

**MOTIVIC REPETITION IN
BEETHOVEN'S PIANO SONATA OP. 110
PART I: THE FIRST MOVEMENT**

by
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The Piano Sonata in A^b, Opus 110, is a totally unified work. Though it may conveniently be divided into three movements, as will be done in this study, it should be performed without break, the only pause--and indeed a brief one at that--occurring between the first and second movements. In addition, almost the entire work, with the exception of the March, is based on a single motivic idea, initially stated in the opening phrase of the first movement. In this sense, Opus 110 can be understood as the working out--a complete expression, if you will--of a single idea. I do not mean to suggest that this work is unique in this respect, since that is clearly not the case. There are numerous other works by Beethoven and indeed other composers that are highly unified motivically. But this piece is particularly striking and, to me, a particularly beautiful example of this phenomenon.

A complete study of Opus 110, even one that is focused primarily on motivic relations, is an enormous undertaking, and thus I

have decided to limit the present discussion¹ to a consideration of motivic repetition within the first movement. However, before proceeding with this task, I would like to point to some evidence supporting my assertion that the sonata as a whole is motivically unified. In a paper read at the Schenker Symposium held at the Mannes College of Music in New York (March 1985), I demonstrated the motivic derivation of the Adagio and Arioso--the opening section of the third movement--from the initial phrase of the first movement. More obvious, and thus more widely recognized, is the derivation of the fugue subject itself from these measures, as is demonstrated in Example 1. Examination of the sketchbook for the years 1813 and 1817-1822 (Artaria 197) reveals that Beethoven began thinking ahead to these passages while still working on the first movement. On page 71, among sketches for the first movement, one finds the first appearance of the fugue subject (in inversion, no less!) immediately following an initial attempt at the opening of the Arioso theme.² Though not conclusive evidence, it is revealing that we find all three passages--the opening of the Arioso theme, the fugue subject *and* the opening of the first movement--in close proximity in the sketches. Though of an entirely different character, the trio of the second movement is also

¹ A slightly different version of this paper was read at the Cambridge University Music Analysis Conference, 26-29 September 1986.

² See Karl Michael Komma, *Die Klaviersonate As-Dur Opus 110 von Ludwig van Beethoven, Beiheft zur Faksimile-Ausgabe* (Stuttgart, 1967), p. 9.

Example 1

I: 1-5

Fuga

Example 2

a

①

⑤

summary of bars 1-5

motive

I

IV V

I

b

⑤

⑫

I

IV V

I

derived from the same source. A consideration of these sections--the Adagio and Arioso, the opening of the fugue, and the trio of the second movement--will follow at a later date as a companion to the present study.

It is now time for me to be more precise in defining what I take to be the fundamental motive of this piece. It consists of the melodic succession $e^{\flat 2} - f^2$ (neighbor note) - $e^{\flat 2} - d^{\flat 2} - c^2$, indicated by the bracket above the top system in Example 2.³ Even here, in its initial statement, this idea exists below the musical surface. Thus it is not a *motif*, that is, a germinal idea defined primarily by its rhythmic articulation, such as the opening idea in Beethoven's Fifth Symphony. Rather it is a pitch-motive, that is, an idea characterized by a specific succession of pitches without regard to any specific rhythmic articulation or temporal scheme. What I am really talking about here is the concept of motive implicit in the writings of Heinrich Schenker. Though Schenker himself never wrote much about motivic organization in tonal music, it is clear from several of his analytic studies that he viewed the motive in relation to his concept of structural levels.⁴ That is, the pitch motive can occur at deeper levels of structure, not just at

³ Octave designations of pitch will be indicated according to the system where middle c is given as c^1 .

⁴ A clarification of Schenker's concept of motive is provided by Charles Burkhart in "Schenker's 'Motivic Parallelisms'," *Journal of Music Theory*, Vol. 22, (1978), pp. 145-75. See also John Rothgeb, "Thematic Content: A Schenkerian View," in *Aspects of Schenkerian Theory*, ed. David Beach (New Haven, 1983), pp. 39-60.

the surface. And the deeper the level, the more the motive is apt to be concealed by the musical surface. This is precisely what happens in Opus 110. However, as we shall see, register plays a particularly important role in articulating longer-range motivic connections, especially in the first movement. Statements near the surface are often treated to registral disjunction, thus isolating particular components (e.g., the neighbor note), without destroying the aural integrity of the motive. But those connections crossing longer spans are articulated by their registral association, often in the extreme upper register. For this reason I have generally preserved the sounding pitch-registers in my analytic graphs. Also we will find the motive transposed and sometimes incomplete--without the initial note, that is, beginning directly from the upper neighbor note. And sometimes the upper neighbor note ($\hat{6}$) and its resolution to $\hat{5}$ are stated twice in succession, or, as noted above, the former is isolated registally from the remainder of the motive. In my graphs the neighbor-note relationship, when separated from the remainder of the motive, is indicated by a curly bracket to distinguish such occurrences from complete or near-complete statements, which have been indicated by square brackets.

There are four sources of the many dealing in total or in part with Beethoven's Opus 110 that I would like to mention briefly at this point, since I will be referring to them throughout the remainder of the paper. First and foremost there are the two essays by Heinrich Schenker: 1) the lengthy and informative commentary accompanying

his edition of Opus 110, the *Erläuterungsausgabe* [1914], rev. ed. (Oswald Jonas) 1972; and 2) "Noch einmal zu Beethovens Op. 110," *Das Meisterwerk in der Musik* I (1925), pp. 177-84. Many excellent observations about the first movement of this sonata, several of which closely parallel my own, are contained in Roger Kamien's article, "Aspects of the Recapitulation in Beethoven's Piano Sonatas," *The Music Forum* IV (1976), pp. 195-235. Finally I would like to acknowledge a particularly important source, Karl Michael Komma's *Die Klaviersonate As-Dur Opus 110 von Ludwig van Beethoven*, which contains selected transcriptions from the sketchbook Artaria 197 as well as a facsimile and transcription of the complete autograph (Artaria 196).

The following study is divided into three parts, in the following order: I, The Exposition; II, The Reprise (and Coda); and III, The Development.

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I. THE EXPOSITION

The Exposition consists of two principal areas, each of which is divided into two parts. The first theme encompasses two distinct though clearly related ideas, which I have labelled 1a (bars 1-4) and 1b (bars 5-downbeat of 12), respectively. In his *Erläuterungsausgabe* (page 5), Schenker points out that we must really consider them separate ideas, despite their apparent antecedent-consequent relation in the Exposition. This becomes clear when we consider their treatment in the Reprise. However, it is also true that the second part is an expanded

variant of the first, a relationship noted by Kamien (p. 211). What is remarkable is that Beethoven has written two ideas in direct succession that appear and sound entirely different due to their surface characteristics--the first is chorale-like and the second a melody with accompaniment--yet are really the same underneath. This is only one of the many ways in which repetitions are concealed in this piece. That it occurs so immediately is prophetic.

The close of the first theme area coincides with the beginning of the transition, the passage in thirty-second notes, leading to bar 20, which is simultaneously the goal of the passage and the beginning of the second theme area. Because of the harmonic progression in these measures, the A^b chord in bar 20 is no longer heard as a tonic, but as the subdominant in E^b, the key of the dominant. There is something special and yet peculiar about this idea beginning in bar 20. Its statement here and its repetitions in the Reprise are certainly vital to the design of the piece. Yet it is difficult to hear bar 20 as the beginning of the second theme area, primarily due to the instability of the harmony. Instead, I hear this passage as still transitional, that is, as a *prefix* to the real second theme, which begins in bar 28. Nevertheless, the two ideas do form a larger unit, and I have chosen to label them 2a (prefix) and 2b, respectively. The second theme area leads eventually to a cadence in the local tonic (E^b), first in bar 35 and then, through repetition, immediately again in bar 36, which is extended to close the Exposition. My interpretation of the voice leading of theme 1, parts a and b, is

provided in Example 2. The underlying melodic motion of the opening phrase consists of the ascending third $c^2 - d^{\flat 2} - e^{\flat 2}$, supported by a bass moving with it in parallel tenths, followed by a return through $d^{\flat 2}$ to c^2 on the downbeat of bar 5. It is the elaboration of this descending third that I have identified as the fundamental motive of this work.⁵ It consists of the following pattern:

$$\begin{array}{ccccccc} \hat{5} & \hat{6}(N) & \hat{5} & \hat{4} & \hat{3} & & \\ I & IV & \underline{V}(8-7) & I & & & \end{array}$$

As has been noted by several authors, the elaboration of the D^{\flat} in bar 4, the seventh of the dominant, is really a diminution of the melodic content of the entire phrase.⁶

The first repetition of the motive occurs almost immediately, beginning in bar 10. Note that the melodic content of that measure is exactly the same as bar 3 except an octave higher; however, because of its harmonization (IV), it is no longer heard as before. The relationship of bars 10-12 to the first phrase is further obscured by the transfer of the resolution of the dissonant $d^{\flat 3}$ in bar 11 to c^2 (an inner voice) in bar 12. As indicated in my graph, the continuation to c^3 , which does follow shortly in bar 16 is only implied at this point and is

⁵ Kamien identifies the melodic content of the entire phrase, including the ascending third, as the underlying pattern which "plays an important role throughout the movement" (p. 211).

⁶ To the best of my knowledge, the first to recognize this important relationship was Oswald Jonas. See his *Introduction to the Theory of Heinrich Schenker*, trans. John Rothgeb (New York, 1982), p. 5.

thus shown in parentheses. Here my interpretation differs slightly from those given by Schenker and Kamien, which, though different in other respects, both show the line leading to a^b2 ($\hat{1}$) on the downbeat of bar 12 as primary.⁷ While it is certainly possible to hear the first theme as both melodically and harmonically closed, the skip away from d^b3 in bar 11 strongly suggests the continuation to c^3 ($\hat{3}$) at this point. Changes made by Beethoven in bars 10 and 11 support the motivic parallel.⁸

Example 2 is arranged to show the underlying similarity between the two phrases, a relationship noted by Kamien (p. 211). The derivation becomes immediately clear by comparing the bass line of each. The opening third A^b - B^b - C , which extends the tonic harmony, has been expanded from two and one-half to four bars in length. The relationship between the melodic contents of these measures is not at all clear due to the contrast of surface design. However, examination of the underlying voice leading reveals that the melodic voices of the opening two and a half measures are inverted in bars 5-8, so that the opening third c^2 - a^b1 (bar 1) has now become the sixth c^2 to a^b2 (bar 5). It is in the following measure (bar 9) where the voices are flipped back to their original position, so to speak, in preparation for the restatement of the motive. This added measure (bar 9) also has important harmonic implications, for it draws the emphasis toward the

⁷ See Schenker, "Noch einmal zu Beethovens Op. 110," Fig. 12, and Kamien, Example 15.

⁸ See Komma, *Beiheft zur Faksimile-Ausgabe*, p. 8.

subdominant, foreshadowing the much greater enlargement of that harmonic area in the Reprise.

Now let us turn our attention once again to bar 20, since it stands in unique relation to what has come before and what is to follow. Certainly the statement of the third $c^4 - a^b3$ in that bar is a clear reference to the opening melodic interval of the movement, despite its vastly different setting and register. And the return at this point to the pitch-class C supported by an implied A^b harmony is also a reference back, though, as noted before, these elements no longer have the same meaning as previously. That is, they are no longer heard as stable ($\hat{3}$ supported by tonic harmony), but unstable ($\hat{6}$ supported by subdominant harmony in the key of the dominant). The tendency of these elements to move to greater stability is fulfilled immediately when the pattern in bar 20 is repeated a step lower in the following bar. Following a varied repetition of this two-bar unit an octave lower, the line moves back by step to the high B^b (b^b3), thus creating a registral link between bars 20-21 and 27-28. (Note the early arrival at this high B^b , thus lessening to some degree the impact of bar 28 as a point of arrival.) As indicated by the curly brackets in Example 3, this enlargement of the neighbor note pattern $\hat{6}-\hat{5}$ encompasses its pattern

Example 3

$E^b: IV$

$I \quad \overset{6}{u} V \quad I \quad IV \quad V \quad I \quad V^7 \quad I$

(bars 20-21) and its immediate repetition (bars 22-23). At both levels the progression is $c^4(\hat{6}) - b^{\flat 3}(\hat{5})$ in the key of the dominant.⁹

IV I(6)

Now the function of this passage as a prefix to bars 28-35 becomes clearer. It introduces a large-scale statement of the motive, now transposed to the dominant. If we look more carefully at bars 20-21, we see that the contents of the upper part--C - B[♭] - A[♭] | (B[♭] - A[♭]) G--foreshadow this large-scale statement of the motive. It is as if they contain the essence of both the past and what is to follow.

The details of what I have labelled theme 2b in relation to the preceding measures has been discussed by Schenker in his *Erläuterungsausgabe* (page 26). Rather than cover this ground again, I will instead focus my attention on the articulation of the motive. As shown in Example 3, I interpret bars 28-35 as encompassing a greatly expanded statement of this idea transposed to the dominant, within which there are two shorter statements, the second beginning directly from the upper neighbor note. Though the first two elements of the motive are temporally separate, there is a clear registral and thus aural connection between the b^{♭3} of bars 27-28 and its upper neighbor note, c⁴, in bar 31; the completion of the motive, including the appropriate

⁹ Roger Kamien interprets bar 20 as an implied six-four chord, that is, in relation to the bass note E[♭], which follows later (bar 28). (See his Example 17, p. 213.) Though this idea is feasible, at least in an abstract sense, I think the evidence points toward my interpretation of the implied harmony as IV in E[♭], just as the equivalent place in the Reprise (bar 79) is IV in A[♭].

chromatic passing tone (A^{\flat}), occurs immediately after a transfer to the lower register. No sooner is this accomplished when the upper neighbor note is reintroduced, now in yet a different register (c^3). (Note the approach to this c^3 , $e^{\flat 3} - d^{\flat 3} - d^{\flat 3} - c^3$, an obvious reference to the melodic motion of bar 4.) There are at least two factors which suggest that the initial completion of the motive in bar 32 is in some sense parenthetical, which is why I have notated it differently than at other times. First, there is the relatively "weak" harmonization in conjunction with the abrupt registral shift. Second, there is the strong metric stress given to the two C's, the c^4 of bar 31 and the c^3 of bar 33, which suggests an aural connection across the initial completion of the motive. Having regained the upper neighbor note, the motive is now completed once again after a shift back to the lower register, however this time more convincingly than before. We do, of course, hear two statements of the motive, but we also hear this passage as a unit, reaching its completion only in bar 36ff., that is, only *after* the completion of the motive and the varied repetition of the cadence of bars 34-35. It seems to me it would be almost impossible to play this passage otherwise, without grossly violating what Beethoven has written.

Now let us turn to the Reprise, where the motive is treated to further expansion.

II. THE REPRISE

A graphic representation of the voice leading in the Reprise (bars 56-105) is given in Example 4. Note the temporary change of format and reduction in the level of detail provided in the top system (bars 56-87), which have been made to conserve space; the second system (bars 87-105) returns to the format of Example 3. Similarly, the following commentary will not attempt to be exhaustive, but rather will focus primarily on those features of the Reprise related to the articulation of the motive.

There are two particular features of the restatement of theme 1a to which I wish to draw your attention. First, note that there is no voice exchange between the D^b and F in bar 58, as there was in bar 3; instead the outer parts move in parallel tenths, as follows:

$$d^b2 - e^b2 - f^2$$

$$b^b1 - c - d^b$$

Though this may seem trivial at first, resulting perhaps from the change of accompaniment pattern, it becomes more significant when we consider the later expansion of the melodic motion from D^b to F within the prolonged subdominant. Second, note that the completion of the initial statement of the motive in the Reprise occurs through the transfer of resolution of the dissonant seventh (d^b2) to the bass, not unlike the transfer to the inner voice in bars 11-12. Here this motion initiates the extension of theme 1a (bars 60-62) and the modulation to the subdominant. This motion to the subdominant key area may be

Example 4

First system of musical notation. Key signature: one flat. Roman numerals: I, IV, V. Bracketed section: *registral simplification*. Measure numbers: 67, 68, 69, 70.

Second system of musical notation. Roman numerals: I, IV, V, I. Measure numbers: 67, 68, 69, 70, 71.

considered an expansion of the emphasis on that harmony within the original statement of theme 1b (bars 5-12). The implications of this motion are by no means trivial. Having done so, Beethoven could have repeated the material of the exposition (transposed to the subdominant), which would have led directly to the material in bars 79 ff. Schenker (and Kamien following him) argue that to do so would lead to theme 2 in an absurdly high register, causing Beethoven to digress.¹⁰ I cannot accept this reasoning, since Beethoven could easily have adjusted the register within the transitional passage leading to theme 2a; in fact, he does so anyway, in the approach to bar 76. I think we must attempt to find a better explanation for the digression.

The motion to E major is accomplished by the enharmonic reinterpretation of the D^b as C[#], from which the melodic line descends by step to the G[#] in bar 70. This line (c^{#3} - b^{h2} - a^{h2} - g^{#2}) is, of course, a transposed statement of the motive beginning directly from scale degree 6 in the local key; we hear it as such because of the direct parallel, the motivic embellishment of the seventh of the local dominant, between bar 69 and bar 4. What follows in bars 70-75 is an altered and transposed version of the original transition to theme 2a, leading now to c^{#3} over A in bar 76, which is heard as the subdominant in the local key. Note the registral change at the very end of bar 75, which is important, since without this change the line would

¹⁰ See Schenker, *Erläuterungsausgabe*, p. 39. Kamien actually writes out this hypothetical passage, showing the arrival at theme 2a an octave higher than in the score. See his Example 23, p. 220.

have led to $c^{\#4}$ rather than $c^{\#3}$ in bar 76. But with this change an important registral link is made between the d^b3 of bar 63 and the $c^{\#3}$, its enharmonic equivalent, in bar 76, as is indicated by the dotted lines in my graph. From the point of view of design, we have arrived at the equivalent to bar 20, the beginning of the second theme area. Beethoven begins with a statement of the 2a idea from the A major harmony, but, of course, he cannot continue very far in this key; he must get back to the subdominant of the tonic key, which he had so carefully prepared in bars 60-62 but then abandoned almost immediately. What follows is an abrupt chromatic change leading to restatement of the 2a idea in bar 79, now stated at the "proper" pitch level, so to speak: f^3/IV (D^b). This transition is often a troublesome spot in performance, but it need not be if the pianist realizes the goal of this motion is bar 79, not bar 78, where the key signature changes. What is being articulated here by the repetition of the 2a idea in bar 76 and then bar 79 is $c^{\#3}$ (d^b3) - f^3 , an enormous expansion of the motion to the upper neighbor note ($\hat{6}$), originally stated in bar 3, but altered, if you will recall, at the equivalent point in the Reprise (bar 58). At the largest level the subdominant is prolonged from bar 63 to bar 79.¹¹ Internal to that prolongation we have an enharmonic shift leading to a statement of 2a at the "wrong" pitch level and then, after the shift back to the subdominant, at the "correct" pitch level. The repetition of this

¹¹ This prolongation is shown by Kamien. See his Example 24, pp. 222-223.

idea in close temporal proximity articulates in a very dramatic way the all-important feature of the motive, the motion from D^b up to F to prepare the introduction of scale degree 5 (E^b). This, I believe, is a more logical explanation for the digression than the one given by Schenker and Kamien.

The material of bars 79-94 is equivalent to that of bars 20-35 of the Exposition, and thus I will keep my comments brief. The f^3 of bar 79 leads eventually to the expected e^b3 over I in bars 86-87, as is indicated by the large curly bracket in Example 4. At a more immediate level this melodic motion ($\hat{6}-\hat{5}$) occurs in bars 79-80 and then an octave lower, embellished, before the connection back to the upper register. What follows in bars 87-94 is an enlarged statement of the motive, now at the original pitch level, which is indicated by the straight bracket. As in the Exposition, this larger statement encompasses two shorter and aurally more obvious statements of the motive. There is, however, one important difference. Here the return to the upper neighbor note in bar 92 is in the same register as the previous one (bar 90), strengthening the connection between the two. And because of this connection, we are even more likely than before to hear the initial statement as parenthetical to the second and harmonically more definitive one. But even the second one is not really definitive, since its completion does not coincide with a strong point of arrival. Also, there is the matter of the registral disjunction between bars 92 and 93. The f^3 of bar 92 requires resolution in the same

register, which follows in bars 96 ff., only after completion of this particular statement of the motive.

An overview of the Reprise up to this point is given in Example 5. (Note that I have rewritten the passage in E major as F^b, that is, as ^bIII of the subdominant [D^b].) Now the meaning of bars 63-79 becomes more apparent--they are part of a *gigantic* statement of the motive encompassing the entire passage. My notation suggests that the primary register is actually the lower one. It is really f², the upper neighbor note, that is prolonged through bars 63-79. And though the resolution of the upper neighbor note to scale degree 5 occurs only in the upper register at bars 86-87, we might understand the later skips down to the lower register in bars 90-91 and again in bars 92-94 as returns to this primary register. According to this interpretation, the prolongation of the upper neighbor note f² and its eventual resolution back to scale degree 5 is accomplished by the elaborate composing-out of the neighbor-note portion of the motive in the covering register. Though temporally separated, Beethoven has gone out of his way to help us hear these tones--the d^{b3} in bar 63 to the c^{#3} in bar 76, the f³ in bar 79, and finally the e^{b3} in bars 86-87--as a unit by their registral association. The subsequent isolation of the upper neighbor-note component and the eventual completion of the line in the lower register confirm this interpretation.

Let us return now to the music for a brief consideration of the continuation of this material, which leads eventually to harmonic and

Example 5

Example 5 is a musical score in two staves (treble and bass clef). The key signature has two flats. The score includes measures 56, 63, 76, 79, 87, and 94. A line connects measure 56 in the bass staff to measure 63 in the treble staff. Roman numerals I, IV, and I are placed below the bass staff. A bracket labeled "etc." spans from measure 79 to 87. The treble staff has notes marked with "N" and slurs.

Example 6

Example 6 is a musical score in two staves (treble and bass clef). The key signature has two flats. The score includes measures 105 and 111. Roman numerals I, IV, V, and I are placed below the bass staff. A bracket labeled "registral simplification" spans from measure 105 to 111. The treble staff has notes marked with "N" and slurs.

melodic closure on the downbeat of bar 105. (A sketch of these measures is provided in Example 4, second system, right half.) In many ways these measures summarize what has come before. As shown by the brackets, there are two overlapping statements of the pitch motive, one in the bass and the other in the top voice, almost like a stretto before the close of a fugue. The bass statement involves decoration of the e^b by f twice, as occurred in several preceding statements. And the complete statement in the right-hand part, which occurs in bars 100-103, follows only after the elaboration and prolongation of e^{b3} by its lower chromatic neighbor note. Once again we hear the isolation of the neighbor-note segment of the motive by the abrupt registral shift back to the primary register in bar 101. The subsequent completion of the motive is harmonized by a motion to the submediant, thereby avoiding premature harmonic closure while also providing the opportunity for one final statement of f ($\hat{6}$) to e^b ($\hat{5}$) in the bass. In the larger context, the f minor harmony recalls the opening of the Development while anticipating the key of the second movement. Here, for the first time, the final note of the motive (c^2) is not the melodic goal, but rather the line continues to a^{b1} in bar 105. The structural descent to scale degree 1 is incomplete, as shown in my graph. The b^b is omitted to avoid parallel fifths with the bass, and in its place we hear e^{b2} again.¹² This substitution results in the direct

¹² Beethoven considered making one last reference to the upper register (e^{b3}) at this point, but crossed out that idea in the autograph (Art. 196). See Komma, p. 27.

statement of the melodic fifth $e^b2 - a^b1$, a compression of the overall melodic motion of the second theme in the primary register.

THE CODA

Examination of the sketches and autograph reveals that Beethoven was concerned with the ending of the movement up to the last minute.¹³ As shown in Example 6, the movement closes with a final statement of the motive at the original pitch level and in the primary register, beginning with the f^2 ($\hat{6}$) in bar 111. Once again we see that the initial resolution of the upper neighbor note to scale degree 5--indicated by the curly bracket--is not definitive. In this instance it seems to be embedded within a prolongation of f^2 and the subdominant harmony (bars 111-113). My interpretation of the remainder of the phrase requires amplification. While it is true that the d^b2 of bar 115 is heard as an upper neighbor note of the c^2 on either side of it, my graph suggests that the initial c^2 (bar 114) really belongs to an inner voice and that the following d^b can also be interpreted as a passing tone leading to the completion of the motive. Had this passage occurred early in the movement, this interpretation would seem forced, but at this point, after hearing the motive so many times and in so many guises, it seems perfectly natural. The implication for performance, of course, is that the pianist should avoid making the downbeat of bar 114

¹³ See Komma, pp. 6, 9, and 29.

the goal, but instead should play through to the end, paying particular heed to Beethoven's markings.

There are two features of this passage not shown in Example 6 that should be mentioned. The first is the clear reference in bar 112 to the opening of the movement, strengthening the motivic parallel. In addition to the rhythmically articulated idea in the left-hand part, there is also the less obvious statement of the opening melodic interval (c - a^b) embedded within the figuration of the right-hand part. The second feature concerns the inner voice of the right-hand part in bars 114-115, which sounds at first like a fragment of the fugue subject, transposed to the dominant. This is cut short by the introduction of the f^b, which not only recalls the previous section in F^b (E) major, but anticipates the use of that pitch as the upper neighbor note to e^b in the Adagio and Arioso, which together form the introduction to the fugue.

III. THE DEVELOPMENT

In comparison to the Reprise, the brief development section is relatively straight-forward. As shown in Example 7, this section--which is introduced by the motion e^b - d^b - c in open octaves, an obvious reference to the melodic motion of bars 4-5--is organized into clear four-bar groups, beginning in bar 40. The content of the first of these groups can be heard at two levels. Within the immediate context, the second and third bars are heard as neighboring to the six-four chord on c of the outer measures of the group. At a higher level, the motion

Example 7

Example 7 is a musical score for a single melodic line, spanning measures 39 to 54. The notation is written on a single staff with a treble clef. The key signature is one flat (B-flat), and the time signature is 4/4. The score is divided into two systems by a double bar line. The first system contains measures 39 through 44, and the second system contains measures 45 through 54. The music features a series of eighth and sixteenth notes, often beamed together, with various fingerings indicated by numbers 1 through 5. A large slur encompasses the entire passage from measure 39 to 54. A dashed line above measures 39-44 is labeled 'me. b. 4' and '5-7'. A bracket above measures 45-54 is labeled '6-8'. The measure numbers 39 and 54 are circled at the beginning and end of the passage, respectively.

can be heard as passing to the a^{b2} over F on the downbeat of bar 44, the beginning of the next group. Thus the larger perceived motion is

$$c^3 - b^{b2} - a^{b2}$$

$\nabla^8 - 7$ I in F minor ($v1$), with the c^3 decorated by its upper neighbor note d^{b3} . The total melodic progression is $c^3 - d^{b3} - b^{b2} - a^{b2}$, a slightly altered and transposed statement of the pitch motive. Beginning in bar 40, from a^{b2} over F, the tonal motion progresses by parallel tenths (shown in my graph by the curved lines) to c^2 over $A^{b(1)}$ in bar 56, the beginning of the Reprise. Internal to this linear progression of a sixth from a^{b2} to c^2 are two overlapping statements of the motive, as shown by the brackets. An additional potential statement is altered to prolong the d^{b2} in bars 52-55 before the reintroduction of c^2 .

Overall, the development section progresses melodically from the c^3 of bar 50 by step to the c^2 at the beginning of the Reprise. This octave is divided into the initial third $c^3 - b^{b2} - a^{b2}$ and the sixth $a^{b2} - c^2$. This specific division of the octave is reminiscent of the opening melodic intervals from themes 1a and 1b, that is, the third $c^2 - a^{b1}$ (bar 1) answered by the sixth $c^2 - a^{b2}$ (bar 5).

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I hope the preceding analysis has convincingly demonstrated the intricate motivic organization of this remarkable movement. There are, of course, many additional things one might say just about motivic derivation and repetition, but rather than attempt to cover everything

(and probably, as a result, be superficial), I have chosen to focus on a particular thesis: that almost the entire movement is based in some way or another on a single pitch motive, which is subject to various transformations, including extensive enlargement. In fact, according to my interpretation, the only parts of this movement not related to this motive are the brief transitional passages in thirty-second notes and the extension of the cadence at the end of theme 2 in the Exposition and again in the Reprise, both of which serve the purpose of connecting the two melodic registers. I want to make sure, however, that my comments are not misinterpreted to mean that this movement is merely a succession of repetitions of this one idea, over and over again, nor that we should hear it that way. Quite the opposite is the case. There are many instances where this idea is indeed readily apparent, but also many other places where it is concealed, particularly where it is greatly expanded to include entire passages or sections, as in the Reprise. My interpretation does not mean, for example, that themes 1a and 1b are really the same nor that they should be interpreted that way, but rather that the second is derived from the first. This process of derivation and expansion seems to grow as the movement progresses. What is remarkable is that Beethoven has created such diversity within such a highly unified structure.

Before closing I would like to say a few words about two different matters. First, many of you will have noticed that I have not indicated an *Urlinie* in my graphs. The primary reason for this

omission is that my intention has been to demonstrate a motivic as opposed to a purely structural interpretation of the voice leading. Motive is an aspect of design, not structure, and though the two can and often do reinforce one another, there are instances where design and structure are not in agreement. For instance, I have stated that the melodic line connecting bars 40 and 56--the beginning of the Development and the Reprise, respectively--is an octave and that this octave is divided into an initial third and a sixth, reminiscent of the $c^2 - a^{\flat 1}$ in bar 1 answered by the $c^2 - a^{\flat 2}$ in bar 5. This is a motivic interpretation of the middleground motion in this passage. However, a structural interpretation of this same passage would be quite different. As has been shown by Roger Kamien, scale degree 2 of the *Urlinie* is prolonged from theme 2 through the development section by means of an elaborate composing out of the motion from the fifth to the seventh of the structural dominant before the reinstatement of $\hat{3}$ over the tonic harmony in bar 56.¹⁴ The real difference between the two interpretations has as much to do with the distinction between levels of organization as with the distinction between design and structure. Both are correct in that they represent different levels and types of connections, but it is important for us to differentiate between the two.

As long as we are on this topic, I might as well raise a related issue, the not entirely clear choice between c ($\hat{3}$) and e^{\flat} ($\hat{5}$) as the *Kopfton*. In his interpretation of the opening twelve bars, Schenker

¹⁴ Kamien, Example 21 (pp. 216-217).

indicated the longer-range melodic motion as prolonged from $c^2(\hat{3})$,¹⁵ and Kamien clearly chooses $\hat{3}$ as the *Kopft* of the entire movement. If one looks just at the Exposition and Development, this seems a logical choice. That is, it is reasonable to interpret the motive and the descent from e^b2 back to c^2 in bars 4-5 (and later an octave higher, at least according to my analysis) as prolonging the initial tone ($\hat{3}$). However, the interpretation of the Reprise at this level is by no means as clear cut. Though the motion begins from $c^2(\hat{3})$ in bar 56, the purpose of the following material (bars 63-79) seems to be to reach up to the high e^b in bar 87, and it is from this point that the line begins its descent. Thus the analyst is faced with two choices: either he must rethink his interpretation of the beginning of the movement, or he must regard this motion to and descent from $e^b(\hat{5})$ as an elaboration of the underlying voice leading. This latter interpretation is probably the "correct" one, since it reveals the proper relation between design--here motivic design--and structure.

The final matter I would like to touch on briefly is the relationship of what has been said so far to musical performance. It might be argued that all the pianist need do is follow carefully what Beethoven has written, and to a certain extent that view is justified, since Beethoven has provided us with numerous performance indications. The goals at various levels of organization should be apparent by a faithful rendering of his dynamic markings alone. And,

¹⁵ Schenker, "Noch einmal zu Beethovens op. 110," Figure 12 (p. 184).

as I have indicated, Beethoven has gone out of his way to make certain long-range connections audible through registral association. At the same time, there are still those problematic spots where knowledge of the structure and design, including motivic organization, can influence performance decisions. I have already indicated two such places. One is the chromatic-enharmonic shift in bars 77-78, which is much easier to deal with once it becomes clear that this shift is internal to a much more important connection between bars 76 and 79. The other place is at the very end of the movement. There my suggestion regarding performance goes beyond faithful rendering of the score; rather it is based on an interpretation of the motivic organization of the work. I must be careful here not to imply that knowledge of structure and organization should actually dictate the performance, but at the same time I hope it is clear that such knowledge can aid in making decisions that could lead to a more enlightened rendering of the score.