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A PERFORMER'S GUIDE TO
ANTON WEBERN'S VARIATIONS FOR PIANO, OP. 27
THROUGH THE STUDY OF ANALYTICAL LITERATURE

by

YUSHUN ELISA PONG

A

A dissertation submitted to the Graduate Faculty in
Music in partial fulfillment of the requirements for
the degree of Doctor of Musical Arts, The City
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Abstract

A Performer's Guide to
Anton Webern's *Variations for Piano*, Op. 27
Through the Study of Analytical Literature

by

Yushun Pong

Advisor: Professor Joseph N. Straus

For Webern's *Variations for Piano*, Op. 27 (1936), there exist a considerable number of analyses (especially concerning the theme of the third movement and the second movement). However, the author believes that most of them need to be translated into language which would provide more practical guidance for performers. This study focuses on a compilation of the analytical materials for this piece, and on a discussion of possible ways to interpret these materials with performance in mind. In brief, this thesis tries to answer the question: how can analyses help pianists perform the piece?

The goal of this study is to explore the various interpretations suggested by different analytical

approaches, including some of author's analyses. The core of this thesis would be a series of performing scores which reflect the relevant passages and bring out the analytical ideas. The author hopes that this study will be useful to those who are interested in performing modern music.

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INTRODUCTION

A new development in the twentieth-century Western music world is the emergence of analytical theory. This analytical theory, unlike Tovey's *Essays in Musical Analysis*, goes beyond mere description of music and historical surveys. It explores the possible connection between different events and shows the various levels of structures. Schenkerian analysis initiated a more advanced exploration into musical structure and inspired many later theorists. In general, the analysis of Western tonal music, with the help of its basically functional harmonic progression and the familiar aesthetics resulting from long common-practice traditions, caused many fewer controversial issues than the analysis of music which is not in the tonal language. Since there is an intrinsic difference between tonal and non-tonal music, the analytical methods designed for these types of music are certainly different. While the analysis of modern music has grown considerably, modern compositions comprise only a small part of today's concert repertoire and few performers can give master classes on modern music. How can we improve this situation?

There is no doubt about the dramatic change in musical style when composers completely abandoned the tonal language

at the beginning of the twentieth century. This revolutionary break with the past led to numerous musical experiments and resulted in new sounds, forms, techniques, etc. Keeping up with current developments in modern music is certainly a great challenge for performers. Consequently, analyses and critical comments have become a potentially important source for understanding the music and providing guidance for the performer. Nevertheless, the difficulties encountered by many musicians who try to read analyses of this music are three-fold. First, since there is no common language shared in non-tonal music and no authoritative aesthetics have as yet been established, the diversity of approaches can seem quite confusing; second, the complexity of the analysis sometimes goes beyond comprehensibility; and finally, what appears in the analyses can seem to bear very little relationship to the performer's experience in playing and hearing this music. Faced with problems which are not present in the traditional repertoire, musicians who wish to perform modern music must conduct considerable research in order to perform more authoritatively.

It is difficult to solve all the problems even with the seemingly large number of analyses. Since most of the analyses are not directed specifically to performers, it is the performer's responsibility to seek out the implications

and suggestions for performance that are contained in these analyses. This study focuses on a compilation of the analytical materials for Anton Webern's *Variations for Piano*, Op. 27 (1936), and on a discussion of possible ways to interpret these materials with performance in mind. In brief, this thesis tries to answer the question: how can analyses help pianists perform the piece?

Currently, there are few publications concerned with the interaction between analytical literature and performance of twentieth-century music. For Webern's *Variations for Piano*, there exist a considerable number of analyses (especially concerning the theme part of the third movement and the entire second movement). However, I believe that most of them need to be translated into a language which would provide more practical guidance for performers. On the other hand, it is important to note the publication of Stadlen's edition of this piece in 1979.¹ As stated by Wason in regard to Stadlen's edition: "In preparation for his premiere performance of the piece, Stadlen undertook extensive coachings with the composer himself, the results of which he documented in this edition. Its importance can hardly be overemphasized, for at present, it represents one of the very few ways for most of us to become acquainted with 'authentic' performance practice in

¹Anton Webern, *Variationen für Klavier*, ed. Peter Stadlen (Vienna: Universal Edition, 1979).

works of the Second Viennese School At last a private performance practice is beginning to become a part of the public scholarly record."² Since Stadlen's edition is directed to performance under the composer's instruction, it is particularly valuable for performers.

Although Wason's article has offered some ideas on both the structure of this piece and the relationship of that structure to Webern's own directions for the work's performance, I regard it as only one of the possible interpretations for the piece. The goal of this study is to explore the alternatives suggested by different analytical approaches, including some of my analyses. Therefore, the issues which would relate to the performance of this piece will be discussed in a more detailed and complete manner as well as on a more expanded scale. The core of this thesis would be a series of performing scores which reflect the relevant passages and bring out the analytical ideas.

According to Moldenhauer's statement in regard to the chronology of *Variations for Piano*, Webern first completed the composition of what was to become the last movement of the piece; the first movement and the second movement were respectively completed afterwards.³ The revelation of this

²Robert W. Wason, "Webern's *Variations for Piano*, Op. 27: Musical Structure and the Performance Score," *Integral: The Journal of Applied Musical Thought* 1 (1987): 57-8.

³Hans Moldenhauer and Rosaleen Moldenhauer, *Anton von Webern; A Chronicle of His Life and Work* (New York: Alfred A. Knopf, 1979), 482-3.

chronology "allows us to settle the controversy over the title once and for all, and to describe its title rather well . . . Certainly, at the very least, it provides the proper basis on which to begin an analysis . . ."4 The third movement, as the longest among the movements, has the closest link to the definition of variation. Thus it seems appropriate to begin the analysis of this piece with the third movement. From a performance point of view, the clear statement of the row in the theme of the third movement offers an opportunity for performers to listen carefully to the basic series which is employed throughout the piece. In addition, the moderate tempo ($\text{♩} = 80$) and the generally quiet expression (*Ruhig fliessend*) of this movement also constitute a friendly invitation into the twelve-tone music world. Therefore, the discussion of the playing of this piece will start with interpretations of the third movement.

The first and the second movements employ more complicated row techniques. Performers usually have to rely on the analyses of these movements to get the basic ideas of their structures. Since the first movement is still in moderate tempo and its configurations are closely related to the final bars of the third movement,⁵ I suggest that performers can work on the first movement after they have acquired some familiarity with the third movement. The

⁴Wason, *Webern's Variations for Piano*, 67.

⁵Moldenhauer, *Anton von Webern*, 485.

second movement is the shortest of the three movements. However, its awkward crossing of hands, large registral distance between consecutive notes, and fast tempo ($\text{♩} = 160$) make it the most difficult technically. But I believe that performers who have gained some familiarity with the basic "tone" and "sound" of the piece through playing the first and third movements will approach the second movement with less trepidation.

The four chapters in this thesis follow the practice ordering of the movements suggested above. Chapter One and Chapter Two include the discussion of the third movement, Chapter Three includes that of the first movement, and Chapter Four includes that of the second movement. Since published analyses of the third movement usually focus on the theme, Chapter One limits itself to the discussion of the theme. In order to explore the interpretive implication of each analysis, the discussion in Chapter One proceeds analyst by analyst. The same procedure is also applied to the discussion of the second movement in Chapter Four. However, the summaries of these chapters include the discussions classified by performing issues (phrasing, meter and rhythm, and so on). Whether the performers can make the analyses compatible in some way is also discussed in the summaries. Undoubtedly the theme of the third movement and the second movement have more alternative interpretations

because of the considerable number of analyses devoted to them.

On the other hand, there are virtually no published analyses (except Wason's) of the Variations that come after the theme in the third movement and very few analyses of the first movement. Therefore, I will discuss them section by section, rather than proceeding analyst by analyst. Chapter Two includes a discussion of the variations in the third movement and Chapter Three includes a discussion of the first movement. In summary, it seems impossible to have diverse ways of interpretation for the music on the basis of the few extent analyses.

The conclusion of this study provides an overall view of Webern's *Variations for Piano*. It helps performers establish some conceptual notions of this piece. There have been some disputes about the degree to which Webern's compositions are linked to musical traditions. Different levels of this cognition can affect interpretation of the music. Based on my study of the analyses, I discuss the performance issues of this piece only in traditional terms. In the conclusion, general discussions of interpretation, phrasing, motive, tempo, melody and rhythm, which reflect the characteristics of Webern's music, are incorporated with the views from Schoenberg's "Performance and Notation" in

Style and Idea.⁶ As for piano techniques, I also provide my views of pedaling and of hands-crossing in this piece.

There are occasions when the discussions of the analyses and performance interpretation become so detailed that they may seem pedantic to the reader. However, performers will not deny that the analyses of the piece, whether in greater or lesser detail, can help them understand the piece more deeply. Since performance and appreciation of twelve-tone music do not seem to be customary for musicians, I hope that my study will be useful to those who are interested in performing modern music.

⁶Arnold Schoenberg, *Style and Idea*, ed. and trans. by Leo Black (Berkeley and Los Angeles: University of California Press, 1975), 319-62.

CHAPTER ONE

The Theme of The Third Movement

According to Kathryn Bailey, the third movement of Webern's *Variations for Piano* "consists of a string of sections of equal length, each stylistically consistent within itself but contrasting with its neighbors, passing as theme and variations, even though no feature of the first section is reiterated in subsequent sections."¹ Although the score published by Universal Edition does not have any sectionalized indications, Stadlen's score clearly indicates that there are five sections following the theme, which conforms to Bailey's description. Furthermore, Webern pointed out the theme in a letter to Steuermann, whom he invited to the premiere of the piece.² As a result, there seems to be no question about the structure of the third movement.

According to Moldenhauer, there is no doubt that Webern started composing the piece with the theme of the third movement.³ Since the statements of the series in the theme are very clear, the texture of the theme is relatively

¹Kathryn Bailey, *The Twelve-Note Music of Anton Webern* (Cambridge: Cambridge University Press, 1991), 196.

²Robert W. Wason, "Webern's *Variations for Piano*, Op. 27: Musical Structure and the Performance Score," *Integral: The Journal of Applied Musical Thought* 1 (1987): 71.

³Hans Moldenhauer and Rosaleen Moldenhauer, *Anton von Webern; A Chronicle of His Life and Work* (New York: Alfred A. Knopf, 1979), 482-85.

simple and its tempo is not fast ($\downarrow = 80$), I strongly suggest that performers should start learning the piece with the theme of the third movement in order to get a structural idea of the row which is used throughout the piece. Besides, because this whole piece is entitled *Variations*, it would be appropriate for performers to begin to learn Webern's musical and structural language with the movement that has the features closest to the designation of "theme and variation." Published analyses of the third movement usually focus on the theme. Only Wason discusses each section of the movement with equal emphasis and tries to look for long-range registral connections across the variations.⁴ This chapter explores analyses of the theme. I would like to begin by presenting my own analysis of the harmony and voice-leading of the theme.

The Author's Analysis

The basic harmonic unit of this movement is the trichord. Figure 1-1 extracts all three-note segmented subsets of the series. All but one contain interval-class 1, which is the most prevalent interval in the series. Webern intensively explores these intervallic and trichordal

⁴Wason, "Webern's *Variations for Piano*," 64.

properties in the piece. Nevertheless, before undertaking an intensive study of the pitch structure, I prefer to begin with phrasing and articulation, from which harmony and voice-leading will emerge.

The theme can be divided into two periods: the first period extends from m. 1 to m. 6 and the second from m. 7 to m. 12. Each period is subdivided into two phrases on the basis of rests (silences) that interrupt more continuous music, and by dynamic contrasts (the four phrases are indicated in Figure 1-2a). Each phrase consists of two units ; these units are not only separated by silences (except the last two units) but are also articulated by the contrary dynamic markings ($p+f+p+f$, $f+p+f+p$). This four-plus-four pattern creates a symmetrically-balanced syntax analogous to that of Classical music, although this is a section of six measures plus six measures. The regular alternation of *piano* and *forte* helps performers establish a sense of balance and pulse; it also implies the relationship of tension and relaxation between the units. Thus the first two phrases and the last two phrases have a different sense of motion (from *p* to *f* and from *f* to *p*, respectively). This sort of phrasing does not conform to the structure of the row which I will discuss in Westergaard's and Wason's analyses.

As suggested above, interval-class 1 is especially articulated here. The units contained in the phrases have similar structures: each of them contains a slurred interval-class 1, usually presented as pitch-interval 11 or 13, and one or more relatively longer note(s). I regard the slurred notes as an accompanying part and the longer notes as forming a melody. Accordingly, the playing of the melodic notes should be more intensively articulated and dynamically stronger than that of the accompanying notes. The exceptions are the units in mm. 2-3 and mm. 7-8 where the slurred notes are against a relatively shorter note and are preceded by two staccato notes in interval-class 1. This does not, however, change the previous viewpoint about melody and accompaniment. Generally speaking, the steady longer notes hold the predominant position in the theme. Thus both the staccato and slurred notes in these two units are "subordinate" to the note which is shorter but with a tenuto marking.

Based on this concept of melody and accompaniment in the theme, the issue of harmonization can be explored. Every pair of accompanying notes is associated with its nearest melodic notes (see Figure 1-2a). Thus we get a series of pitch-class sets (see Figure 1-2b; the vertical lines separate the pitch-class sets contained in each unit). Since the set [0, 1, 4] is a common element to all of the

units, it would be plausible to explore the relationship between these [0, 1, 4] sets. Figure 1-3 shows the relationship between these trichords ("T" represents transposition; "I" represents inversion). Each trichord in Figure 1-3a is vertically laid out from top to bottom in temporal order. In Figure 1-3b, these trichords are rewritten so that the melodic note is on the top under which the two accompanying notes are laid out by registral order (higher notes are in the higher positions).

The connective relationship between these [0, 1, 4] sets is based on the equivalent notes (the "0," "1," and "4") in each trichord. From level A in Figure 1-3a, we see that the pattern that connects the units in each period is quite consistent. The first note of a chord (notated at the top of each trichord here) often goes to the last note of its following chord, the second note to the second note and the last note to the first. Furthermore, level A in Figure 1-3b also exhibits a consistent pattern of voice-leading in the way that the melodic note goes to the melodic note and the accompanying note goes to the accompanying note. Thus almost every consecutive two [0, 1, 4] sets can be described as shown in Figure 1-4.

The palindromic structure in terms of duration and articulation is also apparent in Figure 1-4. This palindromic structure also helps make a closer connection

between the notes in the same definition (melody or accompaniment) as well as between the notes of different units. For example, the F in m. 4 (a melodic note), which comes at the beginning of its trichord, goes to the E (also a melodic note) in m. 6, which comes at the end of its trichord; the G-sharp in m. 5 (an accompanying note), which occurs at the end of its trichord, goes to the G in m. 6 (also an accompanying note), which occurs at the beginning of its trichord. Thus performers should pay much attention to [0, 1, 4] sets which play a connective role in the theme of the third movement. In Figures 1-3a and 1-3b, Level B indicates the relationship between the first and last units in both periods respectively while level C shows the connection of the first and the last units of the theme.

Actually the examination of the first and last units of the first period can be extended to all of the notes within each unit. As shown in Figure 1-5, the tetrachords in these two units are ordered temporally and there are two kinds of relationship between the tetrachords (units): I6 and T5. Understanding the relationship in terms of I6 shows the connection of accompanying notes to accompanying notes and melodic notes to melodic notes. It is important to note how the melodic notes in the first unit (E-flat - D) go to the melodic notes in the last unit of the period (E-flat - E).

The unity of this section is reinforced by the application of the retrograde of the prime form at the end of the section. The passage from the last two beats of m. 9 to the end of the section is an approximate pitch palindrome of the passage from the beginning to the first beat of m. 5. Even though the registers are not all the same, Webern still keeps the same articulations.

The structure of the melody in the theme also demonstrates the property of unity. Figure 1-6a, which includes only the pitch-classes of the melody, provides an emphasis of the pitch-class set [0, 1, 2]. Furthermore, the occurrence of the notes in the melody tells us the focal pitches of the theme: D, E-flat, and E. Each of them occurs three times in the twelve-note melody. Another feature of this melodic line is that the two notes of each consecutive pair always form a semitone (E-flat, D; E, F; E-flat, E; D, C-sharp; F, E; D, E-flat). Thus, the completion of each dyad can be a musical impulse for performers. As a matter of fact, Westergaard regards each dyad as a two-note melodic unit, which is a significant notion in his analysis.⁵

As demonstrated above, the notion of semitone is prevalent in the melody. However, most "semitone" connections are 7ths and 9ths (see the melodic line in its

⁵Peter Westergaard, "Some Problems in Rhythmic Theory and Analysis," *Perspectives of New Music* 1/1 (1962): 180-191.

original register as shown in Figure 1-6b). Virtually all of Webern's later music is devoid of semitone (minor-second) progression in melodic motion; thus I regard the motion of 7ths and 9ths in his music as analogous to semitone progression. The expression of intensity in playing cannot be more effective in the context full of semitones (in this case, 7ths and 9ths). The great registral distance between the notes also reinforces the intensity of semitone progressions. As shown in Figure 1-6b, the contrary direction of the melodic motion and the different distribution of dynamic markings in the two periods also help differentiate the characters of the two periods. The strong striking of the highest note F in the second period (m. 10) suggests the location of climax in the theme.

The analysis presented above is mainly focused on the relationship between the pitch-class sets [0, 1, 4] which are distributed evenly in the theme. The regular pattern of the connection between these pitch-class sets helps establish a close relationship on the local level as well as on the higher level. Since the melodic notes are often separated by rests and are decorated by the accompanying figure, the melodic outline is audible only when performers play with a very focused sense of direction and have a specific notion of articulation. The constantly repeated melodic notes also form a central focus that gives

performers a sense of flow through the whole section. In spite of the guidance it provides, this analysis is incomplete. Some fundamental issues of music, such as meter and rhythm, are not discussed. Other analysts have addressed these issues. The following discussion is my own interpretation of other analyses which do not always necessarily conform to my views. However, it is necessary for performers to keep interpretive alternatives in mind. This helps keep numerous performances of the same piece fresh.

Hasty's Analysis

Although the discussion in Hasty's article⁶ is focused on the general nature of temporal organization in post-tonal music, his analysis of Webern's *Variations for Piano* is revealing in many ways. Through a detailed analysis, Hasty tries to convey his theory of unitary perception of succession and the concept of "motion" in music. Furthermore, he attempts to "determine what events are and how they are unified" and to "discover some of the ways in which various domains impart specific motive qualities to

⁶Christopher F. Hasty, "Rhythm in Post-Tonal Music: Preliminary Questions of Duration and Motion," *Journal of Music Theory* 25/2 (1981): 183-216.

these structures" (pp. 192-93). He regards mm. 1-6 and mm. 7-12 respectively as unified events (pp. 203 and 206). Each event contains four units separated by the rests (except the last two units). He designates the units as Unit 1, Unit 2, . . . etc. (as shown in Figure 1-7 which is his Example 1), and each unit can be further divided into smaller segmentations.

The discussion of the cross-relationship between the segmentations as well as between the notes in a segmentation results in a possibility of multiple interpretations (see Figure 1-8 and Figure 1-9 which are, respectively, Hasty's Examples 3 and 4). For example, the discussion of Segmentation 1/1 in Figure 1-8a reveals the relationship between segmentation labeled A (E-flat and D) and segmentation B (B and B-flat). The notes respectively in segmentations A and B are united by an identity of duration. The symbol "+" indicates an identity of value or quality in one of the musical domains. Thus the dyads in these two segmentations share the same set-class (2-1); their contours and patterns of metrical accent are, respectively, related by retrograde. The interval-class association shows the interval classes which one pitch class forms with the rest (for example, the E-flat forms interval-class 1 with the D, interval-class 4 with the B, and 5 with the B-flat and so has the associations [1, 4, 5]). Since I do not find

interval-class association particularly helpful to performance, I will not discuss it further. While the various domains impart quality and degree to these segmentations, it is quite a task for performers to make decisions about which structural elements to emphasize more.

By starting with the discussion of the meter in the theme of the movement, Hasty points out that "one of the difficulties in ascertaining the meter here comes about because of a conflict of periodicities." He further explains the situation: "In the first five measures the twelve tones of the row are divided by rests and dynamics into three groups composed of four, five, and three pitches respectively. In mm. 5-9 the inversion of the row is displayed in an identical succession of durations. Thus the three segments of the first row are repeated in mm. 5-9 through the identities of set-class (under inversion), order and pattern of durations." However, "these repetitions do not correspond to the notated meter" (p. 194). As is clearly stated at the beginning of his analysis, he believes that the notated meter rules (p. 197). Even though the perception of the meter is quite elusive, the periodicity noted above would be heard as variations (p. 197).

Although the notated meter, according to Hasty, does not shed much light on the rhythm of this music, it is important in giving intrinsic pulses to the music. As he

states: "In fact, the only uncontested metrical organization in mm. 1-12 is the subdivision of the half-note as 2/4. This being the case, quarter-notes are differentiated qualitatively as 'onbeat' and 'offbeat,' 'weak' and 'strong'" (pp. 194, 197). He emphasizes that the bar lines are instructions to performers who must interpret beats as weak or strong according to their position in the measure (p. 197). On the other hand, he often puts the marking of accents on the offbeats in his examples without explaining what he means. I think it is necessary to explore further the interaction between the meter indication and the musical context in Hasty's analysis.

Among the motions connecting pairs of notes in Unit 1 (as shown in Figure 1-8b), the motion from E-flat (m. 1) to D (m. 2) is the most important one in which the E-flat on the upbeat possesses a strong tendency toward the latter note on the ensuing downbeat (p. 199). Hasty marks an accent on the E-flat (Figure 1-8b) to show the intrinsic quality of intensification on the upbeat, and notes that the length of time E-flat remains suspended intensifies the urgency with which it approaches D (p. 199). This seems to imply that the D should be played in a relatively softer manner in order to express the status of "resolution." Hasty further states: "That D is the 'structural downbeat'

here is indicated to the performer by the bar line" (p. 201).

It is also revealing to interpret the remaining notes of Unit 1 from the same viewpoint. Hasty discusses the paired notes in Unit 1 both in the meter of 3/2 and in the meter 2/4 (see Figure 1-8b). Thus downbeat-upbeat relationship between the notes can be referred to these two meters. Since the remaining notes of Unit 1 (the note B on the third beat and the note B-flat after that beat) are connected with a slur, more emphasis should be placed on the note B. This confirms the half-note beat pulse. Both the B and B-flat also form an upbeat-downbeat relationship with the note D, but the interpretation of this motion should not be the same as the one from the E-flat to D. While the E-flat has the same duration as the D, the B and B-flat have a much shorter duration than the D. Therefore, the figure B/B-flat prepares a steady pulse and an upward motion for the E-flat/D in the downward motion.

Hasty regards the long notes in Unit 1 as melodic motion (p. 203), which seems to imply that the short notes in the same unit are accompanying notes. Thus, the general effect of playing according to the interpretation discussed above is that the volume of the accompanying notes would not exceed that of the melodic notes. In the case of Unit 1, performers should play the accompanying figure (B and B-

flat) in a smaller volume than that of melodic figure (E-flat and D). Hasty also remarks that on the piano there is a noticeable timbral connection between the B and D because of their smallest registral difference; this forms a sort of close relationship between the melodic and the accompanying figures.

What we have not discussed so far about Unit 1 is the quarter-beat rest before the E-flat. In this regard, Hasty first raises two questions, namely, how can the E-flat be known to be an upbeat since it is preceded by silence, and why doesn't the "downbeat," the B resolve this upbeat (p. 201). His answer is quite lengthy, but it is conceptually significant for performers: "The whole of the unit must be regarded as a conscious present in which E-flat *comes into being* as upbeat. As the unit is completed, E-flat is actually present in its relation to the other elements, and not through an act of retrospection, for the other elements would not be what they are without E-flat. The B as downbeat is dependent upon the B-flat as upbeat and the D as the completion of the cycle manifesting the meter, 2/4. (Any possible confusion is avoided by the fact that E-flat is still sounding when B enters.) Nevertheless, without the second and third notes there would be no way of knowing whether the first and fourth notes were upbeat or downbeat" (p. 201).

As shown in Figure 1-9 (Hasty's Example 4), the first two units (mm. 1-3) are unified as a single event. Apparently, the notes C-sharp and C in the second unit are regarded as the direct links to the first unit (see Figures 1-9a and 1-9b). Their different positions in the measures imply different emphases on each note--in this case, the playing of the C on the downbeat position should have more power. Their relatively short duration and the articulation of staccato help the next note, F-sharp, to initiate the second unit. Hasty marks an accent on the F-sharp (see Figure 1-10 which is Hasty's Example 5), which seems to correspond to the role of the E-flat in the first unit. Accordingly, the G in m. 3, slurred with the F-sharp and on the third beat, serves in the same role as the D of the first unit and should be played in a relatively softer manner (as a resolution of the F-sharp).

Hasty points out that the interval classes 6 and 2, formed between in the three consecutive attacks of notes (C, F-sharp, and E in m. 3), represent the only interval classes which the set of Unit 2 does not share with Unit 1 (as shown in Figure 1-10). Thus, these intervals should be played as new elements. As mentioned above, the C and F-sharp in m. 3 play their roles in a very affirmative manner. The E, on the second beat of the measure and with a tenuto marking,

can be stated clearly but without as much agitation as the first two notes in the same measure.

Hasty calls the unity of these two units a "phrase" and characterize it as the "opening" (p. 204). This phrase is balanced by the unity of the next two units (p. 204). Unit 3 starts at a great registral distance from Unit 2, which to some extent makes Units 2 and 3 less connected than Units 1 and 2. On the other hand, the relatively quick attack rhythm between Units 3 and 4 intensify their connection (compare the distance between the attack-points of the D and C-sharp in m. 1 with that between the attack-points of the G-sharp and E-flat in m. 5). Hasty states: "Its brevity in itself (Unit 3) is a discontinuity because there has thus far been a progression toward increasing complexity (also deeper register, shorter durations between attacks and greater volume)." He regards Unit 3 as representing "a break in the progress of the piece and, incomplete in itself, strongly demands completion" (p. 204). The F in Unit 3 "has practically nothing to do with these structures and is left suspended until renewed in m. 7" (p. 206). While the F is singled out, I assume that the most important melodic motion in Units 3 and 4 is the connection between the E-flat and the E. Once again, the E-flat on the upbeat possesses an impulse toward the E on the downbeat (in 2/4) just like the opening E-flat and D. Since the figure of

accompaniment--the slurred G and G-sharp--occupies the first beat of measure 6 and the dynamic marking for this unit is *f*, the playing of this unit should be much more powerful than the playing of Unit 1.

According to Hasty, ". . . the obvious return in Unit 4 of the material of Unit 1 . . . result(s) in a completion or the closure of these six measures as a unified event" (p. 206). I have also discussed the relationship between these two units in my analysis (see Figure 1-5). Basically Hasty's phrasing and my phrasing for the first six measures of the theme are identical. Thus performers should cross-refer one analysis to another.

The voice-leading shown in Figure 1-11 (Hasty's Example 6) is quite complex. Its most significant function for performers is to offer the inner connection of the music on different levels. It is not hard to find that *registral association* plays an important role in defining the voice-leading at this point. For example, the figures of the slurred F-sharp and G in Unit 2, the slurred A and G-sharp in Unit 3, and the slurred G and G-sharp in Unit 4 could be interpreted as two contrapuntal voices, connected by the "melodic intervals" which, as shown by Hasty in Figure 1-11, are interval-classes 2 and 13. It is interesting to observe that all of these figures are played by the right hand; and the left hand alternates its position around the right hand

while the right hand plays these slurred figures with only slight movements. The notes which are played by the left hand (E, F, E-flat, E) from mm. 3-6 correspond to what I define as the melodic notes in my analysis. The relationship of the melodic motions in Units 1 and 4 also involves the registral association (see Figure 1-11c). This intensifies the unity of the event on the larger level and shows the E-flat in the theme as the central note surrounded by the other closest neighboring notes.

Since Hasty does not go on to analyze the remaining part of the theme, I would like to explore a possible interpretation of the next four units following his procedure, but not in quite as detailed a manner as he does. Although Unit 4 functions to close the big event just discussed, it is connected to Unit 5 very much like the way that the C-sharp and the C in Unit 2 are connected to the D in Unit 1. As shown in Figure 1-12, the melodic motion in Unit 4 (E-flat to E, upward by thirteen semitones over a duration of five quarter-beats) is continued after the same duration by the F in Unit 5. The F-sharp in Unit 5 is connected to the E in Unit 4 by being on the same metrical position. While Unit 5 does not seem to have much connection with Unit 6, it shows a close relationship with Unit 7. As shown in Figure 1-13, Units 5 and 7 share the same figuration: the slurred figures not only have the same

duration, interval, contour, articulation, and metrical quality, they also form a continuous upward motion. With the dynamic marking of *f*, these figures seem to play a dominant role for the expression of the later part of the theme. As indicated in Stadlen's edition by markings over Units 5 and 7, they should be played "with a grand gesture" and in an "exalted" spirit (see Figure 1-23). I have also mentioned the climax of the theme in Unit 7 (m. 10) in my analysis.

As for the other members of these two units, the D in Unit 5 corresponds to the E in Unit 7 by the same duration, articulation, metrical quality, and register, and the F in Unit 7 responds to the F in Unit 5 (also to the F in Unit 3) by being in the same high register (the highest in the theme). On the other hand, the figure of slurred G-sharp and A at the beginning of Unit 7 is connected to the figure of A and B-flat in Unit 6 by the same duration, articulation, and register (as shown in Figure 1-14).

The last unit of the theme does not seem to be related very much to the first unit of this event (Unit 5). However, it shows a strong connection to the beginning of the movement (see Figure 1-15). Although it is clear that the great similarity of the beginning and the ending of the theme arises largely because the prime form and the retrograde form of the row keep all pitch-class pairs

adjacent, Webern made some different arrangements of the same materials. The correspondent notes in the two row-forms have different metrical positions; there are also some different registral changes. It is important to note how the low D in Unit 8 responds to the D (Hasty's "structural downbeat") in Unit 1. The low D in Unit 8 is "resolved" to the E-flat on the downbeat of m. 12, giving that E-flat the power of a "structural downbeat" (in Cone's sense).⁷ "By structural downbeat," Cone states, "I do not mean the arbitrary accentuation of the first beat of every measure; I mean rather phenomena like the articulation by which the cadential chord of a phrase is identified, the weight by which the second phrase of a period is felt as resolving the first, the release of tension with which the tonic of a recapitulation enters" (pp. 44-45). In this case, Cone considers it no accident that the E-flat occurs at the beginning of a measure and is preceded by a *ritardando* (p. 45).

Furthermore, the relatively greater registral distance between the D and E-flat in Unit 8 and the drastic difference between them in the articulation and duration give more tension to this melodic motion. The notion of the contrary characters of these two notes is reinforced by the indications in Stadlen's edition of "quasi vibrato" over the

⁷Edward T. Cone, "Analysis Today" in *Problems of Modern Music*, ed. Paul Henry Lang (New York: W. W. Norton, 1960), 45.

D and of "dying away" over the E-flat (see Figure 1-23). Of course a pianist cannot play "quasi vibrato." Wason offers the following interpretation of this remark of Webern's: "Perhaps the best way to think about this 'theme' is to imagine the way in which Webern might have orchestrated it" (p. 82). The psychological effect of this indication can not be under-estimated. The marking of ritard somewhat lessens the tension between the notes, while the two slurred figures (C/C-sharp and B-flat/B) played at the same time help define the pulse of the music.

The last four units of the theme do not form phrases like those Hasty was able to form for the first four units. I would like to regard Unit 5 as something which grows into a more complex state (the combination of Units 6 and 7), similar to the relationship between Unit 1 and Unit 2. Unit 8 is also a single phrase which mainly plays the role of rounding off the whole theme. In summary, there are five phrases in the theme (as shown in Figure 1-16). The second part of the theme is not as symmetrically constructed as the first part based on my interpretation of Hasty's analysis. Nonetheless, we must keep in mind what Hasty says: "The surface similarities of units and the repetition of the row (which until m. 12 do not correspond to structural divisions) seem to be a sort of ground which the deeper structure of the piece plays against" (p. 206). We have to

understand that the phrasing structure is not the main issue here. The point of Hasty's analysis is that "we must ask as in tonal music what the direction of the motion is here" (p. 204).

Lewin's Analysis

While Hasty's detailed analysis only covers the first six measures of the theme, David Lewin's analysis⁸ does not go beyond m. 5. It is primarily of interest because of its close study of the interaction of the pitch-class intervals and temporal intervals. As Lewin says: "GIS3 [a system used to analyze the opening of the theme] was particularly useful because it enabled us to consider pitch-class structure and mensural rhythmic structure *in conjunction with each other*, rather than as independent features of the passage" (p. 44). Some compositional functions which could provide a guidance for performers are summarized by examining the recurrent GIS3-intervals (see Figure 1-17 which is Lewin's Figure 3.2). I do not intend to explain how this system works, but to concentrate on its musical results.

⁸David Lewin, *Generalized Musical Intervals and Transformations* (New Haven: Yale University Press, 1987), 38-44.

As stated by Lewin, Figure 1-17 shows "how the recurrence of GIS3-intervals gives special meanings to the pitch-class intervals 11, 3, and 2 (see the number at the left side of the parenthesized paired numbers in the column of 'recurrent GIS3-intervals' in Figure 1-17), as those interrelate with the temporal intervals 1, 5, 2, and 7 (see the number at the right side of the paired numbers mentioned above), all in connection with various compositional features of the music" (pp. 40-41). Figure 1-18 (Lewin's Figure 3.1) explains where these GIS3-intervals come from. The quiet slurred figure of B and B-flat in m. 1 is defined as "the accompaniment figure" with function of defining the beat (p. 39). Lewin points out this feature in the column of "compositional functions" in Figure 1-17. The pitch-class interval of the two notes is 11 and the temporal interval (calculated between the attacks of the notes and using the written quarter-note as a unit) is 1; thus the indication of GIS3-interval for this figure is (11, 1). That is to say: "pitch-class interval 11 recurs significantly in connection with beat-interval 1" (p. 39).

As "opposed" to the accompaniment figure, the figure of E-flat and D in mm. 1-2 and the figure of D and C-sharp in m. 2 form two consecutive (11, 5), provoking the notion of "5/4 meter" (see Figure 1-18 and the column of 'compositional functions' in Figure 1-17). As support for

the idea of "being in 5/4 meter," Lewin points to the predominant role of the GIS3-intervals. As he states: "Just after time-point 5 we become aware that temporal interval 1 is predominating over other temporal intervals; we can then (and only then) hear temporal interval 1 as a beat with which to measure other temporal intervals Not only is the beat established at time-point 5, the pitch-class interval is also established at the same time, as a predominating pitch-class interval" (p. 42). The close association of these elements distinctively shown in Figures 1-19a and 1-19b (Lewin's Figure 3.4 and Figure 3.5) gives performers a central idea about the motion of the music. His further statement, "Dynamic and registral accents at time-point 10, the loud C-sharp attack, support the possible hearing of a 'strong beat' there, should one want to assert '5/4 meter' beyond purely mensural considerations" (p. 43), also reinforces the possibility of such a hearing.

On the other hand, Lewin relates the figure of B and B-flat in m. 1 to the figure of C-sharp and C in mm. 2-3 by two overlapped GIS3-interval (2,7). As shown in Figure 1-18 and Figure 1-19c (Lewin's Figure 3.6), the C, as the final note forming this relationship, gets the structural emphasis and corresponds to a written bar line. Lewin further states that the C which picks up the *Hauptstimme* D (he means the D in m. 2) in register is 6 beats after the D.

In sum, he claims that the mensural conflict of "5 beats after" (the D to the C-sharp) and "6 beats after" (the D to the C) is highly thematic in op. 27 as a whole (p. 44).

It is a matter of decision-making for performers. If performers wish to emphasize the sensation of "five," the music could be notated as Figure 1-20b, which is Hasty's Example 2b (Figure 1-20a is the correct version offered by Hasty for reference).⁹ Figure 1-20b, in fact, is originated from the theory in Westergaard's "Some Problems in Rhythmic Theory and Analysis" (see Westergaard's Example 3)¹⁰; Hasty himself is against this kind of interpretation (p. 194). Lewin also states that "the idea of quintuple 'perfections' seems a better metaphor for my hearing this aspect of music than does the idea of quintuple 'meter' " (p. 40). The notion of "6 beats later" is without question based on the half-note pulse which accords to the defining role of the accompaniment figure; furthermore, the "cadences" which are defined by one of the recurrent GIS3-intervals also involve the half-note pulse (I will discuss this later). Thus, the grouping of five quarter-beats arises from a design based on the music in the half-note pulse. How can performers express this kind of conflict? The interpretation of the music like Figure 1-20b falls into a very regular pattern and forms a very predictive model. However, these

⁹Hasty, "Rhythm in Post-Tonal Music," 196.

¹⁰Westergaard, "Some Problems in Rhythmic Theory and Analysis," 186.

periodicities can get diverse expressions according to their different distribution among the measures, in accordance with Hasty's suggestion that the notes should be differentiated qualitatively as "onbeat" and "offbeat," "weak" and "strong" (p. 197). Therefore, the conflict between the "five" and the notated meter is one of the means for expression, and the tension resulting from the conflict is "resolved" by the arrival of Cone's "structural downbeat," the E-flat in m. 12, which, according to Wason,¹¹ is the first clear downbeat of an ensuing 3/2 bar.

I find that extending the notion of the cadences defined by one of the recurrent GIS3-intervals leads to a possible implication of phrasing. The GIS3-interval (3, 2), spanning the B-attack to D-attack in mm. 1-2 and the E-attack to G-attack in m. 3, has a cadential function to Lewin's ear (p. 39, also see Figure 1-17 and Figure 1-18). This GIS3-interval, if applied to Hasty's eight units for the theme, occurs at the end of Units 1, 2, 4, and 5. What occurs in Units 4 and 5 (the G-attack to E-attack in m. 6 and the D-attack to B-attack in mm. 7-8) is actually GIS3-interval (9, 2). Since the pitch-class interval 9 is the complement of the pitch-class interval 3, I regard them as playing the same role. Since the ending of Hasty's opening phrase and the completion of the unified event respectively

¹¹Wason, "Webern's *Variations for Piano*," 80.

on Units 2 and 4 coincides with Lewin's notion of cadence, it seems to me that the application of the notion of the cadence defined by Lewin to Hasty's phrasing is quite appropriate.

Furthermore, Unit 3 is the only unit which does not have the cadential interval before m. 7. Thus it stands out as an unsteady element and gets the impulse to complete the event. The main function of cadences is to indicate the end of a phrase. But we cannot presume that all of these cadential figures should be played in the same manner. For example, the consistent soft playing of the cadences in Units 1, 2, and 4 would break down the musical long line of the event. In my view, the G and E in Unit 4 should be interpreted as a cadential figure on a higher level; in other words, its dynamic marking could be a drastic decrescendo. Thus we can express the sense of completion of the event. The E and G in Unit 2 should be played in a slight decrescendo, and the B and D in Unit 1 should be played in the same volume. The different level of expression of these cadences is intended to increase the continuity of the musical line.

Westergaard's Analysis

The relationship of meter and rhythm in this movement is an issue which interests analysts very much. In the 1960's, Edward Cone first pointed out the structural downbeat of the movement (the E-flat in m. 12)¹²; Peter Westergaard¹³ and James Jones¹⁴ then respectively presented their own theories relating to the issue of rhythm and meter. Westergaard discusses the issue in two directions: one is to discuss the differential role of rhythmic factors; the other is to regard the pitch relationships as determining rhythm. I would like to discuss the resultant structural features to which his analysis leads.

Westergaard divides the whole movement into eight "phrases" which correspond to Hasty's eight units. By phrase he refers to "the smallest units that could be called phrases because they are the most clearly demarcated" (p. 185, note 21). However, some of the phrases are not complete, because the completeness of a phrase is defined by the completion of two-note melodic motion (p. 188). In regard to the two-note melodic units, they are defined as the textural voices differentiated mainly by duration. For example, a whole note is connected to another whole note to form a melodic unit; the figures of two slurred quarter-notes and two staccato quarter-notes are respectively

¹²Cone, "Analysis Today," 45.

¹³Westergaard, "Some Problems in Rhythmic Theory and Analysis."

¹⁴James Rives Jones, "Some Aspects of Rhythm and Meter in Webern's Opus 27," *Perspectives of New Music* 7/1 (1968): 103-109.

regarded as melodic units (p. 185). It seems to me that this concept is quite similar to the way in which I emphasize the textural difference between the long notes and short notes. Since Westergaard regards interval-class 1 as the only interval class used for all two-note melodic units, we can use this interval to demarcate the larger units.

In Figure 1-21, the arrows indicate the completion of two-note melodic units. Therefore, we can regard Phrases 1, 4, 7, and 8 as independent (complete) phrases. On the other hand, Phrase 2 has to associate with Phrase 3 and Phrase 5 has to associate with Phrase 6 in order to conform to Westergaard's notion of complete phrase (the E in m. 3 goes to the F in m. 4 and the D in m. 7 goes to the C-sharp in m. 8). Consequently, there are in total only six complete phrases in the theme (see the signs of square bracket in Figure 1-21). Furthermore, because of the similarity of phrasing structure, the theme can be divided into three groups of these phrases: the first group from Phrase 1 to Phrase 3; the second from Phrase 4 to Phrase 6, and the third from Phrase 7 to Phrase 8.

Even though this theory of phrasing seems quite convincing, Westergaard does not avoid questioning the "finality" of Phrase 3 and Phrase 6. He points out that "The fourth phrase arrives too early," and "potential finality is a greater danger at the end of the sixth phrase

because of the rhyming effect of the isorhythm" (p. 187). Phrase 3 and Phrase 6 happen to be the end of the first two twelve-tone series used in the theme, respectively. What Westergaard mentions above is a phenomenon which musicians would encounter if their interpretation of phrasing in the theme accords with the complete statement of the row.

In regard to the higher level of the structure, the most strongly defined structural voice presented by Westergaard corresponds to Hasty's voice-leading on a higher level (compare Figure 1-22 and Figure 1-11c which are Westergaard's Example 7 and Hasty's Example 6c), even though their conception of phrasing is different.

Although Westergaard agrees with the notated meter (p. 185), he nevertheless tries out a new meter for the music, which he justifies as "hidden by the written meter" (p. 186). This results to what I have discussed in Figure 1-20b. From a performing point of view, I would say that notation like this is a dead end. This not only limits performers' imagination, but also increases the difficulty of expression in the music which has an already spare texture. Also based on this background, I do not think that Jones's theory,¹⁵ which displays a series of irregular meters for the music, is useful to performers; even though he claims that "this sort of analysis (structural meter) on

¹⁵Ibid.

the detailed level is aurally relevant and thus significantly affects performance" (p. 103).

The analyses I have discussed so far did not concern the twelve-tone series very much. Generally speaking, these analyses are attempts to look for musical and logical explanations out of the strict application of the twelve-tone series. On the other hand, Bailey and Klumpenhouwer regard the complete row statement corresponding to a phrase according to the identical succession of duration and the similar motivic patterns in each row statement. Wason also takes it for granted because Stadlen's edition clearly shows the grouping of the twelve-tone series as a phrasing unit. Since Webern himself gave the instruction of phrasing in accordance with the row statement, there must be some value in analyses based on this sort of phrasing.

Wason's Analysis and Stadlen's Edition

Wason's essay offers "some ideas on the structure of Webern's *Piano Variations*, and the relationship of that structure to Webern's own directions for the work's performance".¹⁶ One of the merits of this essay is its complete account of the interaction of history, twelve-tone

¹⁶Wason, "Webern's *Variations for Piano*," 59.

theory, analysis, and performance as they bear on this work. By comparing the rows used in the theme, Wason emphasizes the relationship between the structural features of the rows and Webern's instructions as shown in Stadlen's edition.¹⁷ He points out the exchange and invariance of the notes between the rows. Among these features, the pitch-classes C and G-flat, which are placed strategically in the center of the rows, are "quite audible when we compare measures 3 and 7" (pp. 73-74). In Stadlen's edition (as shown in Figure 1-23), these two pitch-classes in mm. 3 and 7 indeed get more of Webern's attention with his added accent and tenuto marks.

With regard to the issue of meter and rhythm, in addition to referring to Westergaard's observations on the structure and metric position of each "phrase," he points out the added accent marks on the downbeats of mm. 3, 6, and 11 and on the onbeats of mm. 7 and 10 whose effect is to "keep the half-note pulse alive" (p. 80). Wason also justifies the marking of *accelerando* in m. 4 with the completeness of the half-step pattern (the E in m. 3 to the F in m. 4).

As a response to one of Webern's impractical indications ("quasi vibrato" over the D in m. 11), Wason's suggestion is "to imagine the way in which Webern might have

¹⁷Anton Webern, *Variationen für Klavier*, ed. Peter Stadlen (Vienna: Universal Edition, 1979).

orchestrated it" (p. 82). Other impractical markings like the crescendo in mm. 6 and 10 might give performers, to some extent, psychological impact; these markings intensify the connection of the phrases (in Westergaard's term) and are analogous to the marking of *accelerando* in m. 4. At the end, Wason points out that one must work to introduce timbral distinctions into this solo piano piece. He states that: "the 'affective' directions are a help in doing this, influencing the performer, as they do, to utilize different touches, different nuances," and "to voice out certain pitches" (p. 82). With regard to this, Hasty points out the registral connection between the B in m. 1 and the D in m. 2 (p. 199). In Figure 1-23, Stadlen uses an arrow to connect these two notes. The close registral distance between these two notes certainly reinforces their relation, but the similar touch for these two notes (due to the same metrical position of onbeat) is also important. The arrows in mm. 9 and 10 of Figure 1-23 seem to imply that performers should voice out the G-sharp (m. 9), G, and F-sharp (m. 10). The connection of the G-sharp and G is based on the close registral relationship; the G is melodically and metrically "resolved" into the F-sharp (in the aspects of a two-note melodic unit and of an onbeat-offbeat relationship, respectively). The accented marking over the F-sharp and

the impractical marking of crescendo suggest the intensity throughout the line.

In regard to the structure of the theme, Wason uses the term "phrase" (Westergaard's term) to describe clear compositional units smaller than complete row statements; and he employs the term "period" to describe complete row statements which function as compositional units (p. 76). It seems to me that in general Wason agrees with Westergaard's structural analysis of the theme. Consequently, his observation of the structural features of the row in agreement with Stadlen's edition might help performers heighten their awareness of certain significant events in the theme.

Klumpenhouwer's Analysis

Klumpenhouwer's analysis¹⁸ of the theme depends on the usage of "Klumpenhouwer Networks" which focus on the registral permutations of the chords in the theme. In the conclusion of the analysis, he claims that the model, "first, can relate interpretations for a greater number of chords than can the pitch-class collection; moreover, it can relate interpretations of chords in a way that suggests

¹⁸Henry James Klumpenhouwer, "A Generalized Model of Voice-Leading for Atonal Music" (Ph. D. diss., Harvard University, 1991).

voice-leading; finally, it can provide distinctions among interpretations of chords within a given set-type" (pp. 8: 27-28). Generally speaking, the merits of his networks are as he claims; but in my opinion, the theoretical side of his analysis in general overrides the practical side of the analysis. However, there are some good points which can help explain the structure of the row as well as the sense of phrasing.

Klumpenhouwer is the only analyst who partitions the row into three-note collections suggested by the motivic pattern (as shown in Figure 1-24 which is Klumpenhouwer's example 8.4). Assigning the long notes as melody and the slurred quarter-notes as accompaniment, he uses the network interpretation to describe the relationship of the first segmentation (A1) and the fourth segmentation (A4). As shown in Figure 1-25 (Klumpenhouwer's Example 8.9), the melodic note leads to the other melodic note and the accompanying notes go to the subsequent accompanying notes (the E-flat in m. 1 goes to the F in m. 4 and the group of B and B-flat in m. 1 goes to the group of A and G-sharp in mm. 4-5). The melody and the accompaniment have symmetrical contrary motion. The voice-leading of these segmentations is coordinated with the same articulation and characteristics, which help round off the phrase and

establish the relationship of these segmentations in a bigger context.

With regard to the relationship between these trichords, the network interpretation of the four trichords in each row helps to distinguish the structure of the third segmentations (the second segmentation in the last row) from that of the others (see Figure 1-26 which is Klumpenhouwer's Example 8.15). The segmentations of A3, B3, and C2 consist of three consecutive relatively longer notes (F-sharp, E, and G in m. 3; C, D, and B in mm. 7-8; G, E, and F-sharp in m. 10) and are outside the prevailing long-short-short motivic pattern defined by Klumpenhouwer. Although he does not mention the concept of phrasing, the way he partitions the row and examines the relationship of the segmentations seems to imply that the three groups of segmentations are the three big phrases of the theme.

Summary

The diverse ways of approaching the theme generate some questions for performers. Should performers look upon these analyses as independent of one another? Or can performers make these analyses compatible in some way? It seems to me that the analyses of the theme of the third movement can be

classified into two types. The first type includes analyses whose phrasing units correspond to complete row statements. The phrasing units of the other type do not conform to the complete row statements. The analyses which belong to the first type include Westergaard's, Wason's (as well as Stadlen's or Webern's), and Klumpenhouwer's analyses. The analyses which belong to the second type include my analysis and those of Hasty and Lewin. Although many common aspects are shared by these analyses, the different interpretations of phrasing are the crucial factor which make these two types of analyses incompatible and result in essentially different interpretations of the music.

I will begin with a discussion of the common points shared by most of these analyses. The notion of melody and accompaniment is present in all of them, although the results are not always the same. Most analysts regard the figure of slurred quarter-notes as accompaniment and the long notes closely associated with that accompaniment as melody (in my analysis and those of Hasty, Lewin, and Klumpenhouwer). In my analysis, since I have a very specific notion of melody and accompaniment, there are some discussions about the central focus of the melodic notes as well as of the melodic outline. On the other hand, Westergaard's two-note melodic unit implies that the theme is wholly composed of contrapuntal voices.

With regard to meter and rhythm, Wason points out the significance of the accented markings on the metrical downbeats in Stadlen's edition in order to demonstrate the traditional function of the notated meter. In spite of the difficulty in ascertaining the meter, Hasty still puts much emphasis on the concept that the bar lines are instructions to performers and performers must interpret beats as weak or strong according to their position in the measure (p. 197). For Lewin, the mensural conflict of "five beats after" and "six beats after" is highly thematic in op. 27 as a whole. Nonetheless, he still thinks that "the idea of quintuple 'perfections' seems a better metaphor for my hearing this aspect of music than does the idea of quintuple 'meter' " (p. 40). In addition, both of his accompanying and cadential figures incorporate the half-note pulse. In sum, there is much support for the notated meter of the theme. It is not necessary for performers to rearrange the score and look for other metric possibilities. On the other hand, Westergaard tries out a new meter (5/4) which he justifies as "hidden by the written meter" (p. 186). In opposition to this idea, I have defended the notated meter in my critique of Lewin's analysis.

Although Hasty and Westergaard do not have the same phrasing, Hasty's voice-leading on a higher level (my Figure 11c) corresponds to Westergaard's most strongly defined

structural voices (my Figure 1-22). Generally speaking, the voice-leading in Hasty's analysis is based on the notion of registral association and melodic interval (interval-classes 2 and 13), which is quite different from the voice-leading in my analysis and that of Klumpenhouwer. I have mainly focused on the connection of the pitch-class set [0, 1, 4], which is evenly distributed in the theme part, and have demonstrated the consistent connections of melodic notes as well as accompanying notes. Klumpenhouwer, on the other hand, attempts to connect different pitch-class sets by means of Klumpenhouwer Networks.

Since Klumpenhouwer's analysis of voice-leading is based on the complete row statement, it certainly helps confirm the phrasing defined by Westergaard and Wason. Westergaard's phrasing is based on the completion of a two-note melodic unit. According to this notion, I assume that there are a total of six complete phrases in the theme (see Figure 1-21) and that every pair of consecutive phrases forms a twelve-tone series. Since Wason mainly deals with the interpretative markings in Stadlen's edition, he certainly follows Webern's phrasing indications which correspond to complete row statements. While it seems that the phrasing authorized by the composer leaves no other choice for performers, we can still find other possible interpretations which are established in a well-rounded

theoretical background. As a matter of fact, if performers regard the compositional units (in this case the twelve-tone row) as the sole basis of musical expression, it would severely reduce the interpretative potential of the music.

Hasty is mainly concerned with questions of rhythm and motion in post-tonal music. Nevertheless, his essay subsequently offers information about other related issues. The aspects of music including rhythm, meter, phrasing, articulation, and voice-leading are closely interwoven into a single whole in his analysis. I look upon his analysis as a sort of "gestalt" analysis which is in opposition to "atomic" analyses like that by Klumpenhouwer. With regard to phrasing, his analysis implies five phrases in the theme (see Figure 1-16). The close relationship between the units creates what he calls the motion of the music and furthermore affects the formation of the phrases. In fact, I regard these units in contrary dynamic markings ($p+f+p+f$, $f+p+f+p$) as a symmetrically-balanced syntax and my phrasing is based on this notion. Hasty's phrasing and my phrasing for the first six measures of the theme are identical.

Although Lewin does not mention the concept of phrasing in his analysis, his notion of cadential figure helps define phrases of the music. I have found that his cadences reinforce Hasty's definition of phrases. Thus the compatibility of Hasty's and Lewin's analyses can give

performers some very specific ideas about performing the music.

CHAPTER TWO

The Variations of The Third Movement

Other than Wason's, there are virtually no published analyses of the variations that come after the theme in the third movement. In this chapter, I will present my own analysis of these variations, interweaving my interpretation of the markings in Stadlen's edition and Wason's observations. I will focus initially on the issue of harmonization and voice-leading and thus offer a basic idea about the structure of the variations. Although the variations respectively present different ideas which do not seem to have a close relationship to the theme in the traditional sense, the analytical methods and concepts which are employed to analyze the theme can be more or less useful in the analysis of the variations.

Variation I

The first variation as designated by Webern in Stadlen's edition begins on the second beat (half-note) of m. 12 and ends on the first beat of m. 23. It has a much denser texture than the theme. While the theme emphasizes linear progress, Variation I has more simultaneities. I

define the single attack notes as the melodic notes and the dyad which appears simultaneously or is slurred (the figure of F/A-flat in mm. 13 and 22) as accompanying notes. The pair of accompanying notes here for most of the time appears in the form of pitch-interval 11 and is sometimes overlapped by a melodic note in thirds. Since most of the melodic notes are registrally well above the accompanying notes, it is not hard to define their relationship upon hearing the music.

The phrasing of this variation is much more ambiguous than the theme. At first glance, only the repeated rhythmic patterns provide any clues. Figure 2-1 indicates four different rhythmic patterns (A, A1, B, B1) and offers a possible way of phrasing (A1 is a variation of A and B1 is the condensed form of B). Since the length of each rhythmic pattern does not extend over measures (B is slightly longer than two measures, the others are shorter than two measures), they appear clearly distinguishable by the listener. These rhythmic patterns also bear some resemblance to each other in the aspects of melodic contour and articulation. According to Wason's description, ". . . compare mm. 2-4 of the theme with mm. 14 (second beat)-15 in the first variation (the third phrase of the theme is compressed), or compare m. 11 with m. 16 These help

to delineate *irregular* phrase and period lengths."¹ He points out the motivic reference of this variation to the "theme."

The issue of harmonization can be handled according to the principle employed in the theme. Here the melodic notes appear either right before accompanying notes or above them (see the circled groups in Figure 2-2). The types of trichords intensively used in this section are limited: [0, 1, 2], [0, 1, 3], [0, 1, 4], and [0, 1, 5]. Thus the relationship within each set can be fully discussed. These trichords can be laid out both in registral order and with the melodic notes across the top line. Figure 2-3 shows the relationship of sets [0, 1, 2] first with the melodic notes across the top line of the trichords (see Figures 2-3a, 2-3b, and 2-3c), then with the notes of the trichords from top to bottom in registral order (from higher to lower notes, see Figure 2-3d).

Although both Figures 2-3a and 2-3b exhibit certain consistent patterns of voice-leading in their relationship of transposition and inversion, respectively, none of them is *completely* consistent in the sense that the melodic notes go to melodic notes and the accompanying notes go to accompanying notes. However, through a pertinent

¹Robert Wason, "Webern's *Variations for Piano*, Op. 27: Musical Structure and the Performance Score," *Integral: The Journal of Applied Musical Thought* 1 (1987): 83.

arrangement as shown in Figure 2-3c, the relationship of the sets can be made to conform perfectly with the condition just mentioned. Actually the consistent pattern of voice-leading within the last six chords is the result of a sequential transposition of the same material (see mm. 18-21). The second chord in level B is the beginning of this sequential transposition. Figure 2-3d is of interest with regard to the distribution of the melodic notes which are circled in the registrally ordered chords and where soprano and bass parts have close connections. In sum, the chords of pitch-class set [0, 1, 2] never appear in complete simultaneity. They often form a pair of chords with either one of the other pitch-class sets ([0, 1, 3], [0, 1, 4], and [0, 1, 5]). Therefore, I would regard the chords of [0, 1, 2] more as an important reference rather than as a dominant harmonization in this variation.

The relationship among the sets [0, 1, 3] shown in Figure 2-4a and 2-4b reveals a similar consistency of voice-leading. The trichords in Figure 2-4a, with the melodic notes on the top, are connected in the condition that melodic notes go to melodic notes and accompanying notes go to accompanying notes, except the first two and the last two chords. The second chord on level B is also the beginning of the sequential transposition. Regardless of the notions of melodic and accompanying notes, Figure 2-4b, with the

chords in registral order, shows a consistent registral permutation (the circled notes are melodic notes).

The two sorts of the relationship (with melodic notes across the top line and with the notes in the registral order) of the sets [0, 1, 4] and [0, 1, 5] are entirely identical (see Figures 2-5a and 2-5b). Not only are the patterns of voice-leading consistent, but also the melodic notes always go to melodic notes and the accompanying notes always go to accompanying notes.

Since the pitch-class sets [0, 1, 2], [0, 1, 3], [0, 1, 4] and [0, 1, 5] are evenly interwoven in Variation I, the voice-leading within each set, as discussed above, does not easily lead performers to listen to the music in the same way. However, I believe that these discussions at least reveal the harmonic structure of this variation. The distinction of melody and accompaniment in the context also helps this variation link with the theme which shares the same notion.

From the beginning of this variation to m. 18 (the end of the second rhythmic pattern B), a phenomenon of semitone aggregation which is quite special in this movement occurs (see Figure 2-6a). The group of notes for aggregation is determined by the close relationship between the melodic and accompanying notes (indicated by horizontal braces). Since each group of semitone aggregations consistently contains

two half-step melodic notes, it can be regarded as a compositional unit smaller than a phrase of this variation. Figure 2-6b shows the semitone aggregation up to more than three octaves; the occasional "gaps" (indicated by the parenthesized notes) there are only a whole-tone apart. This variation contains more notes in the form of simultaneity than other variations; therefore it is relatively easy to sense the semitone aggregation in it. There seems to be a sense of motion in these groups of aggregations, a motion which continues the cycles of twelve-tone aggregation. Performers have to listen to this immediate chromatic completion coordinated with the compositional units. The special character of this passage distinguishes itself from the latter part of the variation. Thus we can divide the variation into two parts. To apply my notion of rhythmic patterns to the two parts, we get a rather symmetrical phrasing structure: A-B-B and B1-B1-A1.

The melodic outline of this section suggests another way of phrasing (see Figure 2-7). Since the pitch-class set [0, 1, 2, 6, 7] (in exact transposition) occurs three times from the second quarter-beat of m. 18 to the end of m. 21, it is appropriate to regard this sequential repetition as three phrases. In such circumstances, we then have to reconsider the structure of the melodic line that occurs before the pentachords. I divide the melodic notes before

the pentachords into four groups (three tetrachords and one dyad). A common feature shared by the pitch-class sets of these tetrachords [0, 1, 3, 4], [0, 1, 4, 5] and [0, 1, 2, 3] is that each of them is symmetrical within itself. Another feature of this melodic line also shared by the theme is that the two notes of each consecutive pair always form a dyad of a semitone. Because of the intrinsic difference between the appearances of the same pitch-class set and the appearances of the different pitch-class sets, we can also divide this variation into two parts of eight phrases (the first part from Phrase 1 to Phrase 4 and the second part from Phrase 5 to Phrase 8, as shown in Figure 2-7a).

In Figure 2-7, we notice that the last occurrence of the pentachord is interrupted by the markings of ritard and rest. Thus the last note of the pentachord seems isolated from the group. However, the expectation for completion of the pentachord enforces the continuity of the music. Therefore, the last note A-flat in m. 21 serves to complete previous chord and as the starting point of the next chord (Phrase 7 and Phrase 8 share the note A-flat). The motion of continuity here is so strong that it helps differentiate the meaning of ritard in m. 21 from that in mm. 22-23 (the end of the variation). The ritard in m. 21 still possesses a strong motion to continue the music, however, the ritard

in mm. 22-23 represents the "resolution" of all the tenseness occurring in this variation and it truly indicates the end of this section.

Stadlen's edition shows Webern's indication for the grouping of the notes, which, to a certain extent, conforms to the phrasing based on the analysis of the melodic outline presented above (see Figure 2-8 which is Stadlen's edition). Each phrase or each group of notes has its own specific dynamic markings. Along with the dynamic marking of *fortissimo*, the indication of "hartes Staccato" in m. 19 suggests the climactic point of this variation. Generally speaking, it is easier to play this variation than to play the theme. In this variation, the denser texture helps delineate the contrast of dynamic expression; the higher registral distribution of the notes helps the expression of light character (as indicated in Stadlen's edition at the beginning of the variation). The melodic notes, which largely depend on the playing of the right hand and are usually registrally well above the accompanying notes, help to show the phrasing structure. After the "serious" playing of the theme, the music becomes somewhat emancipated so that we can interpret this variation in a freer atmosphere.

The most important feature Wason mentions for this variation is the registral plan which helps to unite the

music in a bigger context.² He regards the F3 in the theme (m. 7) and the F-sharp-3 (as F#3) of m. 16 as going a long way to build up to the climax occurring in m. 19 (G-sharp-3). Furthermore, in agreement with what Webern has indicated on the score (a circle on the G-sharp in m. 21), Wason observes that the climactic G-sharp (in m. 19) is "prolonged" by another statement of the same pitch-class note in a lower register (in m. 21). As he states: ". . . Webern circled the A-flat at the end of the bar (m. 21), which seems to indicate that it should be heard as the echo of the climactic G-sharp-3 (in m. 19)."³ As mentioned above, I regard the G-sharp circled in m. 21 as the completion of the repeated pitch-class set [0, 1, 2, 6, 7] (Phrase 7) and the starting point of Phrase 8. Since Phrases 5, 6, 7, and 8 share the pitch-class G-sharp (see Figure 2-7), this pitch-class becomes a common point in the phrases in the second half of the variation.

With regard to the row techniques in this variation, Wason states that "seven rows are stated within this eleven-bar span. This amounts to a considerable acceleration in 'row rhythm' over the three rows of the theme stated during the same time span, and further supports the 'transitional'

²Ibid., 84.

³Ibid.

character of the passage."⁴ This technique results in what I called the "denser texture" of this variation.

Variation II and Variation III

The second and the third variations are paired due to the similar construction of their compositional elements and their relatively static texture as opposed to what precedes and follows them. The figures of interval-class 1 still play crucial roles in the second and the third variations. There is no differentiation of melody and accompaniment, just a linear presentation and some punctuations of trichords. The trichords here constantly slow down the music by means of ritard, longer duration, and heavier sonority because of their simultaneity.

Double repeated staccato notes mark the three divisions of Variation II; and the notes in between (except the simultaneous trichords) form the alternation of the pitch-class sets [0, 1, 3, 4] and [0, 1, 4, 5] (see Figure 2-9). The articulation of these single-attack-notes generally supports the grouping of the notes. These pitch-class sets contain two pairs of semitone dyads (see Figure 2-10; T1 indicates the transposition of interval-class 1). The notes

⁴Ibid., 84-85.

of each pitch-class set are laid out in vertical order; they move from the lower position to the higher position in the form of their lowest set ordering. The numbers indicated between the chords are the interval relationship between the horizontally corresponding notes of the consecutive chords. It is very clear in Figure 2-10 that the first and the last divisions have the same interval progression (as indicated by the horizontal braces). Actually the latter is an exact transposition of the former in a fifth. Another relationship which connects the first and last division is the same location of the ritard marking (see Figure 2-9). The effect of slowing down is only shown on the pitch-class set [0, 1, 3, 4]. In spite of these connections, they do not sound so closely related because of differences in rhythm, articulation, and musical motion.

As a whole, the third division of this variation is more texturally condensed than the other divisions in terms of quicker harmonic rhythm (there is no rest between the last eight quarter-notes). Although the third division has some connections with the first division, it also bears some resemblance to the second division (see the square brackets Figure 2-11). The identical linear presentation here suggests that Webern employed the same row in both of these divisions (compare mm. 28-29 with mm. 32-33). That Webern kept all of the notes in the same register strongly implies

the recalling function of the third division. In such circumstances, it is necessary to reconsider the grouping of the notes in the second division.

Since the marking of ritard is always associated with the pitch-class set [0, 1, 3, 4] in the first and the third divisions, it is appropriate to apply the same notion to the second division. Thus the location of the ritard undermines the structure of the alternation of the pitch-class sets [0, 1, 4, 5] and [0, 1, 3, 4] and changes the relationship of the grouped notes in the second division (compare Figure 2-9 with Figure 2-11). As a result, the two "extra" notes respectively occurring before and after the pitch-class set [0, 1, 3, 4] (A/B-flat and B/C) in the second division shown in Figure 2-11 need a new interpretation. Stadlen has a marking of square bracket beside the B in m. 29 and the C in m. 30. Both of the notes bear the marking of *sf*. Could these two consecutive *sf*'s imply a sort of climax in this section? In fact, the second division of this variation starts with the dynamically strong repeated notes as opposed to the dynamically weaker repeated notes in the first and the third divisions. The repeated notes of the second division are the only ones which start right on the metrical downbeat. The only trichord in the second division (in m. 28) bears the dynamic marking of *sfp* which appears only twice in this variation (also in m. 33). From these

observations, it is appropriate to define the second division as the climax of this variation and to define this variation as having an arch-like structure.

There are five occurrences of the trichord [0, 1, 6] in simultaneity. All of them accompany the pitch-class collection [0, 1, 3, 4]. The relationship between the chords of [0, 1, 6] can be described as in Figure 2-12; the consistent pattern of voice-leading during the inversionsal operation certainly explains the internal exchange of the intervals within a chord (interval-classes 5 and 6). The dynamic marking of *sfp* for the chords in mm. 28 and 33 make them distinctive from other quiet chords in mm. 24, 26, and 31. While the pitch-class set [0, 1, 4] dominates in the theme and the pitch-class sets [0, 1, 2], [0, 1, 3], [0, 1, 4], and [0, 1, 5] are quite evenly distributed in the first variation, the transfer of emphasis on the [0, 1, 6] in Variation II and Variation III indicates the intrinsic quality of "variation."

As stated by Wason in regard to Variation III: "The kinship with the previous variation is obvious: the quarter-note motives are accelerated from the previous; meanwhile, the chord continues to play a similar role."⁵ Variation III contains two palindromes and one statement of the basic material without its reflection. The first

⁵Ibid., 87.

palindrome lasts from the last beat (quarter-beat) of m. 33 to the first beat of m. 38, while the second palindrome lasts from the third beat of m. 38 to the second beat of m. 42. The last passage runs from the last beat of m. 41 to the end of m. 43 (see Figure 2-13). The second palindrome is just a transposition of the first by interval-class 1.

Even the basic material of the palindrome comprises the construction in mirrored form. It consists of two pairs of the eighth-notes on each side of the longer notes and two longer notes surrounding a trichord (see the basic material from the last beat of m. 33 to the last beat of m. 35). All in all, there are a total of five statements of the basic material (each palindrome contains two statements of the basic material). It seems to me that this section is simply a game of symmetrical contours played in a circle.

Wason is mainly concerned about the row techniques employed in Variation II and Variation III. There are five rows stated in both of the sections. He points out that the relationship of inversive symmetry between the rows used in Variation II and the relationship of palindromic symmetry between the rows used in Variation III foreshadow the row techniques employed respectively in the second and in the first movements.⁶ But these row techniques are not the main concern in this study, so I will not further discuss the

⁶Ibid., 86-87.

issue. Wason also regards the last row statement in both of the variations as something with a cadential effect (p. 87). As a matter of fact, the "cadence" in Variation III (the last statement of basic material) is intended to be played differently from the previous passages. The chord in m. 42 is in a louder dynamic level (*f*) as compared to the *pp* for the previous chords. The originally single attack quiet long note is now played in *sf* and accompanied by an ornament (the D as the long note and the B-flat as the ornament in m. 42). The marking of *accelerando* accompanied with *ff* in mm. 43-44 suggests great continuity from the static Variation III to the mobile Variation IV. I would regard this statement as a transitional passage to next section rather than as a cadence of this variation.

One of the results of employing the palindromes in Variation III is that the materials on the beats in the former part of a palindrome would become off the beats in the latter part of a palindrome (and vice versa). Thus the playing of the palindrome in this variation would be expressed through the different metrical emphases in the two parts of the palindrome. The effective expression of this different metrical emphasis is especially apparent in the middle of the palindromes (the dyads F-sharp/G in mm. 35-36; the dyads F/F-sharp in m. 40) where the same two dyads should be played in different ways. For example, although

the two dyads have the same dynamic markings, the dyad G/F-sharp in m. 36 should be stronger than the same dyad in m. 35. Among the four notes of these two dyads, the G in m. 36 is dynamically strongest and the G in m. 35 is dynamically weakest. The metrical position indeed can play a significant role in the expression of the music.

Variation IV

Whereas interval-class 1 plays a crucial role both in the melodic and accompanying parts in the theme and the first variation, it plays a counterpoint game in the fourth variation. The facts that the notes of the left hand and right hand alternate very consistently with each other and that Webern deliberately leaves out the situation of inconvenient hand-crossing for pianists, indicate that this section might be a game of two-voice counterpoint. In addition, it is also reasonable to assume that after some exploration of the row techniques, Webern might have wanted to try one of the most popular techniques in the conventional variation form. The most apparent indication of the contrapuntal texture is in the second half of m. 52 and the first half of m. 55 where the overlapping of the

paired eighth-notes certainly offers a clue to Webern's contrapuntal thinking.

The feature that distinguishes Variation IV from the others is its treatment of syncopation; for most of the part the notes are distributed on the position of off the beat. Based on the attacking point of the notes, the rhythmic patterns in this section can be classified into three types. In the first type, the notes are one and a half quarter-beats apart, like the passages in m. 45 and in mm. 49-50 (from the G in m. 49 to the A in m. 50). In the second type, the notes are one quarter-beat apart, and all of the notes are off the beat. This sort of rhythmic pattern is dominant throughout the section. In the third type, the notes are also one quarter-beat apart, but the notes are only on the beat, like the passages in mm. 46, 50 and 54. The difference between the second type and the third type is only in their metrical positions. In summary, the rhythmic patterns here do not have much variety, and therefore, the differentiation of these three types of rhythmic patterns in performance is of considerable significance.

The first task for performers is to define the meaning of each rhythmic pattern in the whole context. I consider them as having different degrees of "driving motion." The second type of rhythmic pattern has the most powerful driving motion due to its consistent syncopation. The first

type has some relaxation due to its longer temporal distance (one and a half quarter-beats) and its occasional metrical position of onbeat. The third type of rhythmic pattern to some extent offers a sense of closure; its close association with the descending contour implies more relaxation (mm. 46, 50 and 54). On this basis, we can proceed to a discussion of the phrasing in this variation.

First, this variation can be divided into two parts. The first part ends with the marking of ritard in mm. 48-49. This is the only marking of ritard in this variation. Although the passages which slow down the driving motion (the third type of rhythmic pattern) suggest the completion of phrases (see the ending of Phrase 1 and Phrase 3 in Figure 2-14), they do not function as endings of the whole section or of some smaller division of it. Therefore, the whole section generally maintains its momentum until the arrival of the next section. The three groups whose notes fall exactly on the beats show a progression of chromatic completion. The combination of the first pitch-class collection [0, 1, 2, 4] (E-flat, E, F, G) in m. 46 and the second [0, 1, 3, 4] (E, F, G, G-sharp) in m. 50 creates a partial fulfillment of chromatic scale (E-flat, E, F, G, G-sharp). The third pitch-class collection [0, 1, 2, 3, 4, 5] (C-sharp, D, D-sharp, E, F, F-sharp) in m. 54 reaches a half chromatic completion. This chromatic completion with its

metrical position of onbeat gives the unsteady pattern of syncopation in this section a sort of resolution in the sense of rhythm and harmony.

There are two other compositional features which can help define the phrasing. The first is the main direction of the music. The internal relationship between the two lines of each phrase can be described as Figure 2-14 where any parallel motion between the lines is regarded as the main direction of the music. The motion of T11 and T1 naturally conforms to the emphasis of interval-class 1 in the previous sections of music. Although interval-class 2 appears to have a secondary role in the movement, the two parallel motions of the tenth in Phrase 1 and in Phrase 4 move, respectively, by interval-class 1. The strong striking of the high-pitch notes such as the F-sharp in mm. 46 and 51, the G in mm. 48 and 49, and the A in mm. 53 and 54 also gives some hints about the phrasing. Except for the first phrase, each of the other phrases has at least one high-note which usually appears as the first note of the phrase in the loudest dynamics.

With the previously described high-pitches as milestones, the symmetrical relationship of the structure is delineated as Figure 2-15. I regard the three consecutive statements of passages led by the high A as a unit (Phrase 5). Viewed from many aspects (dynamics, register, and

rhythmic motion), this variation is the climax of the whole movement. The tempo markings of *accelerando* and "wieder im tempo" respectively at the end of Variation III (mm. 43-44) and at the beginning of Variation IV (m. 45) suggest that the playing of Variation VI can be faster than the previous sections. The faster tempo of this variation certainly reinforces its character as the climax of this movement.

Stadlen's edition (see Figure 2-16) provides some good interpretive points which I think can be incorporated in my analysis in an effective way. The lines which he drew to show the connection of notes mostly occur when the notes are on the position of offbeat and the notes are one quarter-beat apart (see mm. 48, 51, and 53 in Figure 2-16). The only exception is the climax of the variation in m. 54 where the notes are on the beat (I will explain this later). Along with the big slur he drew for the grouping of the notes (m. 47), these markings suggest the quality of more intensity between the notes. It is interesting to observe that the high pitches which occur right before these intense passages (the F-sharp in m. 46; the G in m. 48; the F-sharp in m. 51; the A in mm. 53 and 54) are singled out by their shorter duration (the eighth-note), louder dynamics (*fortissimo*, *sforzando* and accented marking), and more intense articulation (*staccato*).

On the other hand, the small circles which Webern drew above the notes on the metrical position of onbeat imply that he had in mind more breathing space and a mood of relaxation (mm. 45, 46, 49 and 50). This point is further supported by the marking of "poco rit." in m. 46. The other important matter is Stadlen's indication of the high-point of this variation on the A in m. 54. The concept of climax here conforms to the notion of chromatic completion which I mentioned previously. The chords immediately after the A in m. 54 are the only ones on the metrical position of onbeat in this variation. There is no doubt that the connective lines between these chords are to indicate the intensity of this climax. The expression of the climax is reinforced by the usage of the sustaining pedal indicated in Stadlen's edition (see mm. 53-55). As Stadlen states in the foreword of the edition: ". . . the three passages in III, bars 53-55 where I distinctly remember my astonishment that he should have been prepared to sacrifice the explicitly indicated pungency of the quavers or, again, to allow the so meaningfully devised sequences of crotchet intervals to add up to climactic six note chords."⁷

Wason places more emphasis on the formal function of this variation in the whole movement. Like Variation I, Variation IV has more rhythmic and harmonic activity as

⁷Anton Webern, *Variationen für Klavier*, Op. 27, ed. Peter Stadlen (Vienna: Universal Edition, 1979), VII.

opposed to the more static sections.⁸ Based on the similarity of their textures, the pairs of theme and Variation V, Variation I and Variation IV, as well as Variation II and Variation III certainly reveal Webern's intention of symmetrical perfection in the overall plan. Wason also points out the long-range structure of the movement by recalling the high-points of the first variation (the G-sharp in m. 19) as well as of the theme (the F in m. 7), and connects them to the climax of the whole movement (the A in m. 54). This sort of registral reference offers performers an architectural idea of the movement.

Variation V

As mentioned above, the final variation is paired with the theme because of their similar mood and texture, but the final variation is even more tranquil because of the lower register and the lower degree of dynamics. This variation is again in the mirrored structure. From the superficial level, it seems that there are two passages of palindrome: the first one is from the beginning of m. 56 to the fifth beat (quarter-beat) of m. 59; the other one is from the last beat of m. 59 to the second beat of m. 63 (excluding the

⁸Wason, "Webern's *Variations for Piano*," 88.

right hand part, see Figure 2-18). However, the markings of ritard in m. 60 and back to tempo in m. 61, which suggest the division of this section, imply that there might be another possibility of palindrome. The passage from the last beat of m. 62 to the end of m. 64 is the reflection of the passage from the beginning of this variation to the third beat of m. 58. Thus with the chord on the fourth beat of m. 61 as the pivot chord, the passage that follows this chord up to m. 64 reflects the passage before the chord but omits the part from the fourth beat of m. 58 to the fifth beat of m. 59 which is the mirrored part of the first palindrome. As a result, the whole section can be regarded as a big palindrome plus two measures of cadence (see Figure 2-17).

Since this section is mainly composed of trichords, it is natural to lay out the relationship of these chords. By means of the "Klumpenhower Network,"⁹ the big palindrome is worked out as Figure 2-17. Each trichord is laid out vertically in accordance with the registral position. The numbers between the chords define the interval relationship between the horizontally corresponding notes of consecutive chords. While there is a consistent parallel motion between the outer voices, the inner voice is affected by "an

⁹Henry James Klumpenhower, "A Generalized Model of Voice-Leading for Atonal Music" (Ph. D. dissertation, Harvard University, 1991).

operation on pitch-class operations."¹⁰ For example, "+4" labeled between the inner voices of the first and the second chords is the sum of +6 (from <T6>) and -2, the complement of +2, the interval that labels the relationship of the outer voices. Thus originally the pitch-class D of the first chord "would" only proceed by two semitones to C, whereas the C is furthermore "transposed" by six semitones (<T6>) to the F-sharp occurring in the second chord.

The two small palindromic passages shown in Figure 2-18 have the same operation, and these two passages proceed in the opposite direction (compare the numbers between the chords). The chords in the last two measures (the cadence) show the same operation as the second small palindrome but without the mirrored part (compare Figure 2-18 with Figure 2-19); both of these groups are in the relationship of T11. The similar construction of these two passages (compare mm. 60-61 with mm. 65-66) indicates the recalling function of the cadence.

The analysis of the progression of the chords shown above does not offer an immediate guidance to performers. However, it is an attempt to figure out the formal structure, harmonic structure, and voice-leading of this variation. In regard to the phrasing, it is clearly shown in Stadlen's edition (see Figure 2-20) where Webern used

¹⁰Ibid., 8.12.

slurs, square brackets, and break markings to indicate the grouping of the notes. The markings for the grouping of the notes suggest a form of phrasing which is possibly close to Webern's intention. As indicated at the beginning of the variation in this edition, "set off the left against the right group," the interaction of the basic material which consists of a trichord and a single note respectively in the right and left hands forms the phrasing unit (see the beginning of Figure 2-20). I would like to divide the variation into two parts by the marking of ritard at the end of m. 60. Based on Webern's markings in Stadlen's edition, I mark Phrases 1, 2, and 3 for the first part and Phrases 4, 5, 6 plus a coda for the second part (as shown in Figure 2-21). Although these phrases do not conform to the palindromic structure as shown in Figure 2-17 and Figure 2-18, their connective relationships have to rely on the notion of palindromic structure.

Although the palindromic structure seems to be the only factor uniting the basic material of this section, the arch-like dynamic shape both in the first three phrases and the last three phrases (*pp-p-p-pp*) also helps performers sense the structure on a higher level. The dynamically high point coincides with the registrally high point (see the trichord of C-sharp/F-sharp/C in mm. 58 and 63). While the low E-flat, which initiates the variation, is ringing through the

whole section (five times in the same register), performers should focus attention on this registrally high trichord to make it interact with the resonant ringing bass. It is also important to note that the ringing low E-flat recalls the first note of the theme. This interaction shows the close relationship between the theme and Variation V.

Although Webern did not mark any pedaling indication here, the sustaining pedal must be used to connect the notes well in each phrasing unit and make the quiet sound resonate more. While metrical position has always been an important factor in deciding the property of the notes, it is interesting to note that all of the notes in this variation are on the positions of offbeat. There is no "resolution" at all. The fact that Webern tried to end the third movement with an "offbeat" variation and to end the second movement with an upbeat dyad is not a coincidence. But this sort of arrangement causes some problems in the performance of the second movement. This will be discussed in Chapter Four. Because of its slow tempo, the third movement, nonetheless, would not generate any significant disturbed feeling. Besides, the marking of ritard would also erase the uneasy feeling of "unresolved" metric pulse. From an overall point of view, the "structural downbeat" (the E-flat in m. 12) becomes even more important when we realize that the last variation would not return to any downbeat.

Perhaps the feeling of suspension is what Webern was seeking.

Wason once again comments about the significant registral events in this variation. He points out the entrance of the opening pitch-class E-flat, the same as the pitch-class of the theme's entrance, in its new and low register and the final note B as the lowest note in all three movements.¹¹ Along with the low degree of dynamics, this certainly increases the introspective quality of this variation as well as the movement. To summarize his views about this variation, Wason states that "Webern attempted to solve the problem of closure associated with variation form through the return of the opening row-forms, the use of three pairs (which link with the opening three rows), the use of new lower registral limits, *pianissimo* dynamics and the verticalizing of row segments."¹² To end the piece in such an introspective state, performers need to recall all the way back to the beginning of the first movement which bears the indications of "subdued" and "plaint" mood.

Summary

¹¹Wason, "Webern's Variations for Piano," 89.

¹²Ibid., 90.

In regard to the row techniques and the form of the movement as a whole, Wason concludes that ". . . the theme links with the final variation by virtue of three rows/row-pairs stated . . . variations I and IV are transitional and state seven rows each (and reach upper registral limits). . . II and III form the 'static' middle section, stating five rows each."¹³ The observations Wason has on the relationship between the row techniques and the formal structure of the music are indeed accurate and inspiring. Furthermore, the notion of the texturally corresponding sections in this movement reinforces the relationship just mentioned above. The theme and Variation V respectively in their sparse texture are basically in the tranquil mood; Variation I and Variation IV are relatively more energetic due to their denser texture, consistent tempo, and higher dynamic level. Variation II as well as Variation III, with their constant change of tempo, are essentially the presentation of linear statements. As a matter of fact, I do not think that the notion of theme and variations is absolutely necessary for this movement. We can regard this movement as a series of six sections of equal weight. Each section is independent of the others in terms of diverse expression, but is also related to the others as described above. Perhaps this explains why Webern did not mark the theme and variations

¹³Ibid.

for the published edition as he did for Stadlen. Another way to look at the theme and these variations as a whole is Wason's registral plan of this movement. According to him, the F in the theme (m. 7), the F-sharp and the G-sharp in Variation I (mm. 16 and 19), and the climactic A in Variation IV (m. 54) form a relationship of registral connection in the movement.

The diverse expression of these variations makes this movement the most weighty in the whole piece. Since each variation has different compositional points from the others, each must be analyzed differently. Variation I can be viewed as an integrated unity of the trichords [0, 1, 2], [0, 1, 3], [0, 1, 4], and [0, 1, 5]. The phenomenon of semitone aggregation up to more than three octaves occurring before m. 19 is also unique in the whole movement. The phrasing of this section can be deduced from the rhythmic patterns or melodic outlines.

As for Variation II and Variation III, I do not discuss much about the phrasing of these two sections, because the constant change of tempo (ritard and a tempo) naturally enforces the notion of phrasing. While one might speculate about the real meaning of the statement which appears at the beginning of the third movement in Stadlen's edition, namely, "the numerous tempo changes indicate every time the beginning of a new phrase," I find it is pertinent to apply

this notion literally to these variations. By means of differentiation between the articulation of the notes in Variation II, I try to look for the pitch-class structure of this section. Variation III is a game of palindrome, which can be effectively expressed through playing. While Variation V is also a game of palindrome, the progression of the trichords in the variation nonetheless draws more attention than the interest in the palindrome.

By my definition, Variation IV, the climax of the movement, is a game of counterpoint. The faster tempo of the music contributes the intensive quality to the climax. Three types of rhythmic patterns and their metrical position are the elements defining the phrasing of this section. The symmetrical relationship of the structure offers performers a clear architectural idea of the music.

CHAPTER THREE

The First Movement

The first movement of Webern's *Variations for Piano* has not received as much attention from analysts as the second movement and the theme of the third movement. Since there are few analyses which explore the details of the first movement, I will discuss each section in turn, rather than proceeding analyst by analyst. As Moldenhauer states: ". . . close attention to the concluding bars of the third movement reveals how Webern was led directly to the configurations of the first movement."¹ Indeed, the first movement can be regarded as one of the variations in a more expanded scale.

The whole movement is the composite result of simultaneous P- and R-forms (or I and RI-forms). Riley describes a ternary textural form (ABA) imposed upon an otherwise uniform flow of dyad and single note patterns.² The form is clarified by differences in rhythmic pattern, harmonic rhythm and texture. The constant change of tempo in the second section is also opposed to the steady tempo in the first and last sections. However, all the sections

¹Hans and Rosaleen Moldenhauer, *Anton von Webern; A Chronicle of His Life and Work* (New York: Alfred A. Knopf, 1979), 485.

²Howard Riley, "A Study in Constructivist Procedures: Webern's 'Variations for Piano,' Op. 27, First Movement," *Music Review* 27/3 (August 1966): 208.

share an interest in palindrome as well as the dyad and single note patterns. As for the note patterns, since the dyad and single note patterns are dominant in this movement, I regard the combination of these patterns (usually slurred in the musical context) as a basic motive of the movement.

The First Section (A)

The first section ends in m. 18. There are four palindromes in this section: from m. 1 to m. 7, from m. 8 to m. 10, from m. 11 to the first note of m. 15, and from the last dyad in m. 15 to m. 18 (see Figure 3-1). While the first and the third palindromes employ the same twelve-tone rows (between the first halves of palindromes 1 and 3, the hands switch), the second and the fourth palindromes also have the same rows. Thus it is appropriate to describe the pitch-class structure of this section as "abab." However, it is not necessary to assume that these phenomena correspond to the phrasing of the section. Rhythmic patterns and dynamics could also play roles as determining factors of phraseology.

According to Stadlen's edition, the first palindrome can be divided into two divisions (from the beginning to the first sixteenth-note in m. 4 and from the third sixteenth-

note in m. 4 to the end of m. 7; as shown in Figure 3-2 which is Stadlen's edition). Compared to the other palindromes, palindrome 1 is not so compactly constructed; the rests between the units formed by the interaction of the motive in the two hands, to some extent, break down the continuous motion in the whole palindrome. Thus it seems appropriate to interpret the two divisions of the palindrome as Phrase 1 and Phrase 2 (see Figure 3-3). Webern clearly marked the grouping of these motivic patterns; the marking of tempo (*allegretto*) at the end of m. 4 also implies the initiation of a new phrase.

The change of rhythmic pattern and texture in the second palindrome, which results from the different interaction between the motives in the right and the left hands, indicates a new phrase. The continuous motion within Phrase 3 (the second palindrome) comes from its consecutive statements of the motive without rest, and the notated meter (3/8) is for the first time in the movement confirmed by the resultant rhythmic pattern.

Phrase 4 (the third palindrome) shares the same notions of rhythmic pattern, texture, and continuous motion as those in Phrase 3. But the rhythmic pattern in Phrase 4 is on a different metrical position from that in Phrase 3; thus there seems to be more driving power contained in Phrase 4. Phrase 4 extends for more than four measures and builds up

the climax of this section. As Wason states: "The climactic B in m. 11 achieves its power both through register (highest note in the first section), as well as the fact that it is the 'missing tone' from the previous palindrome,"³ the notion of climax is also reinforced by the loudest dynamics (*f*) of this section in Phrase 4. Wason further points out that a sense of cadence occurs at the end of the phrase due to features which run counter to the mechanical palindromes. At the end of this palindrome both register and dynamics are in continual descent (p. 97). Another important notion in this phrase is the palindromic structure (the mid-point of the P/R related rows; Wason's row-crossing feature) occurring in mm. 12-13. Although viewed from the notation, the rows in the third palindrome do not cross here (unlike the rows in the first palindrome), the performing effect of this palindromic structure is all the same. Stadlen's edition shows that this passage should be played in "molto espressivo, particularly in the repeated notes" (see Figure 3-2). According to this instruction, performers should pay a focused attention on the repeated C/D dyad in m. 13. The big markings of crescendo and decrescendo in Stadlen's edition certainly intensify the expression of palindromic structure. Thus the tension built

³Robert Wason, "Webern's *Variations for Piano*, Op. 27: Musical Structure and the Performance Score," *Integral: The Journal of Applied Musical Thought* 1 (1987): 96.

up from the beginning of the phrase (climax) keeps going through the row-crossing spot and is finally resolved in m. 14 and the beginning of m. 15.

The beginning of Phrase 5 is a "stretto" of the motivic pattern. Although its texture is in the most condensed form in the section, its short length and low dynamics diminish its prominence as a whole. The following short passage in ritard is not only a resolution of this texturally condensed phrase, but also a resolution of the whole section. The markings of dynamics in this section (*pp-p-f-p-pp*) suggest an arch-like continuous motion of this section.

Cook in his analysis employs Cooper and Meyer's notation to delineate the rhythmic structure of this section which is based on rhythmic groups or cells (see Figure 3-4 which is Cook's Figure 147): ". . . at the beginning there are rhythmic groups of three (unequal) beats whereas during the remainder of the section groups of two dominate; however, these are staggered against each other in such a manner that the latent meter of the time signature is constantly on the brink of establishing itself."⁴ Cook thus points out the contradictory relationship between the meter and motivic patterns. These characteristics are clearly shown on level i, level 1, and level 2 of Figure 3-4. The groupings of rhythmic patterns on level 3 and level 4

⁴Nicholas Cook, *A Guide to Musical Analysis* (New York: W. W. Norton, 1987), 311.

suggest larger rhythmic structures. According to Cook, the relations of accent and non-accent ('-' and 'U') are created by the dynamic stresses, intervallic patterns, and registration (p. 311).

It is interesting to apply Cook's analysis to the phrases which I defined when discussing Stadlen's edition. The grouping of rhythmic patterns on level 2 conforms to the five phrases in Figure 3-3. On this level, while Phrase 1, Phrase 2, and Phrase 5 are interpreted as groups of two beats (accent and non-accent as indicated by the markings of '-' and 'U'), Phrase 3 and Phrase 4 are interpreted by groups of three beats. Since the combination of Phrase 3 and Phrase 4 forms the strongest accented beat in the whole section (see level 3 and level 4 in Figure 3-4), the groups of three beats which in a way correspond to the notion of 3/8 meter seem to play a fundamental role in the movement. It is worth noting that the accented beats in the groups of three beats always correspond to the mid-points of the palindromes. As also noted by Cook: "particularly striking is the way in which the palindromes highlight the juxtaposition of rhythmic groups by creating what Cooper and Meyer call 'rhythmic reversals' (two accented beats directly following each other, as in bar 4)" (p. 311). Level 2 indeed shows this feature. Thus, the intensity between

these two consecutive accented beats in mm. 3-5 helps the connection of Phrases 1 and 2.

As a matter of fact, Cook's phrasing corresponds to the palindromic form in the section. The "rhythmic reversal" in m. 4 occurs right in the middle of his first phrase. He describes how he would play this phrase: "though no dynamic changes are marked in the first phrase (bars 1-7), I make a small climax towards the end of it, slowing down to the last bar and slightly lengthening the rest after it; and this means that the phrase mirrors the arch-like structure of the section as a whole, with its late climax" (p. 310). His second phrase (mm. 8-10, Phrase 3 in Figure 3-3) is "more compressed and urgent, with its climax coming perhaps as late as bar 10:2; there should be no rallentando or lengthening of the rest, otherwise the main climax at bar 11 will seem abrupt and unprepared" (p. 310). These passages of description suggest the combination of his second and third phrases on the larger level; the grouping of rhythmic patterns on level 3 in Figure 3-4 indeed shows this intention. The combination of Phrases 1 and 2 (in my definition) as well as Phrases 3 and 4 results in what occurs on level 3. Along with the occurrence of the climax in the section, the bold markings of accented beat on level 3 and level 4 shows the location of the greater intensity in the whole section.

As stated above, there is a strong relationship between the serial and the non-serial structure at phrase level, particularly in the palindromes that occur throughout the whole movement. According to Cook, the palindromes in this section "create a kind of rhythmic rippling through the local recurrence of notes within the overall chromatic sonority," therefore "it is possibly because of this close association of the series and the phrase structure that it is relatively easy to hear the series in this piece" (p. 308). This phenomenon is more evident in the outer sections than in the middle section of the movement. With the central axes prominent in the first and third palindromes in the first section, the effect of chromatic completion indeed can be expressed through the correspondence of the palindromes and phrases.

The Second Section (B)

There are even fewer published analyses of the second section than the first. However, we can still follow the principles used in the previous section to deal with the formal structure of this one. Since the whole movement is the composite result of simultaneous P- and R-forms (or I and RI-forms), Cook points out that the important

distinction between the two (serial forms) is not textural or registral but is made purely in terms of the distribution of the hands - that is to say, it is not an audible distinction.⁵ In the first section, the series distributed for the two hands are quite clearly separated by the register and by the complete statements of the motivic pattern within themselves. Nonetheless, there is indeed little distinction between the simultaneous series employed for the second section. Not only do the series distributed for the two hands cross one another registrally, but also the formation of new motives (for example, three consecutive thirty-second notes) is designed to be played by the two hands. Therefore, it will be much easier for performers to decipher the structural idea of this section if they rearrange the notation of the music (as shown in Figure 3-5 and Figure 3-6). In these figures, the palindromes of this section and the contours of the note pattern are clearly presented, and we can further discuss the possibility of phrasing based on these structures.

Along with frequent change of tempo, this section is largely composed of thirty-second notes. As opposed to what occurs in the first section, it is appropriate to apply the notion of "free, improvisatory" style as indicated in Stadlen's edition to this section (see the beginning of

⁵Ibid., 302.

Figure 3-7). This section can be divided into two parts due to the different interaction of the motivic patterns between the two hands; the resultant feature is the diversity of the texture in these two parts (see Figure 3-5 and Figure 3-6). The second part of this section comprises more stretto of the motivic pattern (just like the last phrase in the first section); it also reaches both the highest registral point of this movement (the high D-flat in mm. 33-34) and the highest dynamical point (*ff* in mm. 32 and 34). Whereas the first part of the section contains the markings of *ritard* and *a tempo* six times, it is indeed more in the atmosphere of improvisation.

The borderline between these two parts causes a problem in interpretation, depending on how the phrases in the section are defined. As Wason observes: "This tension between the mechanical palindromes and the actual rhythmic and registral setting of the rows becomes yet more pronounced in the B section,"⁶ and this tension increases the difficulty of phrasing. There are six palindromes in this section (as shown in Figure 3-5 and Figure 3-6). The first three and the last three palindromes respectively have the same rhythmic pattern and articulation. They are not, however, in the relationship of exact transposition. Webern omits or adds certain notes to fulfill some musical needs.

⁶Wason, "Webern's *Variations for Piano*," 97.

One of the techniques he uses to avoid the regularity of the palindromic pattern is that the figure of slurred thirty-second notes at the end of the first palindrome also functions as the beginning of the second palindrome (see mm. 22-23 in Figure 3-5). As Cook points out: "The dynamic markings sometimes have a palindromic structure paralleling that of the rhythm and pitch, as in all except the last two bars of the middle section; and the tempo markings of the middle section sometimes correspond to the serial statements, though they are not palindromic (the *ritardandi* are not mirrored by *accelerandi*)."⁷ Nonetheless, these palindromes are still used with reasonable consistency.

However, since the palindromes are seamlessly connected to each other, it is not necessary to regard each as a discrete phrase. Indeed, the phrasing indicated by Webern in Stadlen's edition does contradict the structural palindromes. What for Webern are the factors that determine phrases in this section? I think that the elements of change of tempo (especially for the first part of the section) and dynamics (especially for the second part) override the palindrome. There is a relationship of tension and resolution between the passages of "a tempo" and "ritard"; and there is no doubt that the passages from a tempo to ritard become a basic notion of phrase in the first

⁷Cook, *A Guide to Musical Analysis*, 310.

part of the section (for example, see the markings of parentheses by Webern in mm. 24-25 and mm. 28-29 in Figure 3-7 which is Stadlen's edition). Most of the time, Webern employed parentheses to mark the grouping of the notes which suggest the phrasing of this section. Thus the phrases here are based on the traditional sense of tension and relaxation.

On the other hand, the markings which apparently show the structure of palindrome (compare Figure 3-7 with Figure 3-5; for example, the square brackets from the second thirty-second note in m. 22 to the first thirty-second note in m. 23 mark the end of the first palindrome and the parentheses from the fifth thirty-second note in m. 29 to the fourth thirty-second note in m. 30 mark the end of the third palindrome) seem to make performers confused with phrasing. But I believe that the phrasing based on the sense of tension and relaxation is more convincing than that based on the structure of palindromes. Since the palindromes of this section cut across the phrases, two consecutive phrases usually share some material. Thus the palindromes here basically help establish a close relationship between the phrases.

Before defining the phrases for the first part of the section, I would like to examine the passages of ritard. The duration for each passage of ritard is four thirty-

second beats. The first, third, and fifth passages have three consecutive attacks of thirty-second notes (as in mm. 19-20, 23, and 27), while the second, four, and the last passages have two separated attacks of thirty-second notes (as in mm. 21-22, 25, and 29). Since the duration for the passages of a tempo is very short, it is not easy to break through the tension (a tempo) just established and slow down the music in an also short period (ritard). Therefore, it is important for performers to note the difference between the passages of ritard; they need to prepare the slowing down of pulse before they go into these passages.

While one passage of "a tempo-ritard" is too short to act as a complete phrase (as in the beginning of the section), I propose assembling two of them as a phrase. Thus there are three phrases in the first part of the section: Phrase 1 from m. 19 to the first note of m. 22; Phrase 2 from the second note of m. 22 to the second sixteenth-beat of m. 25 and Phrase 3 from the third sixteenth-beat of m. 25 to the second sixteenth-beat of m. 29 (see Figure 3-8). Each phrase contains two different ritard passages. Another important feature of these phrases is the tritone row-crossing feature which is, in fact, particularly emphasized in Section B of the movement. As mentioned by Wason: "Each of these spots (tritone row-crossing feature) is the subject of Webern's commentary (in

mm. 20-21. For example, Webern calls for a 'hand-resolution only at the last moment--almost too late')."⁸ It is worth noting how Webern tried to call the performers' attention to this through his special arrangement. The tritone relationship of the row-crossing notes (mm. 20-21, 24-25, and 28-19) is emphasized through the single and strong articulation as well as through the great registral distance between the notes. Although the regular alternation of the hands in playing is a character of Webern's piano style, it here implies more renewed energy in each single attack. These row-crossing notes even form a passage "isolated" by the surrounding ritard passages. As a result, they get a more focused attention by means of the side by side extreme tension and its resolution.

From the melodic contour point of view, Phrase 1 and Phrase 3 have the same ascending gesture, while Phrase 2 has a descending motion (as shown in Figure 3-5). The notes which bear the dynamic marking of *sf* also support this notion (see the row-crossing notes: the G in mm. 20-21, the low D in mm. 24-25 and the high C in mm. 28-29). The high C's in Phrase 3 also indicate the climax of this part of the section and the arrival of the climactic points in Phrase 3 is prepared by a smooth ascending motion. As mentioned before, one of the techniques Webern employed to avoid the

⁸Wason, "Webern's *Variations for Piano*," 97.

regularity of the palindromic pattern is to use the figure of slurred thirty-second notes at the end of the first palindrome as the beginning of the second palindrome. This results in the phrases of different lengths. Thus the later phrases become increasingly longer than the former phrases (Phrase 2 is longer than Phrase 1 and Phrase 3 is longer than Phrase 2).

There is no tempo change in the second part of the section (except at the end of the section). Thus the phraseology of this part has to rely on other factors; and I regard the dynamics as the influential factor in the phrasing. Phrase 4 (as a continuing phrase of the earlier part) in Figure 3-9 bears much resemblance to the phrases occurring in the former part of the section (compare Phrase 4 to the beginning of Phrase 2). Nonetheless, since it leads to the next phrase without any break in between, I regard Phrase 4 as belonging to the later part of the section. From the viewpoint of rhythmic motion, it seems appropriate for Phrase 4 to function as the beginning of a new part. The dynamic gesture for Phrase 4 is crescendo followed by decrescendo. The marking of decrescendo coincides with Webern's indication of relaxation in Stadlen's edition (see Figure 3-7). Along with the sign of break in m. 31, there seems to be no question that Webern intended a phrase to end here.

The tritone row-crossing feature has a new form of expression in the later part of this section. Phrase 5 begins with a new motivic pattern (three staccato thirty-second notes), about which Stadlen indicates that "left hand is like a mysterious drum set off sharply against what comes before and after" (Figure 3-7). As opposed to the strong expression of the tritone in the earlier part, this new motive functions to initiate a new phrase. The dynamic level at the beginning is low. It is strongly suggested that performers should not use the sustaining pedal in order to keep a clear sound of tritone. While the dynamic level gradually gets higher in the progression of the phrase, the music reaches the highest note for the first time in this movement (the D-flat in m. 33). Along with the most tense texture (stretto) and the loudest dynamics, Phrase 5 functions as the climax of the movement and injects much energy which in a way contrasts with the notions of "subdued plaint" and "lyrical expressiveness" which are indicated at the beginning of the movement in Stadlen's edition.

Phrase 6 also starts with the tritone in the low dynamic level. Although it reaches to the highest note in m. 34, it does not exhibit the same process accumulating the energy for the arrival of the climactic point, as that experienced in Phrase 5. The highest note here functions as a recall or an extension of the climax. Phrase 7, the last

phrase of the section, is the only phrase in this section in which the palindromic form conforms to the structure of the phrase. The gradually reduced dynamic level and tempo brings the music into the mood of the earlier section and, at the same time, of the following section.

To apply Cooper and Meyer's notation, I think it is appropriate to interpret Section B as in Figure 3-10, where I try to deal with the relationship of rhythmic groups on larger levels. The first level presents the relationship between the rhythmic groups within each phrase. However, since Phrases 4, 5, and 6 are comparatively short, they can also be regarded as a unit on this level (as shown in the parentheses in Figure 3-10). The second level and the third level respectively show the relationship between the rhythmic groups within the two parts of the section and within the whole section. Psychologically, this interpretation can offer performers a rough idea of rhythmic motion on different levels. We can observe from level 1 the structural similarity between the phrases in each part and from level 2 the structural diversity between the phrases in the two parts. Through these observations, performers can find a way to face this seemingly complex context in the whole section.

The rearranged notation for this section is not intended to replace the original notation. The purpose of

the former is to offer a clearer idea of the palindromic structure and formation of phrases in this section. Webern's intention for the regular alternation of the two hands in playing is obvious, but one might doubt if it is necessary to play the figure of three slurred thirty-second notes in two hands (as is necessary for the figure at the opening of the section). Good performers are supposed to play this figure in one hand as well as they would play it in two hands. Nonetheless, the notation here implies that the three thirty-second notes should be played as a unit, that each of them has a great intensity and that the meaning of the slur is not smooth legato, but a connective notion. In fact, to play with the regular alternation of the two hands offers an opportunity for performers to relax in their muscles and to give each note greater intensity. It is strongly suggested for performers to play Webern's music according to his notation.

The Third Section (A)

As stated by Wason: "The return (m. 37) relates back in two ways: it brings back the rhythmic/motivic material of the A section, while the row-pair is a retrograde of the

last row pair of the B section."⁹ When comparing the right hand part at the end of m. 36 to m. 38, we can find that the echoing of the pitch is quite clear. Since the last section and the first section indeed share the same rhythm, motivic pattern, articulation, and formal design, the phrasing of the first section can be applied to the last section (see Figure 3-11). In spite of these similarities, there are some aspects which can differentiate these two sections. While we can describe the pitch-class structure in the first section as "abab," the last section does not have the same arrangement; it employs four different pairs of rows. At the same time, the arrangement of the register is also different; therefore it is necessary to relocate the climactic points in the last section.

In applying the notion of phrases which I defined for the first section to this section, I would like to present some different interpretative points between the first and last sections. Generally speaking, the last section is even more tranquil in its lower level of dynamics (*p* and *pp*). Thus the expression of tension and resolution needs a very delicate control. As opposed to the unchanged dynamic marking *pp* at the beginning of the first section (mm. 1-7), the dynamic marking *p* in mm. 39-41 indicates a more intense connection of Phrases 1 and 2 of the last section. The

⁹Ibid., 99.

highest note of these two phrases (the F-sharp in mm. 39 and 41) in *p* could be the climactic points of the phrases. The markings of crescendo towards the F-sharp in Stadlen's edition support this notion (see Figure 3-12 which is Stadlen's edition). Phrase 3 of the last section reaches its highest point in the middle of the phrase (the F in m. 45). Along with the markings of crescendo and decrescendo respectively at the beginning and the end of the phrase, Phrase 3 is indeed in the arch-like form.

As opposed to the climactic treatment in Phrase 4 of the first section, Phrase 4 of the last section is rather subdued in its descending gesture and low dynamic level (*p* to *pp*). Although the register abruptly goes up to the high point at the end of the phrase (the C-sharp in m. 50), it does not change the character established before. As a matter of fact, this high point is a preparation for the arrival of the climax in this section. The climax of the whole section falls on m. 52 where the stretto of the motivic pattern coincides with the highest note of the section (the E-flat) on the metrical downbeat position. Webern circles the motivic pattern in Stadlen's edition to emphasize the independence of each motive. But he did not treat the corresponding spot in the first section in the same manner. In spite of the same texture, the

corresponding spot in the first section (m. 15-17) is subdued registrally and dynamically.

While Phrase 4 of the last section does not play the climactic role as it did in the first section, performers still have to pay attention to the row-crossing feature which bears Stadlen's indication "very warm, heartfelt." As for the last phrase of the movement, Wason points out: "After the 'epilogue,' as Webern calls it in m. 52, the movement closes on the 'last sigh'--the hexachord 6-Z41, and what seems to be a clear tonal reference to the B-flat/G-sharp opening dyad of the second movement, almost inviting its performance *attacca*."¹⁰ It seems that the connection of the first and the second movements can be established from this point of view.

Summary

Since there are relatively fewer analyses for this movement, it seems impossible to have diverse ways of interpretation from these analyses at the moment of writing this thesis. As a matter of fact, Webern's markings in Stadlen's edition become the only source of phrasing. Although Cook's analysis also indicates the phrasing for the

¹⁰*Ibid.*, 99.

first section, the most significant point his analysis contributes is the relationship of "accent" and "non-accent" between the rhythmic groups. Based on the observations of markings in Stadlen's edition, Wason offers some conceptually important points for this movement.

While the ternary textural form of this movement is very clear, the notions of palindrome and motivic pattern are also evident in the whole movement. It seems to me that the palindrome is the basis of the pitch structure in this movement and that the analysis of pitch structure has not gone beyond that notion. As stated by Cook: "there are important aspects of phrasing which cut across the palindromes and the serial structure in general."¹¹ We thus encounter many contradictions between the palindromic structure and the formation of phrases. This condition even becomes more complicated in the second section of this movement than in the other sections.

The second section of this movement is basically more ambiguous. It contains more potential for diverse expression of the music than do the other sections. I divide this section into two parts with a total of seven phrases (see Figure 3-8 and Figure 3-9). With the help of Webern's markings in Stadlen's edition, I define the phrasing of the first and the second parts respectively

¹¹Cook, *A Guide to Musical Analysis*, 310.

based on the change of tempo and dynamics. To extend Cook's notion of rhythmic analysis, I try to define the relationship of accent and non-accent between the rhythmic groups in this section. It is helpful for performers to find a way to face this seemingly complex context, particularly when it is realized that the analysis of pitch structure for this section is completely absent. Another important event for this section is the strong expression of the tritone row-crossing feature. Although the emphasis of the tritone seems to be one of the characteristics of the whole piece, it seems to me that the playing of the tritone in this section should reach its most intense form.

It is easy to observe the similarity between the first and the last sections, but it is also important to note the difference between them. In addition to the different pitch-class structure, the change of dynamic level and registral arrangement results in a different interpretative approach in the last section. For example, the climactic point of the last section is located near the end of the movement, which in a way helps extend the tension established throughout the whole movement. While the first section is essentially expository, the last section helps round off the movement and connect it to the second movement.

CHAPTER FOUR

The Second Movement

The second movement is the most extensively analyzed of the three. The row techniques used in this movement seem to be regarded as a sort of model for beginners in twelve-tone analysis (see Straus's *Introduction to Post-Tonal Theory*¹ and Lester's *Analytic Approaches to Twentieth-Century Music*²). Technical analyses of the movement date back to 1963 and Peter Westergaard's important study.³ However, to produce a usable guide for performers, the analyses of Westergaard and others have to be translated into the language that most performers speak.

The tempo of this movement is rather fast ($\text{♩} = \text{ca } 160$); the awkward crossing of hands increases the difficulty of playing. Therefore I suggest that performers should learn this movement after they have had some familiarity with the first and third movements. Stadlen refers to the awkward crossing of hands demanded for the proper execution of the scherzo movement. He states further: "Webern said that the inevitable difficulty in bringing it off would invest it

¹Joseph Straus, *Introduction to Post-Tonal Theory* (New Jersey: Prentice Hall, 1990).

²Joel Lester, *Analytic Approaches to Twentieth-Century Music* (New York: W. W. Norton & Company, 1989).

³Peter Westergaard, "Webern and 'Total Organization': An Analysis of the Second Movement of *Piano Variations*, Op. 27," *Perspectives of New Music* 1/2 (1963): 107-120.

with just the right kind of phrasing."⁴ Based on this notion, it is not necessary for performers to rearrange the score in order to perform the music with more ease and convenience. In fact, along with the regular alternation of the two hands, this piano technique helps establish Webern's unique piano music style.

Basic Ideas of the Movement

The most important precompositional feature of this movement can be briefly described in Wason's words: "Essentially, each half of each row pair (there are four row pairs in the movement, as shown in Figure 4-1) consists of a succession of dyads drawn from an even-interval inversionsal cycle: A/A, B-flat/A-flat, B/G, C/G-flat, D-flat/F, D/E, and E-flat/E-flat, and hence one might regard the succession of rows rather as a way of generating different permutations of the six dyads."⁵ These basic "six dyads" are circled in Figure 4-1. However, because of the repetition of the same notes in the cases of the dyads A/A and E-flat/E-flat, there are actually seven basic dyads in the second movement.

⁴Peter Stadlen, "Serialism Reconsidered," *The Score* 22 (Feb., 1958).

⁵Robert W. Wason, "Webern's *Variations for Piano*, Op. 27: Musical Structure and the Performance Score," *Integral: The Journal of Applied Musical Thought* 1 (1987): 92.

Another issue which gets much of the analysts' attention is the register of these dyads. As Wason says: "With regard to register, it will be seen that some pitch classes occur in more than one register, while others are fixed registrally, but all registral pitches are 'balanced' symmetrically so that the axis of *registral* symmetry throughout the piece is A1" (p. 92). Wilbur Ogdon in his article emphasizes the tonally-centered position of the A.⁶ By examining the symmetrical note pairs around the A, he tries to demonstrate that Webern "had moved beyond the motivating and controlling influence of the series" (p. 136). The pitch placement around the selected fixed note in the movement, from Ogdon's view-point, becomes a significant event which accounts for the pervading sense of tonal logic. Although I disagree with what he says about the phrase structures which are based on his rhythmic-dynamic motives, I think that the discussion of his tonal logic and pitch placement might be a useful reference for performers.

On the other hand, Robert Sherlaw-Johnson interprets these dyads as "seven classes of events which vary from stasis to mobility."⁷ The phenomenon of stasis is defined by the fixed register, dynamics and attacks of the dyad, and

⁶Wilbur Ogdon, "A Webern's Analysis," *Journal of Music Theory* 6 (Spring 1962): 133-38.

⁷Robert Sherlaw-Johnson, "Analysis and the Composer" in *Companion to Contemporary Musical Thought*, ed. J. Paynter (Routledge Pub., 1992), 729.

the phenomenon of mobility is defined by the uncertain character and unsteady registral position of the dyads (as shown in Figure 4-2 which is Sherlaw-Johnson's Figure 34.8). The two As, therefore, define the most static event; they invariably appear at the same pitch, with markings of dynamic *p* and staccato. Sherlaw-Johnson is basically concerned with the ordering of material and concludes that the seven events used in this movement "can be placed in a continuum ranging from fixed in all respects to mobile in all respects" (p. 730).

It is a natural tendency to regard the steady element of the music as the focal point of the music. But in Sherlaw-Johnson's case, it is difficult to determine the functions of the dyads under his definition. As we can see from Figure 4-2, the dyads defined as mobile characteristics tend to have extreme registral positions. Furthermore, these dyads not only constantly appear in the extreme register, but also very often bear the dynamic markings of *f* or *ff* (mm. 6, 12, 17, and 21). Thus, the appearances of the mobile dyads would not attract less attention than the appearances of the static dyads. But the E-flat/E-flat dyad is indeed a mobile characteristic which does not receive much attention in the music. Webern deliberately avoided the second focal pitch in this movement. Perhaps a possible interpretation can be constructed by regarding the dyads in

larger registral distance as something with more tension, and the dyads in smaller registral distance as something with less tension. The static state of the As functions like a tonic goal which resolves all of the unsteady elements of the other dyads. It seems obvious that the note A in this movement should be regarded as the focal pitch (or the tonally-centered pitch).

Westergaard's Analysis

Westergaard in the first part of his analysis⁸ examines the interrelationships among the seven dyads in great detail. He also places much more emphasis on the "control of the interaction between characteristics of sound" (p. 107). To extend the notion, he states that "these characteristics are still playing their traditional role of differentiation. They interact with one another and with pitch to clarify pitch relationships, sorting out for the ear those pitch relationships which are to shape the movement" (p. 109). As regards his detailed observations of the second movement, he states that "they [his statements of observation] are redundant. . . . Such redundancy is indicative of a tightly knit organization. . . . They are

⁸Westergaard, "Webern and 'Total Organization'."

sufficient . . . to infer every aspect of each moment of the movement" (p. 112). It is necessary for performers to go through these statements and have a clear idea of the structure. From Westergaard's observations, we can understand the meaning of "total organization" with respect to Webern's row techniques and his deliberate control of the characteristics of each dyad.

The row techniques group the designated pairs of the dyads with their specific articulated and dynamic forms. I would like to describe them as the following: 1) The sixth, seventh, and eighth dyads of each row pair are articulated as two vertical trichords (mm. 3-4, 8-9, 15, and 19-20); 2) The ninth dyad of each row pair is articulated as the slurred eighth-notes in *p* (mm. 4, 15, and 18); 3) The tenth and eleventh dyads appear as two consecutive eighth-note-patterns: the first in slur and the second in staccato (mm. 5-6, 10-11, and 16-17). In addition to these techniques, it is important to know that the first dyad of each row pair is also the twelfth dyad of the preceding row pair.

The most essential factors which control the characteristics of each dyad can be briefly summarized as follows: 1) The dyad A/A always appears as two staccato eighth-notes (mm. 1, 9, 13, and 19); 2) The dyad E-flat/E-flat appears as the ornamentation of other dyads (mm. 6 and 21); 3) The dyad B-flat/G-sharp appears as the slurred

eighth-notes in *f* (opening, mm. 5, 11, and 22); 4) The dyad D/E usually appears as the main notes decorated by other ornamentation (mm. 2-3, 6, 17, and 21) except in m. 8 where the dyad appears as the ornamentation; 5) Both the dyads F-sharp/C and F/C-sharp appear respectively in two quarter-notes with tenuto markings (mm. 2, 7, and 14); 6) The dyad B/G appears as two staccato eighth-notes (mm. 5-6, 8, 12, and 12-13). As regards the dynamics, the principal points are that consecutive figures have contrasting dynamics. The figures in *ff* have more than two notes and the figure of two staccato eighth-notes is in *p*.

The purpose of the statements above is that I believe this summary delivers a more direct message than Westergaard's "redundant" statements, which, however, uncover Webern's compositional secret in this movement. The formation of each minute musical structure can be referred exclusively either to the row techniques or to the characteristics of the dyads, as summarized in the last paragraphs. From this part of his analysis, it seems that we can get a complete picture of compositional process, but it is only the first step of our preparation for performance or further understanding. As regards what Westergaard does in his second part of analysis, we have to interpret the effects of these interrelationships and go beyond Webern's controlling means in order to look for the larger structural

meanings. Thus, different interpretations can result in the presentation of Webern's music in diverse facets.

With regard to the large structure, Westergaard at the end of his analysis sorts out the crucial points whose characteristics are quite audible to listeners and which can function as the structural guideposts. Figure 4-3 (Westergaard's Example 12) shows his demonstration of the relationship between these crucial points. He believes that what becomes clear to a listener depends on "the particular nonpitch characteristics the composer has assigned to them" (p. 120). At a superficial level, the three types of figures he sorts out can be easily justified as the most significant events in the movement: the B-flat/G-sharp slurred dyad is the terminal figure of the music; the trichords are the only form of vertical simultaneity in the movement; and the ornamented D/E dyads, with a big registral distance, bear the highest level of dynamics in the movement (*ff*; the one in *p* is not chosen here). Although Westergaard does not mention any possible phraseology in this movement, his structural guideposts certainly offer some guidelines. To regard these three types of figures as the initiators of phrases, I mark them on the score and try to divide the whole movement into several phrases (as shown in Figure 4-4). The close occurrences of the structural guideposts at the end of the movement causes phrasing problems, but it

could also be viewed as an increase of density in the phrase structure.

On the other hand, Westergaard points out other structural functions by way of the interactions between these three types of figures. By measuring the distances between the figures, Westergaard discusses the rhythm and meter of the movement. I would like to summarize his statements briefly as follows. 1) The terminal figures (B-flat/G-sharp) help keep the sense of notated meter (2/4). 2) The figures of trichords and the figures with ornamented notes help define the position of the quarter note beat. 3) The trichords help define the position of downbeat (pp. 113-114). The process for the confirmation of the notated meter is not the main concern here. Although he admits the possible interpretation of 3/8 meter at the beginning of the movement, the 2/4 meter still holds sway according to the theory just mentioned above. Among the other analysts, Lewin confirms the notated meter by the two different theories presented in his two articles.⁹ According to their confirmation of the notated meter, the metric hearing of 2/4 meter should be rooted in performers' minds. Then it will be possible for them to project the true spirit of the music.

⁹David Lewin, "A Metrical Problem in Webern's Op. 27," *Journal of Music Theory* 6 (Spring, 1962): 124-32.

David Lewin, "A Metrical Problem in Webern's Op. 27," *Music Analysis* 12/3 (Oct., 1993): 343-54.

There is little dispute about the general character of the movement. I do not think that anyone would question Westergaard's description of the highly energetic texture of the movement. The large intervals, the way the rhythmic detail works against the meter, and the constant rapid changes of dynamics and articulation support this view.¹⁰ But he also states that "the emphasis placed on the seven dyads and the fact that these dyads stay for the most part in the same register prevents almost all sense of harmonic motion" (p. 115). Perhaps this is the way Webern mastered the elements of steadiness and unsteadiness in the composition. Once performers realize the intrinsically static harmonic motion of the music, they would not panic when they face the seemingly difficult passages in terms of the rapid change of registers and dynamics as well as the quick tempo.

While Westergaard regards the harmonic shape of the movement as concentrated in the successive appearances of the pairs of trichords (see Figure 4-5a which is Westergaard's Ex. 5),¹¹ Lewin considers them as the "large-scale metric beats" because of their maximum density and dynamics.¹² These interpretations are not in conflict; they both regard these trichords as the structural guideposts of

¹⁰Westergaard, "Webern and 'Total Organization,'" 115.

¹¹Ibid., 116.

¹²Lewin, "A Metrical Problem in Webern's Op. 27," (1993) 343.

the movement. It is interesting to observe the relationship between the four pairs of trichords. Figure 4-5b shows the transpositional relationship between these chords. All of these trichords contain a five-semitone-interval and a six-semitone-interval, and they are formed with a five-semitone-interval either above or below a six-semitone-interval. The relationship of transposition T5-T5-T9 between the trichords in the upper staff is counted in the upward direction; the relationship of transposition T5-T5-T9 between the trichords in the lower staff is counted in the downward direction. Thus the steady expansive distance between the trichords in each pair (contracted distance in the case of the last two pairs of trichords) more or less implies the progressive quality of the music and helps define the climax of the movement in its most expansive form of the paired trichords. After the climax in m. 15 (the third paired trichords), the pair of trichords returns to a form very similar to the first pair (compare the first pair and the fourth pair). Both of the paired trichords share the same outer notes of the chords (F/F-sharp, C/C-sharp). The only difference between them lies in the inner notes (C/F-sharp against G/B). The notion of recalling the musical material can thus be established from this point of view.

The only thing I would like to question in Westergaard's analysis is that he considers the terminal

figure (slurred B-flat/G-sharp dyad) as the beginning and ending of each section (p. 117).¹³ Figure 4-6 is the graph in his eleventh note, which shows the duple roles the B-flat/G-sharp dyad can play. This sort of interpretation reveals certain "unnatural" feeling in terms of metric pulse; it also affects performers' manner of phrasing. The way to solve the problem is to end each section right before the B-flat/G-sharp dyad. This point of view is supported by Stadlen's edition which clearly shows that Webern indicated the marking of ritard in m. 10 as well as at the beginning of m. 11 and the marking of back to tempo right on the B-flat/G-sharp dyad in m. 11 (see Figure 4-15).¹⁴ He even put down "upbeat" (Auftakt) over the dyad in the last measure and isolated the dyad from the previous notes. But another problem arises: how to end the movement right on the "upbeat?" So far I have not found any answer to this question in the current analytical literature. Therefore performers have to find their own ways to solve this problem. I will discuss this matter in my discussion of Travis's analysis.

Travis's Analysis

¹³Westergaard, "Webern and 'Total Organization,'" 117.

¹⁴Anton Webern, *Variationen für Klavier*, Op. 27, ed. Peter Stadlen (Vienna: Universal Edition, 1979).

This movement as a whole bears the notion of "canon" as one of its basic row techniques. This compositional method does not, however, directly shape a listener's perception of the music. As Westergaard states: "In fact, these 'voices' are not voices in the traditional sense, but structural determinants. The effect of symmetrical disposition of these 'voices' on the surface texture are far more readily perceptible than the 'voices' themselves."¹⁵ He further supports this point of view in light of register, dynamics, articulation, and rhythm (pp. 114-115). While most of the analyses are concerned with the dyads which are canonically corresponding notes, Roy Travis presents an analysis in a broader application of the concepts of Heinrich Schenker.¹⁶ This is the only analysis which largely concerns the linear progression of the music. The analysis is based on this premise: "Melodic progression may occur from any degree to any other, regardless of octave registration, providing that it is not necessary to assume a voice-leading or inversion of a dyad" (p. 88). Thus, with the notion of "Tonic Dyad" (G-sharp/B-flat) and "Polar Dyad" (D/E), Travis embarks on a quasi-Schenkerian journey (see Figure 4-7 which is Travis's Ex. 9 and Ex. 10).

¹⁵Wason, "Webern's Variations for Piano," 114.

¹⁶Roy Travis, "Directed Motion in Schoenberg and Webern," *Perspectives of New Music* 4/2 (1966): 84-89.

One might wonder how the concepts of Schenkerian analysis, which mainly deal with traditional major-minor tonal music, can make sense of Webern's twelve-tone music. Nonetheless, in recognition of some analogies between tonal and twelve-tone music, I must admit that some things described in Travis's analysis may be helpful for performers. While the note A in this movement is generally regarded by other analysts either as a "tonal center" or as a "focal pitch," it is only a neighboring note to the "Tonic Dyad" G-sharp and B-flat in Travis's analysis. Once A is defined as a neighboring note, it possesses the power of continuing motion rather than the power of the tonic arrival.

That Travis regards the G-sharp/B-flat dyad as the tonic dyad offers a good explanation about the appearances of the dyad in the beginning and, especially, at the end of the movement. Since the G-sharp/B-flat dyad initiates the beginning of each section, this dyad in the whole musical context seems destined to be followed by something. Under such circumstances, how can we explain the ending of the movement right on this dyad? As a matter of fact, there are in total *twenty-two and a half measures* in this movement! But no one has questioned this phenomenon and suggested the omission of the final "upbeat." This phenomenon causes an "unnatural" feeling due to the seemingly extra final dyad.

This dyad appears as a redundancy in terms of the metric hearing and has the potential of continuing music as mentioned above. However, if this dyad is considered as a tonic center, it might acquire some strength and weight for the final stop. This at least means something to performers and solves the problem to some extent.

The polar dyad is a tritone apart from the tonic dyad. Travis does not explain why he chooses this dyad as his polar dyad, but Robert Sherlaw-Johnson points out the opposite characteristics of the tonic and polar dyads (see Figure 4-2).¹⁷ Sherlaw-Johnson describes the G-sharp/B-flat group as a static event because this dyad occurs at a fixed pitch throughout with *f* dynamic and legato marking. The D/E group, nevertheless, has no fixed characteristics of its own and may appear at any pitch (p. 729). Some occurrences of the polar dyad might be worth mentioning. 1) At the end of the movement, the polar dyad occurs right before the final tonic dyad, which might be interpreted as the functional harmonic progression of V-I. Thus there is a sort of tension between the polar and the tonic dyads (mm. 21-22), where the two quarter-beat rests indicate the largest space of separation between two consecutive dyads in this movement. 2) The polar dyad also occurs right before the tonic dyad in mm. 4 and 17. Although this sort of concept

¹⁷Sherlaw-Johnson, "Analysis and the Composer."

is a subjective cognition, it helps establish the relationship of tension and relaxation among the dyads.

Before my further exploration of Travis's analysis, it is necessary to make a decision about the dividing line between the two sections of the movement, which is not necessarily the double-line in the middle of the movement. I shall follow Webern's¹⁸ and Lewin's¹⁹ indications which clearly point out that the second half of m. 11 (B-flat/G-sharp dyad) belongs to the second section. Since Travis specifically points out the occurrences of the tonic dyad (with white-head note and the only Roman numeral indication of "I") in Figure 4-7, we cannot help but notice the different formats of this dyad in the two sections. The tonic dyad in the first section appears in the forms which we can easily hear. It appears as the slurred dyad with dynamic *f* at the opening as well as in m. 5, and appears at the outer voices of the vertical trichords with dynamic *ff* in mm. 8-9.

On the other hand, the tonic dyad in the second section, either hidden in the vertical trichord or as the ornamented notes (mm. 15 and 17), does not appear in a clear form except in its first and final appearances (mm. 11 and 22). Travis's graph shows the stronger connection of the tonic dyad in the first section than in the second section.

¹⁸Webern, *Variationen für Klavier*, Op. 27, ed. Peter Stadlen.

¹⁹Lewin, "A Metrical Problem in Webern's Op. 27" (1993).

As a result, the constant confirmation of the tonic dyad in the first section can be interpreted as expository in its essence, while the unsteady depiction of the tonic dyad in the second section implies that it is developmental in its character. Returning to the tonic dyad at the end certainly helps to round off the whole movement.

As regards the developmental character of the second section, Robert Wason has the same view but discusses it from a different angle. He points out three occurrences of the "voice-exchange" in mm. 12-13 (G/B), 15 (D/E), and 19-20 (G/B) and states that "With regard to overall form, the closer juxtaposition of dyads which elsewhere were separated between hexachords might be regarded as 'developmental' or 'digressive.'" ²⁰ The first appearance of the voice-exchange gets more attention because "the B and G in these registers (they do occur in others as well) constitute the high and low registral extremes of the piece; and the very next figure is the zero-point of registral symmetry--the two As" (p. 93). Wason further discusses the difficulty of hand-crossing in playing the voice-exchange of this dyad. He encourages performers to think in this way. "The difficulty of playing these four notes in tempo produces just the right character; impossible if comfortably distributed," and he notes that "the important thing here is

²⁰Wason, "Webern's *Variations for Piano*," 93.

that it is the human struggle which is an important ingredient, not merely the schemata themselves" (p. 94).

I would like to get back to Travis's notion of the tonic and polar dyads. It is also interesting to know that three out of the four occurrences of the polar dyad in the second section bear the dynamic marking *ff* which is the highest level of dynamics in the movement (mm. 15, 17, and 21). To some extent, the polar dyad indeed gets intensified through the loudest playing. The only polar dyad which is marked in *p* (m. 15) is immediately preceded by the vertical trichords which contains another polar dyad in *ff* (one of the voice-exchanges just mentioned in the last paragraph). Since Webern circled the polar dyad in the vertical trichords in Stadlen's edition, Wason thus interprets the immediately following polar dyad in *p* as a kind of echo, which can serve to "prolong" the dyads exchanged.²¹ According to what we have observed, there is no doubt about the dominant position of the polar dyad in the second section. However, the appearances of the polar dyad in the first section do not occupy the position as significantly as they do in the second section. Three out of the four occurrences of the polar dyad bear the dynamic marking *p* (mm. 2-3, 4, and 8). Among them, one is in the form of ornamentation (m. 8). The change of the focal attention

²¹Ibid., 94.

from the tonic dyad in the first section to the polar dyad in the second section certainly help differentiate the characters of these two sections.

Wason discusses the B-flat/A-flat dyad (the tonic dyad) very much from the viewpoint of row techniques: "the dyad B-flat/A-flat serves as a structural guidepost at the beginning and the end of each section, and then must be formed at the beginning or end of each row pair."²² Yet Travis's analysis implies more about the role of phrasing which the dyad B-flat/G-sharp as well as the dyad D/E can play. The horizontal braces on the bottom of Figure 4-7 convey some messages about phrasing and structure; the bigger brace certainly indicates the larger structural level. There are three bigger braces to mark the occurrences of the tonic dyad and one smaller sign to mark the polar "area" in the first section. Figure 4-8 shows the relationship of the tonic and the polar dyads on the score; it is possible to make decisions about phrases under this condition.

Since the tonic dyad seems destined to be followed by something (as mentioned above), therefore most of the phrases I try to define here begin with the tonic dyad and end on the polar dyad. Certainly they are in the progression of I-V. Phrase 1 (opening-m. 3¹/₂) is in the

²²Ibid., 92.

progression of I-V, but the V is extended to the end of m. 4 by means of the neighboring notes (see the first polar area in Figure 4-7). The interpretation of extension, in a way, helps performers go through the first encounter of the larger separation between consecutive dyads (one quarter-beat rest in m. 3 rather than the eighth-beat rest occurring before) and establish a longer musical line. Phrase 2 (mm. 5-6) is also extended to the first half of m. 8 where the polar dyad appears in the form of ornamentation. The passage from m. $8\frac{3}{4}$ to m. 11 is only a tonic area (see the last brace in the first section in Figure 4-7). Thus it is not a complete phrase in terms of basic harmonic progression. However, this passage is defined as Phrase 3 and I will give reasons for that situation as the discussion follows.

The tonic dyad in mm. 8-9 is extended first to the second beat of m. 11 and then to the first beat of m. 15 where the vertical trichords contain both the tonic dyad and the polar dyad. Westergaard in his analysis points out that the climax of the movement is on the trichords in m. 15.²³ Wason supports this idea with the notion of "the register of the chords, as well as the sequence of dynamics in mm. 13-15 (*p*, *f* and *ff*)"²⁴ and Travis could support it with the notion of the overlapped tonic and polar dyads. Among the four

²³Westergaard, "Webern and 'Total Organization'," 116.

²⁴Wason, "Webern's *Variations for Piano*," 94.

occurrences of the trichord pairs in this movement, the one in m. 15 has a different metric position from the others. The fact that the first trichord of this pair falls on the downbeat rather than upbeat gives a sense of confirmation and signals its special status in the movement. In Figure 4-7 there are two bigger braces which mark the connection of tonic dyads and two smaller braces which marks the polar areas in the second section. The polar area indicated by the first smaller brace in the second section plays an important role which we can not easily judge from the graph itself (mm. 15-17); it is the extension of climax. While the polar dyad contained in the climactic trichords is marked with *ff*, it is extended first by the immediately following polar dyad in *p* (Wason's "echo"), then by the same dyad in *ff* in m. 17. The same dynamic level of the polar dyad both in mm. 15 and 17 certainly reinforces the notion of connection and extension.

As indicated in Figure 4-8, the harmonic progression in the passage from m. $8\frac{3}{4}$ to m. 17 is I-I-I/V-V-V. As regards its larger structural level, this passage can be interpreted as in the progression of I-V. From the point of view of its harmonic nature and phrase length, this passage can be divided into three phrases: Phrase 3 (mm. $8\frac{3}{4}$ - $11\frac{1}{2}$), Phrase 4 (mm. $11\frac{3}{4}$ -14), and Phrase 5 (mm. 15-17). Both Phrases 3 and 4 are initiated by the tonic dyad.

Phrase 5 is initiated by both the tonic and polar dyads, but it develops as the extension of the polar dyad (climax). Phrase 6 (mm. 18-21) returns to the progression of I-V. But when performers play the repetition of the second section, it has to be remembered that Phrase 6 ends on the tonic dyad (m. 22). This is the only phrase in the progression of I-V-I in the whole movement.

Lewin's Analyses

David Lewin is the only one who offers a very clear concept of phrasing and discusses the issue of rhythm and meter of this movement in depth. Both of his analyses, which were written thirty years apart, deal mainly with the metrical problems of the movement.²⁵ His first analysis presents certain findings which suggest a sense in which the 2/4 indication may begin to be understood structurally (p. 125). This analysis might demonstrate the authenticity of the notated meter. However, it does not seem to lead listeners to have the sense of the meter in their hearing experience. It is certainly not enough if the meter is to be understood only "structurally." Apparently Lewin is

²⁵David Lewin, "A Metrical Problem in Webern's Op. 27," *Journal of Music Theory* 6 (Spring, 1962): 124-32.

David Lewin, "A Metrical Problem in Webern's Op. 27," *Music Analysis* 12/3 (Oct., 1993): 343-54.

bothered by the fact that, according to his observation, "none (including trained musicians and students) who hears the piece performed before having seen the score hears it in 2/4; rather, it is universally heard in 3/8 (with a vague uneasiness)" (Lewin's first analysis, p. 127). He continues to explore the same issue and arrives at the result which he finds "much more to the analytical point" after thirty years (Lewin's second analysis, p. 343).

In a contrast to his first analysis, which Lewin himself describes as using heavy theoretical machinery, the second analysis offers a much more helpful guidance for performers. I would not like to trace the process of how Lewin finds a structural significance for the written 2/4 time signature, even though it is the main purpose of this article; what I am more concerned about is his direct indication of phrasing and thematic structure which still have a close relationship with his rhythmic analysis. The "gestalt" type of analysis here has gone beyond Westergaard's all-embracing analysis in terms of overall relationship of the events. As a result, it offers a guidance in a more practical way.

As a starting point of this analysis, the pairs of trichords are something which Lewin strongly calls to our attention. He regards the pairs of trichords as the large-scale metric beats due to their maximum density and dynamics

and points out the lower chord of each pair as the structural downbeats. From these premises, he further identifies other important rhythmic structures and characteristic ideas of the movement. In my view, the quasi-isorhythmic structure is Lewin's most valuable discovery in his analysis of this movement (as shown in Figure 4-9 and Figure 4-10 which are Lewin's Example 1 and Example 2).

The basic talea from this structure (see the passage in mm. 4-9) also becomes the constitutional factor of phrasing. He divides the first section into three phrases (pp. 348-349): Phrase 1 (opening-m. 3 $\frac{1}{2}$), Phrase 2 (mm. 3 $\frac{3}{4}$ -8 $\frac{1}{2}$), and Phrase 3 (mm. 8 $\frac{3}{4}$ -11 $\frac{1}{2}$). According to Lewin, Phrase 1 presents a designated idea of "TUNE" (B-flat/G-sharp-rest-A/A-rest-C-sharp/F), Phrase 2 presents the significant textural idea of "CHORDS," and Phrase 3 represents the combination of the TUNE and the CHORDS (see Figure 4-11). The rhythmic structure of Phrase 2 is the basic talea which occurs in the course of the movement (under repetitions) for a total of five times (as presented in Figure 4-9 and Figure 4-10, mm. 4-9, 9-4', 4'-9', 15-20, 15'-20'). Phrase 1 and Phrase 3 respectively share different portions of the basic talea. Phrase 1 shares the latter half of the basic talea and Phrase 3 shares the former half of the basic talea.

Some passages (mm. 12-15 and 20-15') which are not in the structure of the basic talea are designated by Lewin as rhythmic complications or rhythmic excursions (pp. 346 and 348). Figure 4-12, which is Lewin's Example 3, explains one of these rhythmic complications by showing a sequence of rhythmic pattern (from the upbeat to m. 9 to the end of m. 14) which he regards as the development and prolongation of the beginning of the talea. This is the way to show how the rhythmic structure is unified in the movement.

On this basis, I would like to explore the possibility of phrasing in the second section which Lewin does not mention. From the demonstration of the sequential rhythmic patterns in Figure 4-12, I believe that the end of this passage could be the end of a phrase. Thus the first phrase of the second section is from m. $11\frac{3}{4}$ to the end of m. 14 (Phrase 4, as shown in Figure 4-11). It is interesting to note that the connective relationship between the two sections of this movement is established not only by the sequential rhythmic patterns, but also by their similar pitch-class structure. Figures 4-13a and 4-13c show their similar pitch-class structure. Figure 4-14 further shows the retrograde relationship of Figures 4-13b and 4-13c. From the melodic point of view, Phrase 4 has a partial statement of the TUNE.

Since the passage following Phrase 4 is a complete statement of the basic talea (mm. 15-20), one tends to regard this passage as a phrase as Lewin has done in the first section. However, the reprise of the TUNE occurring in the middle of this passage (in mm. 18-20, as stated by Lewin in p. 349) seems to initiate the beginning of a new phrase. Thus we can define the third phrase of the second section (Phrase 6) first. Phrase 6 (mm. 18-21) corresponds thematically and structurally to Phrase 1 in the first section (although on a different metric position). Both of them respectively have a statement of TUNE and end on the ornamented D/E dyad. By recalling what was stated at the beginning of this movement, the last phrase (Phrase 6) of this section seems to round off the music. Furthermore, Phrase 6 also corresponds to Phrase 3 in the sense that both of them represent the combination of the TUNE and the CHORDS. The notion that Phrase 6 ends on the D/E dyad supports the possibility for the ending of Phrase 5 also on the D/E dyad in m. 17. Phrase 5 thus begins with the climactic trichords (m. 15, the only trichord with rhythmic displacement) and ends on the ornamented dyad with the highest dynamic level in the movement (m. 17). It is also the first phrase of the second section to present the significant textural idea of "CHORDS."

The only passage I have not discussed so far is the last measure of the movement. In fact, the two quarter-beat rests following the D/E dyad could generate a dispute about which phrases they belong to. Although Webern in Stadlen's edition shows that the first quarter-beat rest belongs to Phrase 6 which I have just defined (see Figure 4-15 which is Stadlen's edition), this indication does not solve the problem when performers play the second section in repetition and end the movement right on the B-flat/G-sharp dyad which is designated by Webern as "Auftakt" (upbeat). When discussing Travis's analysis, I interpreted his notion of the tonic dyad as something that can give the weight and strength for the ending. However, without any hint of this notion in Lewin's analysis, I do not think it is appropriate to combine Travis's and Lewin's insights. Thus, the interpretation of these "extra" notes and rests *during the playing of the repetition* still remains problematic.

Generally speaking, there are some essential analogies between Lewin's phrases in the first section and the phrases in the second section which I have tried to define in terms of his approach. Other comparisons in detail are also helpful for understanding the phrase structure. The phrases in these two sections are of similar length: three, five, and three measures in the first section; three and a half, three, and four (five if we include the last measure)

measures in the second section. Among the six phrases, they begin either with the B-flat/G-sharp dyad or with the vertical trichords and in most cases (four out of six) end with the ornamented dyad (usually D/E dyad; D/E dyad is Travis's polar dyad). The other two endings are formed by the C/F-sharp dyad.

On the other hand, the phrases in the first section always begin with louder dynamics (*f* or *ff*) and end with softer dynamics (*p*), while the phrases in the second section both begin and end with louder dynamics (*f* and *ff*). The phrases in the first section consistently begin on the second beat of the measure (upbeat) and end on the first beat (downbeat), while the phrases in the second section begin on the first beat (except Phrase 4) and end on the second beat. The fact that the phrases in the second section have a more metric and dynamic confirmation than that in the first section indicates an intrinsic transformation of the music from the first section to the second section.

Stadlen's Edition

Finally, I would like to discuss the possibility of phrasing suggested by Stadlen's edition (see Figure 4-15).²⁶ Webern's indication for the grouping of the notes through the markings like "v" and "]" certainly reveals, to some extent, his intention of phrasing. Since these "phrases" do not, at first glance, offer a logical explanation of the music structure, it is necessary to reinterpret the phrasing suggested by Webern.

It is interesting to know that Webern's phrases, whether short or long, end either with the A/A dyad or with the D/E dyad. Notes D and E are respectively a perfect fifth away from note A. Does this fact imply the notion of tonic and dominant in some sense? It is not so important to have an answer for this question. Instead, we have to understand that the A/A and D/E dyads indeed in the musical context show some contrary characters. While the two repeated notes are always "a shade hesitant" (indicated at the beginning of the movement in Stadlen's edition), the D/E dyad in most cases has to be played in much louder dynamics and with a big registral difference. I have no doubt about the significant position of these two dyads in Webern's mind; they offer a substantial guidance for the phrasing of the music.

²⁶Webern, *Variationen für Klavier*, Op. 27, ed. Peter Stadlen.

Since the lengths of Webern's phrases, which I believe were not marked in a very strict manner, are not consistent, I try to modify slightly what Webern has done on the score without violating his intention (see Figure 4-16). Phrase 1 (opening-m. 3 $\frac{1}{2}$) is a combination of the two divisions marked by Webern. The fact that the A/A dyad could be in the middle of the phrase is demonstrated in the last phrase, (which I copy from Webern's marking without alteration) where Webern marked the notes before the A/A dyad as a small division (m. 19). Phrase 2 (mm. 3 $\frac{3}{4}$ -6) and Phrase 3 (mm. 7-9) conform to Webern's marking. The only passage which is not included in any phrase (mm. 10-11 $\frac{1}{2}$) in Stadlen's edition needs some explanation. Webern specially marked the ritard over the circled notes of this passage and isolated the notes from the preceding and the following phrases. This passage is too short to act as a phrase. Nevertheless, it is possible to explain its entity through the pitch-class structure. The two dyads included in this passage (C-sharp/F and C/F-sharp) recall the same dyads with dynamic markings of *f* (in m. 7) and *ff* (in the vertical trichord) played in Phrase 3. Thus, this passage is a recalling or an echo of Phrase 3 and can be thought as an extension of Phrase 3. It is interesting to observe that the analogous location of this passage in the second section is an apparent "rest area" (two quarter-beat rests in mm. 21-22).

Phrase 4 (mm. $11\frac{3}{4}$ -13) and Phrase 6 (mm. 18-21) also conform to Webern's indication. As mentioned above, Phrase 6 is divided into two small divisions due to the appearance of A/A dyad. Phrase 5 (mm. 14-17) is the only passage Webern did not mark with long lines as he did the others. I regard the marking of "v" here as the indication of division of the phrase. Both of the divisions end with D/E dyad, but the former bears the dynamic marking *p* and the later bears the dynamic marking *ff*.

The dyads which respectively end these six phrases are in a quite symmetrical order: D/E, D/E, A/A, A/A, D/E, and D/E. On the other hand, the dyads which respectively start the phrases are in the order of B-flat/G-sharp, F-sharp/C (taken from the outer voices of the trichords), F-sharp/C, B-flat/G-sharp, F-sharp/C, and B-flat/G-sharp. This is not coincidental. This consistency more or less helps explain the logic of the phrasing and reveals Webern's own compositional thoughts in this movement.

Summary

The second movement as a whole is a game between the seven basic dyads which are formed by two twelve-tone rows in the inversionsal relationship. It is important for

performers to have a clear idea about the character of each dyad. Therefore, the elements of register, dynamics, and articulation closely associated with the dyads have to be considered as an integral part of the dyadic structure. The register of these dyads usually first catches our attention because of its consistency. Some pitches are fixed registrally and the axis of registral symmetry throughout the movement is the A right above the middle C. Ogden's analysis focuses on the issue of registral distribution of the notes.²⁷ In regard to the characters of the dyads, Sherlaw-Johnson interprets them as "seven classes of events which vary from stasis to mobility."²⁸ To some extent, his observation and interpretation are helpful in terms of psychological effect.

Although Westergaard's statement for "total organization" of this movement is quite confusing at first glance, it does offer a complete picture of Webern's compositional techniques in this movement.²⁹ I have summarized them in terms of the row techniques and the most essential factors which control the characteristics of each dyad. I believe that Westergaard's detailed observation uncovers Webern's compositional secret of the movement. However, even when we know how Webern composed the music, it

²⁷Ogden, "A Webern's Analysis."

²⁸Sherlaw-Johnson, "Analysis and the Composer," 729.

²⁹Westergaard, "Webern and 'Total Organization.'"

does not mean that we know how to interpret it. We must have a larger structural notion in order to find a way to integrate minute structural units. As I pointed out in my discussion of Westergaard's statement that "we have to interpret the effects of these interrelationships and go beyond Webern's controlling means in order to look for the larger structural meanings," many interpretations resulting from the analyses offer performers different choices and inspire musicians to think of the possibility of diverse expressions in a texture with limited materials.

Even though the perception of 3/8 meter seems quite obvious at the beginning of the movement, Westergaard and Lewin respectively confirm the notated meter of this movement through their analyses. In addition to finding a structural significance for the written 2/4 time signature, Lewin further explores the unity of the rhythmic structure.³⁰ The quasi-isorhythmic structure is, in my view, Lewin's most valuable discovery in this movement (see Figure 4-9 and Figure 4-10). This structure dominates the whole movement (except in mm. 9-14, as demonstrated by Lewin in the first section and by me in the second section) and it also functions as the constitutional factor of phrasing.

³⁰Lewin, "A Metrical Problem in Webern's Op. 27" (1962).
Lewin, "A Metrical Problem in Webern's Op. 27" (1993).

As regards the phrasing of the movement, it comes down to an interpretation of the interrelation between the dyads. It is interesting to compare the phrasing resulted from the different analyses (Westergaard, Lewin, Stadlen, and Travis). Lewin is the only one who offers a very clear concept of phrasing in the first section of the movement and I have tried to define the phrases implied by the other analyses. Since the phrasing is mostly controlled by the structural guideposts defined by the analysts, the issue of larger structural concept must be addressed before the phrasing can be discussed. Westergaard regards the slurred B-flat/G-sharp dyad, the ornamented D/E dyad, and the only trichord in the movement as the structural guideposts due to their significant nonpitch characteristics which are especially audible to listeners; Lewin draws attention to the pairs of trichords as the large-scale metric beats due to their maximum density and dynamics and Travis mainly focuses on the relationship of the tonic dyad (B-flat/G-sharp) and the polar dyad (D/E) in his analysis. On the other hand, the phrasing I interpret from Stadlen's edition points to a significant position of A/A and D/E. The similar choice of the structural points just described is not coincidental.

Facing Travis's quasi-Schenkerian analysis, performers need to establish an understanding of some analogies between

tonal and twelve-tone music. The notion of tonic and polar dyads is indeed a subjective cognition, but this concept helps establish the relationship of tension and relaxation which control the phrase formation. Lewin's phrases mainly depend on the notion of his basic *talea*; each phrase under his definition is usually associated with other ideas (like melody or chords). I interpret Westergaard's structural guideposts to be the initiation of phrases. While it seems that Webern's phrasing represents an "authentic" interpretation of the music, the different forms of phrasing by other commentators nonetheless offer alternative interpretations for the music through tentative observation and logical explanation.

Except for Westergaard's eight phrases, there are six phrases defined by these analyses in the movement (see Figures 4-4, 4-8, 4-11, and 4-16). I do not think that it is necessary to discuss their similarity or difference. Each form of phrasing is independent of the others and is based on a distinct philosophy. However, it is still surprising to see that the forms of phrasing identified by Travis and Lewin are almost identical (the only difference is the starting point of the second phrase), even though their approaches to the movement are completely different. The fact that there are in total *twenty-two and a half measures* in the movement actually causes a metrical problem,

but it also affects the performer's approach to phrasing. It is quite difficult to end the movement right on the "upbeat," and I have not found any solution to this problem in current analytical literature. However, as Travis has pointed out, the notion of tonic center for the B-flat/G-sharp dyad bestows strength and weight to this final dyad. This is the only way so far I have found to interpret this redundant final "upbeat."

CONCLUSIONS

Schoenberg in his *Style and Idea* points out: "The sound-relationships established by means of notation need interpreting. Without interpretation they are not understood."¹ He also states that the best interpreter, even when he is the author, holds a variety of interpretations to be possible (p. 327), and that the composer's interpretation can by no means remain the finally valid one (p. 328). Thus, while Stadlen's edition of Webern's *Variations for Piano* seems to be the only source of "authentic" performance, there appears the varieties of other possible interpretations resulting from the analyses which do not speak as directly to performers as Stadlen's edition does. The more the music is analyzed, the more different interpretations it receives. This phenomenon is clearly demonstrated by the previous discussions which show the varieties of interpretation particularly in the second movement and in the theme of the third movement.

As stated by Wason: "Indeed, I would argue that only one who is completely aware of the piece's technical details (as only Webern was at that time) could have made such

¹Arnold Schoenberg, *Style and Idea*, ed. and trans. by Leo Black (Berkeley and Los Angeles: University of California Press), 327.

wonderfully apposite suggestions for its performance."² This suggests that the understanding of the theory of the composition is a vital element for the performance of the piece. Generally speaking, "gestalt" types of analyses appear more instructive for the interpretation of the music than "atomic" types. By "gestalt" analyses, I mean analyses like Hasty's (the theme of the third movement) and Lewin's (the second movement). In spite of the specific indication of the issues Hasty and Lewin intend to discuss (the rhythmic and metrical problems, respectively), they explore other issues which support their analytical points and in a way help performers see the music from an "all-around" point of view. On the other hand, I regard analyses such as those of Travis (the second movement) and Klumpenhouwer (the theme of the third movement) as "atomic" type analyses. These analyses mainly concentrate on a single issue and, therefore, performers need more effort to translate the analyses into language which gives performers more direct suggestions. In summary, there is no doubt that both gestalt and atomic types of analyses can provide analytical points of view in the macroscopic and microscopic scale of the music.

²Robert W. Wason, "Webern's *Variations for Piano*, Op. 27: Musical Structure and the Performance Score," *Integral: The Journal of Applied Musical Thought* 1 (1987): 65.

Though Webern's influence on the later development of serial composition is often emphasized by some avant-garde composers, the traditional sides of his music are still significant factors as we approach his music. As stated by Schoenberg: "Interpretation is necessary to bridge the gap between the author's idea and the contemporary ears, the assimilative powers of the listener at the time in question."³ We find that the discussions of the different interpretations for each movement include concepts and terms which tonal music also shares. For example, the formal structures of all three movements are clearly examples of traditional thinking that Webern transports into the twelve-tone domain.⁴ Along with Bailey's strong defense for the traditional elements contained in Webern's music,⁵ performers, in the process of practicing the music, need constantly to remind themselves of this "conservative" point of view. This can give them a first insight into the music.

However, Boulez asserts that in Webern's music--as opposed to that of Berg and Schoenberg--the notated meter is purely a matter of convention and is not meant to be heard.⁶ Westergaard and Jones also argue for the possibilities of other meters in the theme of the third movement. But from

³Schoenberg, *Style and Idea*, 328.

⁴Wason, "Webern's *Variations for Piano*," 64.

⁵Kathryn Bailey, *The Twelve-Note Music of Anton Webern* (Cambridge: Cambridge University Press, 1991).

⁶Wason, "Webern's *Variations for Piano*," 78.

the performing point of view, the assertion of other kinds of meter only makes the musical context more complicated and makes it difficult to introduce expression into the already sparse texture. Furthermore, the analyses which confirm the function of the notated meter in the piece are more convincing (like Lewin's defense for the notated meter of the second movement). Stadlen (for the whole piece) and Hasty (for the theme of the third movement) also regard the notated meter as an inherited source of expression. Therefore, there seems to leave little doubt about the function of the notated meter in each of the movements. It is important for performers to confirm the meaning of the notated meter in the piece when they begin their practice of the piece.

In a way, the notated meter introduces a certain liveliness into the rhythmic patterns, especially when there are a series of the same rhythmic patterns distributed among different metrical positions (like the theme of the third movement). I have also emphasized the same notion when discussing the palindromic structure in Variation III of the third movement and in the first movement. Thus, the concept of "variation" can even be applied to the units of rhythmic patterns.

Another element which can impart a certain liveliness to the same statement of the rhythmic patterns as well as to

the whole piece is the change of tempo. According to Schoenberg, "as an expression of man it is at least subject to such changes of speed as are dictated by our blood. . . . Change of speed in pulse-beats corresponds exactly with changes of tempo. . . . A change of character, a strong contrast, will often require a modification of tempo. But the most important changes are necessary for the distribution of the phrases of which a segment is composed."⁷ We can assume that Webern may have subscribed to the same viewpoints. This statement also contradicts the common notion held by many musicians, which suggests the inflexibility, objectivity, and coolness of the performing style of the Second Viennese School. Changes of tempo are by no means uncommon in Webern's music. In Webern's *Variations for Piano*, numerous indications of change of tempo occur in the middle section of the first movement as well as in Variations II, III, and V of the third movement. They respectively suggest the moods of improvisation, freedom, relaxation, and introspection. Stadlen vividly records that Webern "experienced fluctuations of tempo even during rests and would, for example, every time we arrived at the empty bar III, 44 continue the preceding acceleration by excited shouting 'one, two, three!'"⁸ We can imagine

⁷Schoenberg, *Style and Idea*, 321.

⁸Anton Webern, *Variationen für Klavier*, Op. 27, ed. Peter Stadlen (Vienna: Universal Edition, 1979), VII.

how intense the music would become through the sense of *accelerando*. While I have suggested that the playing of Variation IV can be faster than the previous sections, the playing of Variation V which bears the marking of "wieder ruhig" should go back to the tempo used at the beginning of the movement. Thus the link between the theme and Variation V can be based on this notion. As for the parts which have few indications of change of tempo, the nuance for the expression of phrases enforces the slight flexibility of the tempo.

It is important for performers to know that the change of tempo is based on the steady basic pulse of the music. Stadlen mentions that the metronome marks "seem to me considerably faster than the tempi he wanted: first movement 96, not ca 120 (♩. = 40); second movement 142, not ca 160 (although here much may depend on the pianist's dexterity); third movement 69, not ca 80."⁹ This is the only discussion of the general speed of this piece.

With regard to the phrasing, Webern's caesura signs and indications of grouping of notes directly suggest the phrasing of the piece. According to Schoenberg, "phrasing has to do solely with performance. In that sense one is justified in expounding motivic relationships to the listener ('performing' them for him), in so far as it

⁹Ibid.

genuinely helps him to understand a piece."¹⁰ Indeed, different phrasing in the music could lead to diverse expression in performance. Performers can find four types of phrasing for the second movement in the discussions of the analyses by Westergaard, Travis, Lewin, and Stadlen. Each phrasing has its own emphasis and constructive point. However, listeners might not divide the second movement into six or eight phrases in such a short period; they are inclined to hear the music as a big gesture. Therefore, Schoenberg reminds us that "the way the notes are joined is less important than where the center of gravity comes or the way the center of gravity shifts."¹¹

Generally speaking, there is no dispute about the location of the climax in each movement; the center of gravity in each movement thus can be at least established on the notion of climax. In addition, Cook's application of Cooper and Meyer's notation for his analysis of rhythmic structure reveals the center of gravity in the first section of the first movement (I have tried to use the same method for the analysis of the second section). Wason's discovery of the registral plan in the third movement also exhibits the same notion. Travis, with the cognition of the relationship between the tonic and polar dyads, certainly shows the way the center of gravity shifts.

¹⁰Schoenberg, *Style and Idea*, 347.

¹¹*Ibid.*, 348.

As stated by Schoenberg again: "The character of the piece is influenced to no small degree by phrasing; but a motive can appear with the utmost variety of character."¹² But how can a motive appear with the utmost variety of character? Since Webern employs only one twelve-tone series and its varieties in this piece, there are certainly some common points in the motives of each movement. In the third movement, for example, semitone progression is prominent in the formation of melody (Theme and Variation I, as demonstrated in my analysis). Although it is difficult to define the melody and accompaniment in the other variations of the third movement and in the first movement, semitone dyads play a significant role here in terms of structure and articulation (especially in Variations II, III, and IV of the third movement). Semitone dyads also very often appear in the vertical form (as in the first movement, Variation IV, and in the accompanying part of Variation I in the third movement). These dyads may be regarded as a motive of the whole piece and their diverse expressions affect the character of the music.

Another phenomenon prevalent in the whole piece is the occurrence of repeated notes. Some of them come from the palindromic structure (like the G-sharp in m. 4 as well as the C in m. 18 of the first movement, and the F-sharp/G dyad

¹²Ibid.

in mm. 35-36 of the third movement), and some of them come from the deliberate control of compositional elements (like the dyad A/A in the second movement and the repeated notes at the beginning of Variation II of the third movement). The occurrences of these repeated notes usually catch performers' and listeners' attention by their distinct character. From this point of view, we can regard this phenomenon as a motive of the piece.

The second movement is essentially devoid of the notion of melody and accompaniment; it is a game between the seven fixed dyads. These dyads do not conform to the situation of semitonal dominance occurring in the other movements. However, the structure of vertical trichords which are strongly articulated in the second movement is characteristic of Webern's music. The trichords in this movement (as discussed in the analysis of Westergaard) are exclusively in pitch-class sets [0, 1, 6]. They consistently appear either in the format of an interval-class 5 above an interval-class 6, or in the format of an interval-class 6 above an interval-class 5. The same patterns of chords also occur in the first movement and in Variations II, III, and V of the third movement.

It is worth noting that the forms of vertical trichords are very limited in the whole piece. The only other vertical trichord is set [0, 1, 4] in the last variation of

the third movement. In fact, I have discussed the prominence of [0, 1, 4] in the theme of the third movement; the formation of this harmony depends on the association of melodic and accompanying notes. On the other hand, the notion of [0, 1, 6] can also be applied to the new motive in the B section of the first movement (three consecutive thirty-second notes). Thus, it seems that Webern has used his imagination to extract maximum effect from these limited materials. If the twelve-tone series functions as a motive in this piece, the expression of this motive is certainly extremely diverse.

The playing of the continuous motives is usually distributed to the regular alternation of the hands, which is Webern's piano style in his later works (also see the piano accompaniment of his *Three Songs*, Op. 25). Sometimes Webern even demanded the playing of a motive with the alternation of the hands (for example, the three consecutive thirty-second notes in the second section of the first movement). As a matter of fact, Webern was not a pioneer in employing this sort of piano technique. Debussy in his piano music *Les tierces alternees* (*Preludes*, Book II) employed this technique throughout that piece. One might argue that it is indispensable in this piece to employ the technique for the running sixteenth-notes in thirds, but the introductory passage (mm. 1-10) and the middle section (mm.

91-116) which respectively require the legato playing for a sense of melody also use the same technique. Nonetheless, Webern probably is the only composer who consistently applies this piano technique throughout his later works.

One of the resultant features of the alternation of the hands in Webern's music is the inconvenient situation of hand-crossing for pianists. Whether it is necessary to rearrange the notation is debatable. However, as a composer famous in his perfection of methods and accuracy, Webern must have some reason for this arrangement. I regard the alternation of the hands as an indication of constantly renewed energy for the music. According to Stadlen's recollection of Klemperer's description of Webern's playing, ". . . he played every note with enormous intensity and fanaticism. . . ." ¹³ The alternation of the hands in piano playing is a possible way to help us get close to what Webern attained in his piano playing. On the other hand, to play with regular alternation of the two hands offers an opportunity for performers to relax in their muscles (though not in their minds). Thus, it somewhat reduces the need to use tense muscles for performance of Webern's enormously intense music.

With regard to pedaling of the piece, Stadlen points out: "Webern entered only a fraction of the colouristic and

¹³Webern, *Variationen für Klavier*, Op. 27, V.

the legato pedaling which he so frequently either indicated or else silently tolerated, particularly in the arioso passages of the outer movements. I no longer feel confident to be able to distinguish between the two categories and prefer this aspect of the matter to remain unspecified."¹⁴ This passage implies that a certain level of "ringing" is still necessary for the playing of the piece. I would not suggest applying the concept of dry sound to Webern's texturally sparse music. His music can be associated with the qualities of clarity, intensity, fanaticism, and introspection, but not with dry sound. As Stadlen's statement continues: "An exception are the three passages in III, bars 53-55 where I distinctly remember my astonishment that he should have been prepared to sacrifice the explicitly indicated pungency of the quavers or, again, to allow the so meaningfully devised sequences of crotchet intervals to add up to climactic six note chords."¹⁵ Pedaling is by no means assigned a subordinate role in expression in Webern's music.

As a whole, most of the analyses of this piece are quite comprehensible. Although performers might at first feel confused about the diversity of approaches, they can get varieties of interpretative ideas through proper exploration. Analysis, which has become an art in the

¹⁴Ibid., VII.

¹⁵Ibid.

twentieth-century, offers a way for performers to extend interpretive viewpoints of the music. I believe that interaction between musicians in the theoretical and performing fields will result in each offering the other much inspiration. A close relationship between analysis and performance makes the music more meaningful. "Variation" in this piece is a game within a restricted row; after all, it is just a term of expression for Webern. A performers' search for more interpretive "variations" for these variations can shed some new light and freshness on the music.

$\Gamma [0, 1, 4] \uparrow$ $\Gamma [0, 2, 4] \uparrow$
 $\Gamma [0, 1, 4] \uparrow$ $\Gamma [0, 1, 3] \uparrow$
 $\Gamma [0, 1, 5] \uparrow$ $\Gamma [0, 1, 3] \uparrow$

$\downarrow [0, 1, 2]$ $\downarrow [0, 1, 4]$
 $\downarrow [0, 1, 6]$
 $\downarrow [0, 2, 6]$

The musical staff shows a sequence of notes: B \flat , C, D \flat , E, F \sharp , G, A \flat , B \flat , C, D, E, F \sharp . The intervals are labeled with Γ (upward) and \downarrow (downward) symbols and their corresponding interval sets.

Figure 1-1

Phrase 1
Ruhig fließend J. ca 80

Phrase 2

Phrase 3

Phrase 4

Figure 1-2a

[0, 1, 5] [0, 1, 4]	[0, 1, 4] [0, 1, 3]	[0, 1, 4]	[0, 1, 5] [0, 1, 4]
[0, 1, 4] [0, 1, 3]	[0, 1, 4]	[0, 1, 4] [0, 1, 3]	[0, 1, 2] [0, 1, 4] [0, 1, 5]

Figure 1-2b

Ruhig fließend J. ca 80

1 2 3

[0, 1, 4] [0, 1, 4]

4 5 6

[0, 1, 4] [0, 1, 4]

7 8 9

[0, 1, 4] [0, 1, 4] [0, 1, 4]

10 11 12

[0, 1, 4] rit. tempo

level A

B	—	C#	F	G	—	F	C#	G#	D				
Bb	—	C	X	A	X	G#	—	F#	A	X	Bb		
D	—	E	X	G#	X	E	—	D	X	Bb	F	X	B

T2 I9 T11 T10 I3 I6 I7

level B

B	—————	G	—	F	—————	D
Bb	—————	G#	—	F#	—————	Bb
D	—————	E	—	D	—————	B

I6 T10 I4

level C

B	—————	D
Bb	—————	Bb
D	—————	B

T0

Figure 1-3a

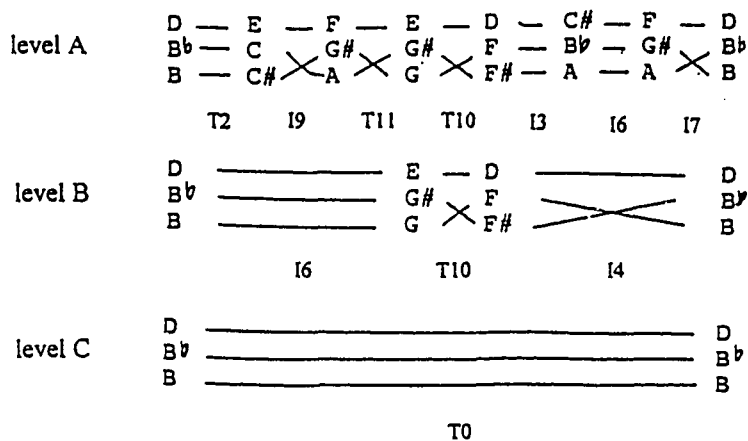


Figure 1-3b

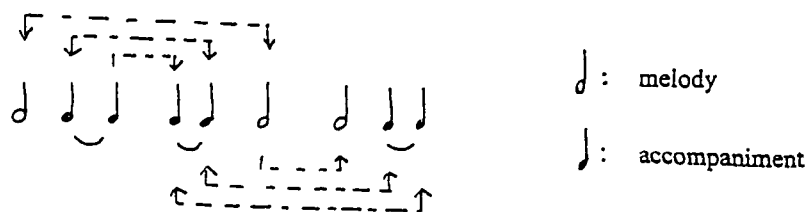


Figure 1-4

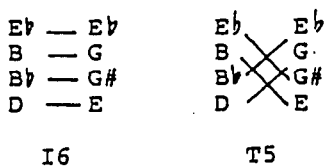


Figure 1-5

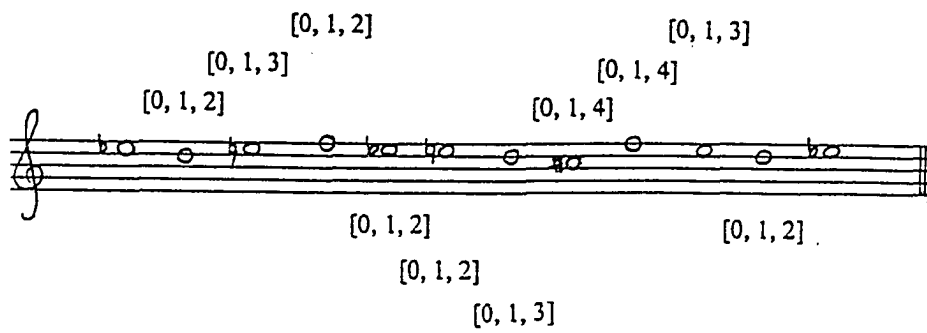


Figure 1-6a

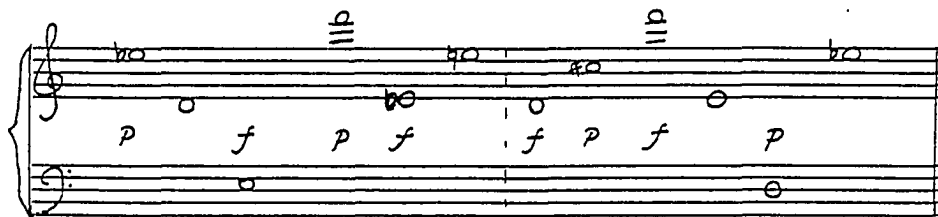


Figure 1-6b

Ruhig fließend ♩ = ca. 80

The musical score is divided into eight units, each marked with a dynamic and a repeat sign:

- Unit 1 (measures 1-2): *p*
- Unit 2 (measures 3-4): *f*
- Unit 3 (measures 5-6): *p*
- Unit 4 (measures 7-8): *f*
- Unit 5 (measures 9-10): *f*
- Unit 6 (measures 11-12): *p*
- Unit 7 (measures 13-14): *p*
- Unit 8 (measures 15-16): *p*, *rit.*

The score concludes with a tempo marking: *tempo*.

Figure 1-7

Segmentation 1/1

- + s.c. (2-1)
- + contour (retrograde)
- + order of i.c. association (retrograde)
- + pattern of metrical accent (retrograde)
- (i.e., A-weak, strong
B-strong, weak)

+ duration (o) + duration (d)

- duration
A/B

Segmentation 1/2

- + pulse (d)
- + onbeat
- + register
- + i.c. association
- [1, 3, 4]

s.c. 2-3

Segmentation 1/3

- + pulse (d)

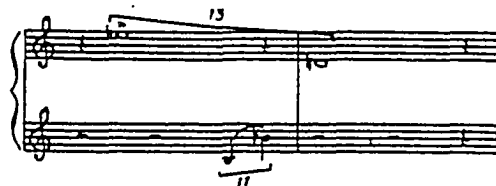
s.c. 3-3

(Segmentation 1/4)

- + s.c. (2-4)
- + i.c. association
- + contour

X/Y

Figure 1-8a



- Seg. 1/1 — E \flat → D (D “resolves” E \flat , D “displaces” E \flat melodically)
 Seg. 1/2 — B → D (upbeat to downbeat in 3/2, registral extreme to registral midpoint, connects structure A of seg. 1/1 with structure B)
 Seg. 1/3 — Seg. 1/1 — B → B \flat (downbeat to upbeat in 2/4, slur)
 B \flat → D (upbeat to downbeat in 2/4, anacrusis in 3/2)
 E \flat ↗ B (differentiated as “voices” — E \flat still sounding when B enters)
 E \flat ↘ B \flat (B \flat as weak beat cannot “resolve” E \flat)

Figure 1-8b

a. Unit 1 (Seg. 1/1 (A)) and Unit 2 (Seg. 2/1 (A)). Annotations: + interval (13), + duration (o J), i.c.1, 13 (+12).

b. Seg. 1/2 and Seg. 2/2. Annotations: + register, + metrical quality, 3, 3.

c. Seg. 1/1 and Seg. 2/1 (B). Annotations: 11, 11 (+12), 1#.

d. Seg. 1/3. Annotations: s.c. 3-3, s.c. 3-3, n (+12).

Properties for a:
 + set class (2-1)
 + contour
 + metrical quality
 (upbeat unresolved → downbeat)

Properties for b:
 + set class (2-3)
 + order
 + contour
 + duration (J J)
 + minimal registral distinction

Properties for c:
 + set class (2-1)
 + order
 + contour
 + duration (J J)

Properties for d:
 + set class (3-3)
 + order
 + contour
 (similar durations)

Figure 1-9

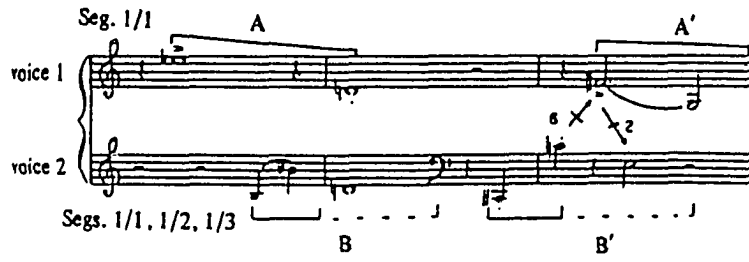


Figure 1-10

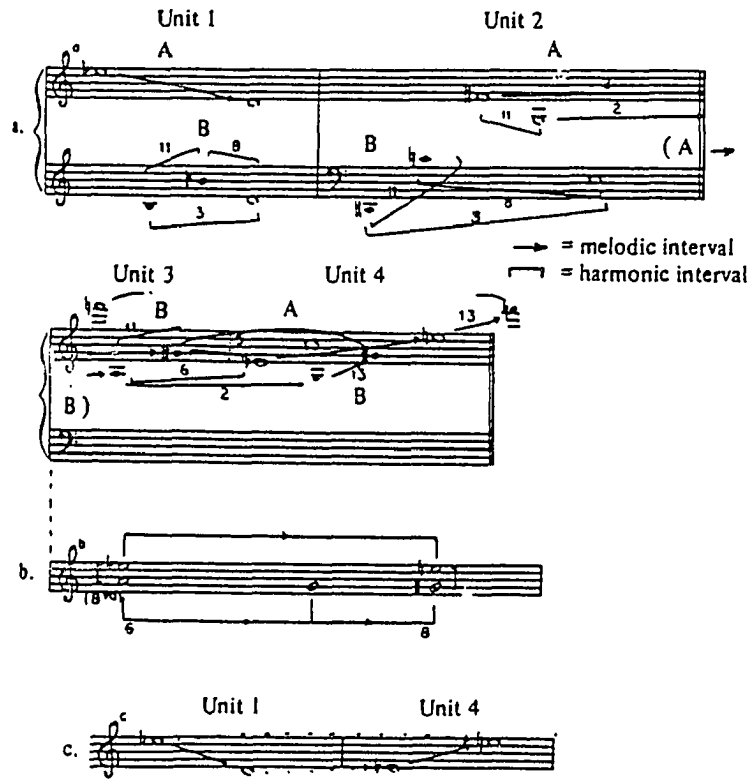


Figure 1-11

The image displays a musical score for two units, Unit 8 and Unit 1, arranged horizontally. Each unit consists of a treble clef staff and a bass clef staff. Unit 8 (left) features a treble staff with a melodic line starting on G4, moving to A4, B4, and C5, with a slur and a fermata over the final note. The bass staff contains a bass line with notes G2, F2, and E2, also slurred. Unit 1 (right) features a treble staff with a melodic line starting on G4, moving to A4, B4, and C5, with a slur and a fermata over the final note. The bass staff contains a bass line with notes G2, F2, and E2, also slurred. The two units are separated by a vertical line. The labels 'Unit 8' and 'Unit 1' are positioned above their respective staves.

Figure 1-15

III

Phrase 1
Ruhig fließend $\text{♩} = ca 80$

1 2 3

4 5 6

7 8 9

10 11 12

rit. tempo

p *f* *f* *p* *f* *p* *pp*

Figure 1-16

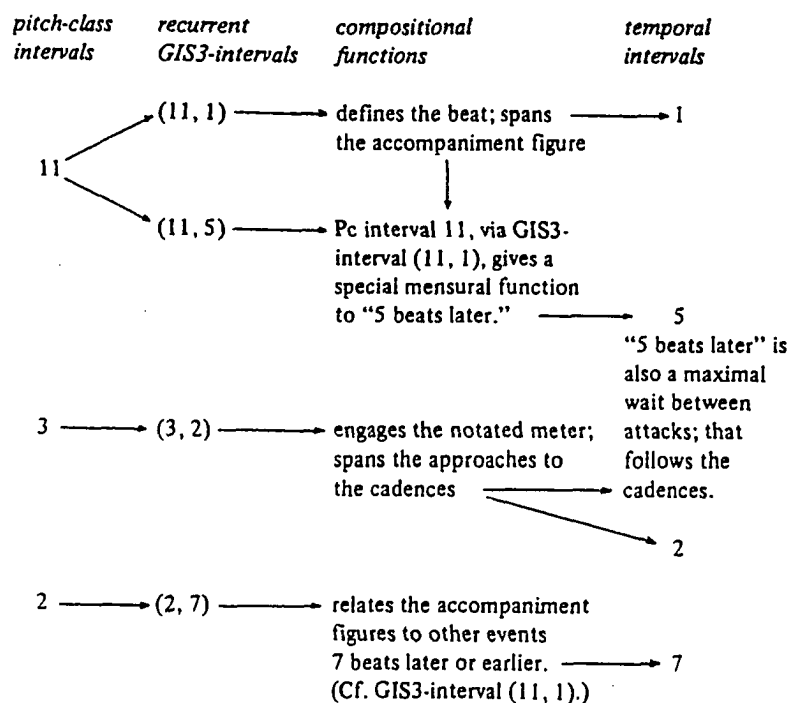


Figure 1-17

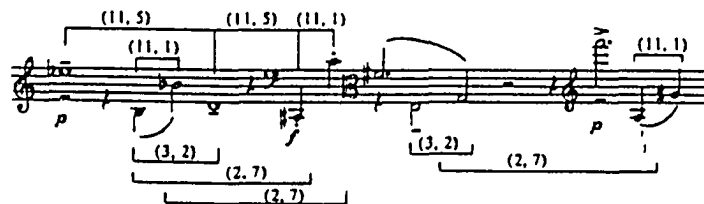


Figure 1-18

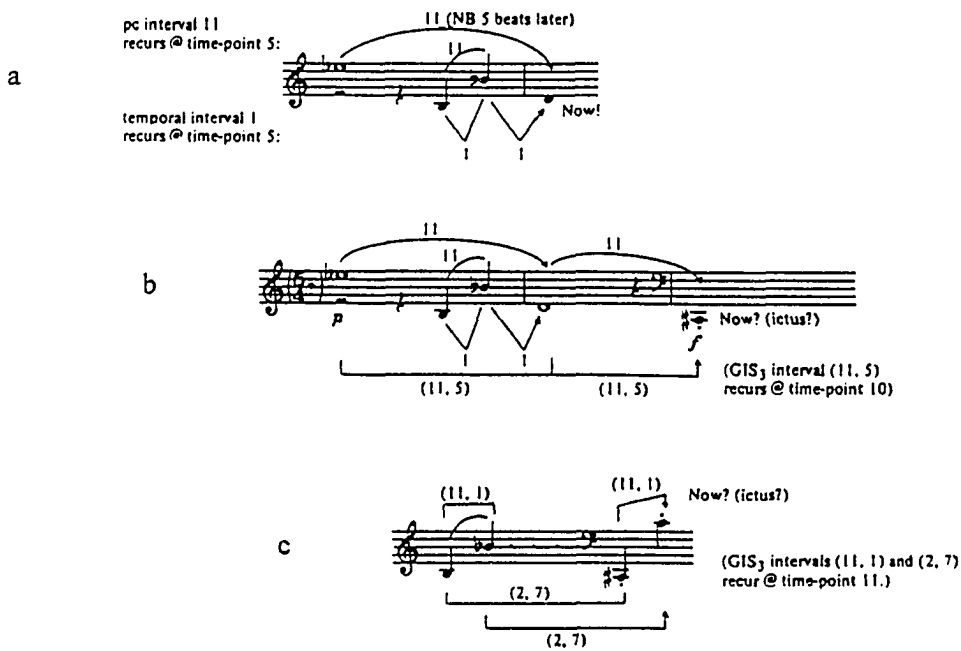


Figure 1-19

III

Phrase 1
Ruhig fließend $\text{♩} = \text{ca } 80$

Phrase 2

Phrase 3

Phrase 4

Phrase 5

Phrase 6

Phrase 7

Phrase 8
rit. tempo

Figure 1-21



Figure 1-22

III

..die zahlreichen Tempowechsel zeigen jeweils
den Beginn eines neuen Satzes an"

Ruhig fließend $\text{♩} = \text{ca } 80$

The musical score consists of four systems of piano music, each with a treble and bass clef staff. The score is annotated with various performance instructions and tempo markings:

- System 1:** Starts with a dynamic marking of *p*. The tempo is marked "Ruhig fließend $\text{♩} = \text{ca } 80$ ". The music is divided into measures 1, 2, and 3. Measure 2 is marked "elegisch". Measure 3 is marked "f" and "sich überstürzend".
- System 2:** Starts with a dynamic marking of *f*. Measure 4 is marked "4 accell.". Measure 5 is marked "5". Measure 6 is marked "6 v" and "enthusiastisch pathetisch".
- System 3:** Starts with a dynamic marking of *f*. Measure 7 is marked "7 exaltiert". Measure 8 is marked "8 tpo". Measure 9 is marked "9 nachdenklich". Measure 10 is marked "10 exaltiert".
- System 4:** Starts with a dynamic marking of *f*. Measure 11 is marked "11 rit. 'quasi vibrato'". Measure 12 is marked "12 - tempo leicht". The system ends with the instruction "leggiero".

Figure 1-23

Ruhig fließend 1. ca 80

The musical score consists of four systems of piano music, each with three measures. The first system (measures 1-3) is marked *p* and *f*. The second system (measures 4-6) includes the instruction *rit.* and *f*. The third system (measures 7-9) includes *f* and *p*. The fourth system (measures 10-12) includes *rit.*, *p*, and *tempo*. Brackets below the staves group measures into sections labeled A1, A2, A3, A4, B1, B2, E3, E4, C1, C2, C3, and C4.

Figure 1-24

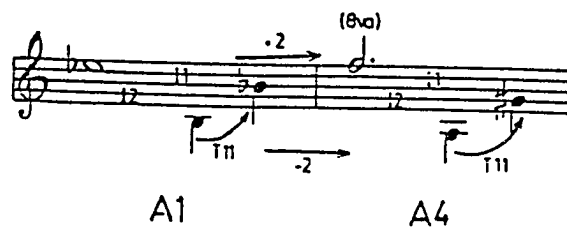


Figure 1-25

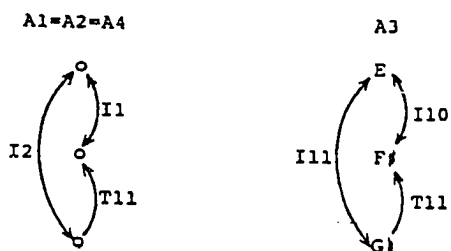


Figure 1-26

The musical score is divided into four systems, each with two staves (treble and bass clef).
System 1 (Measures 12-15): Measure 12 is marked "tempo". Measures 13-14 are bracketed as "A" and marked "pp". Measure 15 is bracketed as "B" and marked "p".
System 2 (Measures 16-18): Measure 16 is marked "f". Measures 17-18 are bracketed as "B" and marked "p".
System 3 (Measures 19-21): Measure 19 is marked "p" and "f". Measures 20-21 are bracketed as "B1" and marked "rit." and "tempo".
System 4 (Measures 22-24): Measure 22 is marked "p". Measures 23-24 are bracketed as "A" and marked "rit." and "tempo, zart". Measure 24 is also marked "pp".
The key signature is one flat (B-flat major or E-flat minor).

Figure 2-1

Var. I pitch-class set [0, 1, 2]

Level A

E ⁰	C#	F#	D	F#	A	D	G	G#	C#	D	G
C#	B	G	C	E	B ^b	C	F	F#	B	C	F
D	C	G#	C#	F	B	C#	F#	G	C	C#	F#
T:	10	7	6	4	5	3	5	1	5	1	5

Level B

E ^b	_____	D	_____	G
C#	_____	C	_____	F
D	_____	C#	_____	F#
		T11		T5

Level C

E ^b	_____	G
C#	_____	F
D	_____	F#
		T4

Figure 2-3a

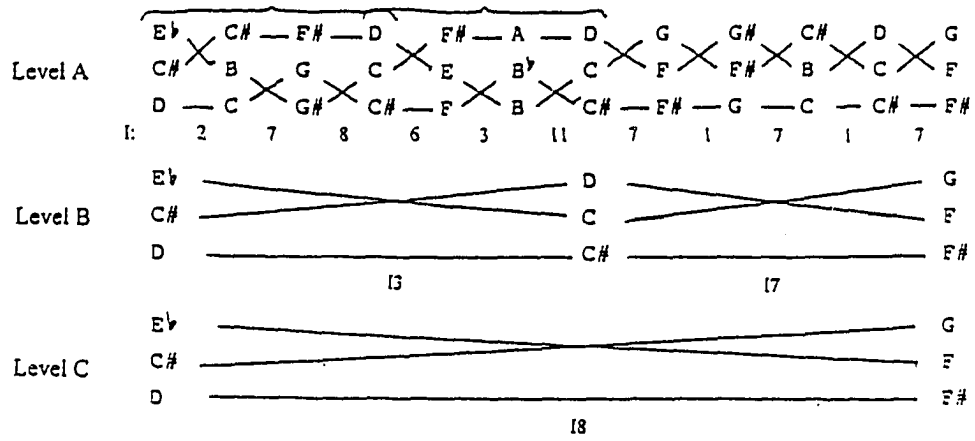


Figure 2-3b

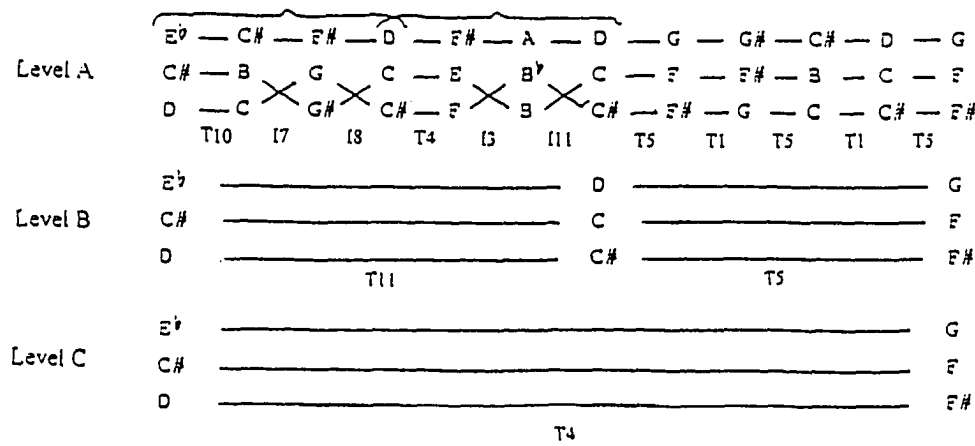


Figure 2-3c

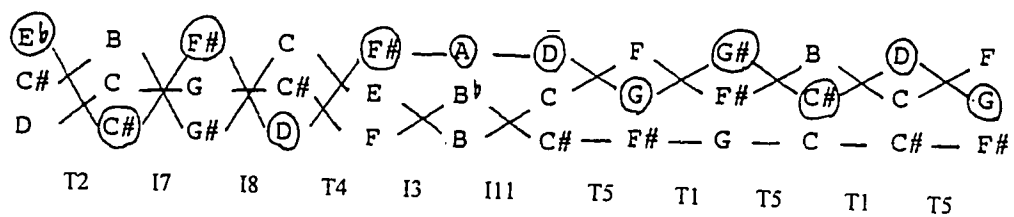


Figure 2-3d

Var. I pitch-class set {0, 1, 3}

- tempo

Level A

G	D	F	G	G#	E ^b	A	E ^b	G
F	B	G	E	B ^b	C	F#	C	F
A ^b	C	C#	F	B	C#	G	C#	A ^b
	17	17	10	13	111	T6	T6	18

Level B

G					E ^b			G
F					C			F
A ^b					C#			A ^b
					18			18

Level C

G							G
F							F
A ^b							A ^b
							T0

Figure 2-4a

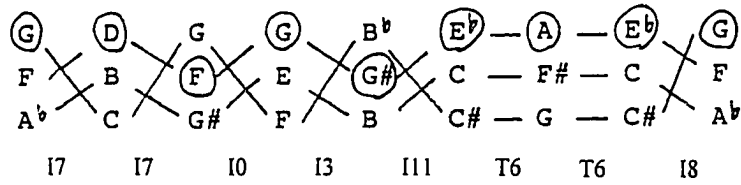


Figure 2-4b

pitch-class sets [0, 1, 4] and [0, 1, 5]

Var. I

tempo [0, 1, 5] [0, 1, 4] [0, 1, 5]

13 14 15

16 17 18

19 20 21 rit. - - - tempo [0, 1, 5]

22 23 24 Var. II rit. - - - tempo, zart rit. - - -

F#	—	A	—	G#	—	E ^b	—	D	—	A	—	B ^b
A	×	F	—	E	—	B	—	B ^b	—	F	×	C#
B ^b	×	F#	—	F	—	C	—	B	—	E#	×	D
		I3		T11		T7		T11		T7		I7
F#	—											B ^b
A	—											C#
B ^b	—											D
		T4										

Figure 2-5a

E	—	E ^b	—	A ^b
B	—	B ^b	—	E ^b
C	—	B	—	E
		T11		T5
E	—			A ^b
B	—			E ^b
C	—			E
		T4		

Figure 2-5b

Var. I
- tempo

Figure 2-6a is a musical score for a piano piece, labeled 'Var. I' and '- tempo'. It consists of two systems of music, each with two staves. The first system starts at measure 12 and ends at measure 15. The second system starts at measure 16 and ends at measure 18. The score includes various chordal annotations above the notes, such as BCC#DEbE, FF#GG#ABb, BCC#D, EFF#GG#, BbBCC#DEb, EFF#G, G#ABbB, CC#DEb FF#G(G#)A, and CC#DEb FF#G(G#)A. Dynamic markings include *pp*, *p*, and *f*. The notation includes treble clefs, a key signature of one flat, and a 4/4 time signature.

Figure 2-6a

BCC#DEbE, FF#GG#ABb, BCC#D (Eb), EFF#GG# (A),
 BbBCC#DEb, EFF#G, G#ABbB, CC#DEb (E), FF#G(G#)A.

Figure 2-6b

Var. I

Phrase 1 Phrase 2 Phrase 3

Phrase 4 Phrase 5

Phrase 6 Phrase 7 Phrase 8

Var. II

rit. tempo, zart rit.

Figure 2-7a

Phrase 1 Phrase 2 Phrase 3 Phrase 4

[0, 1, 3, 4] [0, 1, 4, 5] [0, 1] [0, 1, 2, 3]

Phrase 5 Phrase 6 Phrase 7 Phrase 8

[0, 1, 2, 6, 7] [0, 1, 2, 6, 7] [0, 1, 2, 6, 7] [0, 1, 2, 4]

Figure 2-7b

The musical score for Figure 2-8 consists of two systems of piano and vocal staves. The first system covers measures 12 to 15, and the second system covers measures 16 to 24. The piano part is written in a key with one flat (B-flat major or D minor) and a 2/4 time signature. The vocal part is in a soprano or alto range. Performance instructions include *Tempo*, *leggiere*, *canabile*, *„wristschend“*, *„schneller“*, *leicht*, *weiter*, *harter Staccato*, *rit.*, *molto rit.*, *tempo*, *zart*, and *pp*. Dynamics range from *pp* to *f*. The score includes various musical notations such as slurs, accents, and dynamic markings.

Figure 2-8

Var. II

first division

second division

third division

Var. III

[0, 1, 3, 4] [0, 1, 4, 5] [0, 1, 3, 4] [0, 1, 4, 5]

[0, 1, 3, 4] [0, 1, 3, 4] [0, 1, 4, 5] [0, 1, 3, 4]

Figure 2-9

E +3 G +4 B -1			B ^b +5 E ^b —			B +3 D +4 F [#]									
T ₁ C	E ^b +3	T ₁ C	F [#] +4	T ₁ C	B ^b -1	T ₁ C	A +5	T ₁ C	B ^b +3	T ₁ C	C [#] +4	T ₁ C	F		
T ₂ C	C [#] +2	T ₂ C	E ^b +5	T ₂ C	G [#] -2	T ₂ C	F [#] +6	T ₂ C	—	T ₂ C	G [#] +2	T ₂ C	B ^b +5	T ₂ C	E ^b
T ₁ C	C +2	T ₁ C	D +5	T ₁ C	G -2	T ₁ C	F +6	T ₁ C	B —	T ₁ C	G +2	T ₁ C	A +5	T ₁ C	D

T8

Figure 2-10

The figure shows two staves of musical notation. The top staff contains a sequence of notes with various accidentals (sharps, flats, naturals) and slurs. It includes a 'rit.' marking and a bracketed instruction 'L [0, 1, 3, 4]'. The bottom staff continues the notation with similar notes and accidentals, also featuring 'rit.' markings and bracketed instructions 'L [0, 1, 3, 4]', 'L [0, 1, 4, 5]', and 'L [0, 1, 3, 4]'.

Figure 2-11

B ^b	C	—	G	F	G
F	F[#]	—	D ^b	C	D^b
B	C [#]	—	A ^b	F [#]	A ^b

I11 T7 I1 I1

Figure 2-12

Var. III
palindrome 1

34 *f* *pp* *f* *pp* *f* *pp* *f* *pp*

35 *f* *pp* *f* *pp* *f* *pp* *f* *pp*

36 *f* *pp* *f* *pp* *f* *pp* *f* *pp*

37 *f* *pp* *f* *pp* *f* *pp* *f* *pp*

38 *f* *pp* *f* *pp* *f* *pp* *f* *pp*

39 *f* *pp* *f* *pp* *f* *pp* *f* *pp*

40 *f* *pp* *f* *pp* *f* *pp* *f* *pp*

41 *f* *pp* *f* *pp* *f* *pp* *f* *pp*

42 *f* *pp* *f* *pp* *f* *pp* *f* *pp*

Var. IV
wieder im tempo, doch bewegt

43 *ff* *ff* *ff* *ff* *ff* *ff* *ff* *ff*

44 *ff* *ff* *ff* *ff* *ff* *ff* *ff* *ff*

45 *ff* *ff* *ff* *ff* *ff* *ff* *ff* *ff*

Figure 2-13

Var. IV

Phrasenstruktur

Phrasenstruktur

Phrasenstruktur

Phrasenstruktur

Phrasenstruktur

Phrasenstruktur

Phrasenstruktur

The musical score for Var. IV is divided into five phrases, each with specific performance instructions and fingering:

- Phrase 1 (Measures 43-45):** Starts with an *accel.* marking. Measure 45 includes the instruction *wieder im tempo, doch bewegt*. Dynamics range from *ff* to *p*. Fingering includes *T10*.
- Phrase 2 (Measures 46-47):** Dynamics range from *ff* to *p*. Fingering includes *T11*. A key signature change to *F#* is indicated.
- Phrase 3 (Measures 48-49):** Starts with *rit.* and ends with *tempo*. Dynamics range from *ff* to *p*. Fingering includes *T1*. Key signatures *G* and *F#* are indicated.
- Phrase 4 (Measures 50-51):** Dynamics range from *ff* to *p*. Fingering includes *T11* and *T10*. Key signature *F#* is indicated.
- Phrase 5 (Measures 52-55):** Dynamics range from *ff* to *molto ff*. Fingering includes *T11*. Key signatures *A* and *b* are indicated.

Figure 2-14

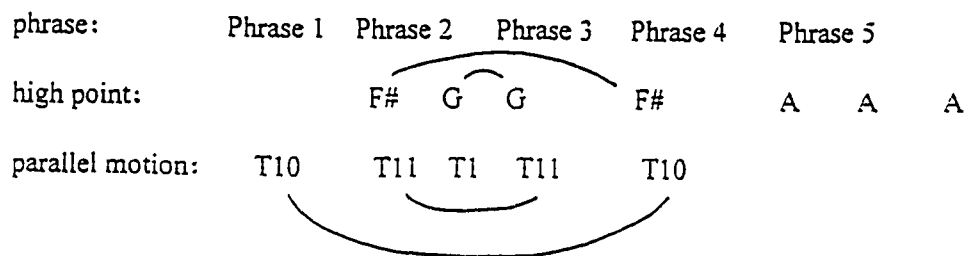


Figure 2-15

43 *accel.* *„eins, zwei, drei!“* *wieder im tempo, doch bewegt* 45 IV

46 *ff* *p* *rit.* *vorübergend erschöpft, aber gleich wieder:* *tempo* 47

48 *ff* *dim.* *ff* 49

50 *ff* *p* *ff* 51

52 *molto ff* 53

Höhepunkt *vorwärts* *stark* 54 55

Figure 2-16

Var. V

wieder ruhig

56 57 58

subito pp p p

59 60 61 62

pp pp p

rit. - - - tempo axis

63 64 65 66

p pp ppp

rit. - - - molto

10 Min.

B ^b	+2	C	-4	G [#]	-2	F [#]	+4	B ^b	-4	F [#]	+2	G [#]	+4	C	-2	B ^b
L ^t		L ^t		L ^t		L ^t		L ^t		L ^t		L ^t		L ^t		L ^t
D	) +4	F [#]	-1	F	) -4	C [#]	+1	D	) -1	C [#]	+4	F	) +1	F [#]	-4	D
L ^t		L ^t		L ^t		L ^t		L ^t		L ^t		L ^t		L ^t		L ^t
B	+2	C [#]	-4	A	-2	G	+4	B	-4	G	+2	A	+4	C [#]	-2	B
<T6>		<T7>		<T6>		<T5>		<T7>		<T6>		<T5>		<T6>		<T6>

Figure 2-17

B \flat +2		C -4		G \sharp +4		C -2		B \flat	
L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C
D	F \sharp	F	F	F \sharp	F \sharp	F \sharp	F \sharp	F	D
L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C
B +2	C \sharp -4	A +4	A +4	C \sharp -2	C \sharp -2	C \sharp -2	C \sharp -2	B	B
< T6 >	< T7 >	< T5 >	< T5 >	< T6 >	< T6 >	< T6 >	< T6 >	< T6 >	< T6 >

G \sharp -2		F \sharp +4		B \flat -4		F \sharp +2		G \sharp	
L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C
F	C \sharp	D	D	C \sharp	C \sharp	C \sharp	C \sharp	F	F
L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C	L \downarrow C
A -2	G +4	B -4	B -4	G +2	G +2	G +2	G +2	A	A
< T6 >	< T5 >	< T7 >	< T7 >	< T6 >	< T6 >	< T6 >	< T6 >	< T6 >	< T6 >

Figure 2-18

$$\begin{array}{cccc}
 G & -2 & F & +4 & A \\
 I_{11} \downarrow & & I_{15} \downarrow & & I_{10} \downarrow \\
 E & -4 & C & +1 & D \\
 I_{12} \downarrow & \downarrow T_1 & I_{16} \downarrow & \downarrow T_1 & I_{11} \downarrow \\
 G\# & -2 & F\# & +4 & B
 \end{array}$$

$\langle T6 \rangle \quad \langle T5 \rangle$

Figure 2-19

The musical score consists of three systems of piano music, each with a treble and bass clef staff. The first system (measures 56-58) is marked "wieder ruhig" and "bischen treiben". It features a dynamic of *subtto pp* at measure 56, with a performance instruction: "linke Gruppe gegen die rechte setzen". Dynamics change to *p* at measures 57 and 58. The second system (measures 59-62) includes markings for "rit.", "tempo", and "vorwärts". Dynamics are *pp* at measures 59 and 60, and *p* at measures 61 and 62. The third system (measures 63-66) includes markings for "rit." and "molto". Dynamics are *p* at measure 63, *pp* at measure 64, and *ppp* at measure 66. A page number "1936" is visible on the right margin of the third system, and "10 Min." is at the bottom right.

Figure 2-20

Var. V

Phrase 1
wieder ruhig

Phrase 2

56 57 58

subito pp *p* *p*

Phrase 3

rit. tempo

59 60 61 62

pp *pp* *p*

Phrase 6

Coda

rit. molto

63 64 65 66

p *pp* *ppp*

10 Min.

Figure 2-21

palindrome 1
 Sehr mäßig $\text{♩} = ca 40$

palindrome 2

palindrome 3

palindrome 4

rit.

Figure 3-1

I

„kuhl leidenschaftliche
Lyrik des Ausdrucks“

Sehr mäßig $\text{♩} = \text{ca } 40$ Anton Webern, Op. 27
„Verhaltener Klageruf“ 2

6 „Echo“ 7 8 neu belebt 9 10

11 „mehr!“ 12 13 14

15 16 17 rit. (trp) 18

pp *f* *pp*

moltissimo
besonders die Tonwiederholung dim.

trp

Figure 3-2

Phrase 1
Sehr mäßig $\text{♩} = \text{ca } 40$

Phrase 2

Phrase 3

Phrase 4

Phrase 5

1 2 3 4 5

6 7 8 9 10

11 12 13 14

15 16 17 18

pp

p

f

dim.

p

pp

rit.

Figure 3-3

Sehr langsam ♩. = ca. 40

1. 1. 1. 1.
2. 2. 2. 2.
3. 3. 3. 3.
4. 4. 4. 4.

1. 1. 1. 1.
2. 2. 2. 2.
3. 3. 3. 3.
4. 4. 4. 4.

1. 1. 1. 1.
2. 2. 2. 2.
3. 3. 3. 3.
4. 4. 4. 4.

1. 1. 1. 1.
2. 2. 2. 2.
3. 3. 3. 3.
4. 4. 4. 4.

Figure 3-4

palindrome 1

rit. ----- tempo

rit. ----- tempo

palindrome 2

palindrome 3

Figure 3-5

palindrome 4

tempo

29

f

p

palindrome 5

32

ff

ff

palindrome 6

35

rit.

Figure 3-6

„fres improvisatorisch“

tempo 19 (Jugend) rit. 30 (tempo) 21 (Besonders intensiv) rit. - - -

tempo 22 rit. - - - 23 - - - 24 tempo

25 rit. - - - (tempo) 26 (in Parenthese) 27 rit. - - -

tempo 28 rit. 29 (tempo) 30

„linke Hand wie eine geheimnisvolle Pauke“. Jetto Takre 13 und 16. Scharf abgesetzt gegen das Vor- und Nachherige 31 32 33

34 rit. 35 36

Figure 3-7

The image displays a musical score for a piano piece, organized into four distinct phrases. Each phrase is marked with a bracket and labeled as 'Phrase 1', 'Phrase 2', 'Phrase 3', and 'Phrase 4'. The score is written on a grand staff with a treble and bass clef. The first phrase begins at measure 19 and ends at measure 22. The second phrase starts at measure 23 and concludes at measure 26. The third phrase commences at measure 27 and ends at measure 30. The fourth phrase begins at measure 31 and ends at measure 34. The tempo markings 'rit.' (ritardando) and 'tempo' (ritornello) are used to indicate changes in the piece's speed. The dynamic marking 'f' (forte) is present throughout the score. The notation includes various note values, rests, and articulation marks such as slurs and accents.

Figure 3-8

Phrase 4
tempo

Phrase 5

Phrase 6

Phrase 7
rit.

The image displays four systems of musical notation for piano, each representing a different phrase. The first system, labeled 'Phrase 4 tempo', begins at measure 29 and features a treble clef with a key signature of one flat. It includes dynamic markings of *f* and *p*. The second system, 'Phrase 5', continues from measure 30. The third system, 'Phrase 6', starts at measure 32 and includes dynamic markings of *f*, *ff*, and *ff*. The fourth system, 'Phrase 7 rit.', begins at measure 35 and is marked with a *rit.* (ritardando) instruction. Each system consists of a grand staff with a treble and bass clef, containing various rhythmic values, accidentals, and articulation marks.

Figure 3-9

The image displays a musical score for piano, consisting of five systems. Each system includes a grand staff (treble and bass clefs) and three numbered staves (1, 2, 3) below it. The grand staves contain musical notation with various notes, rests, and dynamic markings. Above the grand staves, there are performance markings: 'rit.' (ritardando) and 'tempo' (ritornello), connected by dashed lines. The three numbered staves contain simplified line drawings of the musical phrases, likely for visualization or teaching purposes. The systems are numbered 19, 23, 27, 31, and 35 at the beginning of their respective grand staves.

Figure 3-10

The image displays a musical score for five phrases, numbered 37 through 54. The score is written on a grand staff with a treble and bass clef. The key signature has one flat (B-flat). The phrases are labeled as follows:

- Phrase 1:** Measures 37-41. Starts with a *tempo* marking and a *pp* dynamic. Measure 38 has a B-flat key signature change. Measure 40 has a *p* dynamic.
- Phrase 2:** Measures 42-46. Starts with a *pp* dynamic. Measure 44 has a *p* dynamic.
- Phrase 3:** Measures 47-50. Starts with a *p* dynamic. Measure 50 has a *pp* dynamic and a *rit.* marking.
- Phrase 4:** Measures 51-54. Starts with a *p* dynamic. Measure 52 has a B-flat key signature change. Measure 53 has a *pp* dynamic and a *rit.* marking.

Figure 3-11

der anfängliche Tonfall (dabei etwas
substantieller als das Ende von Takt 16)

tempo

37 38 39 40 41

pp p

42 43 44 45 46

pp p vorwärts

47 48 49 50

p vorwärts quasi rit. rit.

subito storn
und dinstig

pp

51 52 53 54

tempo Epilog rit. letzter Seufzer

p pp

Figure 3-12

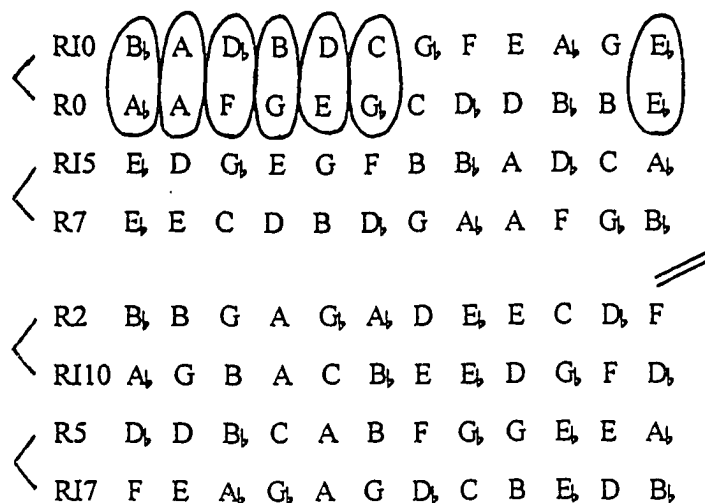


Figure 4-1

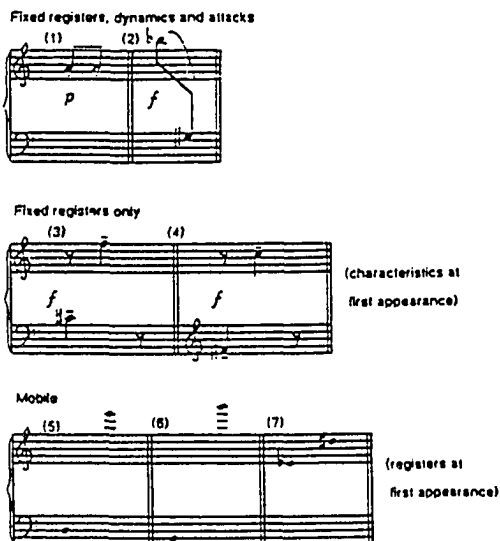


Figure 4-2

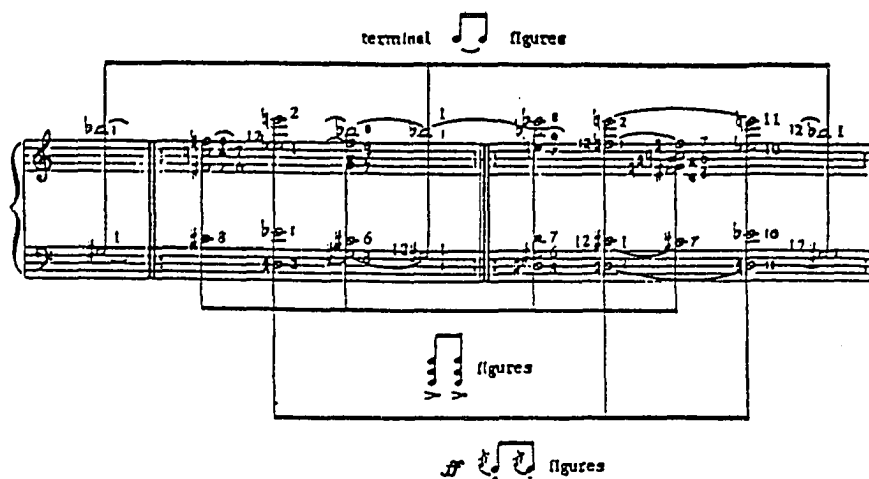


Figure 4-3

II

Phrase 1
Sehr schnell ♩ ca 160

Phrase 2

Phrase 3

Phrase 4

Phrase 5

Phrase 6

Phrase 7

Phrase 8

Figure 4-4

a

mm. 3-4 mm. 8-9 m. 15 mm. 19-20

upward T5 T5 T9

b

mm. 3-4 mm. 8-9 m. 15 mm. 19-20

downward T5 T5 T9

Figure 4-5

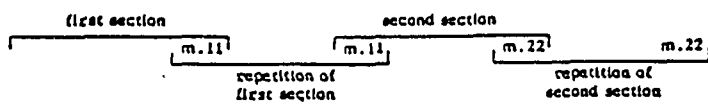


Figure 4-6

II

Phrase 1
Sehr schnell ♩ = ca 160

1 2 3 4

5 6 7 8 9

10 11 12 13 14

15 16 17 18

19 20 21 22

I V V I V I

Figure 4-8

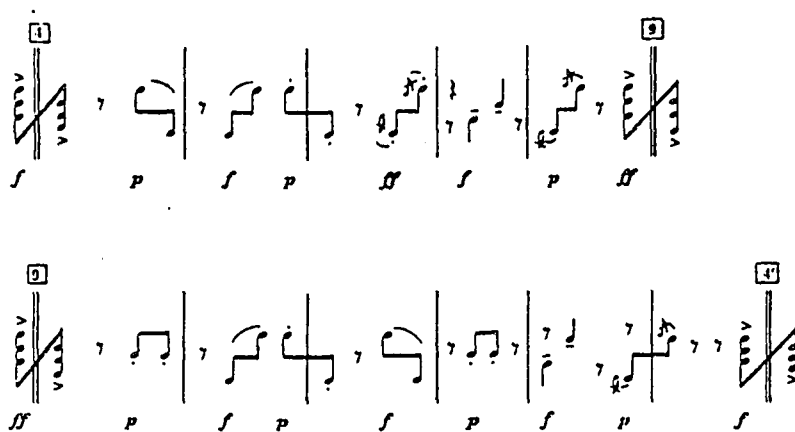


Figure 4-9

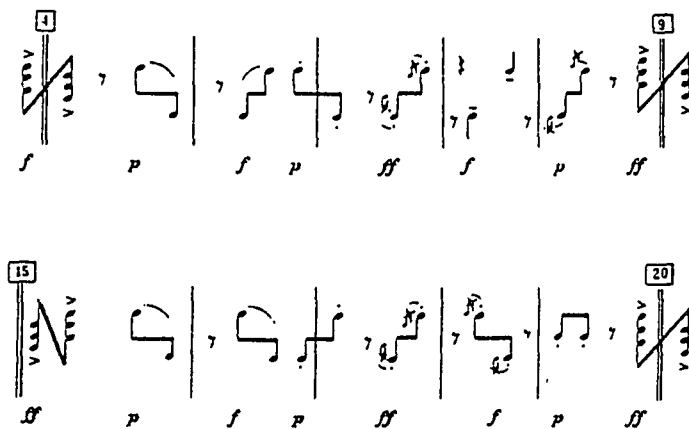


Figure 4-10

II

Phrase 1
Sehr schnell $\text{♩} = \text{ca } 160$

Phrase 2

Phrase 3

Phrase 4

Phrase 5

Phrase 6

Figure 4-11

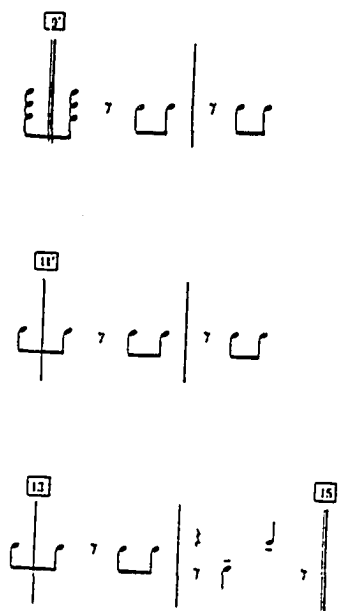


Figure 4-12

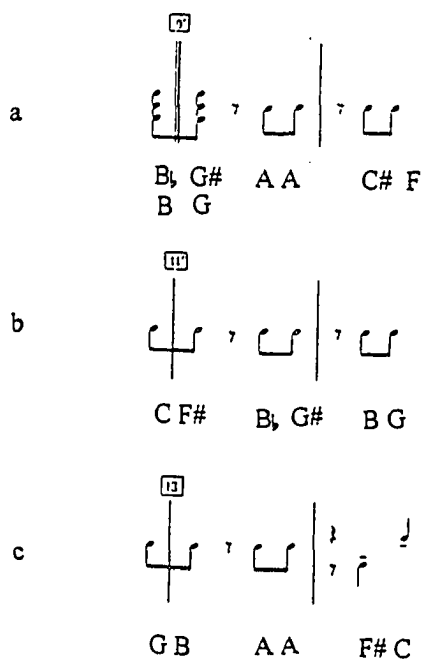


Figure 4-13

II

Sehr schnell $\text{♩} = \text{ca } 160$

1 2 3 4

5 6 7 8 9

10 11 12 13 14

15 16 17 18

19 20 21 22

Figure 4-14

„durcheinanderwirfeln, immer anders“ von
Zweigruppen, deren jede ihren eigenen
Charakter behält. „Die wiederholten Noten
(in Takt 1, 9, 13, 19) immer eine Spur
zögernd“

II

Sehr schnell ♩ = ca 160

1 2 3 4

5 6 7 8 9

10 11 12 13 14

15 16 17 18

19 20 21 22

fortsetzen

vorwärts

Auftakt

„die Schwierigkeit, diese 4 Noten im Tempo zu spielen,
bringt gerade den richtigen Charakter heraus; unmöglich
wenn bequem verteilt.“ U.E. 10481

Figure 4-15

II

Phrase 1
Sehr schnell ♩: ca 160

Phrase 2

Phrase 3

Phrase 4

Phrase 5

Phrase 6

Figure 4-16

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