of succession and of tonal levels in Figure 2 illustrate stylistic features which are generally true of the entire sonata: 1) repetition is the foundation of White's formal patterns; 2) formal patterns are determined by the number of thematic elements; and 3) in a very real sense, each statement of thematic ideas creates its own sectional form. It is the concise nature of thematic presentation, development, and restatement in the first movement which provides the first hub in the wheel of contrast in White's sonata. Therefore, it is imperative that both trumpeter and pianist interpret the recapitulation as musical completion of dramatic contrast in the first movement.

Dynamic Changes in the Recapitulation

Even though the recapitulation displays literal repetition, White incorporates many dynamic changes in an effort to maintain musical interest. In Figure 3 and Figure 4 the correlation of dynamic markings between similar material of the trumpeter in the exposition and recapitulation is shown. There are, of course, instances where necessary modulatory and cadential material in the recapitulation

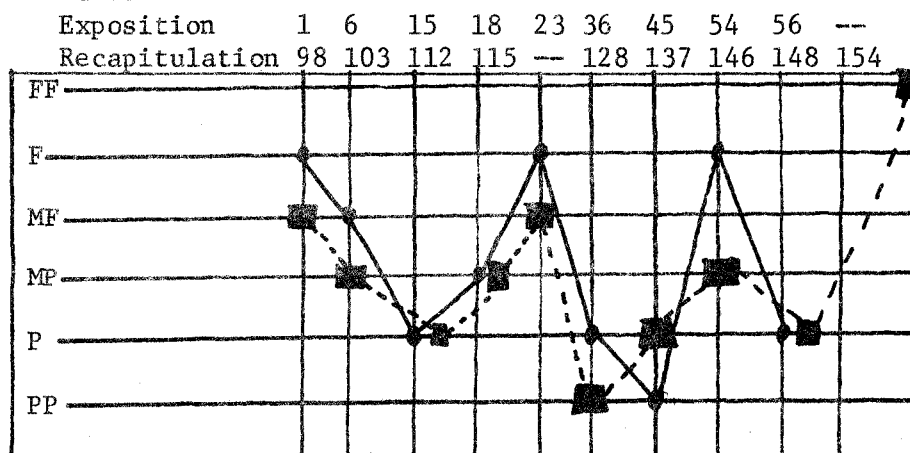
suggest radically different schemes and there is thematic material in the exposition which has no counterpart in the recapitulation because of White's elimination of some melodic fragments; but in general, White has a different dynamic scheme in mind when scoring the melodic material in the recapitulated trumpet part.

Figure 3: Dynamic Markings for Trumpeter's Material in the Exposition and Recapitulation of Movement One

Melodic Material	Exposition		Recapitulation	
	Dynamic Scheme	Measures	Dynamic Scheme	Measures
Principal Theme	f-mf	1-5	mf-mp	98-102
	mf-mp	6-10	mp-p	103-107
	p-mf	15-17	p-mp	112-114
	mp-mf	18-21	mp-mf	115-118
	mf-mp-pp	23-28	-----	-----
Contrasting Themes	p-mf-mp-pp	36-44	pp-mp-p	128-136
	pp-ff	45-53	p-ff	137-145
	mf-p	54-56	mp-p	146-148
Closing Material	-----	-----	p-mf-ff	148-154

Figure 4: Graphic Correlation of Dynamic Markings for Trumpeter's Material in Exposition and Recapitulation in Movement One

Measures:



There are several interpretative conclusions which are suggested by Figure 3 and Figure 4. 1) White is keenly aware that natural tendencies of thematic material are by now readily apparent to the listener. He, therefore, does not resort to generally higher dynamic levels used previously in the exposition for similar melodic material. Instead, White creates a new challenge in the recapitulation: melodic material, in general, must be stated with the same emotional content that prevailed in the exposition but at lower dynamic levels. Reduced volume makes it particularly more difficult for the trumpeter to capture the same quality of lyricism in the thematic material of the contrasting section where slurred and legato marks dominate melodic articulation. Therefore, even though softer levels are required in the recapitulation, common performance problems which deal with balance in a particular recital hall or auditorium make it more beneficial for the trumpeter to convey a relative gradation of dynamic volume. The effect is: in any phrase, relative dynamic intensity is clearly discernible if the performer at the very least conveys the extreme levels of volume.

2) Omissions of dynamic markings in the contrasting section of the recapitulation where dynamics had been designated previously in the exposition grant interpretative freedom for the trumpeter. In measures 131-136, for instance, one way to vary particular stress points is to crescendo through the entire melody from f-flat'' in measure 131 to c-sharp' in measure 136. Increased volume here

contrasts with the decrescendo indicated in the same material in the exposition, opposes the decrescendo in the piano part in measures 134-136, and makes the piano dynamic level of f' in measure 137 more noticeable.

3) In contrast to the diminishing dynamic plan of the exposition as a complete section, the accelerated dynamic plan of the final theme in measures 148-154 is used to end the movement on a truly prophetic ring. White's decision to end the movement with a bang instead of a whimper, so to speak, reinforces the contrasting nature of themes within the first movement and the musical schism between the first two movements as well.

Before we proceed to new material in the recapitulation, it is necessary to point out that a chart and graph of dynamic differences in the pianist's part has been omitted because the pianist's dynamic plan reflects the scheme exhibited in the trumpeter's score. The pianist is encouraged, however, to examine the differences, even though minute, between various thematic statements in the recapitulation and exposition. For example, slight doubling changes occur in measures 118 and 145. As before, each thematic interpolation by the pianist is usually an attempt to vary the color or design of thematic material, to modulate, or to give the trumpeter rest; most other harmonic materials are designed for coloristic variation and as accompaniment to thematic material of the trumpeter.

New Melodic and Harmonic Material in the Recapitulation

In addition to the variations in dynamics, new melodic and harmonic material in measures 119-122 constitute the second way in which White achieves variety in the recapitulation. Replacing the material in measures 22-29 of the exposition in which the trumpeter is used to quietly complete the energy expressed in the opening section, White now uses the piano to project four bars of p2s sonorities in fanning technique to produce the same tumultuous effect that was reached by similar coloristic sounds in the development section. Due in part to the extensive range and diversified dissonant content of these chords and in part to the fact that the fortissimo dynamic level in measure 121 is the loudest point in the recapitulated principal section, the pianist momentarily assumes the role of dominant figure. Previously, in the exposition the pianist did achieve considerable importance with similar chordal patterns and similar dynamic climaxes, but these elements were superceded by the greater amount of melodic material given to the trumpeter. In the recapitulation, however, the trumpeter only restates half of the amount of material. The recapitulated version of the principal section with the pianist as chief contributor is a refreshing aural change for the listener. Also, the skillful way in which White dovetails the music of measures 119-122 into transition material heard exactly at the same pitch level as occurred in the exposition

varies the role interchange and sets up the subsequent domination of the trumpeter in the statement of the contrasting themes.

Transition: Measures 123-127

A shortened version of the initial transition is the third way in which White accomplishes differentiation in the recapitulation. While brevity is a contributing factor in measures 123-127, the considerably louder dynamic level has equal significance: greater dynamic intensity serves to complete the climactic effect in bars 119-122 by the pianist and to make the pianissimo dynamic level, different from before, (in measure 128) even more noticeable. Of particular interest is the way in which White once again uses parallel perfect fourths to modulate; compared with the same measures in the exposition, the fourths in exactly the same rhythmic pattern now modulate to the tonal level of b-flat minor.

Emphasis on the Subdominant Level in the Recapitulation

The emphasis on the subdominant level in the contrasting section and subsequent closing statement is the final important harmonic and tonal technique in which White incorporates variety into the recapitulation of the first movement. A procedure typical of many Classical and Baroque sonatas, White uses the subdominant level to contrast with other tonal digressions in the exposition and, hence, to achieve a larger formal balance in the first movement. White's adherence to traditional tonal logic is not so much in the successive

relationship of melodic material as it is in the contrast of tonal centers between identical sections: the tonal level of g minor in the contrasting section of the exposition compared with the tonal level of b-flat minor in the same section in the recapitulation.

Along with tonal contrast between identical sections White also varies timbre between like sections. For instance, in measures 128-145 White elevates the effect of the contrasting section previously heard in the exposition by simply transposing the harmony and melody to a higher level, thereby enhancing familiar material in a range with timbral differences. While individual performers may disagree, the restatement of identical material at a higher pitch level in these measures creates a distinct color change where more resonance is evoked from the trumpeter and more clarity is achieved by the pianist. In addition, for the trumpeter the transposition of the melody to a higher level erases several performance problems which had existed before in the contrasting section of the exposition: 1) the extreme lower range is avoided in the recapitulated version, making it easier to produce smooth legato technique; and 2) the challenge of sustaining a climactic note which is inherently flat is eliminated, allowing the performer to concentrate completely on the dramatic effect of the individual note groups rather than their particular intonation tendency.

A final musical example gives more evidence to White's preoccupation with the juxtaposition between identical sections: in

measures 145-147 the reappearance of the tonal level of g minor is asserted by modulation to an exact repetition of measures 54-55 in the exposition. Perhaps the same interpretative technique used in the expository statement suffices for measures 145-147; but knowledge that a brief digression to g minor is significant should stimulate some interpretative change: perhaps a ritard, perhaps marcato articulation by the pianist. Certainly, however, it is appropriate for the trumpeter to accentuate the return of melodic material in original form by articulating g-flat' in measure 146 with a harder attack or by elongating the eighth notes in the same measure.

In addition to emphasizing the relative importance between contrasting sections in the first movement, the tonal level of g also serves to provide brief aural respite from the subdominant level which is realized with closing material related to the principal theme. Once again, White's organizational use of sonorities is clearly typified by the cadential use of the p2s sonority. What is evident in the closing measures of this movement points out another general trait in the sonata: the aural perception of tempo variation is primarily carried out by fluctuating melodic activity and by the rhythmic nature of the themes themselves. When the last chord is stated, the preservation of dynamic intensity and tonal energy are key factors for a satisfying resolution.

THE INTERPRETATIVE-ANALYSIS OF MOVEMENT TWO

Introduction

The sensuous lyricism of the second movement presents a fitting interlude between the dramatic atmosphere presented in the opening movement and the energetic temper of the finale. White has attained the delicate musical balance of creating a reflective mood in a simple way by basically projecting a continuous succession of lyrical themes over harmonies which contain different sonorities and which use differing means of motivation. A sense of formal balance is most evident for the listener in portions of White's melody which emphasize the perfect fourth or major second and in the piano accompaniment where quartal, quintal, and other p2s figurations occur; and an impression of eloquence is clearly felt in portions of the melody and harmony where tertian structure is manifested. One also notices that the constant interplay of interval patterns in melodic material and the endless interaction between melodies and their accompaniment creates contrasting feelings of tension and relaxation that the listener is aware of not only in whole sections but within the melodic phrases themselves. The perception of tension is primarily due to frequent use of tritones or minor seconds as constructive elements in the melodies and to the clash between

simultaneous related or unrelated sonorities in the juxtaposition of melody and harmony.

While a brief aural synopsis of the second movement demonstrates general construction, examination of other developmental and organizational features of White's compositional style is needed to understand his subjective intent. White organizes the second movement into three major sections where the succession of five themes in either original or varied form establishes, figuratively speaking, a theatrical dialogue where both trumpeter and pianist realize the potential of contemplative lyricism.

Figure 5: Sectional Design of Movement Two

Section	Measures	Theme	Principal Performer
A	1-21	One	Trumpeter & Pianist
		Two	Trumpeter
		Three	Trumpeter
A'	22-35	One (Varied)	Pianist & Trumpeter
		Two (Varied)	Trumpeter
Interruption	35-50	Four	Pianist and Trumpeter
A' Concluded	51-57	Three (Varied)	Pianist
B	58-78	Five	Trumpeter & Pianist

As Figure 5 indicates, White uses the trumpeter principally to state three themes in section A; he uses both performers to interject a new theme and varied renditions of principal themes in the second division; and he again uses both performers to introduce the final theme in section B. White's organizational priorities actually are difficult to articulate because between A and B sections or between thematic material in the A' section and the new theme which interrupts the contrast is not substantial. In reality, major differences in

White's sectional format are the following: 1) in the interruption of section A', thematic material which is used previously is noticeably absent; and 2) in section B, the climactic theme exhibits but a sketchy resemblance of previously used thematic material.

In our attempt to understand what White is trying to express in movement two, it is beneficial to begin by discussing musical features and techniques which are similar to all sections. In order of importance, principal developmental and organizational factors which transcend formal divisions are: 1) the "theme and variation" treatment of a single phrase that appears throughout the movement except for the brief interruption in section A'; 2) the similarities in melodic construction (p2s) which create a cohesive texture of inherently related melodic material; and 3) particular features of the harmonic accompaniment which are used throughout the movement regardless of periodic divisions in form.

White's "Theme and Variation" Technique

Melodic motives constitute the principal developmental factor for all divisions in movement two, for White uses brief thematic fragments in two ways: to function as organizational cells, and thus to form themes of varying length. More specifically, White's technique can be termed motivic manipulation, for by variation of repetitious intervallic units and continuous rhythmic patterns, White is able to generate a substantial thematic arsenal where individual

themes seem unrelated, each being more beautifully eloquent than the previous one. The most easily discovered device is White's "theme and variation" treatment of a single phrase that appears throughout the second movement.

Example 18: Movement Two, Measures 3-4



Constructed of two cells, the second of which is a variation of the first, the phrase shown in Example 18 permeates the second movement in either original form or with several musical changes: fragmentation, ornamentation, extension, inversion, intervallic alteration, rhythmic variation, and/or retrograde inversion. Also, the initial soft dynamic level and slurred articulation are varied.

There are two features in White's two-bar fragment which produce opposing tendencies: intervallic fourths and seconds which reflect p2s formulae are employed as structural units designed to provide a feeling of stability for the listener; and, on the other hand, the span of a tritone is used in order to introduce an element of instability in an otherwise stable fragment. For these reasons, both performers are encouraged to intermittently vary dynamic fluctuation and pitch length of individual pitches within White's prominent pattern whenever it appears; varied interpretative shadings also produce different, yet synonymous, dimensions of White's lyrical

expression. Clear accentuation of White's two-bar pattern is imperative in order to convey an important organizational feature in the various divisions of movement two.

Melodic Structure: General Similarities

While five themes in movement two exhibit differences in overall length, rhythmic design and interval content, they all portray similarities in melodic structure which create a cohesive texture of heightened lyricism. First, a graded arrangement of intervals exists which produces specific musical functions: 1) fourths, fifths and major seconds (minor sevenths) are focal units designed to create points of harmonic stability and to be used as building blocks for repetitious units and step progressions within each theme; 2) thirds and sixths are entities utilized to add color and tonal balance to the melodic line; and 3) minor seconds (major sevenths) and tritones are intervals designed to modulate and to add a degree of tension into the melodic line. Knowledge of which interval types are used for structure, variety and tension, helps the performer to systematize subjective feelings about melodic practice in a particular composition and to apply general interpretative principles to the preparation of melodic material. In addition, the frequency of various interval types provides considerable insight into the degree of influence that a composer's harmonic practice has on melodic writing. A survey of White's thematic array, for example, shows that perfect fourths

and major seconds are utilized more than other intervals. The question to be asked is: "Does White use fourths and major seconds in excess?" The answer is no, for White judiciously incorporates enough interval changes and uses enough varying melodic techniques to give each theme unique character.

Second, pitch material in each theme is organized into modes, major scales or by the p2s formula. Figure 6 gives the theme, corresponding measures, scale or mode used, tonic pitch, missing pitches, and added pitches of White's melodic material in movement two; as indicated, themes four and five are divided into smaller segments because of their length and internal modulations.

Figure 6: Analysis of Melodic Material in Movement Two

Theme	Measures	Scale or Mode	Tonic	Missing Pitches	Added Pitches
One	3-6	p2s	E-flat	-----	Sharp-4
Two	8-11	Aeolian	E-flat	-----	-----
Three	14-18	Dorian	D	Seventh	-----
Four	35-38	Dorian	E	Third; Seventh	Natural Sixth
	39-40	Major	F	Second; Sixth	-----
	41-42	p2s	E-flat	-----	-----
Five	58-61	p2s	B-flat	-----	Sharp-4; Sharp-1
	62-69	Aeolian	E-flat	-----	Sharp-7; Flat-5
	69-78	p2s	A-flat	-----	-----

It is entirely possible that modal influences were sometimes subconscious; the perception of tonal center is somewhat subjective, so there are times when the tonal center and the mode are open to more than one analysis. In some cases accompanying harmonies may suggest a center different from that of the melody, but they do not detract from the genuineness of modal influences in movement two or

from interpretative deductions that can be made from the use of modal and other scalar materials. In any pitch organization, some notes function as basic, for they are free to progress either up or down, by step or skip; also, some pitches have an auxiliary function and a decided tendency to resolve in the direction of the alteration.

Knowledge of structural pitches and auxiliary pitches alone presents interpretative possibilities for White's thematic material: the domination of structural pitches requires varying degrees of fluctuation of dynamics and pitch length throughout White's thematic arsenal, and the limited appearance of auxiliary pitches makes it imperative to emphasize those notes in some special way.

Third, even though harmonic implications in White's themes are often conventionally unrelated, the melodic progression of White's melodies still shows logical organization. For example, the melodic progression of themes one and two is a tritone (a'--e-flat'; e-flat--a'), but when these themes are heard in succession, a complete tonal progression is realized (a'--e-flat'--a'). The fact that in the main, dissonant intervals evolve from the opening and closing pitches shows a consistent melodic characteristic in White's writing style: the overall range and internal span of individual cells or entire themes incorporate tension into melodic lines whose successive intervals display relatively limited use of minor seconds or major sevenths and tritones. Understanding White's intervallic paradox applies to the interpretative preparation of his melodies in one important way:

knowledge that clear harmonic progressions exist within phrases makes it possible for performers to interpret harmonic implications as structural pillars, thereby creating the potential for conveying well-organized pitch patterns and well-defined cadence structure to the listener.

Melodic Structure: Specific Features

Theme one uses contemporary language for pitch material and intervallic structure but conventional influence for overall design.

Example 19: Movement Two, Measures 3-6

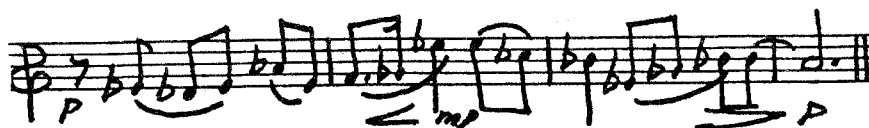


Perfectly symmetrical, measures 3-4 and 5-6 combine to form two units of contrasting yet complementary nature. The tritone implication of motive a as well as the internal varied repetition of measures 3-4 are noteworthy features; then motive b is heard which, in comparison with motive a, is twice as long and employs no repetition or dissonant interval progression. Basic rhythmic patterns contribute to easily identifiable features of theme one, part of which is systematically varied throughout the movement. Even the lower pitches of motive b enhance the hierarchical superiority of measures 3-4. Because of the greater relative importance of measures 3-4 in theme one, the trumpeter must accentuate the initial portion at a higher dynamic level than measures 5-6. Deviation in pitch length is, however,

appropriate for eighth notes in the latter portion to emphasize the different rhythm.

Theme two, in spite of two measures rest after the completion of theme one, is a harmonic complement to theme one. While the initial measures of theme two employ the same p2s pitches that were used to complete measures 4-6, theme two then diverts to conventional tertian structure.

Example 20: Movement Two, Measures 8-11



White's melodic use of an e-flat minor triad in measures 10-11 contrasts with the quartal construction of the antecedent portion heard in measures 3-6. Also, shorter motivic length, wider range of individual cells, and different rhythmic patterns are elements which reinforce the different nature of theme two. Clear adherence to conventional rules is manifested by the return of the trumpeter to the pitch of a', the same pitch heard at the beginning of theme one. In the performance situation the trumpeter must be sure to communicate periodic relationship between themes one and two and to use greater dynamic or articulative fluctuation in theme two where tertian structure is evident. Of particular importance is c-flat'' in measure 9, for it is the only non-harmonic tone in theme two; therefore, a slight crescendo here is necessary.

Predominant stepwise motion and more pronounced use of motivic repetition as a constructional element make theme three completely different.

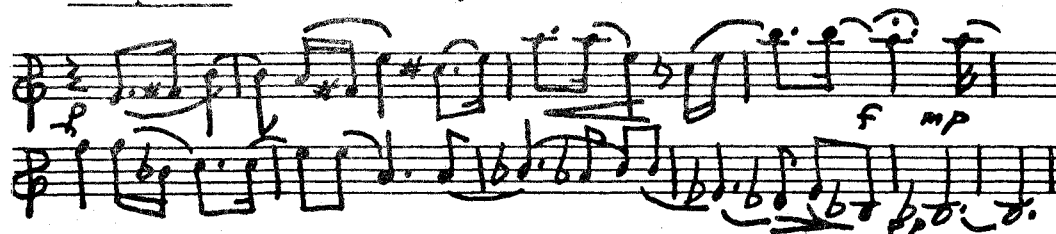
Example 21: Movement Two, Measures 14-18



Stated once again by the trumpeter, a single motive is used sequentially to outline the mode of Dorian structured on d' and to modulate quickly to the dominant level; in between, structural intervals comprise melodic ascent and perpetrate a quick descent as well. Also, repeated rhythms, overall length, and silence are creative characteristics designed to contrast with themes one and two. Interpretatively speaking, theme three should be stated with more dynamic intensity than themes one and two, motivic repetition must be emphasized with articulative clarity, and because of modulation, b-flat' in measure 17 must be stressed, for it is the first pitch that deviates from the Dorian mode.

Theme four is the first principal theme stated by the pianist.

Example 22: Movement Two, Measures 35-43

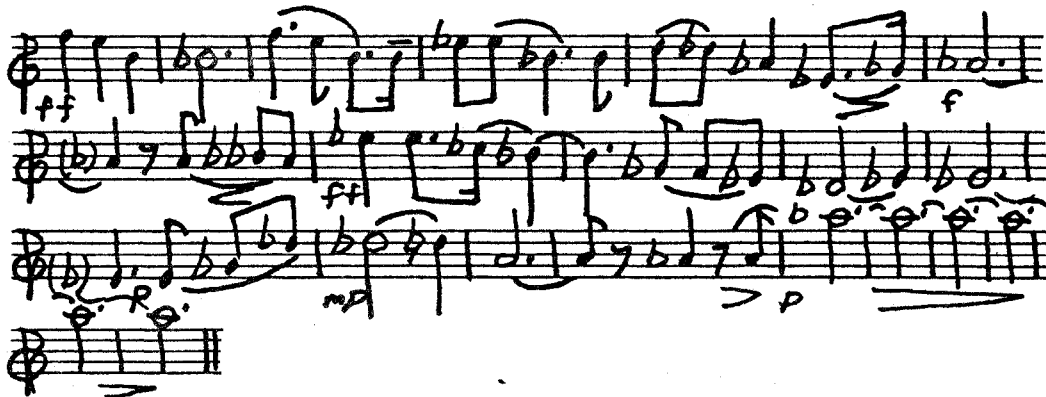


Used to provide a transition between themes two and three, theme four perpetrates musical elements which conflict with characteristics observed in themes one, two and three: 1) conventional antecedent-consequent phrase structure; 2) contemporary influence as exerted by its strictly instrumental character; 3) the use of rhythmic patterns instead of intervallic units as the principal organizational factor; 4) maximum use of a minimum number of pitches; and 5) in difference to White's other themes where p2s figurations dominate, there is, in measures 38-41, decidedly more emphasis on the interval of the fifth. Perhaps the most effective musical feature is created by the alternation of chromatic sixth and second scale degrees of the Aeolian mode built on e: the successive alternation of f-sharp and f-natural and of c-sharp and c-natural with the simultaneous clashes of both pitches in measures 37 and 39 creates tension which is much more obvious than the tension in any other theme.

Several interpretative implications result from observable characteristics in theme four: 1) the overall symmetrical phrase must be conveyed by an even gradation in volume; 2) the pianist must concentrate on rhythmic patterns instead of melodic pitches; 3) exaggerated dynamic intensity and sustaining a'' longer than notated in measure 38 enhances the impression of phrase division; and 4) elongation of c-natural'' and f-natural'' in measure 39 brings out the dissonant juxtaposition between opposing pitches in the harmony.

Theme five is the longest theme in movement two.

Example 23: Movement Two, Measures 58-78



Stated by the trumpeter with measures 65-67 reinforced by the pianist, theme five exhibits two prominent organizational features: 1) neatly balanced in intervallic content, measures 58-63 and measures 67-78 show p2s construction while tertian structure is evident in measures 65-66; and 2) rhythmic patterns apparent in other themes are used in theme five even though the intervallic patterns are different. In addition, theme five is notable for its variation treatment of motive a. In measures 58-62 motive a appears three times, each instance stated in a different rhythm. In measures 70-73 motive a is evident in two ways which, admittedly, may not be purposefully planned by White: by the first three pitches which invert the first two pitches of the original motive; and by the last three pitches which constitute White's motive a in retrograde inversion.

Example 24: Manipulation of Motive a in Measures 70-73



White's disguising motive a is particularly significant because it sums up the inherent variation technique exhibited in the entire movement.

While White's dynamic and articulative pattern in theme five is clear, elongation of certain pitches enhances features alluded to in prior discussion: equal stress on pitches in measures 58-61 accentuates the influence of motive a; elongation of eighth notes in measure 64 imitates the repetitious rhythmic pattern used before in other themes; and accentuation of d-natural'' in measure 70 and a-flat'' in measure 72 also helps to convey the influence of motive a. Perhaps the most important pitch of the entire melody is the last pitch; requiring well-developed embouchure and breath control, the high tessitura and long duration of a-flat'' is a dramatic way to end movement two.

Harmonic Accompaniment

Prominent compositional traits in the harmonic accompaniment are manifested in three ways: 1) by a harmonic structure of sonorities which are arranged in tertian, quartal and quintal chords and which are juxtaposed in both conventional and non-conventional ways; 2) by harmonic progressions which are motivated by prominent melodic motives or themes; and 3) by the use of particular harmonic devices which add variety to both harmonic structure and harmonic progression.

Sonorities and Their Use

Both conventional and modern usage of tertian and p2s chords are evident in the second movement. Consistently, chordal figurations accompany melodic material either as passing coloristic entities or as chords functioning as stable harmonic elements. In measures 1-6, for example, tertian sonorities function in a traditional manner by outlining tonic triads of d minor, yet chords implying the dominant level are approached by other chords in non-conventional root movement. Another application of tertian and p2s sonorities in movement two occurs in measures 22-35 where fanning technique is employed: p2s and/or tertian chords in the left hand of the pianist are simultaneously combined with melodic material related to motive a in the right hand. While the bass movement of measures 22-25 does display a progression from tonic to dominant back to tonic, White is more interested in providing coloristic accompaniment for the return of motive a at its initial pitch level. Therefore, the pianist should emphasize the right hand melody, thus allowing chords of the left hand to function as textural background only.

A rich palette of quintal, quartal and tertian chords is used to accompany theme four of the pianist. In measures 35-42, White uses p2s sonorities in either quartal or quintal structures and triads in either root position or second inversion; here planing technique dominates. More important, however, White juxtaposes chordal patterns with melodic pitches that display several clashes of minor

seconds; 1) c'' and c-sharp' in measure 37; 2) a'' and b-flat in measure 38; 3) f'' and f-sharp in measure 39; and 4) e'' and e-flat in measure 40. The intervallic clashes of measures 35-42 juxtapose minor seconds which create a typical "blues" effect; therefore, the pianist must carefully stress pitches which create tension.

Perhaps the most obvious coloristic application of tertian chords occurs in two places where several triads and seventh chords are alternated with p2s chords. First, in measures 68-71 a major triad and a major-major seventh chord in low tessitura are emphatically colorful after a highly dramatic statement of melodic p2s intervals that are reinforced by octaves in both hands in measures 65-67. For this reason the chords in measures 68 and 70 must be struck with absolute precision.

Emphasis on another major triad in low tessitura marks the second manner in which coloristic application of tertian chords is seen. In measure 78 a D-flat major triad is prepared with planing fifths in the left hand, fanning technique of dissonant combinations in both hands, and the constant clash of the trumpeter's sustained a-flat'' which eventually becomes the fifth of the final triad. The articulation of the pianist must be exact in order to enhance the resolution of the last chord.

Coloristic application of p2s chords is also found; in measures 63-64, for example, planing of p2s figurations in both parts is juxtaposed by fanning technique. Upon closer observation, one notices

that the left hand comprises two iterations of motive a. Still it must be realized that the dominating aural sensation of measures 63-64 is not the motive itself, but rather the effect that successive and simultaneous p2s chords have. It is important for the pianist to concentrate on the excessive dynamics and employment of the wide range of material, for then a dramatic climax results immediately before the trumpeter begins the second segment of theme five in measure 64.

There are numerous instances where tertian and quartal chords, or where quartal and quintal chords in non-conventional relationships are simultaneously sounded. As Figure 7 indicates, a substantial amount of dissonance is created by the relationship of different sonorities whose chord roots are a minor second, major second, tritone, diminished fourth, or a major third removed.

Figure 7: Juxtaposition of Sonorities in Movement Two

Measure	Beat	Right Hand	Root Relationship	Left Hand	Resulting Juxtaposition
1	3	p	Major 2nd	m	p2msdt
2	2	p	Minor 2nd	pns	p2mn2sd2t2
6	1	p2s	Tritone	p	p3mnsd2t2
14	1	p2s	Tritone	p	p3m2nsd2t
18	1	p2s	Minor 2nd	p	p3m2n2s2d
29	1	p2s	Tritone	p	p3m2nsd2t
46	1	p2s	Tritone	p	p3m2nsd2t
50	1	p2s	Tritone	p2s	p4m2ns2d4t2
62	1	p2s	Diminished 4th	p	p3mn2s2dt
63	1	p3sn	Major 3rd	p	p4m2n3s3d2t
63	2	p	Minor 2nd	p	p2d2t2

In context the juxtaposition of either different sonorities or similar chords in non-conventional relationships is used for several reasons:

1) to disguise traditional tonic-dominant progressions (measures 2, 6, and 29); 2) to distort tonic tonal centers (measures 14 and 50); 3) to call attention to melodic devices (measure 18); 4) to provide unwavering dissonant color within harmonic progressions (measure 62); and 5) to prepare nonharmonic tones which incidentally occur when clashes of two equally independent lines or moving chords take place (measure 63). Because individualized chords constitute much of the dissonant element of White's harmonic language, they should be effectively isolated. Knowing how chords are formed and where certain chord-types occur makes it possible to correctly interpret dissonant combinations.

Harmonic Progression

The omnipresence of melodic material in movement two is a key factor in harmonic progression. In measures 6-14, for example, the varied repetition of motive a creates a pattern of simple harmonic structures moving by root movement of seconds, thirds, fourths, and tritones. Since White is more concerned with theme and variation technique for motive a, root movement in general is not particularly important to the interpretation of measures 6-14. What is significant is the way in which tritone root movement in measures 11-14 mirrors itself and the outer pitches of unlike sonorities in the final chord (measure 14). In the chord at measure 14 the relationship between the chord root, D, and the top pitch, g-sharp', constitutes a Lydian

inflection. Secondly, White achieves a striking harmonic progression by successively and simultaneously stating several variations of motive a in both parts of the pianist's score in measures 15-21. Similar to measures 6-14, chord roots show no logical organization other than relationships created by the motive itself. What is important is that White creates a new theme in the right hand which is constructed by inverting motive a. Furthermore, the right hand melody is simultaneously stated with the left hand at an interval of a minor second, which typifies once again the use of a specific intervallic relationship to produce tension. The combination of melody and harmony creates several tritone relationships successively.

Principal themes are also used to motivate harmony. In measures 51-57, for instance, the pianist states theme three at its original pitch level while the trumpeter projects a melody constructed by inversions of motive a; the trumpeter's melody was formerly played by the pianist in measures 15-21. Because both parts are thematic, root movements of the third part are incidental, even though logical organization may be apparent; for this reason the pianist must treat each hand independently, taking care to project the thematic portion over the harmonic background.

Harmonic Accompaniment: Devices

Particular harmonic devices add variety to both the harmonic structure and the harmonic progressions in movement two. Parallelism

is apparent in measures 43-50, for example, where chordal patterns move in conjunction with or in contradiction to the trumpeter's and pianist's shorter and varied iteration of theme four. Opposite parallel motion in the piano part is the technique which propels p2s and tertian chords in measures 43-50: the progression is as interesting as it is unusual, with chord roots on e-flat, d, c, e, c, b, a, g-sharp, and d. Here again White foreshadows the Lydian (tritone) relationship between the chord roots of juxtaposed sonorities in the chord of measure 50 by successively stating a tritone in the bass voice in the last two chords of measure 49. In addition, the influence of traditional tonal writing is evident by White's thinly disguised return to D as a tonal center.

Mirroring of scale degrees is a second harmonic device: in measures 73-75 the outer voices of the chords move in opposite direction at the same interval. Important functions are initiated by White's mirroring technique: 1) alternating waves of varying colors are heard in the accompaniment by the succession of minor triads in second inversion with a major-minor seventh and a major-major seventh chord, bringing the movement back to the tonality at the beginning of the entire movement; 2) the prolongation of a-natural in the bass functions harmonically as a dominant pedal point; and 3) stress factors are established by the juxtaposition of the harmony and the sustained a-flat'' in the trumpeter's part which again reinforces White's compositional practice in producing tension by successive or

simultaneous clashes of minor seconds. Distinctive to twentieth-century style, mirroring of scale degrees is an innovative way to provide organizational unity as well as textural variety.

Summation

In movement two contemplation is carried out in two ways: by the submission and resubmission of a motive which is articulated in a variety of ways by both performers; and by the continuous statements of several longer thoughts, themselves having been formulated by numerous motives which depict characteristics of reflection. At times the audience perceives total agreement between both performers, even when they are simultaneously projecting different versions; at other times the listener senses dramatic conflict between both participants. This is primarily due to the fact that both performers have different functions: the trumpeter is clearly the primary performer, for the trumpeter initiates most themes and effectively recapitulates the essence of the entire movement with a climactic summation of theme five; while the pianist interjects brief ideas and even once interrupts with a lengthy thought which temporarily diverts the attention from the trumpeter, the pianist generally assumes a secondary role because ideas scored for the pianist are either varied restatements of material the trumpeter has already articulated or unison renditions with the trumpeter. Combination of supportive and conflicting expressions by the pianist with the

continuous succession of eloquent statements by the trumpeter provides a well planned dialogue where the idea of reflection is captured.

THE INTERPRETATIVE-ANALYSIS OF MOVEMENT THREE

Introduction

If there is a single phrase descriptive of movement three, it is "rollicking good humor!" All features--those of formal design, melodic writing, harmonic structure, rhythmic elements, and texture--are, by nature, playful. The aural impression is simple, for the introduction and development of themes with robust rhythms and light-hearted motives convey an atmosphere of unpretentious gaiety. Movement three also displays compositional traits which differ from movements one and two. 1) There is less emphasis placed upon harmonic color as a motivational force; rather, White is concerned with the deployment and varied reappearance of a limited number of themes and with the rhythmic and intervallic development of key motives. 2) Although harmonic sonorities are constructed with quartal, tertian, and p2s chords in planing and fanning technique, they are less complex than similar sonorities found in movements one and two. 3) While dissonant chords constructed of like and unlike sonorities are evident, they are used sparingly to either enhance a climactic portion of the melody or to set up momentary clashes. 4) Unlike movements one or two, more tension is produced by the clash of independent linear parts than by chords themselves, either by the

simultaneous juxtaposition of melodic lines of the trumpeter and pianist or by the side by side relationship of melodic strands and harmonic sonorities in the accompaniment.

Perhaps the most logical way to approach the interpretative-analysis of movement three is to engage in a systematic analysis of the compositional facets and interpretative principles of each major section as it unfolds for the listener. Thus, after introductory remarks on formal design, we will examine in order the melodic elements, harmonic scheme, and textural relationship of each principal section. Whenever applicable, performance considerations are included after the dissemination of data for each category.

Formal Design

The design of movement three is a truncated Sonata Allegro form. The exposition and development sections are typical of conventional models but an abbreviated recapitulation followed by a short coda in place of the second theme creates a departure from normal usage.

Figure 8: Sonata Allegro Form in Movement Three

Section	Measures	Theme(s)	Performer(s)
Exposition	1-54		
A	1-16	One	Trumpeter
A'	17-29	One (Varied)	Trumpeter
B	30-39	Two	Trumpeter & Pianist
A	40-54	One	Trumpeter
Development	55-112		
1	55-67	Two; One	Trumpeter & Pianist
2	68-87	Three	Trumpeter
		One	Pianist
3	87-100	Three	Pianist
4	101-112	One	Pianist
Recapitulation	113-139		
A''	113-123	One (Varied)	Trumpeter
A	124-139	One	Trumpeter
Coda	140-151	Related Material	Trumpeter

In addition to the nature and succession of different themes, White varies aural interest by the choice of soloist used to project thematic material. As Figure 8 indicates, organization by timbre is evident with the use of the trumpeter primarily to state thematic material in the outer major divisions of movement three, whereas the employment of the pianist as the principal signaller for melodic material occurs in the development section; the resulting large scale timbre contrast is that of ABA design. Performers must be sensitive to White's plan in overall scoring, for knowledge of which performer has the upper hand, so to speak, leads to an understanding of White's thematic hierarchy. Melodic strands of the pianist in the exposition, recapitulation, and coda must be viewed as secondary to the melodic material of the trumpeter; on the other hand, theme three which is introduced by the trumpeter in the development section must be

minimized, so that the pianist can clearly herald the motivic units of theme one. Admittedly, the decision to thus interpret the introduction of a new theme as accompanimental is subjective, but if the trumpeter projects all melodic material with equal fervor and equal significance, then the potential for boredom is firmly established. By allowing the pianist to assert thematic material over the material of the trumpeter in the development, the prior and subsequent statements of the trumpeter are more energized and proper timbre balance for the entire movement is affected.

The Exposition: Melodic Material

Theme one is a long but direct idea comprising periodic phrase structure, motivic construction, and internal rhythmic and intervallic imitation.

Example 25: Movement Three, Measures 1-15



Theme one derives its melodic pitches from the scale degrees of two keys: measures 1-5 utilize pitches from B-flat major; measures 6-15 outline the scale pattern of B-flat minor (Dorian and natural form). As Example 25 displays, there are two prominent motives which may be characterized by clear rhythmic structure and p2s construction; both

motives reappear in a variety of instances as either part of thematic material or as key developmental units.

Melodic material is also used by the pianist in the accompaniment of measures 1-16: a fragment in measures 3-5 is based on B-flat major; a second fragment in measures 9-14 begins in C major but finishes like the trumpet part in B-flat minor. Of particular interest is the raised fourth scale degree in measure 3, for e'' briefly clashes with e-flat in the accompanying harmony and with f'', a pitch which is simultaneously sustained in the trumpet part. Here the clash of melodic seconds is enhanced if the pianist clearly articulates e'' and if the trumpeter plays f'' with a crescendo.

In measures 17-29 a slightly shorter version of theme one is heard at a higher pitch level; melodic pitches are derived from two scale patterns: bars 17-23 emphasize A-flat major and bars 24-28 utilize pitches of the Phrygian mode built on C. Rhythm is the chief musical difference from the initial statement: 1) syncopation is now used to vary motive a in measure 18; 2) a new pattern of an eighth note and two sixteenths are evident in measures 19-23; and 3) the insertion of melodic fragments in rapid triplet figurations are used in linear sesquialtera technique in measures 24-28. Like other passages in the sonata, White's penchant for continuous development is again manifested.

Melodic material is used by the pianist in the accompaniment as

well. A melody in measures 17-22 reflects the same scale organization as the trumpeter's theme and reiterates motive a of theme one in imitative fashion. Two scale passages are also used to fill in at places where the trumpeter either sustains a pitch or rests:

1) fragment one in measure 23 utilizes the Phrygian mode and appears in continuous triplets later imitated by the trumpeter in measure 25; and 2) fragment two in measure 29 uses a Dorian mode construction, reminiscently incorporates motive b of theme one, and successively employs linear sesquialtera, a device now imitating the trumpeter in measure 27.

Beginning in measure 30 theme two is stated by the trumpeter.

Example 26: Movement Three, Measures 30-39



While theme two is shorter, has more tertian influence, and makes more use of stepwise motion than theme one, interval patterns employing the perfect fourth and fifth in significant portions of the melody, and rhythmic patterns comprised of dotted-eighth--sixteenth as well as a pattern of sixteenth and two eighth notes are two features which are similar to renditions of theme one. Theme two is based on one mode: measures 30-33 use the Aeolian mode built on F and measures 34-37 articulate a transposed version of the same mode on D.

The pianist completes section B with a melody that modulates from the tonal center of D to the tonal center of E-flat by using scale degrees from the Dorian mode built on E-flat. As measures 37-39 display, rhythmic patterns used previously and White's favorite device, sesquialtera, are used to propel the fragment of the pianist.

In measures 40-54 theme one returns in almost the same form as before (measures 1-15) but at a pitch level a major second lower. Now White employs transposition of a section to reinforce the aural memory of primary material and to prepare the listener for melodic material in the development section. A comparison of theme one as it appears in measures 1-15 with measures 40-54 displays the following slight intervallic and rhythmic changes: 1) in measure 43 there is a change in rhythm which alludes to rhythm used in the varied restatement of theme one in section A'; 2) in measures 44-48 diminution of initial rhythm occurs; 3) in measures 49-50 diminution of successive intervals heard originally in bars 10-12 is apparent, thus shortening the return of theme one by one bar; and 4) in measures 51-52 intervallic change is manifested with the change in motive b to a motive in which an ascending major second is used.

While slight musical changes occur in the theme of the trumpeter, even less alteration is evident in the melodic material of the pianist. Variations in overall length, individual rhythms and interval changes occur only in the first half of accompanying material in measures 40-54; in comparison, measures 47-53 constitute

an exact transposition of the corresponding passage in measures 9-16.

The Exposition: Harmonic Structure

White's harmonic structure may be summarized by the following statements: 1) chords are extracted from scale organization of melodic material; 2) chords are predominantly arranged in p2s or related structures and appear in repetitious sonorities which change every measure; 3) root progressions depict logical design even though individual relationships may not be traditionally functional; and 4) principal harmonic devices include fanning and planing. There are, of course, tertian structures and dissonant chords built by the juxtaposition of distinct sonorities, but here their position in White's harmonic scheme is not particularly significant.

In sections A and A' of the exposition there are three features which are noteworthy. 1) In measures 15-16 White uses octaves in fanning technique to modulate to section A'. 2) In measures 17-29 planing sonorities gradually move in descending motion to interspersed chords simultaneously iterated in both hands of the pianist. Whether or not these interpolated chords are functional is not clear; what is certain is that they can be used by both performers as aural pillars. 3) Variety in the harmonic accompaniment of section A' is achieved principally by rhythm: in measures 17-22 chords iterated in repetitious eighth notes are contrasted with similar sonorities in measures 23-29, only now with equally interspersed rests. For the

pianist, interpretative technique in measures 17-29 is obviously a marcato style.

Several techniques and various types of chords are used to support melodic material in section B: 1) simultaneous melodic fifths in parallel motion and linear sesquialtera (measure 20); 2) tertian sonorities in planing technique and exhibiting the rhythmic pattern of motive b (measures 31-36); 3) fanning of melodic motives in the right hand which are constructed by either stepwise or tertian intervals with unison lines and alternating chords of perfect fifths or thirds in the left hand of the pianist (measures 37-38); and 4) a short imitative descending fragment which is supported by a minor-minor seventh chord (measures 38-39). In short, White uses more tertian construction in his harmonic plan for theme two, more melodic fragments in the accompaniment and greater use of fanning technique to contrast with the emphasis on quartal and p2s sonorities, chordal movement, and planing technique used in measures 1-29.

In the harmonic complement of measures 40-54 chordal progression, vocabulary, and organizational techniques are the same as measures 1-16 except for differences in two places: 1) chords in measures 44-45 are changed to emphasize the pitch of A-flat; and 2) in measure 50 iterated chords are identical, instead of a passing octave in measure 13.

The Exposition: Texture

In measures 1-16 White uses two or three complementary and independent lines to form a texture in which varying degrees of dissonance are presented. Although most pitches of melodic ideas relate to the accompanying chords, there are several places where pitches not evident in the accompaniment function as non-chord tones. In a style where p2s sonorities constitute consonance some of these non-chord tones may be incidentally conceived. However, the fact that some pitches are reinforced in the harmonic complement and that others are not reflects a plan of melodic organization. As one perceives the plan of chord and non-chord tones in the melodies of both performers, one sees reasons for dynamics that are indicated and also places where further dynamic fluctuation may be included to bring out varying degrees of dissonance: 1) in measure 3 the crescendo by the trumpeter to a forte level accentuates the clash of melodic seconds; 2) in measures 4-5 the textural departure from accompaniment to melodic writing in the right hand of the pianist is sufficient reason to insert a crescendo; 3) in measures 7-8, elongation of sixteenth-notes and a strong fortissimo level by the trumpeter is required to bring out dissonant clashes in the harmony; 4) in measures 10-11 a crescendo should be incorporated into the pianist's part to emphasize a non-chord tone, a-flat', and a pitch, d-flat'', which completes a p2s vertical arrangement; and 5) in measures 12-14 stressing c'', g-flat', and d-flat' is necessary to accentuate

dissonance.

While it is impractical to consciously realize each interpretative inflection while performing measures 1-16, it is not wasted effort to examine the textural relationship of White's themes. Of course these melodies move along so rapidly that many listeners may never sense the subtle dissonance of simultaneous melodies, but attention to features of White's textural relationship in the preparation stages by both performers ensures the melodic appeal of measures 1-16--and indeed the whole movement.

In the remaining sections of the exposition, White uses single and simultaneous melodic lines to form alternating degrees of tension; when heard above the chordal scheme several non-chord tones are formed in the scores of both performers. While it is possible to suggest a number of specific performance decisions for the accentuation of dissonance, it is appropriate to now urge the reader to use analytical procedures previously submitted to look for dissonant pitches in the textural relationship of melody and harmony and to then form individual interpretative opinions--preferences which reflect personal taste and performing experience.

DEVELOPMENT

In the course of the development the pianist explores three themes and three motives. Even though normal developmental procedure is displayed where manipulation of former material occurs, deviation from conventional technique is evident with the specific statement and treatment of a new theme and by White's technique--similar to his theme and variation treatment of motive a in the second movement--of incorporating variations of a single idea into the musical fabric of the entire development. Omnipresence of one motive, the occasional use of other motives from both principal themes, and melodies which either resemble themes used in the exposition or which themselves are transpositions of new themes--all are included into four successive sections in the development. Specific divisions in the development section correspond with either passages of the exposition or with measures in the development itself.

Figure 9: Sectional Design of the Development

Section	Measures	Theme	Motive	Corresponding Measures
1	55-67	One	a, b	17-29
2	68-87	Two	b, c	30-39
3	87-100	Three	b	68-87
4	101-112	---	b	68-87

Melodic Material of the Pianist: Measures 55-67

In measures 55-61 a right hand melody of the pianist is combined

with two interpolations by the trumpeter to complete a melody reminiscently relating to the varied reappearance of theme one in measures 17-29; in measures 62-67 numerous variants of motive a and b employing intervallic and rhythmic changes are interspersed with p2s units. The scale organization of melodic material in measures 55-61 is from the Mixolydian mode built on A-flat; the motives of measures 61-67 are similarly organized by scalar degrees outlining E-flat major. While modal influence conforms with practice observed in the exposition, the choice of the Mixolydian mode here has value: the Mixolydian mode asserts by virtue of its structure a close relationship to the formation of the major scale; the only difference is the absence of a leading tone implication.

Two features typical of twentieth-century practice are also evident. First, economy of scale degrees exists in material of most ordinary contour; or to put it another way, very few nonharmonic tones are indicated in the melodic pitches of the pianist; only a'-natural in measure 67, which implies a Lydian inflection, may be called nonharmonic. Second, while basic interval succession in the pianist's material shows broken forms of p2s structures, there are step progressions and tertian intervals which are interspersed at regular intervals. Successive interval patterns iterate ~~once~~ again White's characteristic use for continual, if not rapid, alternation of clear but differing sonorities.

Measures 68-87

In measures 68-87 the pianist presents a different version of theme two by first issuing a three-bar literal transposition at a pitch level a major second lower (measures 68-70) and a three-bar continuation of the same theme which employs deviations from the original thought (measures 71-73): slight differences in rhythm, interval structure, and melodic motion. The right hand rendition just described is simultaneously stated with theme three by the trumpeter and with melodic fragments in the left hand that are similar in rhythmic design to motives of theme two but are made up of p2s interval relationships instead of the initial tertian patterns.

Melodic pitches of both hands of the pianist in measures 68-87 adhere to the Dorian mode except for a brief modulation to D major in measures 70-71; both tonal levels contrast with the initial Aeolian mode at the levels of F and D of theme two when first introduced. In addition, White uses rhythm of simultaneous melodic phrases to diverge from the previous melodic-accompanimental texture and to draw special attention to the development of theme two. It is interesting to note the effect of composite rhythm which is produced successively by the rhythmic nature of both parts.

Measure 68	69	70	71	72	73	
Rhythm	♩ ♩	♩ ♩ ♩	♩ ♩ ♩	♩ ♩ ♩	♩ ♩ ♩	♩ ♩

Economy of rhythmic units now makes a substantial contribution to compositional unity.

In the remainder of section two, motives are successively stated in three-bar patterns and antiphonally traded between the left and right hands of the pianist. White's primary concern here is the number of permutations that can be achieved with the rhythmic and intervallic alteration of motives b and c. Devices which are used for motive b include: deletion of pitch or pitches, change of interval, sequential repetition, and inversion; devices which are used for treatment of motive c include: inversion, change of pitch, varied repetition, and imitation. With manipulation of both motives, unity is achieved by the repetition of a limited number of rhythms; variety is accomplished by the varied repetition of rhythmic patterns.

Measures 87-100

Whether melodic material in measures 87-100 consists of a theme or related to a prominent motive, White is primarily interested in creating the musical attitude of relaxation; i.e., a temporary reduction of melodic activity which provides a brief respite from the relatively complicated score which preceded. Less musical activity also establishes the preparation for the following rapid succession of melodic display in the final measures of the development--and the recapitulation.

Reduction in melodic force is accomplished in two ways which are interrelated: by the nature and limited amount of melodic material, and by rhythmic augmentation. More explicitly, measures 87-100 is

comprised of a single restatement of the first portion of theme three at a pitch level a major second higher and only two fragmented versions of motive b heard in sequential alternation. Rhythmically, the emphasis on the rhythm of half notes and quarter notes for the construction of the partial restatement of theme three and the eighth-note, quarter-note design of motive b combines to contrast with the basic rhythmic design used in prior melodic material.

Melodic material in measures 87-100 is organized by pitches of the Aeolian mode built on D, a pitch which is itself clearly asserted in a tonic pedal point in measures 94-100. The interval construction of the initial segment of theme three consists primarily of stepwise motion, with one diminished third, one perfect fifth, and one minor third indicated in measures 90, 92, and 94 respectively. Comparison with the same fragment stated by the trumpeter in measures 68-80 reveals that prolongation of certain pitches occurs in measures 91-92 and rhythmic extension of its final pitch appears in measures 94-100. Even though White's desire for continual variation in his melodic themes accounts for augmentation in rhythm of measures 91-92, the prolongation of D has a more important functional purpose: as a tonic pitch, an effective tritone-relationship is created both simultaneously with the A-flat in the left hand of the pianist and successively with the A-flat major chord that is heard on beat one in measure 101. The juxtaposition of D and A-flat in both melody and harmony emphasize White's characteristic usage of the tritone for tension

production. Dissonance introduced by the assertion of a-flat' in measures 87-94 is prominent, even though substantial energy is created by the chromaticism of theme three and by numerous dissonant relationships in the harmonic structure.

An interesting feature of White's melodic writing is the use of the diminished third in measure 90. While accepted twentieth-century practice for melodies exhibiting chromatic structure is to use a pitch spelling which facilitates reading and playing, White uses the diminished third instead of a major second to disguise the overall construction of the melody and to emphasize the pitch of G as a dominant pitch to the subsequent sustained iteration of D.

Measures 101-112

Motive b is used exclusively by the pianist in measures 101-112. Organized into three-bar phrases motive b is subjected to varying degrees of repetition within each phrase and to repetition of entire phrases in a variety of ways: 1) in measures 101-103 motive b is imitated a perfect fourth higher, extended with melodic descending seconds, and accompanied by planing triads; 2) while the three-bar pattern in measures 104-106 repetitiously reflects the former three bars at a pitch level a fifth higher, motive b undergoes repetition a major second lower, is extended by dissimilar p2s figurations instead of descending major seconds, but is yet accompanied by planing triads; 3) the three-bar fragment in measures 107-109

constitutes an exact repetition of the preceding three bars an octave lower but with an accompanying bass line of scale material instead of planing chords; and 4) the three-bar phrase in measures 110-112 displays the influence of motive b in rhythmic and intervallic structure but employs melodic inversion and rhythmic augmentation.

There are two other features pertaining to White's motivic development. First, stepwise and/or tertian construction of motive b as it appeared in theme one is transformed into a p2s construction. Application of p2s figuration at this point in the development not only highlights the manipulative technique of the composer but also proves to be an excellent modulatory device: each tone of the p2s structure may serve as a tonic and any tone which is stressed or on which a cadence occurs tends to assert itself as such. For this reason in measures 101-112 motive b destroys the remembrance of D as a tonic pitch in measures 87-100 and instead prepares an atmosphere which asserts the next important pitch level, that of F which is heard in measure 113. Second, in the rest of the development the pianist is more or less restricted to a range emphasizing the middle and lower keys; in comparison, measures 101-112 utilize a wide gamut of pitches in a relatively short time. In actuality measures 101-112 seem to function more as a transition than as a summation of a section of the development.

Interpretative Application

There are a number of interpretative principles which can be extracted from the melodic material of the pianist in the development. First, melodic ideas vary in length, longer themes divide into phrases, and phrases themselves divide into motives--each of which is delineated by clear cadences. The location and distribution of these cadences is important; then the symmetrical and logical phrase structure of White's melodic material may be conveyed.

Second, ever present and continually changing motives must be clearly articulated regardless of whether they are part of a larger theme or whether they are isolated in some sort of developmental device. While it is impossible to convey in some observable way every melodic and rhythmic device, it is possible to organize rubato technique and dynamic fluctuation according to the construction of the motive itself: stress for tertian motives, subtle dynamic nuance for stepwise units, no gradation whatsoever for p2s motives, prolongation of functional pitches--these are some of the ways in which differing units in the development can be accentuated.

Third, the influence of modes and major scales is important. While modes in particular are distinctive to early twentieth-century melodic writing, the non-functional way in which White uses both modes and major scales is itself a common feature of modern composition. While melodies are tonally conceived and are related by virtue of their individual tonal centers, there are a number of concepts which

may aid the pianist in the overall organization and understanding of melodic material in the development section. 1) Modes and scales inherently involve the use of a limited number of notes from a fixed pattern as the basic material. If the pianist conscientiously sorts out individual members of each scalar organization, it is possible to determine relative importance between structural and non-structural pitches; generally those pitches with the greater relative rhythmic value emerge as structural tones. 2) Certain pitches in scales and (to a lesser degree) modes do indicate tonal motivation, i.e., tonic and dominant. Whether or not specific performance technique is needed to emphasize such pitches is not as important as it is to have a clear understanding of which pitches in a particular melody determine tonal orientation. 3) The admission of other notes in a melodic line organized by modes or scales makes it possible, of course, to determine nonharmonic tones. While there are exceedingly few "extra" pitches in developmental material, when auxiliaries do occur they should be emphasized in one of several different ways.

Trumpeter's Melodic Material: Measures 68-87

The last melody to be examined is theme three, stated in measures 68-87 by the trumpeter.

Example 27: Movement Three, Measures 68-87



There are several distinguishing musical characteristics in the various portions of theme three. 1) Measures 68-75 emphasize stepwise movement and is mainly organized by pitches of the Aeolian mode structured on c' except for the raised third and flatted fifth scale degrees in measure 71 which are successively stated as a diminished third relationship. Here the use of a diminished third disguises melodic direction and psychologically demands that f' in measure 72 is perceived as functional. 2) Measures 76-80 uses fourth, fifths, and seconds for interval structure and, without d' in measure 80, adheres to A-flat major. In measure 80 d' constitutes a Lydian inflection and prepares the modulation return to the tonal level of C. 3) Measures 82-87 contains p2s intervals with scalar organization once again of the Aeolian mode built on c'. Of particular interest is the deliberate reference to theme one of movement one (in measure 83) heard in diminution.

Two factors which contrast with melodic material of the pianist and thematic material in the exposition are pertinent: 1) in

comparison with theme one and developmental material stepwise motion and long rhythmic values exhibited in theme three are at once expressive; and 2) even though slurred articulation has been used before in portions of principal themes, the entire third theme calls now for legato technique.

Harmonic Material

The harmonic accompaniment in the development is formed principally by chords in the left hand of the pianist with a few instances of melodic fragments that do not relate to prominent themes in movement three. Contrast is apparent in several ways: 1) by the pattern of chordal and either prominent or background motivic units; 2) by the systematic use of sonorities between and within sections; and 3) with differing structural factors of the chords themselves: differences in range, scoring, and rhythmic values. In general, two facets of White's harmonic scheme are at once omnipresent: the use of planing as a central device, and a clear harmonic rhythm that is shorter when coloristic qualities of chords are emphasized and of longer duration when functional usage of sonorities is implied.

In measures 55-67 smooth bass line movement is united with smooth melodic style to form a section of simple design. In one place a type of function is perceived by bass note movement which ascends by a perfect fourth and descends by a perfect fifth: measures 65-67. Therefore the pianist must keep chordal accompaniment before

measure 65 in strict tempo, using the pattern of falling and rising seconds in the bass line as musical indicators; then when the rise of the fourth takes place--disguised by a quarter note rest--and when the later descent of a fifth occurs, the listener must be made aware of differences in bass line construction and the modulation to a different tonal level.

While some of the pianist's music is comprised of contrapuntal melodic material in measures 68-87, chords do appear in clearly organized sonorities: 1) after sequential development of motive c the left hand of the pianist continues in measure 71 with four bars of planing major triads in second inversion and smoothly transforms in measure 75 into a five-bar pattern of planing p2s chords; 2) then, after a reference to motive b section two concludes with consecutive chords in measures 85-87, respectively comprising sonorities with p2s and p3mn2s3d chemistry. While the chordal pattern in measures 71-79 is used by White for parenthetical color, the chordal succession in measures 85-87 is created to establish the next tonal level of D-flat. White disguises the functional relationship between chords in measures 85-87 by the conventionally improper spelling of a major triad in measure 86 and by the use of an inversion of the same chord. Upon further observation, if f-double flat is respelled as e-flat--a pitch which is observed in the right hand of the same measure--then A-flat is the root of a major triad in first inversion.

In section two, chords are also used to highlight simultaneous

melodic activity. In measures 71-79, for instance, interval succession in bass movement is the same as the interval construction in theme three: bars 72-75 display a progression of seconds which complements the construction of segment one in theme three (measures 68-75) even though melodic direction is opposite; and bars 76-80 show bass movement by fourths and a major second which reflects the p2s construction of the second portion of theme three.

There are two interpretative deductions that are pertinent to White's harmonic scheme in measures 68-87: 1) coloristic and functional use of chords makes it imperative to accentuate resulting differences in bass line movement, even if functional relationships are not clear; and 2) succession of chords and motivic development in the accompaniment of the whole passage make it necessary to stress articulative technique that emphasizes support.

In section three, chords are found only in bars 87-94. Used for coloristic and harmonic support, chords reinforce the pianist's version of the initial part of theme three. While the left hand of the pianist is scored for chords consisting of a perfect fifth with a doubled root and melodic octaves, the right hand is comprised of parallel moving minor triads, a single p2s chord, and a dissonant seventh chord (pm2ndt) in measures 93-94 respectively. Again clear organization in sonority is evident for lines which may or may not be independently conceived: sonorities in measures 87-94 are the same as the pattern of tertian-quartal chords which exists in measures

68-87. Inasmuch as the overall range in measures 68-87 is similar to measures 55-67, in measures 87-100 chords in the lower part of the keyboard primarily accentuate the rich expressive character of theme three but also collectively vary the organized body of sound in the entire development. Furthermore, melodic writing and chordal support display rhythmic augmentation and a slower harmonic rhythm than is evident in other passages (prior to measures 87-100).

An important interpretative consideration for measures 87-100 is to concentrate on pedaling technique that delineates the deep, heavy chordal pattern into clear articulated sonorities. One problem, of course, which stems from the inherent design of the keyboard instrument is how to maintain intensity for sustained chords when decay in volume naturally results. Proper pedal facilitation in measures 87-94 especially makes isolation and continuation of sonorities possible and provides clear definition between the last few bars of section three where development of motive b takes place and, probably, pedal depression is unneeded.

Planing tertian triads in second inversion, a descending scale fragment, and permutations of motive b constitute the harmonic support in measures 101-112. Showing the same organizational pattern of tertian-quartal succession as measures 55-87, the wide range of chords in measures 101-112 is used for the same purposes as extensive range of melodic development: to differentiate musically the sectional design of the development and to modulate. In general, less pedaling

permits precise perception of rapidly planing chords and descending fragments. It is better to concentrate more on the rhythmic design of accompanimental material than on particular sonorities in the harmony, for White is more interested with a clear display of motives.

Texture

In view of the interpretative-analysis of melodic material and harmonic structures that has already been submitted, there is little that can be said about the textural relationship in the development without being redundant. It is enough to state that there are a few places where juxtapositions of major or minor seconds between parts of the trumpeter and pianist are significant. 1) In measures 72-73 the g', a-flat' and e-flat'' are important because they clash with harmonic accompaniment in those same measures. 2) In measures 76-82 some pitches in both parts are important for tension production because of their position in the melodic material and because of their rhythmic value: the d-flat'' in measures 76-77 and the a-flat'' in measure 78 of the trumpeter are prime examples; the f' of the pianist in measure 81 is another indicator.

THE RECAPITULATION AND CODA

Measures 113-123

Compositional ingenuity marks the beginning of the recapitulation. While the return of prominent thematic material in measures 113-123 is clearly discernible, White disguises recapitulation in three ways: 1) with a version of the principal theme by the trumpeter that represents the rhythm and interval patterns of both thematic statements formerly heard in measures 1-29; 2) by a simultaneous right-hand melody of the pianist which uses the same interval patterns of various portions of the trumpeter's statement but which clouds the inherent relationship with rhythmic augmentation and by extensive range; and 3) by the "wrong" tonal level of F with which the accompanying chords begin in measure 113 (the correct level of B-flat is heard in bar 124).

More explicitly, White scores a theme for the trumpeter which successively combines phrases of both versions of theme one in the exposition: measures 113-115 constitute a literal repetition of measures 1-3 except for a single pitch change, g'' in measure 115 is scored instead of f''; measures 116-121 show clear delineation of the varied rendition of theme one in measures 18-23. While the last portion of the trumpeter's theme begins at a higher pitch level than in the exposition, the melody finishes at a lower pitch level than its

counterpart because of slight internal interval changes and one motive extension in measures 116-121, and because of the continuation of interval patterns which exist throughout the theme or short modulatory pitches which exist in measures 121-123. Now the trumpeter's theme is based on scale organization which differs either from the mode of the original statements, or, when the same scale is used, from the initial tonic pitch: measures 113-118 emphasize Lydian mode construction on F and measures 119-122 use G major.

Melodic material used by the pianist in measures 113-123 exploits the high range of the keyboard as accompanimental material does in measures 17-29. The pianist's melody displays scalar organization that corresponds with the trumpeter's theme and which uses melodic devices that specifically reflect the trumpeter's theme in two ways: 1) pitches and rhythm in measures 115-119 are an augmented version of pitches and rhythm of the trumpeter's line in measures 116-118 beginning with a''; and 2) the material in measures 122-123 mirror the opening pitches of the trumpeter in measures 113-114. The use of an accompanying melody which reflects the principal theme is an important way in which White establishes variety in the recapitulation. What is perhaps equally significant is that the melody of the pianist rather abruptly uses the high register, for extensive range not only creates a balanced framework between the normal compass of independent melodies but high tessitura also contrasts with the low range evident at the end of the

development. In spite of a dynamic scheme which is generally lower than that of the trumpeter's theme, the pianist's melody should be projected with clarity in order to emphasize the abrupt change in accompanying texture.

In measures 113-123, harmonic structures are extracted from the scale organization; they are predominantly p2s sonorities heard in planing motion. One difference is noteworthy: the use of a full minor-minor seventh chord in measures 117-118 is the first time that such a tertian chord has been stated in root position in a single part. The inclusion of an identifiable tertian chord in conventional structure is not coincidental, for it does serve to reinforce strongly the incomplete p2s chord in the right hand of the pianist and to elevate the perception of dissonance when heard with simultaneous structural pitches of the trumpeter in measures 117-118, a major second removed.

Whether textural analysis is completed by relating both parts of the pianist with one another, combining both melodic lines with one another, or by examining the entire fabric of measures 113-123 in a harmonic reduction, three features are recorded: 1) most pitches of melodic ideas are mirrored in the accompanying chords; 2) non-chord tones which do exist may be "incidentally" composed; and 3) varying degrees of dissonance are created by juxtapositions which emphasize the intervallic relationship of major or minor seconds.

As one perceives measures 113-123, one senses that dynamics,

range, and rhythm in the trumpeter's part contribute to alternating sensations of stress and relief: 1) the first clash between melody and accompaniment occurs in measures 116-118 and is marked by a forte marking in the trumpeter's part, enhanced by syncopation and rapid rhythms in descending motives, and initiated with a pitch (a'') that constitutes the highest pitch of the entire melody; 2) another strong clash is observed in measures 120-121 where a forte level is indicated, where syncopation reappears, and where f-sharp'' temporarily emphasizes the juxtaposition of major seconds. Naturally, melodies and accompaniment move along so rapidly that many times isolated dissonance may not be entirely perceptible. But due to the fact that the pianist's melody has more sustained pitches, the clash of seconds is more noticeable here than in corresponding sections of the exposition.

Measures 124-139

Measures 124-139 of the recapitulation comprise the complete restatement of the principal theme. Even though the initial two bars of the melody are heard at a different pitch level, the remainder of the theme is melodically an exact repetition but with slight articulative changes. Even though the harmonic scheme matches the original tonal level heard in section A of the exposition, initial pitch changes do form a different scalar organization than before: measures 124-131 now reflect the Mixolydian mode (measures 132-138

still use a Dorian organization for its structure).

Variety is manifested in the accompanying melody of the left hand: measures 126-131 contain a segment which alludes to the accompanying melody of measures 1-16 but which more precisely imitates the trumpeter's melody in measures 116-118 of the previous section. Motives in two rhythmic patterns are used: a dotted eighth-sixteenth pattern for measures 126 and 129; and a pattern of an eighth and two sixteenths for the remaining measures. Imitation within theme one and imitation of other melodic material in measures 124-139 once again conforms to the central purpose of recapitulated material: to reinforce the initial image and to reorganize central thoughts after development of varying ideas. Thus the second portion of the pianist's melody in measures 132-138 reaffirms, by virtue of its exact relationship with bars 9-15, a commitment to systematic restatement.

Even though minute changes in harmonic structure are evident in measures 124-131 because of melodic changes, the basic succession of sonorities is similar to measures 1-16. Musical differences include: 1) a cadence on D-flat in measure 138 instead of C-flat; and 2) fanning of melodic material with other motives and two major triads in second inversion instead of octaves that were formerly used in the exposition. Sesquialtera enhances the modulatory function of measures 138-139 in preparation for the coda.

Because melodic formation and harmonic accompaniment are essentially the same, the textural relationship and interpretative conclusions are also synonymous. But because of a different consequent portion to the melody of the accompaniment the pianist must clearly project the right-hand material in measures 126-131 over the melody of the trumpeter in order to create textural contrast.

Coda

As an individual section the coda is comparable in length to any other division in movement three, but in terms of design it deserves special recognition because it reasserts textural features, melodic elements, and compositional devices that are found in various portions of the exposition, development, and recapitulation. White's lack of strong thematic structure in the coda in favor of motivic manipulation expertly distracts the listener's expectation; a miniature developmental episode instead of the return of the second theme is evident.

In the coda, manipulative technique reminiscently depicts the growth section with the succession of ~~and~~ sequential treatment of p2s motives: repetitious rhythms are applied to new and old interval patterns, important motives are augmented; similar and dissimilar chords are juxtaposed; like and unlike elements are observed in fanning technique; and tertian and p2s structures are evident in planing fashion. Of special interest is the simultaneous

relationship of separate elements that produces considerable tension in two places: in measure 144 vertical sesquialtera exists with melodic triplets in a Phrygian scale of the right hand and with left-hand eighth notes, one of which signifies a Lydian inflection; and in measure 145 the p2s chord in the right hand is heard with an incomplete p2s chord in the left hand resulting in a dissonant p4mm2s3 chemistry.

The coda introduces one new technique in the final measures which is peculiar to twentieth century composition: pandiatonicism. Defined as the use of a diatonic scale without conventional harmonic implications, measures 145-151 emphasize g minor entirely for melodic and harmonic material. White does revert to conventional style by using octaves in the last two measures in a traditional dominant-tonic relationship. Perhaps the best reason for such technique, however, is color--color which accentuates the final augmentation of motive a in theme one as heard in the extreme upper range of the trumpeter. It is fitting that a new technique is used to close a movement where novelty is achieved by the everchanging nature of its ideas and by its treatment for or variation of these thoughts--another way to depict the atmosphere of "rollicking good humor".

CHAPTER 2

A COMPARISON OF DONALD WHITE'S SONATA WITH THE TRUMPET SONATAS OF PAUL HINDEMITH AND KENT KENNAN

There are significant compositional similarities and differences between the Sonata for Trumpet and Piano (1946, published 1967) by Donald H. White and two works that are representatives of the same genre: the Sonata for Trumpet in B-flat and Piano (1939) by Paul Hindemith (1895-1963) and the Sonata for Trumpet and Piano (1956) by Kent Wheeler Kennan (1913-). All three works display a compositional style which may be regarded as typical of sonata literature for trumpet during the twentieth century, especially during the period from 1935-1960. What we attempt to accomplish in the following pages is the collation of form, melody, rhythm, harmony, and texture among these three works; then on the basis of these observations and information acquired from the interpretative-analysis in Chapter One, an evaluative summary of White's sonata is submitted.

Form

The three works delineate the influence of Classical forms. As Figure 10 indicates, each composer makes use of either Sonata Allegro form or a sectionalized format for individual movements.

Figure 10: Formal Contrast Within the Sonatas by Hindemith, White, and Kennan

	<u>Hindemith</u>	<u>White</u>	<u>Kennan</u>
<u>Movement One</u>			
Form:	Sonata Allegro	Sonata Allegro	Sonata Allegro
Expression:	With Strength	Fast & Marked	With Strength & Vigor
Tempo:	$\text{♩} = 96-100$	$\text{♩} = 116$	$\text{♩} = 126$
<u>Movement Two</u>			
Form:	ABAB	AA'B	ABA
Expression:	Moderately Agitated	Slow & Expressive	Rather Slowly & With Freedom
Tempo:	$\text{♩} = 100$	$\text{♩} = 60$	$\text{♩} = 66$
<u>Movement Three</u>			
Form:	ABAC	Truncated Sonata Allegro	Sonata Allegro
Expression:	Funeral Music	Spirited	Moderately Fast With Energy
Tempo:	$\text{♩} = 46$	$\text{♩} = 138$	$\text{♩} = 120$

Despite the fact that Hindemith diverges from a conventional fast-slow-fast sonata design to an arrangement in which the slowest movement appears last, each composer has prepared a dramatic work which not only requires inherent expressive capabilities by both performers but also which incorporates three major yet different expressions.

Secondly, a brief synopsis of the three sonatas shows that formal variation within movements is determined principally in four

ways: 1) by the nature and number of themes; 2) by the degree, succession, and type of motivic development; 3) by the use of non-classic but logical tonal centers for micro-divisions; and 4) by the repetition of sections which contain thematic material. In support of these conclusions, a general review of thematic and motivic considerations limited to first movements is submitted; then a brief discussion of tonality in initial movements is issued; and, finally, comparative analysis of large-scale repetition in each sonata is given.

Thematic and Motivic Comparison

Hindemith uses two themes in Sonata Allegro form in the first movement to emulate the representation of musical power.

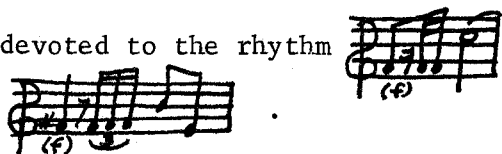
Figure 11: Hindemith Sonata: Sonata Allegro Design of Movement One

<u>Section</u>	<u>Theme</u>	<u>Measures</u>
Exposition	Principal Thematic Material	1-29
	Transition Material	30-46
	Contrasting Thematic Material	47-66
Development	Principal Theme	67-84
Recapitulation	Contrasting Thematic Material	85-106
	Transition Material	107-126
	Principal Thematic Material	127-142

In the various sections of movement one several features supplying formal contrast are present: 1) statements of the principal and contrasting themes in original, abbreviated and varied form; 2) sequential development of themes, key motives, and/or accompanimental figures; and 3) consistent contrapuntal texture where either

chromatic melodies and harmonies move simultaneously or where prominent material is imitatively stated by both trumpeter and pianist.

Kennan employs Sonata Allegro form in movement one but, in difference to Hindemith's work, there is motivic development in the exposition, recapitulation, and coda as well as a new theme introduced in the coda. In the micro-form of movement one Kennan basically explores fanfare style, for developmental passages are devoted to the rhythm



from the main theme and the variant

Figure 12: Kennan Sonata: Sonata Allegro Design of Movement One

Section	Melodic Material	Measures
Exposition	Principal Theme (A)	1-9
	Development of A Motive	10-25
	Variation of A Motive	26-37
	Transition	37-48
	Contrasting Theme (B)	49-62
	Development of B Accompanimental Figure	63-74
Development	A Motive	75-88
	Transition (Using A)	89-92
	B Motive	93-101
Recapitulation	Principal Theme	102-110
	Development of A Motive	111-124
	Transition	125-136
	Contrasting Theme	137-150
	Development of B Accompanimental Figure	151-163
Coda	Augmentation of A Motive	164-178
	Theme Three (C) With B Motive	179-188
	Varied Statement of Principal Theme	189-210

In movement one several features are exhibited which confirm

differences in style from Hindemith's sonata: 1) there are fewer restatements of entire themes and more varied repetition or motivic development; 2) while sequential and imitative textures are numerous, there is now more melodic material and development scored for the pianist and more melodic doubling by the pianist; and 3) there is evidence of more chordal support even though rapidly moving melodies and harmonies are simultaneously juxtaposed.

Means of contrast is decidedly less complex in the Sonata Allegro form of White's first movement. A summary of the interpretative-analysis in Chapter One reveals the following techniques in formal structure: 1) principal sections in the exposition and recapitulation display statements--varied successively and simultaneously--of the main theme and accompanying variation of prominent motives; 2) transition passages employ secondary themes exhibiting differences in scoring, length, and structure; 3) contrasting sections incorporate lyrical melodic material formed by the succession of two themes in periodic phrase structure; and 4) the development consists of three variations of the principal theme, sequential development of p2s fragments and important motives, and variation of chordal color. In response to previously discussed features of the other sonatas, there are primarily four stylistic differences: 1) White relies more on complete restatements of prominent material than Kennan; 2) more simultaneous motivic development and thematic statement occurs in the scores of Hindemith and Kennan; 3) sequential development is more

closely related to Kennan's style than to Hindemith's style; and
 4) unlike either composer, evidence of contrapuntal influence is scarce: the primary role of the pianist when not stating or developing prominent thematic material is that of providing chordal color.

Comparison of Tonality

One point must be highlighted when comparing formal structure: because themes or motives function in the three works as points of departure for formal organization, tonality plays an important role in the aural perception of large-scale contrast. While the concept of tonality has changed substantially in recent times, the formal organization of melodic material by tonal centers is unmistakably evident. For example, the tonal levels (or key centers) at significant places in the first movements of each sonata show logical progression and order.

Figure 13: Significant Tonal Levels Within the First Movements of Sonatas by Hindemith, Kennan and White

	EXPOSITION				RECAPITULATION	
	<u>P.T.</u>	<u>C.T.</u>	<u>DEVELOPMENT</u>	<u>P.T.</u>	<u>C.T.</u>	<u>Final Level</u>
Hindemith:	B-flat	C-sharp	A	D	B	B-flat
Kennan:	e-flat	d	F	F	e-flat	E-flat
White:	F	g	A-flat	b-flat		B-flat

As Figure 13 indicates, the overall progression is from tonic to tonic in Hindemith's sonata, from a minor key to its parallel major key in

Kennan's work, and from tonic to its corresponding subdominant level in White's sonata; digressions in the three works are intervallically related by remote tonal relationships. In summation, two principles may be extracted from tonal organization: 1) sonatas with obvious tonal centers achieve variety by modulation and unity by returning to the original level of tonality or to other key centers which may be unconventionally related; and 2) in digressions, remote tonal relationships are sometimes exploited for their own sake and as part of overall structure--but logical relationships still prevail.

Techniques of Large-Scale Repetition

In the three sonatas techniques of large-scale repetition are evident which display many similarities and few but significant differences in compositional style. Hindemith uses primarily four techniques to vary the sectional design and thematic succession in his sonata. 1) In movement one, literal repetition with change in scoring is the device Hindemith uses to restate the contrasting theme at the beginning of the recapitulation; now the pianist instead of the trumpeter projects an exact replica of the lyrical theme in the exposition (compare measures 47-52 and 85-92). 2) In the second movement theme one, initially stated by the pianist (in measures 1-13), is restated by the trumpeter (in measures 59-69) with two musical differences: an accompaniment of p2s units in triplet rhythms, and a new contrasting phrase which is a variant of a phrase

previously introduced by the trumpeter (in measures 3-5). 3) In movement three, restatement of theme one (in measures 52-58) by the trumpeter with rhythmic augmentation of key pitches relates to the initial statement by the pianist (in measures 1-7); but now a different accompaniment is supplied by the pianist. And finally, 4) in movement three the literal repetition of theme one with no difference in scoring but with melodic extension and slight accompanimental changes occur (compare measures 7-12 and 58-63).

Kennan's sonata displays traits that are exhibited in Hindemith's work but he also uses sectional transposition with or without thematic and accompanimental alteration and the introduction of new themes to create large-scale contrast. One example of literal repetition exists in movement two: a literal but abbreviated iteration of theme one and its accompaniment with harmonic changes in the latter harmonic portion (measures 56-67) constitutes large-scale repetition of the initial statement (in measures 4-16). Three musical examples of sectional transposition suffice to document the emphasis that Kennan places on this technique. 1) In movement one the principal theme reappears in the recapitulation at a level a major second higher than its original statement (compare measures 1-9 and 102-110); and developmental passages and sections using contrasting thematic material in the exposition reappear in the recapitulation at a level a minor second higher (compare measures 25-75 and 113-164). 2) Within the B section of movement two (in ABA form), two statements of theme

two are evident, the second of which displays the augmentation of the initial phrase and the exact restatement of the second phrase at a level a major second higher (compare measures 22-32 and 41-51). And 3) in movement three the repetition of theme three (measures 90-103) at a level a minor third higher marks the beginning of the recapitulation; now motives from theme one are evident in the accompaniment and the trumpeter instead of the pianist states the chorale-like theme. Finally, two examples of the introduction of new themes are apparent in Kennan's sonata: in the coda of movement one (measures 179-182) and the recapitulation of movement three (measures 117-122).

By comparison, White uses techniques cited above and new techniques to prepare large-scale contrast in his sonata. Numerous examples illustrate this correlation. Like Hindemith and (to a lesser degree) Kennan, literal repetitions are evident: 1) in movement one the principal theme, its accompaniment, and subsequent material in the exposition (measures 1-21) reappear with only slight changes in the recapitulation (measures 98-118); and 2) in movement three the principal theme and its accompaniment (measures 1-15) reappear in the recapitulation (measures 124-138) exactly except for the initial two bars which employ slight rhythmic and intervallic differences. Similarity to Kennan's style is also evident by the use of transposition and the introduction of new themes by White in his work. Four examples are pertinent. First, in movement one, transposition

of contrasting material at a level a minor third higher occurs (compare measures 36-56 and 128-148). Second, in the same movement, White uses new themes for transition passages in each major division of Sonata form (compare measures 30-35, 89-97, and 123-126). Third, in the second section of movement two (measures 22-57) White uses several devices: 1) literal repetition and change in scoring for theme one, 2) transposition at a level a major second higher and change in scoring for theme two, 3) the introduction of a new theme, and 4) the literal repetition of theme three and its accompaniment, only now with the parts (in measures 3-21) of the trumpeter and pianist interchanged. Fourth, in movement three a new theme is exposed--unlike the other sonatas--in the development. Differences in supplying large-scale contrast within movements by White are recorded with a device used in movements two and three: the "theme and variation" treatment of a single motive which appears throughout movement two; and the incorporation of variations of a single motive into the fabric of the entire development in movement three. Motivic manipulation used by White as a means of formal contrast is, by comparison, innovative.

In conclusion, forms and formal techniques in the individual movements of the three works show the following traits; 1) contrast by forceful themes that establish tonality and are set in motion by prominent rhythm with secondary themes which are often constructed with contrasting rhythmic flow and typically exploit cantabile

expression; 2) easily recognizable musical features which make possible the aural differentiation of both developmental and recapitulatory techniques; and 3) transition sections, charged with responsibility of modulation, which typically have melodic material that can be flexibly changed through rapid tonal centers. Inasmuch as a number of manipulative techniques are used by the three composers, the listener senses almost continuous development regardless of the micro-design; correlation of specific organizational principles substantiates the fact that compositional unity is implicitly embodied in the variation concept.

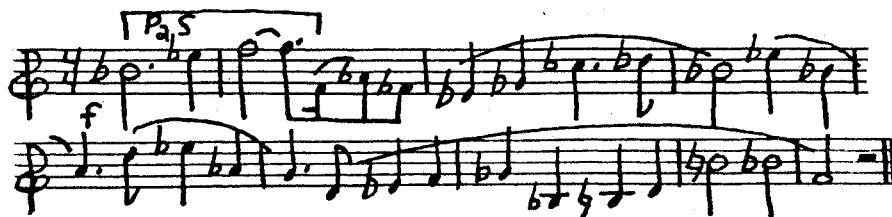
MELODY

While musical evidence supports the premise that melody is perhaps the most effective vehicle of expression in the three sonatas, it is simply not feasible in this comparative study to examine every melody or motive in great detail for two reasons:

1) much has already been said about the general nature and number of themes in each movement of the White sonata, and about methods of repetition and development among the three works; and 2) in actuality, there are many more similarities than differences in melodic design among the three works. Even though slight musical differences are apparent, they deal chiefly with the nature of melodic material in context or with the degree of emphasis placed upon a particular musical feature or manipulative technique--but not necessarily with general features of construction. Therefore, observations relating to the melodic analysis of principal themes in initial movements only are submitted in the following discussion.

Objective features of melodic material in the three sonatas reflect a continuation of conventional melodic contour and organization plus the incorporation of distinctive twentieth century practices. In the principal theme of Hindemith's first movement, differing moods of bold and lyrical playing are evident.

Example 28: Hindemith Sonata, Movement One, Measures 1-9



A p2s sonority is outlined in the first three pitches; then the melody contains shorter rhythmic units, and displays repeated motives constructed of fourths or seconds and thirds. Basic features include: chromatic scalar organization, an overall progression from tonic to dominant, longer rhythmic values in the beginning and at phrase endings, and a balance between the notes above and below the starting pitch.

Kennan also incorporates fanfare and lyrical style in the principal theme of movement one in his sonata.

Example 29: Kennan Sonata, Movement One, Measures 1-9



Again, p2s structure is depicted by the first three pitches, then sequential repetition of melodic fifths and fourths in fanfare rhythms and one phrase constructed with melodic seconds and thirds in flowing eighth notes follows. Conventional influence is evident by clear but irregular phrase structure, by the overall tonal progression

from tonic to tonic, and by the use of e-flat minor/Phrygian in the initial and final measures. Contemporary influence is observed with such musical features as change in meter, the tonal shift to E-flat major (in measures 4-6), and the invertible relationship between the first three pitches and the pitches in measure two. Of particular interest are the passing tones in measures 5 and 6: a-natural' constitutes a Lydian inflection; and g-natural' depicts a tonal shift to E-flat major.

Re-examination of the principal theme in White's first movement also reveals the internal contrast of bold and lyrical expressions, emphasis on p2s intervals, and motivic structure which produces internal repetition. Other features which relate to the examples cited above include: clear but irregular phrasing, an overall tonal progression, sequential repetition, and the chromatic scale as the basis for melodic pitches. While variation in length between these principal themes exists, the structure of each melody may be characterized by a quick ascent and a long gradual descent.

The contrasting theme within movement one of Hindemith's sonata is completely lyrical in nature.

Example 30: Hindemith Sonata, Movement One, Measures 47-54



Basic elements of Example 30 are the identical phrases in the first half, the similar beginning of phrase three, and a modulation to a pitch a minor second removed from the initial pitch. Like theme one, motion by fourths predominates, there is chromatic scalar organization, and there is a balance between the notes above and below the starting pitch. Hindemith also uses meter change, reduced range, and the emphasis now on literal repetition for internal structure.

Theme two in Kennan's first movement is entirely lyrical as well.

Example 31: Kennan Sonata, Movement One, Measures 55-63



Here a rapid ascent to high points near the beginning is followed by a longer sequential descent to the cadence. While sequences of this sort may become monotonous, here, particularly because of rhythmic variation, they provide a strong unifying factor. Like theme one,

theme two displays clear phrase structure, the alternation of parallel major and minor keys, and meter change; unlike theme one, Kennan's theme is stated in a different meter, contains shorter phrases at the end, and modulates.

Two completely lyrical themes in conventional periods are employed by White in his first movement. White scores several musical differences from the principal theme: greater length, more extensive range, more emphasis on seconds and tritones for motivic structure, the use of silence for climactic purposes, and two complete harmonic progressions (in the key of g minor).

Correlation of principal melodic material in initial movements as well as the examination of the entire thematic array in the three sonatas reveals several similarities. First, despite the fact that there is variation in style, design, and length, each composer presents single ideas consisting of one or more phrases which may or may not be contrasting. Second, chromaticism is a prevailing scalar organization, even though both major and modal scales are used. There is one important implication resulting from the emphasis on chromaticism: a great deal of variety in pitch material is possible without the functional restrictions of conventional scales, for with the chromatic scale, the only hierarchical relationship recognized is the tonic. There are, of course, clear overall progressions and tonal implications caused by successive interval patterns, but they remain free and independent of each other. Third, climaxes are most

frequently associated with the highest pitch; structure is most often identified with pitches of greater relative rhythmic value. Fourth, there is functional emphasis on intervals of the p2s entity, even though tertian structure is readily apparent: as a general rule, p2s organization more than tertian structure appears in significant portions of most melodies (and/or motives). Finally, whether or not these composers write spontaneously or with numerous revisions, they all exhibit the expertise to convey strongly contrasting moods by the nature and deployment of melodic material. It is the balance of strength and beauty of line that supplies basic contrast in their sonatas.

RHYTHM

In the trumpet sonatas, conventional stylistic features including time signatures, bar lines, and simple and compound meters are evident as well as rhythmic and metric techniques distinctive to twentieth century practice. While cataloging musical references for each new rhythmic technique is not feasible, a brief sampling of prominent techniques in the sonatas by Hindemith and Kennan is. First, in the final section of Hindemith's first movement (measures 127-142) Hindemith prepares an elaborate rhythmic framework by the simultaneous juxtaposition of two meters, 4/4 and 12/8. Here, a rhythmic dichotomy creates opposing stress tendencies: the natural recurrent accent of the trumpeter's theme (in 4/4 meter) is distorted by the multimetric phrase markings in the pianist's line.

Example 32: Hindemith Sonata, Movement One, Measures 127-130



While pitches in the accompaniment are stressed when they occur on the accented portion of each beat, Hindemith's designated articulation throughout the entire passage creates vertical sesquialtera; linear sesquialtera, caused by syncopation and quarter-note duplets in the piano part of the final two measures, is used to distort the sectional pulse and also points out another trait that applies to each sonata: often the aural perception of tempo variation is carried out by fluctuating melodic activity and by the rhythmic nature of the themes themselves. For this reason, in the final measures of Hindemith's first movement a retardation is emitted without fluctuation in tempo.

Kennan achieves flexibility in rhythm in the opening of the second movement (measures 1-15) by disguising normal rhythmic accents with linear sesquialtera and sesquitertia, rubato technique, and meter change.

Example 33: Kennan Sonata, Movement Two, Measures 9-15

The image shows a handwritten musical score for measures 9-15 of Kennan's Sonata, Movement Two. The score is written on three systems of staves. The top system includes a 'string.' part with a triplet of eighth notes and a 'CRESC.' marking. The middle system features a piano part with a triplet of eighth notes and a 'CRESC. 3P' marking. The bottom system includes a 'poco string.' part with a triplet of eighth notes. The score is marked with various dynamics including 'mf', 'p', and 'f', and includes tempo markings like '0 tempo'.

It is the gradual increase in rhythmic activity in the muted statement of theme one by the trumpeter and the slight rhythmic (or motivic) imitation in the piano part which heightens the arrival of the cadence (at measure 15).

In movement three of Kennan's sonata (measures 15-30) p2s intervals in ostinato groupings in the left hand of the pianist are combined with interpolated chords of the right hand and with theme two stated by the trumpeter; now several twentieth-century devices

are notated: 1) shifting accents in relation to the beat and bar line; 2) asymmetric division of measures; 3) asymmetric meters; and 4) changing meters.

Example 34: Kennan Sonata, Movement Three, Measures 22-30

The musical score is handwritten and consists of ten staves. It is organized into five systems, each containing two staves. The notation includes various musical symbols such as notes, rests, accidentals (flats and naturals), and dynamic markings (mp, mf, f). The score demonstrates complex rhythmic patterns, including asymmetric divisions of measures and changing meters, as indicated by the text above. The key signature is B-flat major, and the time signature is 7/8. The score ends with a double bar line and repeat dots.

P2s structures in 3/4 meter provide the accompaniment but in both parts rhythms are perceived as a combination of 5/8, 7/8, and 6/8 with the eighth-note as the basic unit.

In the first movement of Hindemith's sonata, metric contrast, created by natural clashes of polymeter, heightens the accumulative build-up of musical energy in a well-planned transition (measures 30-46) from the bold atmosphere created initially to the lyrical mood of the contrasting section. Basically, the pianist sustains momentum with staccato p2s units in sequential development in compound meter; the trumpeter issues slurred material employing prevailing use of chromatic seconds and thirds in simple meter.

Example 35: Hindemith Sonata, Movement One, Measures 37-38



In summation, rhythmic variety and intricacy are norms in the three sonatas, for rhythms and meters show both adherence to and freedom from arbitrary restrictions of the past. Three statements summarize the rhythmic similarities among the three works: 1) motives, phrases, themes, and even movements often contain prominent rhythmic elements; 2) each composer systematically achieves rhythmic variety

within constant measures and by varying the length and meters of various measures; and 3) pitches with the greatest relative rhythm are pitches with the most structural value in terms of stress or function. There are also differences in rhythmic and metric usage between each sonata. Kennan, for instance, makes more use of passages of free-flowing rhythms and employs asymmetrical divisions of beats. While Hindemith's sonata displays some asymmetrical divisions, he is generally more interested in the complex relationships between sections of constant yet different pulse and rhythmic design or between the simultaneous juxtaposition of different meters within a particular section. By comparison, White's sonata displays less emphasis on contemporary rhythmic and metric techniques; instead, he consistently uses simple rhythms of traditional meters which make only minor but--at times--striking departures from conventional practice (primarily through sesquialtera). Even though White's sonata does not display the same level of temporal complexity, White's work, nevertheless, does display the same demonstrated skill for rhythmic drive and metric organization of the sonatas by Hindemith and Kennan.

HARMONY

Organizational Use of Sonorities

In the harmony of the three sonatas, tertian, quartal, and other non-tertian structures provide a basic color scheme of considerable wide consonant/dissonant range. Particular sonorities, however, are used as basic units and for coloristic purposes. Like White's sonata, the works by Hindemith and Kennan display the p2s sonority as a predominant element in linear and vertical relationships: 1) as functional chords at phrase beginnings and cadences; 2) as incidental structures in parallel moving chords and simultaneous parts; 3) as figures in linear counterpoint and accompanimental development; and 4) in dissonant chords formed by like and unlike sonorities (to produce tension). Several musical examples from the sonatas of Hindemith and Kennan illustrate White's demonstrated organizational use of the p2s sonority.

In the first movement of Hindemith's sonata the closing portion of the subordinate theme is accompanied by a bass-clef melody and three-note chords comprised of either p2s, or incomplete p2s sonorities in planing technique.

Example 36: Hindemith Sonata, Movement One, Measures 51-54



In subsequent measures the sequential development of phrase one of the contrasting theme and its accompaniment by more three-note chords in similar planing fashion establishes a texture where p2s or p2s-related sonorities in differing range create a thick body of sound; however, the dissonant effect in the entire contrasting section is minimal because of a quick tempo and the repetitive eighth-note pattern in the accompanying chords.

In the development of the same movement a unique texture of p2s chords in tremolo style is used to accompany the varied principal theme; here planing p2s sonorities in the left hand of the pianist are combined with other p2s chords, incomplete p2s units, or individual pitches in the right hand.

Example 37: Hindemith Sonata, Movement One, Measures 67-72



The "sound mass" technique exhibited in the complete development section creates a considerable amount of tension, especially when juxtaposed with the trumpeter's theme--the result: a highly dramatic passage with infinite shades of expressive dissonance.

An example also in movement one exemplifies the euphonious quality of p2s sonorities in direct contradiction to the color of tertian chords.

Example 38: Hindemith Sonata, Movement One, Measures 127-130



In Example 38, the following succession of different sonorities exists in consecutive measures: 1) a g-flat minor triad followed by planing half-diminished seventh chords in second inversion; 2) linear development of p2s units doubled in both parts of the pianist; 3) sequential development of p2s motives in ascending motion with octaves in descending motion; and 4) a reiteration of the same g-flat minor triad and planing seventh chords. The alternation of tertian and p2s color as well as the variation in chordal and melodic accompaniment is a consistent stylistic feature in Hindemith's style; textural variety of this sort sustains musical interest and creates varying moods of intensity and relaxation.

P2s sonorities are used extensively by Kennan as well. In

movement one, the accompaniment for the variation of the first phrase of the principal theme (in measures 26-37) displays p2s units in both linear motives and vertical structures.

Example 39: Kennan Sonata, Movement One, Measures 30-37



In spite of the fact that many p2s sonorities are formed incidentally by the simultaneous iteration of successive pitches in both hands of the pianist, the effect of such sonorities is not dissonant in the conventional sense primarily because they neither sound active nor demand resolution. When used in conjunction with passages displaying the dominating influence of tertian structure, textures using p2s sonorities predominantly create an effective variation in accompanimental color.

In movement one the augmented version of the second phrase of theme one is supported in part by bass-line melodic octaves which successively imply p2s sonorities; of particular importance are the two p2s sonorities formed by the juxtaposition of both parts in

measure 173 and the single p2s sonority stated in the right hand in measure 176, for these places coincide with climactic pitches in the trumpeter's line.

Example 40: Kennan Sonata, Movement One, Measures 173-177



Alternation of p2s and tertian chords is also apparent in Kennan's sonata. In the development of movement three, the initial phrase of theme two is accompanied by p2s and pmm sonorities, major triads, and either minor-major or major-major seventh chords in ostinato rhythms.

Example 41: Kennan Sonata, Movement Three, Measures 71-76



Here, the interpolated right-hand chords display considerable variation in color and they are used to contrast with the accompaniment for the same theme in the exposition which employs similar tertian sonorities, but open fifths and fewer p2s units (measures 15-24).

A second prominent sonority which is evident particularly in the style of Hindemith and Kennan constitutes one important difference in harmonic structure from White's score: Hindemith and Kennan attach functional emphasis to the triad. By functional emphasis, we mean the frequency with which a particular chord appears at significant points in micro-form; in otherwards, Hindemith and Kennan use the major (and to a lesser degree the minor) triad more often than any other sonority at significant places in the sectional design of each movement. In Hindemith's initial movement a major triad is found at the following points of formal importance: 1) the final bar of the principal section in the exposition; 2) the initial measure of the contrasting theme; 3) the last measures of the development; and 4) the penultimate bar of the movement.

The same prominence is given to the major triad by Kennan. In his first movement major triads are exhibited in the subsequent instances of formal significance: 1) the final bar of the exposition; 2) the closing measure of the recapitulation; 3) the introductory measure of theme three, which appears for the first time in the coda;

and 4) in support for a climactic iteration of the principal theme in the closing portion of the movement.

By comparison, the only place in White's sonata which displays similar functional emphasis of the major triad is in the last measure of movement two. Instead, White uses the p2s sonority in the same way that Hindemith and Kennan treat the triad: the p2s sonority appears more often than any other sonority at significant points of the micro-form within movements.

Motivation of Harmony

While the organizational use of p2s sonorities and triads as well as the conscious variation of tertian and non-tertian color manifests consistency in style among these three works, one other device must be emphasized: the use of parallelism as the primary means of harmonic motivation and color. Even though examples of planing and fanning technique have already been cited, there are specific instances where juxtaposition of separate parts in either similar or contrasting motion is used to emphasize a prominent musical feature or to create considerable tension production--a feature which is exhibited in several places in White's sonata.

In movement three, Hindemith uses doubled octaves in planing technique, then incomplete p2s chords and octaves in fanning style to musically prepare a cononic statement of the principal theme; here two- and three-note chords stated in extensive range are combined

with syncopation to create substantial tension, tension drastically reduced when the iteration of the principal theme begins (in measure 35).

Example 42: Hindemith Sonata, Movement Three, Measures 32-34



Although stylistic use of sonorities is firmly anchored in tonality, Hindemith uses combinations of like and unlike sonorities at distances of dissonant relationships between their tonics in order to disguise tonal function and to enhance dissonant effect. In movement three Hindemith scores long periods of sustained dissonance to accompany the closing motives of the last projection of the principal theme.

Example 43: Hindemith Sonata, Movement Three, Measures 61-64

In these measures the chemical analysis of dissonant chords or implied chords in their order of succession (beginning with beat two of measure 61) is: p5m2n4s3d, p2m3n4s2d2t2, p3mm2s2dt, p3m2n2s2d, and p2mm2sd2t2.

An example of dissonance created by the simultaneous movement of individual pitches is found in the accompaniment of the chorale theme at the close of the third movement.

Example 44: Hindemith Sonata, Movement Three, Measures 88-94



The accompaniment of the last phrase of the chorale exhibits metrical phrasing, simple rhythmic patterns, wide-range chordal sonorities, gentle free counterpoint and a simple harmonic scheme; but tension is created by seconds which are formed by movement of inner pitches.

Parallelism in Kennan's sonata is similarly exhibited. In movement one, he scores melodic octaves and unison pitches in the left hand with incomplete p2s chords and parallel fourths in the right hand to form an accompaniment to the brief development of the subordinate theme (in measures 151-163).

Example 45: Kennan Sonata, Movement One, Measures 155-160



Differentiation in parts is in direct opposition to the imitative accompaniment of the section which immediately preceded, and the complementary nature of separate parts in the passage which immediately follows.

In the development of the same movement, Kennan uses parallel fifths and slight melodic imitation in both parts for the accompaniment of trumpet material related to the principal theme.

Example 46: Kennan Sonata, Movement One, Measures 89-92



Now melodic units in the upper part of the keyboard are used to detract from the slight dissonant effect of parallel fifths in low range.

In the coda of movement one, dissonance is apparent where juxtaposition of similar chords in planing style is used to accompany variation of motives from the subordinate theme.

Example 47: Kennan Sonata, Movement One, Measures 183-188



In actuality, Example 47 displays polytonal shadings because of the number of major triads which are combined to form chords at interval relationships a major third removed, thus comprising several sonorities whose chemical analysis is $p2m3n2d2t$.

Thus, there is one principle of harmonic motivation which pertains to the style of the three scores under examination: basically, parallelism is applied to conventional and new harmonic sonorities as a principle means by which each composer varies

accompaniment; it is the combination of richly varied melodic and rhythmic resources with one technique of harmonic motivation which contributes much to contrasting mood and color in each sonata.

TEXTURE

In view of the fact that numerous similarities and few but significant differences in form, melody, rhythm, and harmony exist between the three sonatas, it is obvious that correlation of textural features is basically synonymous. Therefore, we will focus on a single aspect which perhaps represents the best way to study the relationship between trumpeter and pianist: clear structure between melody and accompaniment is observed by a two-voice framework formed by the bass voice and the most important upper part. A brief comparison of the initial theme in the first movement of each sonata demonstrates both adherence to and differing degrees of emphasis upon the polarity of outer voices.

In Hindemith's sonata the following two-part texture is formed between the opening statement of the trumpeter and structural pitches of the bass part in the pianist's score.

Example 48: Two-Voice Framework in Hindemith's Opening Theme, Measures 1-9



Organization is notated by the logical, although unconventional, progressions of various intervals: seconds imply smooth motion and larger intervals imply either tonal patterns or functional significance. Juxtaposition of separate lines also provides insight into the variation of simultaneous intervals, for different vertical relationships create differing degrees of musical tension: generally, octaves, fifths and fourths fall on first beats; seconds or sevenths occur on anacrusic beats (except for measure 2); and a mixture of fourths, thirds, and seconds are evident in other temporal divisions of each measure.

A two-voice framework of Kennan's opening theme shows a similar juxtaposition.

Example 49: Two-Voice Framework in Kennan's Opening Theme, Measures 1-9

While the structure of the bass melody primarily consists of descending seconds, variety is introduced with sequential root movement by fifths and with ascending seconds in preparation for the

cadence. More important, however, is the fact that Kennan uses the bass line as a primary means of accompanimental organization; a logical pattern of descending seconds permeates the bass line of the entire sonata in spite of the fact that there is variation in texture between strictly chordal, strictly contrapuntal, and homophonic/polyphonic atmospheres.

By comparison, White's sonata exhibits less textural emphasis on parity between outer voices. Whereas Hindemith's sonata displays dominating use of linear counterpoint, whereas Kennan's work exhibits a more balanced framework of polyphonic and homophonic texture, White emphasizes chordal texture to a much greater degree. This is not to say that White does not use chromatic bass line progression or horizontal movement between simultaneous parts; rather, he is primarily interested in textures of alternating moods of chordal color.

SUMMARY

In the preceding pages we have systematically prepared an interpretative-analysis for White's sonata and a comparative survey of its prominent features with two other works of similar design. One question remains: "Does White's trumpet sonata have value as an addition to its generic category and, more importantly, as an accomplishment of artistic expression?" The answer is yes. White's sonata displays a compositional style which has both pedagogical and musical value for professional and amateur trumpet players alike. The sonata is useful for the cultivation of bold and lyrical playing, for development of pitch and interval accuracy, and the application of basic articulations. Equally beneficial is the fact that the comprehension of White's compositional style makes it possible for the young musician to gain, on the one hand, a good understanding of conventional melodic practice, formal organization, and textural relationships for generically identical works and, on the other hand, exposure to particular harmonic structures and rhythmic devices which are prevalent in many contemporary works.

As a single composition White's sonata has merit for two reasons:

- 1) the sonata is a quality work that is fairly moderate in technical demands and is thus accessible to players of differing levels of

proficiency; and 2) the composer demonstrates the ability to unify a number of varying expressions and procedures within the compass of a single work. While each movement successfully explores legitimate musical expressions in interesting and innovative ways in the opinion of this performer, the second movement is particularly distinctive because it has deeper meaning, again in the opinion of this performer, something more than typical exploitation of lyrical playing. Whether excellence in expression in movement two is related to the nature of melodic material, White's "theme and variation" technique, or even to the dramatic single effect of the sustained, soft a-flat'' to close the movement, the second movement is the movement which creates the greatest interpretative challenge and elicits the most positive response from audiences.

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