

NON-LINEAR AND MULTI-LINEAR TIME IN BEETHOVEN'S OPUS 127: AN  
ANALYTICAL STUDY OF THE "KRAKOW" SKETCH MATERIALS

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Beethoven's complex manipulation of formal structures, especially his tendency to build important connections and transformative continuities between non-adjacent sections of musical works, may be seen to function as an attempt to control and sometimes to distort the listener's perception of both the narrative process of musical directionality, as well as the subjective interpretation of time itself. Temporal distortion often lies at the heart of Beethoven's complex contrapuntal language, demonstrated equally through the composer's often enigmatic disruption of phrase-periodic gestures, as well as by occasional instances of overtly incongruous temporal shifts.

The "Krakow" collection of compositional sketches for Beethoven's String Quartet in E-Flat, Op. 127, provides a number of instances of "non-linear" or "multi-linear" musical continuity. The term "Krakow" sketches, when referenced in this dissertation, specifically designates the group of Beethoven manuscripts possessed by the Biblioteka Jagiellońska in Krakow, Poland, but which formerly were held by the Royal Library in Berlin. Structural voice-leading analyses are provided for selected portions of the "Krakow" collection; these analyses are then compared to voice-leading graphs and analytical reductions of the corresponding material from Beethoven's published versions of the same musical passages. In some cases the sketches supply almost complete texts, for which critical transcriptions are included as extended examples within the dissertation.

The primary analytical technique applied to both compositional sketches as well as to complete musical texts derives from Heinrich Schenker's theory of structural voice-leading and

graphical reduction. An important method of critical assessment, from which a number of theoretical arguments are developed, is the contention that Beethoven's contrapuntal language, at least in regard to the op. 127 String Quartet, relies heavily upon a temporal distortion of both form and phrase-periodic gestures, requiring the listener to actively re-construct the continuity of Beethoven's subjective formal archetypes.

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## INTRODUCTION

... Der Unterschied zwischen Vergangenheit, Gegenwart und Zukunft verblaßt und an Bedeutung verliert... Die ästhetische „Präsenz“ erweist sich vielmehr als unabhängig von chronologischen Unterschieden zwischen Früherem und Späterem... Daß manche Beethoven-Exegeten von extremer Subjektivität, andere dagegen von einer Zurücknahme in Objektivität sprechen, ist kein zufälliger Dissens, sondern Zeichen einer in der Sache selbst begründeten Ambivalenz. In gewissem Sinne könnte man von Suspendierung der Dialektik reden: Das Subjektive ist nicht mehr ins Objektive „aufgehoben“ und umgekehrt das Objektive durch das Subjektive „gerechtfertigt“ — das eine „schlägt“ nicht mehr ins andere „um“ —, sondern Subjektives und Objektives stehen sich unvermittelt gegenüber.<sup>1</sup>

Although Carl Dahlhaus is discussing Beethoven's practice of juxtaposing elements of contrasting historical musical styles, the conflation of past, present, and future time may also be suggested in Beethoven's work on a deeper level. Saint Augustine described both past and future time as subjective categories that may only exist when contemplated by an observer who is permanently confined to the present time. Beethoven's complex manipulation of formal structures, especially his tendency to build important connections and transformative continuities between non-adjacent sections of musical works, may be seen to function as an attempt to control and sometimes to distort the listener's perception of both the narrative process of musical directionality, as well as the subjective interpretation of time itself.

In his 1973 article "Multiple and Non-linear Time in Beethoven's Op. 135," Jonathan D. Kramer suggested that Beethoven may have intended the first movement of the Op. 135 String Quartet to present the listener with a series of non-linear signifiers of sonata-allegro form.<sup>2</sup> Since

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<sup>1</sup> "The distinction between past, present, and future fades and becomes unimportant... The aesthetic "present" proves independent of the chronological distinctions between "past" and "future"... The fact that some commentators on Beethoven speak of extreme subjectivity and others of a retraction in objectivity, is not a chance difference of opinion but the sign of an ambivalence inherent in the facts of the matter. In a certain sense we could speak of the dialectics being in suspension: the subjective element is no longer "subsumed" in the objective, and the objective element, vice versa, is no longer "justified" by the subjective—it is no longer the case that either is "transformed" into the other, but, rather, that they directly confront each other." Carl Dahlhaus, *Ludwig van Beethoven und seine Zeit* (Laaber: Laaber Verlag, 1987), 264; translation, *Ludwig van Beethoven: Approaches to His Music*, trans. Mary Whittal (Oxford: Clarendon, 1991), 220.

<sup>2</sup> Jonathan D. Kramer, "Multiple and Non-linear Time in Beethoven's Op. 135," *Perspectives of New Music* 11 (1973): 122-45, also see Kramer's book *The Time of Music* (New York: Schirmer, 1988) and Judy Lochhead's article

the functional grammar of the movement's form-scheme relies upon these gesture-related markers, the perception of form in this work is essentially re-assembled by the listener, rather than simply being received in the "correct" or archetypal temporal sequence. This assertion implies a radical distortion, not to the design of the sonata-allegro form-scheme, but to the perception and cognitive organization of time itself. In this dissertation I explore the possibility that temporal distortion lies at the heart of Beethoven's complex contrapuntal language, demonstrated equally through the composer's often enigmatic disruption of phrase-periodic gestures, as well as by occasional instances of overtly incongruous temporal shifts.

Primarily, I examine instances of implied "non-linear" or "multi-linear" musical continuity that directly relate to chosen examples from the "Krakow" collection of compositional sketches for Beethoven's String Quartet in E Flat, Op. 127. The term "Krakow" sketches, when referenced in this dissertation, will specifically designate the group of Beethoven manuscripts possessed by the Biblioteka Jagiellońska in Krakow, Poland, but which formerly were held by the Royal Library in Berlin.<sup>3</sup> Structural voice-leading analyses are provided for selected portions of the "Krakow" collection; these analyses are then compared to voice-leading graphs and analytical reductions of the corresponding material from Beethoven's published versions of the same musical passages.

In some cases the sketches supply almost complete texts, for which critical transcriptions are included as extended examples within the dissertation. The primary analytical technique applied to both compositional sketches as well as to complete musical texts derives from Heinrich Schenker's theory of structural voice-leading and graphical reduction. An important method of critical assessment, from which a number of theoretical arguments are developed, is the contention

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"The Temporal in Beethoven's Opus 135: When are Ends Beginnings?" *In Theory Only* (1979): 3-30.

<sup>3</sup> See Table 3-1 for an index and brief description of the source materials that are examined within the dissertation.

that Beethoven's complex contrapuntal language, at least in regard to the Op. 127 String Quartet, relies heavily upon a temporal distortion of both form and phrase-periodic gestures, requiring the listener to actively re-construct the continuity of Beethoven's subjective formal archetypes.

## CHAPTER 1

### THEMATIC, FORMAL, AND VOICE-LEADING ANALYSIS OF THE FIRST MOVEMENT OF OPUS 127

The Op. 127 quartet begins with a six-measure opening *Maestoso*. Although some commentators have described this passage as the commencement of the first theme of the movement's sonata-allegro form, it seems to correspond more closely to the generic expectations of the slow introduction to a sonata form movement than to a declamation of the actual first theme itself.<sup>4</sup> Two of Beethoven's earlier quartets begin with slow introductions to their first movements and several of the late-period quartets begin with a preface, frame, introduction, or some other kind of preliminary structure before presenting the traditional first theme of the sonata-allegro form.<sup>5</sup>

Perhaps the most unique and significant aspect of the introduction to Op. 127 is the paradox of the opening gesture's ambiguous formal and thematic function within the movement's overall design. Similar to the slow introduction that begins the *Sonata Pathétique*, the opening gesture of Op. 127 returns at important moments of formal and sectional division within the movement. The distinctive opening chords of the *Sonata Pathétique* return at the end of the first movement's exposition and directly before the concluding coda section. After the first internal reprise of the piano sonata's opening motive the listener may suppose that not only the exposition is being repeated, but the entire introduction as well, or perhaps that the sonata is

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<sup>4</sup> See Joseph Kerman's description of the movement in *The Beethoven Quartets* (New York: W. W. Norton & Company, 1967), 204-10.

<sup>5</sup> The Quartet in C Major, Op. 59, No. 3, and the E-flat-major Quartet, Op. 74 begin with slow introductions. Some form of preliminary material begins each of the late-period quartets. There are slow introductions to the first movements of Op. 130 and 132, although some commentators might also refer to these passages as the beginnings of first theme "groups;" Op. 131 begins with an *adagio* movement; and Op. 135 begins with a codetta-type figure that may be considered to function as a substitute for an introduction.

actually being re-commenced in place of the expected formal repetition of the exposition. When the introductory chords return at the conclusion of the movement's recapitulation the listener may assume that another large scale repetition will follow, or that perhaps the entire body of the movement has been a lengthy diversion within a single but extremely expansive introduction, or perhaps that the movement is in fact a fantasia-like rondo form with the distinctive opening chords as the returning *ritornello* element. In whatever manner the listener may perceive this non-generic element of structural repetition, important temporal associations must be made between the several re-appearances of the opening gesture, in the same way that each return of a rondo theme is necessarily associated with the initial statement of the theme, thereby creating a secondary but important level of association between each of its subsequent iterations. The form of the *Sonata Pathétique's* first movement may also be simultaneously understood in its generic sonata-form structure, omitting or minimalizing the importance of the opening gesture's re-appearances within the movement. This plurality of possible temporal associations establishes a pattern of internal structural reference that I will describe as a multi-linear musical continuity.

In Op. 127 the opening frame returns at the end of the exposition and within the development section.<sup>6</sup> The listener is not only confronted with the multi-linear continuity that derives from the implication of more than one possible rotational formal design, as suggested by the recurrences of the "introduction" within the movement, but more significantly by the complexity of extending non-continuous linearity over the span of the internal entry of the frame within the course of the development section (mm. 135-8) and therefore simultaneously contemplating the frame as both an element of rotational markedness (and therefore formal

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<sup>6</sup> I will at times refer to the opening gesture of Op. 127 as a "frame." The fanfare-like passage that bookends the instrumental portion of the introduction to the finale of Beethoven's Ninth Symphony is often described by that term. The opening gesture of Op. 127 is, of course, also somewhat suggestive of a fanfare, perhaps even alluding in a rather veiled manner to the opening E-flat-major chords at the beginning of Mozart's opera *Die Zauberflöte*.

linearity) and also of parenthetical non-continuous association (and therefore formal discontinuity).

Beethoven seems to compose linear structures that require the listener to re-assemble the formal logic and perhaps even the formal narrative of a musical work, rather than simply receiving a complete understanding of the work's structure through a single performance of the music. This raises the complex question of the ontology of a musical composition—How may we say that a musical work exists? Beethoven might have arrived at a very complex understanding of musical ontology and was subsequently able to compose works that require the listener to consciously re-construct the existence of the music instead of simply perceiving it.

Edmund Husserl attempted to describe the relationship between objects and the intuitive psychic representation of objects from which human understanding of the universe may be derived.<sup>7</sup> The nature of the direct perception of objects, rather than any possible scientific or metaphysical understanding of objects, constitutes what Husserl termed the *Lebenswelt*, the conceptual space in which the human mind exists. The subjective self always precedes the existence of other objects, just as the transcendental or “philosophizing” Ego, the sole object capable of judgment, is not part of the *Lebenswelt*, but rather a being that may transact with objects within that space. A musical work, therefore, can be directly perceived and then re-formulated as an object within the subjective *Lebenswelt*. Sonata-allegro form might even be re-assembled from its constituent parts.

Martin Heidegger extended upon Husserl's concepts of phenomenology by focusing upon the nature and meaning of the self as a “being.” Heidegger described the aspect of self-consciousness known as the *Dasein*, the self-perceiving entity that exists within the world.<sup>8</sup> For

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<sup>7</sup> Edmund Husserl's central explication of his phenomenological views can be found in *The Phenomenology of Internal Time-consciousness*, trans. James S. Churchill (Bloomington, Indiana: Indiana University Press, 1964).



Heidegger both the universe and the *Dasein* must be finite realities since they are able to be perceived and since they exist within the larger construction of intended actuality. If the nature of “being” is finite it must therefore also be temporal and in fact the perception of self, described by the term “being-within-the-world,” is extremely closely associated with the perception of the *Dasein* as a temporally finite substance.

Beethoven’s manipulation of the temporal perception of music not only requires the listener to re-formulate music into an object within the subjective *Lebenswelt*, but more significantly reveals or corresponds closely to the fundamental aspect of the *Dasein*’s self-perception, namely the finite plasticity of time. According to Heidegger, all knowledge is a revealing of the *Dasein*. Since only the *Dasein* can know the world, all understanding is fundamentally an understanding of the *Dasein* by the *Dasein*. If this is the case, Beethoven’s attempt to re-configure the listener’s understanding of temporal continuity not only comments upon the listener’s perception of the self, but also reveals elements of the listener’s self perception that are created by the philosophizing Ego.

Just as Saint Augustine proposed an understanding of past, present, and future time as constructions of a mind that must always be confined to the present, Heidegger suggested that the *Dasein* projects and imposes linear temporality upon the world. Partially because of the existential anxiety that arises from the awareness of death, humans regard all objects as temporal beings. Existential anxiety imparts meaning and a “futural” quality to the past. This is why humans hold on to memories from the past and project the sense of repetition upon recurrent events. Beethoven also creates a sense of the “futural” past through the non-continuous repetition of formally disruptive motivic gestures.

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<sup>8</sup> For Martin Heidegger’s most important description of the *Dasein* see *Being and Time*, trans. John Macquarrie and Edward Robinson (New York: Harper and Row, 1962).

Frank Sammarotto has proposed an analytical construction known as the Temporal Plasticity Framework.<sup>9</sup> Although largely a methodology for the evaluation of hypermetrical voice-leading rhythm, an important issue that is largely outside the scope of this dissertation, Sammarotto has used this analytical technique to investigate the importance of Beethoven's abrupt discontinuities of tempo, meter, and texture. Described as contrasting temporal "planes," the abrupt shifts in continuity found in much of Beethoven's music is inherently a matter of temporal continuity for several reasons: firstly, abrupt shifts in metrical structure create multi-linear continuity if a rotational super-structure is implied (if there is a sense of returning to a previous dis-continuous metrical pattern), secondly, metrical and hypermetrical organization may in some instances directly suggest linear temporality (disjunction to the metrical flow of a musical work reveals that the listener has created an intended object of the perceived metrical pattern), and most importantly, the abrupt transformation of hypermetric structure within a musical passage often suggests the effect of one rhythmic grouping substituting for another (thereby establishing a plurality of linear continuities). The non-contextual re-appearances of the "frame" in Op. 127 display all of these apparent aspects of multi-linear continuity.

The following portion of this chapter provides a brief summary analysis of the formal, thematic, and voice-leading structure of the first movement of Op. 127. Since a number of analytical theories regarding the possible non-continuous temporality of this movement will be suggested later in the dissertation, it is perhaps useful to begin with a basic and traditional discussion of the movement's most apparent level of structure. Following the description of non-linear and multi-linear continuity in Chapter 5, a more detailed analysis of the first movement of Op. 127 will be provided in Chapter 7.

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<sup>9</sup> Frank Paul Samarotto, "A Theory of Temporal Plasticity in Tonal Music: An Extension of the Schenkerian Approach to Rhythm with Special Reference to Beethoven's Late Music" (Ph.D. diss., City University of New York, 1999).

The exposition includes a first theme group, a transition, and second theme group that emphasizes the mediant key area, and a closing theme. Table 1-1 provides a formal diagram of the movement's exposition. There is an unusually high level of hypermetric stability found within the exposition, derived from the periodic recurrence of functioning cadences at four measure intervals, with one six-measure grouping in mm. 27-32.<sup>10</sup>

Table 1-1

Formal Diagram of the Exposition

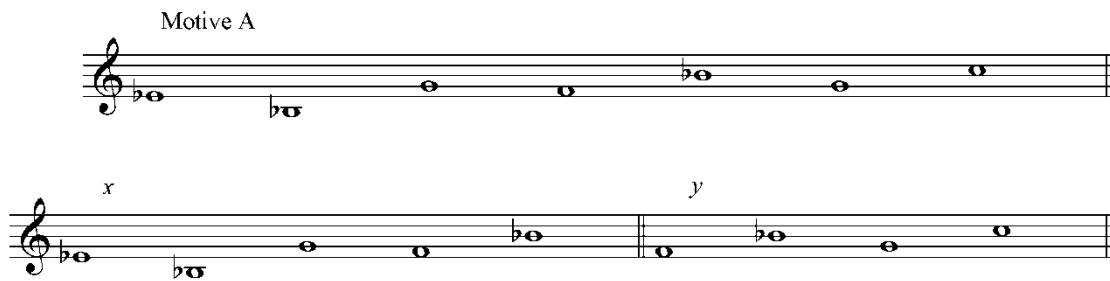
Measures	Form-Section	Primary Key area
1-6	Frame	E flat
7-32	First Theme Group	E flat
33-40	Transition	E flat, G Minor
41-66	Second Theme Group	G Minor
67-74	Closing Theme	G Minor

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<sup>10</sup> See Birgit Lodes, “‘So träumte mir, ich reiste... nach Indien’: Temporality and Mythology in Op. 127/I,” in *The String Quartets of Beethoven*, ed. William Kinderman (Urbana, Illinois: University of Illinois Press, 2006), 168-213.

Deryck Cooke has suggested that an interconnected series of motivic repetitions and transformations may be found in Beethoven's late-period quartets, possibly derived from the initial *Maestoso* statement of Op. 127.<sup>11</sup> According to Cooke's analysis the opening *Maestoso* establishes a basic pitch-pattern, known as Motive A, comprised of two overlapping motivic segments, see Example 1-1. The first theme, mm. 7-14, is derived from segment *y*; the second theme, mm. 41-8, is generated by an "inflected inversion" of this motivic segment.

### Example 1-1 Deryck Cooke's Motive A



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<sup>11</sup> Deryck Cooke, "The Unity of Beethoven's Late Quartets," in *Vindications; Essays on Romantic Music* (Cambridge: Cambridge University Press, 1982), 143-70.

Example 1-2 provides a voice-leading reduction of the exposition.<sup>12</sup> The mediant harmony of the second theme group is shown as an extension of the initial tonic that maintains the important b flat<sup>1</sup> established in the first violin part at the end of the opening *Maestoso*. The harmonic motion that begins the development section with the return of the *Maestoso* frame in the key of G major, the major mode of the mediant, is diagramed as a rising chromatic line harmonizing the motion from b flat<sup>1</sup> at the beginning of the movement to b natural<sup>1</sup> in the upper voice at the beginning of the development section.<sup>13</sup>

The development begins with a return of the opening *Maestoso* frame in the key of G major. The frame also returns within the development, at m. 135, in the key of C major. The three appearances of the frame reflect one of the important motivic aspects of the opening frame itself (E flat, G, and C). If the recurrences of the frame were to have directly correlated to the generic sectional boundaries of the movement's sonata-allegro formal design, then the frame would have been an agent of linear continuity, but since the frame re-appears within the development section, the idea of direct formal congruency between the frame and the primary sectional division of the movement is eliminated. The inherent structural and narrative connections between the internal appearances of the frame and the first "introductory" declamation of the frame establish a non-linear or multi-linear pattern of continuity. Table 1-2 provides a formal diagram of the development section.

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<sup>12</sup> See Appendix D for a detailed voice-leading reduction of the first movement.

<sup>13</sup> See the voice-leading diagram of the first movement provided by Daniel Chua in *The "Galitzin" Quartets of Beethoven* (Princeton, New Jersey: Princeton University Press, 1995), 36. Voice-leading analyses of portions of the first movement may also be found in Eric McKee's article "Alternative Meanings in the First Movement of Beethoven's String Quartet in E Flat Major, Op. 127: Emergence and Growth from Stagnation and Decline," *Theory and Practice* 24 (1999): 1-27.

# Example 1-2

## Voice-Leading, Mm. 1-80

The musical score consists of three systems, each with a treble and bass staff. The key signature has two flats (B-flat and E-flat). Measure numbers 7, 14, 19, 22, 24, 29, and 32 are indicated above the treble staff. Roman numerals (I, IV, V, I<sup>6</sup>) are placed below the bass staff to indicate chord changes. Fingerings (5, 5) are shown above notes in the first system.

35 37 38 39

G: IV  $V_4^6 \begin{array}{l} \text{---} 5 \\ \text{---} 3 \end{array}$

41 49 56 61 64 65

I V I V  $V_4^6 \begin{array}{l} \text{---} 5 \\ \text{---} 3 \end{array}$  I

75 80

Table 1-2

## Formal Diagram of the Development

Measures	Form-Section	Primary Key area
75-80	Frame (2 <sup>nd</sup> Iteration)	G
81-116	Section 1	G
117-34	Section 2	C Minor
135-8	Frame (3 <sup>rd</sup> Iteration)	C
139-58	Section 3	C
159-66	Section 4	A flat

In the last two measures of the frame and the first measure of the exposition's first theme group, mm. 5-7, there is a rising chromatic line in the first violin part that includes the pitches b flat<sup>1</sup>, b natural<sup>1</sup>, and c<sup>2</sup>. This is an important unifying motive that I refer to as the "motive of chromatic expansion." Example 1-3<sup>14</sup> provides a diagram of the initial appearance of this motive together with one of its significant repetitions at the background level, derived from the following thematically and structurally salient pitches in the first violin part: the b flat<sup>2</sup> at the beginning of the second theme group (m. 41), the b natural<sup>2</sup> during the second appearance of the frame (m. 77), and the c<sup>3</sup> at the third appearance of the frame (m. 135).

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<sup>14</sup> Example 1-3 is loosely derived from various diagrams created by David Epstein and Daniel Chua. See Chua, 32-33; and David Epstein's *Beyond Orpheus: Studies in Musical Structure* (Cambridge, Massachusetts: Harvard University Press, 1979), 216-7.



## Example 1-3 Motive of Chromatic Expansion, Exposition

Example 1-4 provides a voice-leading diagram of the development section. At least two middleground-level motives reach their concluding pitches at the beginning of the recapitulation in m. 167. The E-G-C motive from the opening *Maestoso* frame may be found by identifying the  $e^2$  at the beginning of the development (m. 81), the  $g^2$  at the continuation of the development after the third appearance of the frame (m. 140), and the  $c^3$  at the beginning of the recapitulation (m. 167). The motive of chromatic expansion may be expressed by salient pitches within the second violin part, such as the  $e\ flat^1$  at the beginning of the C-minor section within the development (m. 117), the  $e\ natural^1$  at the continuation of the development after the third appearance of the frame (m. 140), and the  $f^1$  at the beginning of the recapitulation (m. 167).<sup>15</sup>

<sup>15</sup> The form of the motive of chromatic expansion that is expressed within the development by the pitches E flat, E natural, and F may be found in the first violin part at approximately the same measures, but is identified here in the second violin part because of the prominence of the  $f^1$  in m. 167 and because of the foreground repetition of this motive in the second violin part in mm. 161-7. There is another foreground expression of the motive of chromatic expansion that culminates in m. 167 in the first violin part including the pitches  $b\ flat^2$  in m. 165,  $b\ natural^2$  in m. 166, and  $c^3$  in m. 167.

# Example 1-4

## Voice-Leading, Development

The image displays three systems of musical notation for piano accompaniment, illustrating voice-leading and development. Each system consists of a grand staff with a treble and bass clef. The key signature is two flats (B-flat and E-flat).

**System 1:** Measures 75 to 80. The treble staff features a melodic line with a long slur over measures 75-79. The bass staff has a single note in measure 75 and a half note in measure 80. Dashed lines indicate the continuation of the melodic line from measure 80 into the next system.

**System 2:** Measures 89 to 113. The treble staff has a melodic line with a slur from measure 89 to 107, and a separate phrase from measure 107 to 113. The bass staff has a melodic line with a slur from measure 89 to 107, and a separate phrase from measure 107 to 113. Roman numerals are placed below the bass staff: G: I<sup>6</sup> (under measure 89), V (under measure 97), I (under measure 107), C: I (under measure 107), V (under measure 113), and I (under measure 113). Dashed lines indicate the continuation of the melodic line from measure 113 into the next system.

**System 3:** Measures 117 to 133. The treble staff has a melodic line with a slur from measure 117 to 121, and a separate phrase from measure 121 to 133. The bass staff has a melodic line with a slur from measure 117 to 121, and a separate phrase from measure 121 to 133. Dashed lines indicate the continuation of the melodic line from measure 133 into the next system.

The image displays two musical staves, likely piano accompaniment, with multi-linear continuity indicated by dashed lines. The top staff shows measures 135 and 139, with a dashed line connecting the notes in these two measures. The bottom staff shows measures 139, 147, 162, 166, and 167, with a dashed line connecting the notes in these five measures. The notation includes treble and bass clefs, a key signature of two flats, and various note values and rests.

Multi-linear continuity is suggested by the non-tonic harmony at the beginning of the recapitulation, since the movement's primary generic and thematic return, as well as the conclusion of important middleground-level motives, is not temporally coordinated with the return of tonic harmony. The subdominant harmony at m. 167 supports scale degree 6 in the upper voice, a direct contradiction to the expected structural support of tonic harmony at this point within the movement's form. During the exposition the primary theme began, of course, with subdominant harmony in m. 7, following the initial opening frame; therefore, the theme of this movement must participate as the consequent member of a larger structural grouping.

The recapitulation includes a first theme group, a transition, and second theme group in the tonic key area, and a closing theme. Table 1-3 provides a formal diagram of the recapitulation. The first theme group cadences in the subdominant key area, allowing the movement from scale degree 4 to scale degree 3 in the background-level *Urlinie* to occur at the first pitch of the second theme group and the final structural descent in the upper part of the *Urlinie* to take place within the second theme group, see Example 1-5.

Table 1-3

Formal Diagram of the Recapitulation

Measures	Form-Section	Primary Key area
167-98	First Theme Group	E flat, A flat
199-206	Transition	A flat, F Minor
207-32	Second Theme Group	E flat
233-40	Closing Theme	E flat
241-82	Coda	E flat

Following the recapitulation there is a reflective coda section that serves as an effective peroration for the movement. A number of canonic entries built upon either a closing-theme type version of the movement's primary theme or else derived from the four-note bass accompaniment to the theme (first presented in the cello part in mm. 7-10) help to re-establish the hypermetric four-measure phrases of the exposition's first theme group; however, the canonic overlapping of these four-measure phrases also suggests a foreground-level element of multi-linear continuity. As shown in Example 1-6 there are a number of foreground and early middleground level voice exchanges between the first violin and cello parts within the coda and

Example 1-5  
Voice-Leading, Recapitulation

The first system of the musical score shows measures 167 to 182. The treble clef staff contains a melodic line with a descending eighth-note scale: G4, F4, E4, D4, C4, B3, A3. The bass clef staff contains a bass line with notes G2, F2, E2, D2, C2, B1, A1. Roman numerals I<sup>6</sup>, V, and I are placed below the bass line, indicating the harmonic structure. Measure numbers 167, 168, 174, and 182 are printed below the treble staff.

The second system of the musical score shows measures 182 to 198. The treble clef staff contains a melodic line with notes G4, F4, E4, D4, C4, B3, A3, G3, F3, E3, D3, C3, B2, A2. The bass clef staff contains a bass line with notes G2, F2, E2, D2, C2, B1, A1. A Roman numeral IV is placed below the bass line at the end of the system. A 4-measure rest is indicated above the treble staff at the end of measure 198. Measure numbers 182, 188, 197, and 198 are printed below the treble staff.

The third system of the musical score shows measures 204 and 205. The treble clef staff contains a melodic line with notes G4, F4, E4, D4, C4, B3, A3. The bass clef staff contains a bass line with notes G2, F2, E2, D2, C2, B1, A1. Measure numbers 204 and 205 are printed below the treble staff.

at least one full-octave voice exchange between two different octave lines (one ascending and one descending) within the first violin part itself, suggesting a multi-linear function for the first violin's concluding motivic gesture.

### Example 1-6 Voice-Leading, Coda

Form, theme, and voice-leading structure provide elements of both non-linear and multi-linear continuity within the first movement of Op. 127. The listener must re-assemble the archetypal generic structure of the work from existing and sounding realities that do not precisely correlate to the expected formal ideal. Chapter 7 of this dissertation will include a detailed discussion of material in the “Krakow” collection of compositional sketches that relates to the multi-linear temporal organization of this movement.

## CHAPTER 2

### THEMATIC, FORMAL, AND VOICE-LEADING ANALYSIS OF THE SECOND MOVEMENT OF OPUS 127

The second movement of Op. 127 provides a variation form *adagio* movement, traditionally analyzed as a theme with six variations. Although the listener may perceive a three-part ABA structure for this movement, it is not entirely clear which variations belong to which parts of the form. Variations 3 and 5 function as contrasting episodes to the other primary variations and create many of the same multi-linear temporal continuities as the counter-generic mid-development entry of the opening “frame” within the first movement.

Multi-linear temporality is also suggested by the harmonic ambiguity of the second movement’s opening motivic gesture. Referencing both thematic and harmonic elements of a traditional anacrusis figure, the movement’s initial motivic gesture leaves unresolved the question of how far this anacrusis extends into the theme and on what structural levels it may be prolonged, establishing a conflict between sounding harmonies and thematic expectations, as well as fundamentally destabilizing the listener’s ability to follow the form of the movement without the necessity of significant and subjective re-formulation. Beethoven seems to signal this element of contrast and formal dissonance by weakening the resolution of the anacrusis in the foreground harmony, as demonstrated by the delayed resolution of the dominant to tonic motion in the cello part in m. 3.

This process of harmonic concealment obscures the point at which the movement’s first acquisition of tonic harmony is achieved. The listener is uncertain in regard to the nature of the harmonic prolongation that extends through the entire presentation of the theme—it could represent a prolongation of tonic harmony after a brief three-bar dominant anacrusis, it could



reflect a sustained prolongation of dominant harmony throughout the entire theme and therefore a lengthy extension of the anacrusis gesture, or it could imply an apparent weak middleground tonic or even a tonic six-four sonority that is prolonged thereby suggesting an inherent ambiguity of tonal function. The listener is required to impose a formal or narrative structure upon material that strongly suggests the necessity of a linear continuity, while maintaining the absence of clear markedness in terms of formal signification.

The following portion of this chapter provides a brief summary analysis of the formal, thematic, and voice-leading structure of the second movement of Op. 127. Since a number of analytical theories regarding the possible non-continuous temporality of this movement will be suggested later in the dissertation, it is perhaps useful to begin with a basic and traditional discussion of the movement's most apparent level of structure. Following the description of non-linear and multi-linear continuity in Chapter 5, a more detailed analysis of the second movement of Op. 127 will be provided in Chapter 8.

Joseph Kerman analyzes this movement as a three-part form with the theme and the first two variations comprising the A section of an ABA structure.<sup>16</sup> Example 2-1 provides a voice-leading diagram of the theme.<sup>17</sup> The first and second variations represent a recurrence of the voice-leading pattern of the first presentation of the theme, although there is not the clear resolution of tonic harmony found at the ending of the first two variations as was presented at the conclusion of the theme, thereby extending the background-level tonic that was established in m. 3 through the entire A section of the form.<sup>18</sup>

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<sup>16</sup> See Joseph Kerman's description of the movement's form in *The Beethoven Quartets* (New York: W. W. Norton & Company), 218.

<sup>17</sup> See the voice-leading diagram of the second movement provided by Daniel Chua in *The "Galitzin" Quartets of Beethoven* (Princeton, New Jersey: Princeton University Press, 1995), 26.

<sup>18</sup> See Appendix E for a detailed voice-leading reduction of the second movement.

## Example 2-1 Voice-Leading, Theme

3      6 7 10      14 15      18      19      20

I      V I V      I<sup>6</sup> V I V      [I<sup>6</sup>] IV V I

6-5-6-4  
4-3-4-2

## Example 2-2 Deryck Cooke's Motive B

Motive B

m.2      m.3

Deryck Cooke's central four note motive for the late-period quartets, known as motive B, may be observed in the opening gesture of the movement, mm. 0-3, as shown in Example 2-2.<sup>19</sup> As the dissonant d flat<sup>1</sup> in the first violin part resolves to the c<sup>1</sup> in the second violin part in m. 3, a brief but significant element of multi-linear continuity is suggested since the d flat<sup>1</sup> is a necessary member of the primary motivic declamation in the first violin part, but also simultaneously connected to a subsequent pitch of resolution in another voice and another temporal location. The resolution of the dissonant d flat<sup>1</sup> requires the listener to conflate the voice-leading expectations of the first and second violin parts and to accept that the resolution of the d flat<sup>1</sup> occurs one beat late, the harmonic down beat of m. 3 already being delayed by the retardation of the tonic A flat in the cello part. As shown in Example 2-1, the initial d flat<sup>1</sup> in the first violin part may also be heard to resolve to the c<sup>2</sup> in m. 3, thereby being displaced in terms of both register and time. The opening gesture of the second movement (mm. 0-3) presents a pair of motivic structures that will recur in subsequent sections of the form: the rising fifth from D flat to A flat, including the important half step motion from G to A flat, and the descending half step from D flat to C. The combination of these two half step figures represent a version of Cooke's motive B.

According to Kerman's analysis the third variation alone comprises the central B section of the movement's three-part ABA form. The key of the third variation, E major, functions as an enharmonic spelling of the lowered submediant, F flat major. Example 2-3 provides a voice-leading diagram of the first three variations. Although the important dividing half cadences are

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<sup>19</sup> Deryck Cooke, "The Unity of Beethoven's Late Quartets," in *Vindications; Essays on Romantic Music* (Cambridge: Cambridge University Press, 1982), 153.

## Example 2-3 Voice-Leading, Variations 1-3

Variation 1

24 28 32 35 36 37 38

I V I V I<sup>6</sup> V I I<sup>6</sup> V<sub>3-4</sub><sup>5-6-4</sup> [I<sup>6</sup>] IV V I

Variation 2

39 42 43 47 49 50 52 53 56 58

I V I V V IV V<sub>4-3</sub><sup>6-5-6</sup> V<sub>4</sub><sup>6</sup> I<sup>6</sup> IV

Variation 3

59 62 63 66 67 70 71 74 75 76

E [F $\flat$ ]: I V I Aug6 V<sup>6</sup>  $\flat$ VI V<sup>6</sup> I  $\flat$ VI V<sup>6</sup> I

[A $\flat$ :  $\flat$ VI]

significantly obscured by melodic figuration, the phrase structure of the first two variations essentially corresponds to the pattern established by the theme. The phrase structure of the theme may also be found in the contrasting third variation, but here the motivic content of the melody is not immediately analogous to the theme and the harmonic structure is complicated by the insertion of an augmented sixth sonority in m. 66 and lowered submediant sonorities in m. 70 and m. 74.

Similar to the *maestoso* frame of the first movement, the third variation seems to function outside of the primary pattern of formal continuity, an effect that is reinforced by the abrupt departure from the tonic key at the beginning of the third variation and the immediate return to the tonic key of A flat major for the subsequent fourth variation, although this apparent tonic could also be understood to function within a larger prolongation of the subdominant. The first movement's *maestoso* frame is perhaps also referenced by the first three pitches in the melody of the third variation (e<sup>1</sup>, g sharp<sup>1</sup>, and c sharp<sup>2</sup>), possibly an enharmonic reflection of the E-flat version of the frame heard at the beginning of the first movement. Perhaps more significantly, the key areas of the mid-movement entries of the frame in the first movement, G major and C major, are referenced in the third variation by the prominent pitches C and G in the augmented sixth sonority in m. 66 and the lowered submediant sonorities in m. 70 and m. 74. The pitches of the motive of chromatic expansion from the first movement (B flat, B natural, and C) are contained as a simultaneity within the dissonant augmented sixth chord in m. 66.

According to Kerman's analysis the fourth, fifth, and sixth variations comprise the final A section of the movement's three-part ABA form. The key of the fifth variation, C sharp minor, functions as an enharmonic spelling of the minor subdominant, D flat minor. Example 2-4 provides a voice-leading diagram of the movement's concluding three variations.

The fifth variation presents a more significant departure from the linear and strophic continuity of the movement's primary variations than does the third variation. William Kinderman analyzes the movement as a collection of five variations with a single contrasting episode (variation 5).<sup>20</sup> The minor subdominant key strongly suggests a connection between the third variation, the other variation composed in a contrasting key, and the fifth. Since these two variations refer to each other, more than to the movement's primary variations in the tonic key, an element of temporal disjunction and therefore multi-linear continuity is established. Thematically the fifth variation resembles the movement's opening anacrusis gesture, therefore creating a multi-linear connection between the two harmonically contrasting variations and the structurally ambiguous opening anacrusis. The "Krakow" collection includes more sketches for the opening of the second movement and the second movement's fifth variation than for any other part of Op. 127. As shown in Example 2-4, the re-transition material at the end of the fifth variation provides the final descent of the background-level voice-leading structure.

Form, theme, and voice-leading structure provide elements of both non-linear and multi-linear continuity in the second movement of Op. 127. The listener must re-assemble the archetypal generic structure of the work from existing and sounding realities that do not precisely correlate to the expected formal ideal. Chapter 8 of this dissertation will include a detailed discussion of material in the "Krakow" collection of compositional sketches that relates to the multi-linear temporal organization of this movement.

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<sup>20</sup> William Kinderman, *Beethoven* (Oxford: Oxford University Press, 1995), 284-94.

## Example 2-4 Voice-Leading, Variations 4-6

Variation 4

77 80 81 84 86 88 89 92 93 94

I V  $V_4^6 - \begin{matrix} 5 \\ 4-3 \end{matrix}$  V  $\begin{matrix} 6-5-6 \\ 4-3-4 \end{matrix} [5]$  ( $V_2^4 [I^6]$  IV V I)

[Ab: V/IV]

Variation 5

97 98 99 100

Db:  $I^6$  IV V I

102 104 105 107 109

Ab: IV V I

2 1

Variation 6

109 112 113      116      117      119      124      126

I V      V<sub>4-2</sub><sup>6-4</sup> I<sup>6</sup>      I<sup>6</sup>      V      I



## CHAPTER 3

### HISTORY, PROVENANCE, AND CONTENTS OF THE PRIMARY SKETCH SOURCES

In the period of more than one hundred years since the publication of Nottebohm's initial studies of Beethoven's compositional sketches,<sup>21</sup> musicologists, and to a lesser extent music theorists, have profited significantly from the systematic study of these valuable primary source materials. Beethoven's sketches survive in essentially four distinct types or formats: large oblong sketchbooks, upright format pocket sketchbooks, loose leaves or bundles, and the "score" sketches for the late period quartets.<sup>22</sup> The "Krakow" sketches belong, for the most part, to the fourth category, a grouping that is notably distinguished from the others by the high level of uncertainty in regard to clear identification between existing materials and the few catalogues of Beethoven's sketch sources created during the nineteenth century. The authors of JTW describe the late-period quartet score sketches as follows:

In the large majority of his sketches, Beethoven relied on a kind of musical shorthand, reducing the texture to a *Hauptstimme* that could be written on a single staff. Less frequently he made use of two staves—to accommodate piano figuration, for example, or to indicate an accompaniment in the first notation of a theme. It seems to have been only rarely that he worked in full score prior to his first attempts at the autograph itself. The enormous body of such sketches in score from the years 1824-1826, when he was occupied almost exclusively with the late quartets, must therefore reflect an important development in Beethoven's compositional process. More often than not, the similar experiments from earlier years also involved the string trios and quartets, no doubt because of their special textural problems. But the systematic recourse to this

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<sup>21</sup> Gustav Nottebohm's most influential contributions to the field of Beethoven sketch study may be found in his two published monographs: *Ein Skizzenbuch von Beethoven* (Leipzig, 1865) and *Ein Skizzenbuch von Beethoven aus dem Jahr 1803* (Leipzig, 1880), as well as three published collections of essays: *Beethoveniana* (Leipzig, 1872), *Zweite Beethoveniana* (Leipzig, 1887), and *Beethoven's Studien: Beethoven's Unterricht bei J. Haydn, Albrechtsberger und Salieri* (Leipzig, 1873).

<sup>22</sup> Perhaps the most comprehensive study of Beethoven's sketch sources produced during the twentieth century was *The Beethoven Sketchbooks; History, Reconstruction, Inventory* by Douglas Johnson, Alan Tyson, and Robert Winter (Berkeley, California: University of California Press, 1985), [hereafter known as JTW]. The authors suggest the four-part classification system of Beethoven's surviving sketch materials described in this chapter.

intermediate stage between unilinear sketch and autograph has left us with a large and reasonably coherent body of manuscript material from the last years that warrants special consideration... These score sketches are not sketchbooks by even the loosest of... definitions.<sup>23</sup>

Sieghard Brandenburg has specifically described the score sketches for Op. 127:

Im Zusammenhang mit op. 127 treten zum erstenmal in bedeutender Zahl die sogenannten Partiturskizzen in Erscheinung, jene Skizzen also in denen Beethoven die Stimmen der Partitur ausarbeitete. Wohl gemerkt der Sache nach hat es sie schon früher gegeben; sie finden sich in Skizzenbüchern und auf separaten Blättern, aber mit op. 127 setzt die Masse der Überlieferung ein. Dies kann auf einen Entschluß Beethovens zurückzuführen sein, die Stimmführung seiner Kompositionen fortan aufmerksamer zu überwachen, galt doch gerade das Streichquartett als das Paradefeld der kompositorischen Wissenschaft. Es kann aber ebenfalls sein, daß er durch die schärfere Trennung von Konzept- und Partiturskizzen lediglich seine Arbeitsweise besser organisieren wollte. Schließlich läßt sich daran denken, daß uns die Partiturskizzen nur erhalten sind, weil Beethoven durch seine Todeskrankheit daran gehindert wurde, diese Schaffensdokumente einer noch nicht vollständig abgeschlossenen Werkgruppe — bekanntlich sollte noch ein Streichquintett folgen — zu vernichten. Die Frage läßt sich nicht beantworten, ist aber in unserem Zusammenhang belanglos. Wir haben diese Dokumente, und wir müssen uns damit auseinandersetzen.<sup>24</sup>

Following Beethoven's death on March 26, 1827, the process of arranging and cataloguing the composer's *Nachlass* was primarily executed by two of Vienna's most established music dealers, Ignaz Sauer and Domenico Artaria.<sup>25</sup> A delay of more than seven months before the auction on November 5 allowed a number of important manuscripts and other documents to "walk

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<sup>23</sup> JTW, 463.

<sup>24</sup> "In connection with Op. 127 there appear for the first time an important number of the so called "score sketches," the sketches in which Beethoven worked out the parts of the score. It should be noted that he had made these kinds of sketches earlier; they may be found in sketch books and separate pages. With Op. 127, however, the majority of the pages are score sketches. This could be traced back to Beethoven's decision to more carefully manage the voice leading of his compositions, considering the string quartet to be like a "parade field" of compositional knowledge. It could also be, however, that through the more thorough separation of concept sketches and score sketches he simply wanted to better organize his working materials. Finally, we may also suppose that we only have the score sketches because Beethoven's final illness prevented him from destroying these creative products of a still not entirely finished group of works—it is possible that yet another string quintet was to follow. The question cannot be answered; but, it is unimportant for our purposes. We have these documents, and we must attempt to explain and analyze them." Sieghard Brandenburg, "Die Quellen zur Entstehungsgeschichte von Beethovens Streichquartett Es-Dur Op. 127," *Beethoven Jahrbuch* 10 (1983), 258-60. Unless otherwise cited, all translations are mine.

<sup>25</sup> For a detailed history of Beethoven's *Nachlass* and the subsequent dispersal of the sketch manuscripts see JTW, 13-43, also see Douglas Johnson's article "The Artaria Collection of Beethoven Manuscripts: A New Source," in *Beethoven Studies*, ed. Alan Tyson (New York: W. W. Norton & Company, 1973), 174-236.

away,” possibly in the company of Anton Schindler. Amid complaints that the auction process had been insufficiently advertised, especially in regard to international buyers, Domenico Artaria purchased the majority of the composer’s *Nachlass*, the remaining material being sold to dealers individually notified by Artaria and Sauer. According to the authors of JTW:

Beethoven died on 26 March 1827. An auction of his furniture and non-musical belongings took place about six weeks later, on 5 May. It was more than seven months, however, before the sale of his musical *Nachlass* was held. We do know that an unsupervised stream of visitors, some sincere and some merely curious, circulated through Beethoven’s apartments immediately after his death. Gerhard von Breuning records touchingly that, on 29 March,

as I went over to the apartment. . . [*Trauerwohnung*] with my father and wanted to cut off a few of Beethoven’s hairs—father had given me permission to do this only toward the end of the public viewing, so as not to spoil his appearance—we discovered that unknown hands had already cut *everything* off.

It was during this period that Anton Schindler walked off with a large number of manuscripts. Perhaps others helped themselves as well.<sup>26</sup>

The sketch scores for the late quartets were generally described in most nineteenth-century catalogues as bundles or loose leaf collections. After the death of Domenico Artaria in 1842, his son August Artaria maintained the Beethoven manuscript collection until the time of his own death in 1893, although several of the large sketch books were sold during the intervening years. The remaining elements of the manuscript collection were purchased by Erich Prieger of Bonn in 1897 and then by the Royal Library in Berlin in 1901.<sup>27</sup> The original catalogue description of the Artaria collection sketches was derived from an alphabetical nomenclature, with A, B, C, etc. designating both an individual large sketch book as well as a pocket sketch book, i.e. there was a Large Sketch Book A, as well as a Pocket Sketch Book A. The loose leaf bundles received the letters S, T, U, V, and W.<sup>28</sup>

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<sup>26</sup> JTW, 14. For the complete bibliographic citation of the quotation from Gerhard von Breuning, see JTW 14.

<sup>27</sup> JTW, 19.

<sup>28</sup> The “titles” that musicologists attempt to provide for specific Beethoven sketchbooks, or sketch bundles, are never as firmly attached to their objects of reference as scholars might wish them to be. The manuscript known as ARTARIA

The first classification of the Artaria sketchbooks was a somewhat makeshift affair, apparently designed to facilitate storage rather than to distinguish in any very precise way among the manuscripts that were included. One general distinction does emerge: the five bundles of miscellaneous loose leaves were placed at the end, as *Notirungen* S, T, U, V, and W. Whether this was intentional or simply carried over from the sequence of lots at the auction is not clear. Certainly the laxity with which the manuscripts were examined prior to the auction must account for the inclusion among Artaria's sketchbooks of such things as Beethoven's careful copy of a Mozart quartet... and perhaps a score fragment from an unfinished concertante movement of 1802.<sup>29</sup>

In 1890 Guido Adler received an invitation to catalogue the Artaria collection of Beethoven sketches. Adler originally numbered the materials 1-96. The well-known Artaria call numbers 124-224, later adopted by the Royal Library in Berlin, derive from the Artaria catalogue of 1893, prepared in anticipation of August Artaria's death and subsequent auction.<sup>30</sup>

In what now seems an odd sequence of events, the Adler catalogue was followed three years later, in 1893, by a second catalogue of the Artaria collection, this one bearing August Artaria's own name. The apparent duplication is explained in part by an important difference between the two catalogues: Adler includes only the Beethoven manuscripts, while Artaria surveys the firm's entire collection. Here is the full title of the 1893 catalogue:

Verzeichnis von musikalischen Autographen, revidierten Abschriften und einigen seltenen gedruckten Original-Ausgaben, vornehmlich der reichen Bestände aus dem Nachlasse Joseph Haydn's und Ludwig van Beethoven's ferner der Manuskripte von Mozart, Schubert, Rossini u. a. namentl. Wiener Tonsetzern im Besitze von August Artaria in Wien.

August Artaria was eighty-six years old in 1893, and he died that same year. Whether or not he himself did the compiling, the intention may have been to produce a document that could eventually serve as a sale catalogue for the collection as a whole. In retrospect, then, the decision by Artaria to publish Adler's catalogue is perhaps the more difficult one to explain.<sup>31</sup>

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195, for example, was at various times during the nineteenth century described as either Skizzenbuch E or Skizzenbuch C, see William Kinderman's *Artaria 195: Beethoven's Sketchbook for the Missa solemnis and the Piano Sonata in E Major, opus 109, transcribed, edited and with a commentary by William Kinderman* (Urbana, Illinois: University of Illinois Press, 2003), vol. 1, 10.

<sup>29</sup> JTW, 20.

<sup>30</sup> Kinsky's thematic index refers to an Artaria catalogue of 1901, in which a source similar to Group A is listed, George Kinsky, *Das Werk Beethovens* (Munich: Henle Verlag, 1955), 384.

<sup>31</sup> JTW, 23-4.

Most of the important nineteenth-century descriptions of the late score sketches refer to these materials as loose leaf collections. Bundles similar to those containing the late quartet sketches were frequently re-arranged or re-organized during the nineteenth century. To briefly summarize the history of the score sketches for Op. 127 that are analyzed in this dissertation, they appear to have been part of Beethoven's *Nachlass* auctioned on November 5 1827, to have been purchased by Domenico Artaria and to have then passed to his son August Artaria; the sketches remained in the Artaria collection and received the call numbers ARTARIA 206 and ARTARIA 207 in the catalogue of 1893; they were purchased first by Erich Prieger of Bonn in 1897 and then by the Royal Library in Berlin in 1901, during the war they were re-located to Poland and were later described by Sieghard Brandenburg in his 1983 article "Die Quellen zur Entstehungsgeschichte von Beethovens Streichquartett Es-Dur Op. 127."<sup>32</sup>

The term "Krakow sketches" in the title of this dissertation designates the collection of Beethoven manuscripts possessed by the Biblioteka Jagiellońska in Krakow, Poland, formerly held by the Royal Library in Berlin, and commonly listed as "missing" by catalogues of primary source materials during the mid-twentieth century. The sketch materials specifically investigated for this dissertation may be described as a collection comprised of five distinct groups. The groups differ from each other in terms of their format (oblong vs. upright), the type of paper used, and most significantly their textual content. See Table 1-1 for a listing and description of the five primary source groupings.

It seems apparent that ARTARIA 206 was never intended to be considered as a single document, but rather represents an almost arbitrary combination of four separate sketch sources,

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<sup>32</sup> The most detailed description of ARTARIA 206 that has yet been published may be found in Sieghard Brandenburg's "Die Quellen zur Entstehungsgeschichte von Beethovens Streichquartett Es-Dur Op. 127," *Beethoven Jahrbuch* 10 (1983), 221-76. See especially the section that describes ARTARIA 206, pp. 258-66.

Table 3-1

## The Five Primary Source Groupings

Group	Contents	Artaria call number
GROUP A	Almost complete text of Op. 127, Mvt. II, 23 pages, 12 staves, oblong format	ARTARIA 207
GROUP B	Compositional sketches for all movements of Op. 127, significant quantity of variant material, 50 pages, 23 staves, vertical format	ARTARIA 206
GROUP C	Compositional sketches for Op. 127, Mvt. II, 16 pages (51-66), 16 staves, oblong format	ARTARIA 206
GROUP D	Compositional sketches for Op. 127, Movts. I, II, and IV, significant quantity of variant material, 30 pages (67-96), 23 staves, vertical format	ARTARIA 206
GROUP E	Compositional sketches for Op. 127, Movts. I, II, and IV, significant quantity of variant material, 9 pages (97-105), 16 staves, vertical format	ARTARIA 206

each with its own paper type and distinct content. For that reason I will refer to these documents by their individual group identifications (Groups B, C, D, and E) instead of their traditional conglomerate source title, ARTARIA 206. For the purpose of facilitating references between this dissertation and other published descriptions of ARTARIA 206, I will continue to use the traditional pagination system, 1-112 (with pp. 106-12 being empty). The twenty-three staff paper used in Groups B and D is an unusual format, perhaps left over from Beethoven's earlier work on the Ninth Symphony. Beethoven would sometimes use twenty-three staff paper for autograph scores, but very rarely for sketches. Sieghard Brandenburg provides the following description of the variety of sources within ARTARIA 206:

Die Partiturskizzen zum Es-dur-Quartett befinden sich auf unterschiedlichen Notenpapieren im Hoch- wie im Querformat. Unter den Papieren im Hochformat überwiegt bei weitem eines mit der ungewöhnlichen Zahl von 23 Notenzeilen. Es ist dasselbe, das Beethoven im Autograph des letzten Satzes der *Neunten Symphonie* verwendete. Anscheinend hatte er einen größeren Vorrat davon übrigbehalten, der ihm nun für die Partiturskizzen zu op. 127 und später op. 132 diene. Auch verschiedene kleinere Autographen aus derselben Zeit sind auf diesem Papier niedergeschrieben (op. 121b, op. 122). Ein anderes hochformatiges Papier mit 16 Zeilen stammt wohl noch aus der Zeit der *Missa solemnis*. Unter den Papieren im Querformat überwiegen solche mit 16 Zeilen. Einige Blätter mit 12 Zeilen sind von derselben Papiersorte wie die Autographen der vier Sätze von op. 127. Die Verwendung unterschiedlicher Formate geschah wohl nicht ohne Absicht. Offenbar reservierte Beethoven das 23zeilige Hochformat für Reinschriften, auf denen er die Komposition in ihrer Ausdehnung besser überblicken konnte. Außerdem waren sie auch wohl geeigneter als Vorlager für das danach zu kopierende Autograph. Die Skizzen auf diesem Papier beginnen oft sehr klar, werden dann flüchtiger und enden meistens sehr konfus, da der Kompositionsprozeß in den späteren Satzteilen noch nicht genügend weit fortgeschritten war. Diese Skizzen sind oft mit mehreren Schichten von Korrekturen überdeckt, wodurch sie recht schwer lesbar sind. Die Skizzen im Querformat spiegeln im allgemeinen ein etwas früheres Kompositionsstadium, hier wird mehr experimentiert. Die Möglichkeit einer Reinschrift liegt noch in weiter Ferne. Es versteht sich allerdings, daß Beethoven dieses Arbeitskonzept nicht streng durchgehalten hat. Im übrigen läßt es sich auch nur bei op. 127 nachweisen. Möglicherweise ist Beethoven bei op. 132 ähnlich vorgegangen, doch besitzen wir zu dem a-moll-Quartett fast keine Partiturskizzen auf querformatigem Papier, so daß wir keine Vergleichsmöglichkeiten haben. In der... Partiturskizzen zu op. 127 behalten wir die von Beethoven intendierte Trennung von Hoch- und Querformat bei.<sup>33</sup>

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<sup>33</sup> "The score sketches for the E-flat major Quartet are found on different types of paper in both upright and oblong formats. Most of the upright format paper contains twenty-three staves, an unusual number. It is the same paper that

The manuscript that I label as Group A is generally referenced by its Artaria call number, ARTARIA 207. This is the same source that is commonly described as the autograph for the second movement of Op. 127.<sup>34</sup> I include this manuscript with the other source materials to be examined in the dissertation, namely the score sketches from ARTARIA 206, for the following reasons: the source includes an important sketch of mm. 99-107 that directly relates to the principle of concealed motivic repetition in the voice-leading structure of the second movement (see Example 6-2); the source includes an important canceled layer for m. 48 that relates directly to Heinrich Schenker's analysis of m. 48, as well as Beethoven's letter to his publisher concerning this measure (see Example 6-20); the source is very similar to the four sketch groups of Artaria 206, since it includes not only an extended fair copy text, but also working sketches, canceled layers, numerous corrections, and nearly illegible inscriptions; and finally because the source is associated with ARTARIA 206 in its Biblioteka Jagiellońska listing—"Mus.ms.autogr. Artaria 206, 207." I will follow the pagination system found on the pages of the manuscript, pp. 1-23,

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Beethoven used for the autograph of the last movement of the Ninth Symphony. Apparently he had a large supply of this paper, which he now used for the score sketches of Op. 127, and later for the score sketches of Op. 132. Various other smaller autographs from this same time are also written on this paper (such as op. 121b and op. 122). Another upright format paper with sixteen staves probably comes from the time of the *Missa solemnis*. Most of the oblong format paper has sixteen staves. A few pages with twelve staves are of the same paper type as the autographs for the four movements of Op. 127. The use of different paper formats certainly did not occur by accident. Beethoven probably reserved the twenty-three staff paper for fair copy manuscripts, from which he could more easily see a composition in its entirety. Moreover this format was more suitable to be sent to a copyist. The sketches on this type of paper often begin very clearly, become less well defined, and end in complete confusion, because the compositional process had not yet been entirely completed for the later stages of a movement. These sketches are often covered by multiple layers of corrections, making them almost unreadable. The sketches in oblong format reflect, in general, an earlier stage of compositions; here there is more experimentation. The possibility of a fair copy remains in the distance at this point. It is clear that Beethoven certainly did not strongly hold to this system of working. In fact it is only with Op. 127 that we know of this practice. It is possible that Beethoven may have worked in a similar manner with Op. 132, but we have almost no sketches in oblong format for that work, and therefore we cannot make a direct comparison. In the score sketches of Op. 127 we may observe Beethoven's intentional separation of upright and oblong format sketches." Brandenburg, 261-2.

<sup>34</sup> Sieghard Brandenburg lists the autograph manuscripts for the other movements of Op. 127 as MENDELSSOHN 13, also found in the Biblioteka Jagiellońska, for the first movement; a manuscript in the Musikulturens Främjande in Stockholm as the autograph for the third movement; and BH 72 in the Beethoven-Haus in Bonn as the autograph for the fourth movement. See Brandenburg, 269-71.



rather than Sieghard Brandenburg's pagination system derived from the double page sides of the folio (see Table 1-4). Brandenburg has described the relationship of ARTARIA 207 to the score sketches for Op. 127 as follows:

Trotz der intensive Vorarbeit in den Skizzen, insbesondere in den versuchten „Reinschriften“ auf den 23zeiligen Hochformatblättern in *Artaria 206* ist doch die Niederschrift der Autograph der vier Sätze von op. 127 alles andere als ein simpler Kopiervorgang gewesen. Die zahlreichen Korrekturen in diesen Handschriften sind keineswegs nur auf Flüchtigkeiten- und Abschreibfehler (Verdopplung oder Auslassung) zurückzuführen. Sie sind ihrer Mehrzahl Eingriffe kompositorischer Art; es werden die Lagen einzelner Stimmen verändert, Einsätze vertauscht, Stimmen in andere Instrumente verlegt, rhythmische Komplexe vereinheitlicht oder stärker differenziert, ja sogar Takte eliminiert und andere ergänzt. Äußeres Zeichen dieser Änderungen ist das Durchstreichen und Überschreiben der betreffenden Passagen, das Überkleben von Seiten, die Entfernung von Blättern und dementsprechend die Neuschrift einzelner Takte und Abschnitte auf Einlageblättern. Weniger spektakulär sind die Korrekturen der dynamischen und artikulatorischen Bezeichnungen, von denen ein Großteil erst im Autograph entworfen und anschließend einer sorgfältigen Revision unterzogen worden ist. Doch auch sie sind ein wesentlicher Bestandteil der Komposition, und so zeigt sich auf den verschiedensten Sektoren, daß der Kompositionsprozeß in den Skizzen nicht abgeschlossen ist, sondern sich in den Autograph fortsetzt und selbst noch bis in die Kopistenabschriften hineinreicht. Auch dort hat Beethoven noch Änderungen und Ergänzungen angebracht, obgleich zahlenmäßig gering. Autographen und Abschriften sind daher wie die Skizzen wichtige Zeugnisse für die Genesis des Werkes.<sup>35</sup>

The Biblioteka Jagiellońska identifies Group A as ARTARIA 207 and Groups B, C, D, and E as ARTARIA 206. The physical dimensions of the paper for ARTARIA 207 are described by the Biblioteka Jagiellońska as 24.5 by 31.2 cm. The physical dimensions of the paper for ARTARIA

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<sup>35</sup> “In spite of the intensive preparatory work in the sketches, especially the attempted “fair copies” on twenty-three staff upright format pages in ARTARIA 206, the autographs for the four movements of Op. 127 became something entirely different than a simple version to be given to the copyist. The numerous corrections in these documents in no way derives from hastiness or mistakes made while writing (such as doublings or omissions). They are for the most part interventions of a compositional nature; the setting of individual voices is changed, voicings are exchanged, lines are transferred into different instruments, rhythmic complexes are unified or more strongly differentiated, even some entire measures are eliminated while others are expanded. External signs of these changes include the cancellation of passages with new material being written in the same space, the complete covering of entire pages [with writing], the distance of [written] pages from each other and the sketching of individual measures and sections on an enclosure leaf. Less spectacular are the corrections to dynamic markings and articulation symbols, many of which were not sketched until the autograph and were subsequently subjected to careful revision. Furthermore it seems that an essential part of composing, demonstrated by several sections of the work, was that the compositional process did not end with the sketches, but continued with the autograph and even extended to the manuscripts produced by the copyists. Even there Beethoven made changes and additions, although not as many. Autographs and copies are, like the sketches, important witnesses to the Genesis of the work.” Brandenburg, 268-9.

206 are described by the Biblioteka Jagiellońska as 36 by 34.5 cm for pp. 1-96; and 31.5 by 22.9 cm for pp. 97-112.<sup>36</sup> The authors of JTW (Douglas Johnson, Alan Tyson, and Robert Winter) describe pp. 1-8, 13-50, 67-72, and 77-92 of ARTARIA 206 as paper type 57, with twenty-three staves; pp. 51-58 and pp. 63-66 of ARTARIA 206 as paper type 24, with sixteen staves; and pp. 97-112 of ARTARIA 206 as paper type 18, with sixteen staves.<sup>37</sup> Table 1-2 provides a reproduction of the JTW diagram of ARTARIA 206.<sup>38</sup> Table 1-3 provides a reproduction of Sieghard Brandenburg's diagram of ARTARIA 206.<sup>39</sup> Table 1-4 provides a reproduction of Sieghard Brandenburg's diagram of ARTARIA 207.<sup>40</sup>

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<sup>36</sup> Pp. 106-112 of Group E (ARTARIA 206) are empty.

<sup>37</sup> The authors of JTW provide an extensive listing of paper types in an appendix to the volume, see JTW, 541-63. For a description of ARTARIA 206 see JTW, 471-4.

<sup>38</sup> JTW, 472-4.

<sup>39</sup> Brandenburg, 262-6.

<sup>40</sup> Brandenburg, 270.

Table 3-2

## JTW Diagram of ARTARIA 206

[page]	[quadrant]	[comments]
97/98	3a	p. 97: Opus 123 Gloria p. 98: Opus 127 I
99/100	2a	pp. 99-102: Opus 127, <i>la gaiete</i>
101/102	2b	pp. 102-104: Opus 127 II, early
103/104	3b	
105/106	4b	p. 105: Opus 127 IV, early unused
107/108	1b	pp. 106-112: empty
109/110	1a	
111/112	4a	
51/52	4b	pp. 51-53: II, var. 1
53/54	3b	pp. 53-55: II, var. 2
55/56	2b	pp. 55-57: II, var. 3
57/58	1b	pp. 57-58: II, var. 4
63/64	4a	pp. 63-66: II, var. 1
65/66	1a	
81/82	1a	pp. 81-91: Opus 127 I, complete
83/84	2a	
85/86	2a	
87/88	1a	
89/90	1b	
91/92	2b	p. 92: Opus 127 II, theme
77/78	1b	pp. 77-80, 43-46, 23-24, 21: II, deviating considerably from the final version toward the end
79/80	2b	
43/44	2b	
45/46	1b	
23/24	2a	
21/22	1a	p. 22: empty

Table 3-2  
(continued)

[page]	[quadrant]	[comments]
1/2	1b	pp. 1-8, 33-35: II, complete
3/4	2b	
5/6	1b	
7/8	2b	
33/34	2b	pp. 36, 31, 37-38: corrections to pp. 1-8, 33-35
35/36	1b	
31/32	1a	p. 32: empty
37/38	2a	
17/18	1b	pp. 17-20: Opus 127 III, early draft of 2=47
19/20	2b	
47/48	1b	pp. 47-50: III, early draft from ca. m. 41, with Trio in 2/4
49/50	2b	
27/28	1a	III, advanced draft of 2-138
29/30	2a	
39/40	2a	pp. 39-41: III, Trio in 2/4; sketches for a Trio in 3/4
41/42	1a	
69/70	1a	pp. 69-72: Opus 127 IV, all sections but the coda
71/72	2a	
26/25	2b	pp. 26, 25, 67-68: IV, predominantly two-part draft for the entire movement (early)
67/68	1b	
13/14	2a	pp. 13-16, 9-12: Opus 127 IV, complete
15/16	1a	

Table 3-2  
(continued)

[ 51/52  
[ 53/54  
55/56  
57/58

[ [ 97/98  
99/100  
101/102  
[ 103/104  
105/106  
107/108  
109/110  
111/112

Table 3-3

## Sieghard Brandenburg's Diagram of ARTARIA 206

Hochformat 23 Zeilen

*Vormals Berlin, Preußische Staatsbibliothek, Artaria 206, zur Zeit Krakau, Biblioteka Jagiellońska*

[page]	[quadrant]	[comments]
81/82	1a	S. 81-91 op. 127 I späte, vollständige Niederschrift des Satzes, offenbar als Vorlage für das Autograph gedacht
83/84	2a	
85/86	2a	
87/86 [sic]	1a	
89/90	1b	
91/92	2b	S. 92 op. 127 II sorgfältige Niederschrift des Themas, chronologisch zwischen S. 77-21 und 1-35 anzusetzen
77/78	1b	S. 77-21 op. 127 II frühe Niederschrift mit zahlreichen Korrekturen, nach und nach immer weniger ausgeführt
79/80	2b	
43/44	2b	
45/46	1b	
23/24	2a	
21/22	1a	S. 22 leer
1/2	1b	S. 1-35 op. 127 II späte, sorgfältige Niederschrift des ganzen Satzes, offenbar als Vorlage für das Autograph gedacht, nach und nach flüchtiger und mehr Korrekturen
3/4	2b	
5/6	1b	
7/8	2b	
33/34	2b	
35/36	1b	S. 36 op. 127 II Korrekturen zur vorhergehenden Niederschrift

Table 3-3  
(continued)

[page]	[quadrant]	[comments]
31/32	1a	S. 31, 37, 38 op. 127 II weitere Korrekturen zur vorhergehenden Niederschrift, S. 32 leer
37/38	2a	
17/18	1b	S. 17-20 op. 127 III ungefähr T. 2-47 frühe Niederschrift, gegen Ende nicht mehr kontinuierlich, ohne die Einleitung, die erst im Autograph nachträglich zugefügt wurde
19/20	2b	
47/48	1b	S. 47-50 op. 127 III ungefähr ab T. 41, frühe Niederschrift, Trio in 2/4
49/50	2b	
27/28	1a	S. 27-39 op. 127 III späte Niederschrift des Satzes
29/30	2a	T. 2-138, ohne Einleitung, auf S. 39 abgebrochen
39/40	2a	S. 39-41 op. 127 III Trio in 2/4 und frühe Entwürfe für Trio in 3/4
41/42	1a	S. 42 leer
69/70	1a	S. 69-72 op. 127 IV verschiedene frühe Entwürfe zu allen Teilen des Satzes außer der Coda
71/72	2a	

Hochformat 16 Zeilen

[page]	[quadrant]	[comments]
97/98	3a	S. 97 op. 123, außerdem Eintragen des Neffen Karl; S. 98 op. 127 I einstimmiger „Continuity draft“
99/100	2a	S. 99-102 op. 127 geplanter Satz „la gaiete“
101/102	2b	S. 102-104 op. 127 II frühe Partiturskizzen
103/104	3b	
105/106	4b	S. 105 op. 127 früher Entwurf für ein Finale; S. 106-112 leer
107/108	1b	
109/110	1a	
111/112	4a	

Table 3-3  
(continued)

Verschiedene Querformate

[page]	[quadrant]	[comments]
51/52	4b	S. 51-53 op. 127 II Var. 1
53/54	3b	S. 53-55 Var 2
55/56	2b	S. 55-57 Var. 3
57/58	1b	S. 57-58 Var. 4 frühe Entwürfe, stark von der endgültigen Fassung abweichend
63/64	4a	S. 63-66 op. 127 II Var. 1 mehrere frühe Entwürfe
65/66	1a	

[ [ 51/52  
53/54  
55/56  
57/58

[ [ [ 97/98  
99/100  
101/102  
103/104  
105/106  
107/108  
109/110  
111/112



Table 3-4

## Sieghard Brandenburg's Diagram of ARTARIA 207

*...vormals Berlin, Preußische Staatsbibliothek, zur Zeit Krakau, Biblioteka Jagiellońska, Artaria 207*

(Die dritte Zahlenkolonne gibt... eine alte Paginierung mit Bleistift, wohl von Kopistenhand, wieder)

[folio page]	[quadrant]	[old page number]
1	1b	1/2
2	4b	3/4
3	2b	5/6
4	3b	7/8
5	2a	9/10
6	3a	11/12
7	1a	13/14
8	4a	15/16
9	1b	17/—
10	1a	18/19
11	4a	20/21
12	3b	22/23
13	2b	—/—

Fol. 9r Ersatz für 10r, 9v leer, 13 r und v leer

## CHAPTER 4

### THE PROCESS OF INTERPRETATION AND TRANSCRIPTION

The “Krakow” collection of Beethoven sketches presents two primary types of source materials: relatively complete “drafts” of extended musical passages (sometimes entire movements), and extremely fragmentary compilations of the composer’s work-product, usually described by the term “compositional sketches.” Each type of sketch source provides a unique set of challenges for the transcriptionist. In most instances the analytical arguments suggested in this dissertation derive from transcriptions of selected portions of the sketches; however, in certain cases, the ambiguity and uncertainty expressed by Beethoven’s unusual notational practices will itself form the basis for theoretical observations or textual comparisons.

Some of the specific difficulties that arise during the process of interpreting Beethoven’s sketches include the almost ubiquitous issue of legibility, the problem of identifying and attempting to understand Beethoven’s highly idiomatic marginal annotations, and the struggle to unravel multiple layers of material that at times may have been canceled and then subsequently re-written upon, often in the same portion of the page as the original version. Surprisingly there have been relatively few published studies of Beethoven’s unusual and often indecipherable method of handwriting.<sup>41</sup> Much of the effort that has been undertaken in terms of researching this aspect of the composer’s work tends to have been primarily directed towards determining the chronological variation of certain specific alphabetical characters, or other symbols, across the span of Beethoven’s working career.<sup>42</sup> In the case of the “Krakow” string quartet sketches the

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<sup>41</sup> One of the early attempts to systematically address the issue of Beethoven’s unusual handwriting, as well as the composer’s highly idiosyncratic usage of various abbreviations and symbols, was Max Unger’s “Beethovens Handschrift,” in *Veröffentlichungen des Beethovenhauses in Bonn IV* (Bonn: 1926), 17-25.

<sup>42</sup> Douglas Porter Johnson has provided a detailed summary of the chronological study of Beethoven’s handwriting, especially the development and evolution of several important alphabetical characters and notational symbols, see

question of Beethoven's illegible script is often of paramount importance in regard to the issue of transcription, and thereby the interpretation, of these sketch materials.<sup>43</sup>

The interpretation and transcription of Beethoven's sketch materials, especially nearly illegible sources such as the sketches for the late-period string quartets, requires that a variety of critical strategies and interpretive methodologies be applied to the inherently compound task of first deconstructing the textual source, together with its implied or signified body of internal references, and then meaningfully communicating the critical essence of the composer's textual expression to the reader. Many of the important published studies of Beethoven's sketches differ significantly from each other in terms of their manner of textual interpretation as well as their methods for communicating that interpretation. It is possible to identify three general categories of textual interpretation, at least as the notion of critical interpretation relates to the study of incomplete or discontinuous materials such as Beethoven's sketches for the late-period string quartets; these categories may be described by the terms, *critical interpretation*, *structural interpretation*, and *analytical interpretation*.

*Critical interpretation* describes the most literal process of identifying the musical and literary texts within a manuscript source, a procedure that is of course prerequisite to the process of transcription. *Critical interpretation* attempts to answer the question "what is the *content* of

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Douglas Porter Johnson's *Beethoven's Early Sketches in the "Fischhof Miscellany"* (Ann Arbor, Michigan: UMI Research Press, 1980), vol. 1, 25-64.

<sup>43</sup> My efforts to both transcribe and interpret the "Krakow" sketches have been considerably assisted by consulting the critical apparatus appended to several published editions of Beethoven's sketches, as well as the textual notes included in recently published critical editions of Beethoven's work. Some of the published editions of Beethoven's sketches that include a discussion of the process of transcription include: *Ludwig van Beethoven; Keßlersches Skizzenbuch*, ed. Sieghard Brandenburg (Bonn: Beethovenhaus, 1978), *Ludwig van Beethoven; Ein Skizzenbuch aus dem Jahre 1809 (Landsberg 5)*, ed. Clemens Brenneis (Bonn: Beethovenhaus, 1993), Douglas Porter Johnson's *Sketches in the "Fischhof Miscellany,"* and William Kinderman's *Artaria 195: Beethoven's Sketchbook for the Missa solemnis and the Piano Sonata in E Major, opus 109, transcribed, edited and with a commentary by William Kinderman* (Urbana, Illinois: University of Illinois Press, 2003). The complete works edition of Beethoven's music produced by the Beethovenhaus in Bonn provides extremely detailed discussions of various issues related to the task of textual interpretation, both in the edition's many well written critical notes, as well as its lengthy and thorough descriptions of Beethoven's manuscripts.

the manuscript?” In the case of a musical sketch this process involves the identification of all or most of the inscriptions that are present in the manuscript document. Usually these inscriptions may be classified as representatives of one of the following categories: non-autographical material (i.e. markings that have been placed on the document by individuals other than the primary composer, such as editors, librarians, musicologists, or small children), musical texts, literary texts, and illegible material. Beethoven’s compositional sketches also include a number of elements that I shall refer to as *pseudo-musical texts*, such as musical abbreviations or graphical reductions. Excellent examples of *critical interpretation* may be found in the many published transcriptions of Beethoven’s sketches, especially the editions that include a discussion of the process of transcription.

*Structural interpretation* describes the process of identifying the purpose or purposes that a manuscript source may originally have been intended to serve. *Structural interpretation* attempts to answer the question “what is the *function* of the manuscript?” The specific purposes for which Beethoven may have originally created his compositional sketches are often extremely difficult to determine. In general, the sketches seem to have been intended to function either as autograph texts, especially the extended sketches that are fully or nearly fully notated, or else to have originated as some form of compositional work-product. Lewis Lockwood has applied the term “continuity draft” to Beethoven’s extended or nearly complete sketch manuscripts.<sup>44</sup> Joseph Kerman suggested that Beethoven’s fragmentary and incomplete sketches may derive from a process in which the composer evaluated musical elements through graphical expression, similar to the manner through which most individuals would improvise or experiment at the piano keyboard.<sup>45</sup>

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<sup>44</sup> Lewis Lockwood, “On Beethoven’s Sketches and Autographs: Some Problems of Definition and Interpretation,” *Acta Musicologica* 42 (1970): 32-47, see page 42.

*Analytical interpretation* describes the process of attempting to determine theoretical or hypothetical conclusions concerning either a composer's technical method of creating musical works or specific aspects of the composer's finished musical product itself, derived from the study of compositional sketches. *Analytical interpretation* attempts to answer the question "what is the *meaning* of the manuscript?" Nottebohm's early and extremely influential studies concerning Beethoven's sketches essentially represent a method of *analytical interpretation*, as do the numerous subsequent studies of Beethoven's sketches that were largely derived from Nottebohm's original publications.<sup>46</sup> The research of Phillip Gossett and Maynard Solomon, among others, that has attempted to explore Beethoven's "creative process" may also constitute a method of *analytical interpretation*, since these studies begin with fragmentary sketches and lead eventually to detailed theoretical conclusions regarding the possible technical significance of the sketching process for Beethoven.<sup>47</sup>

After a musical sketch has been sufficiently interpreted, the transcriber must decide to produce a *literal* transcription, a *diplomatic* transcription, or a *critical* transcription. In this dissertation I have provided *critical* transcriptions for both the relatively complete draft-like manuscripts of complete movements, as well as for the smaller incomplete compositional sketches. Since the purpose of these transcriptions primarily relates to the analysis of the content of

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<sup>45</sup> Joseph Kerman, "Beethoven's Early Sketches," *The Musical Quarterly* 56 (1970): 515-38, see page 538.

<sup>46</sup> The work of Paul Mies demonstrates a method of analytical interpretation in which the textual content of Beethoven's sketches is not questioned to any significant extent, although complex and sophisticated conclusions are suggested that relate almost entirely to the various possible types of relationships that may be observed between the sketches and Beethoven's published music. See Paul Mies, *Beethoven's Sketches; An Analysis of His Style Based on a Study of His Sketch-Books*, trans. Doris L. Mackinnon (London: Oxford University Press, 1929).

<sup>47</sup> Philip Gossett, "Beethoven's Sixth Symphony: Sketches for the First Movement," *Journal of the American Musicological Society* 27 (1974): 248-84. Maynard Solomon, "On Beethoven's Creative Process: A Two-Part Invention," *Music & Letters* 61 (1980): 272-83.

Beethoven's sketches, it is the content of the sketches that I have attempted to most directly convey to the reader.

*Literal* transcriptions are rarely necessary for the purpose of analytical study. In many instances, especially in relation to the transcription of fragmentary compositional sketches, a *literal* transcription would require the reproduction of large amounts of non-textual material, including often illegible fragments that may relate to musical texts other than the passage selected for transcription. In a few cases I have included photographic reproductions of selected segments of the sketches as examples within the dissertation.

It is difficult to distinguish between a *diplomatic* and a *critical* method of transcription for a source document that is incomplete and largely illegible, as is the case with most of the material transcribed in this dissertation. I refer to my process of transcription as *critical* because I have at times omitted or altered important elements of the source, usually cancelled measures, illegibly markings, or text that is not related to the musical work in question. A truly *diplomatic* transcription of a nearly illegible document should perhaps attempt to reproduce these graphical elements in some manner. I have concluded that graphical material that is not directly representative of Beethoven's musical text is not necessary for the *analytical interpretation* of Beethoven's primary content material. I have not attempted to provide a performing edition from the sketches, but rather a *critical* transcription of a source that is imperfect and fragmentary. Incomplete measures and incomplete passages are maintained in their partially notated condition and some of the over-notated segments, i.e. passages with multiple and conflicting layers or that include too many rhythmic units for the standard measure, are also maintained. Beethoven's method of beaming and the direction of stems, as well as all slurring and expression symbols, have been carefully reproduced, but the composer's almost ubiquitous practice of placing the stems on

the “wrong” side of the notes has been eliminated. In general, any graphical element that could be relevant to the *analytical interpretation* of the text is included in the transcriptions, while non-textual elements have been removed.<sup>48</sup>

The problem of legibility, that is so much a factor in the *critical interpretation* of the “Krakow” sketches, also affects the higher level modes of interpretation, perhaps even more significantly. If the musical text that is recorded within a manuscript, fragmentary though it may be, cannot be accurately transcribed, then it may not be possible to ascertain the purpose or function that the source document was intended to serve. If the purpose or nature of the manuscript source is unknown, then any theoretical or analytical conclusions derived from this document may not be sufficiently founded upon valid or logical principles, but rather may stem almost entirely from the analyst’s personal conclusions. For that reason, the analyses provided in this dissertation will either be drawn from transcriptions of sketch materials for which almost no doubt could be expressed regarding legibility, or else the complexity and legibility of the source material will be directly addressed and described before any higher level interpretation is suggested.

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<sup>48</sup> William Kinderman has suggested that some of the early transcriptions produced by the Beethovenhaus may have been based upon a too literal method of diplomatic transcription. See Kinderman’s Article “Beyond the Text: Genetic Criticism and Beethoven’s Creative Process,” *Acta Musicologica* 81 (2009): 99-122.

## CHAPTER 5

### NON-LINEAR AND MULTI-LINEAR MUSICAL TIME

Two distinct methods of temporal distortion may be observed in Beethoven's late-period string quartets, in both cases the cognitive perception of distortion derives from the listener's attempt to re-construct or to conceptually maintain a pre-existing structural or genre-based paradigm of continuity.<sup>49</sup> Jonathan D. Kramer has contended that the first movement of the Op. 135 Quartet provides three distinct "structural upbeats," each leading directly to the movements "central climax" in mm. 101-103, see Example 5-1.<sup>50</sup> The relation of these structural upbeats to the singular structural downbeat displays a clear instance of non-linear continuity, since the addition of multiple and non-contiguous "structural upbeats" to the normative sequence, each leading to a single and resultant structural downbeat, necessarily creates multiple "strings" of temporal succession. In the case of the final structural upbeat, the resultant "climax" or structural downbeat actually precedes its preparation.

Musical subjectivity and interpretation are controlled, to a significant extent, by the culture and social environment of the listener.<sup>51</sup> The inherently objective and pragmatic esthetic

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<sup>49</sup> Cognitive psychologists describe the process of learning as the development of successive mental *schemata*, which are systematically tested and altered as necessary in order to accurately describe the flow of stimuli received from the subject's environment. One of the earliest articles to describe mental processing structures as cognitive "maps" was Edward Tolman's "Cognitive Maps in Rats and Men," *Psychological Review* 55 (1948): 189-208. For a more recent discussion of cognitive psychology as it may be applied to the subjective understanding of musical structure, see Mary Louise Serafine, *Music as Cognition: The Development of Thought in Sound* (New York: Columbia University Press, 1988), also see W. Jay Dowling and Dane L. Harwood, *Music Cognition* (New York: Academic Press, 1986). The description of mental *schemata* in the current literature of cognitive psychology shares a number of similarities to Hugo Riemann's discussion of *Vorstellungen*, see Hugo Riemann, "Ideen zu einer 'Lehre von der Tonvorstellungen'" (1914), reprinted in *Frankfurter Zeitschrift für Musikwissenschaft* 2 (1999): 1-31, see also the translation by Robert W. Wason and Elizabeth West Marvin, *Journal of Music Theory* 36 (1992): 69-112.

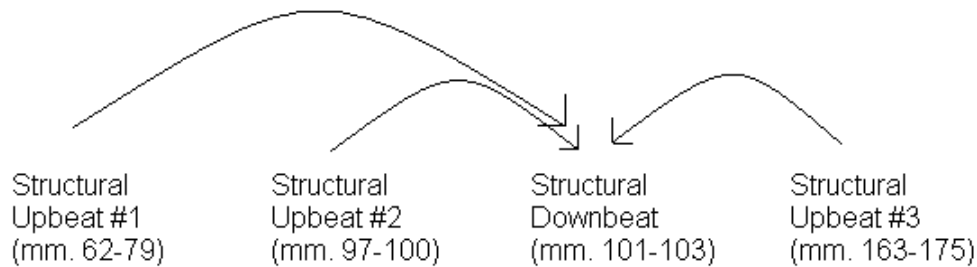
<sup>50</sup> According to Kramer, these structural upbeats occur in mm. 62-79, 97-100, and 163-175, see Kramer, "Multiple and Non-linear Time in Beethoven's Op. 135," 125.

<sup>51</sup> Leonard B. Meyer has described the important role played by culture in the subjective process of perceiving musical continuity, see Leonard B. Meyer, *Emotion and Meaning in Music* (Chicago: University of Chicago Press, 1956), 101.



### Example 5-1

#### Non-Linear Relationship of Structural Upbeats and the Structural Downbeat in Beethoven's Op. 135, First Movement



of the industrial age has in many ways replaced the naturally subjective judgment that is basic to the human condition with a value system derived almost exclusively from mechanical measurement. In regard to the human perception of time, especially musical time, the relationship of exact chronometric “clock-time” to the subjective understanding of an idealized temporal continuity (such as sonata-allegro form) holds a tenuous and superficial connection at best, if indeed there is any association whatsoever between human-centered knowledge of an unfolding cognitive script and the exact scientific measurement and division of time.<sup>52</sup> An hour at the dentist’s office is not the same as an hour at the ice cream store.

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<sup>52</sup> Susan Langer has directly addressed the issue of clock-time vs. subjective time, “For all its logical virtues, this one-dimensional infinite succession of moments [clock-time] is an abstraction from direct experience of time, and it is not the only possible one. Its great intellectual and practical advantages are bought at the price of many interesting phases of our time perception.” Susan Langer, *Feeling and Form* (New York: Scribners, 1957), 111.

Beethoven seems not only to have understood the complexity of subjective time-perception, but to have mastered a technique for directly communicating with the listener through the semantic code of non-linear time. When Beethoven begins a sonata form with a structurally “final” cadence (Op. 135), or requires the listener to jump back-and-forth between development and recapitulation (Op. 127), he is confident that such manipulation of the linear-script corresponds so closely to the listener’s non-linear pattern of cognitive processing that little if any confusion to the fundamental object of consideration, i.e. the theoretical archetype, will be sustained. The traditional “double-dot” repeat of the sonata-allegro exposition may even represent a conventionalized acceptance of the subjectivity of musical time, since it is rarely if ever described as a reprise or *ritornello*, but simply as a “repeat,” assuming that the listener will not object to abruptly shifting his or her place within the idealized formal design.<sup>53</sup>

Kramer’s argument regarding the distortion of form in the first movement of the Op. 135 Quartet essentially derives from his observation that important motivic gestures, normally signifying various place markings within the “script” of the sonata-allegro genre, are arranged out of sequence within the movement. Most significantly, the ending or coda gestures appear at the beginning of the movement. Unlike other methods of distorting the sonata-allegro form archetype, such as the practice of reversing the order of themes during the recapitulation, or Beethoven’s almost universal exercise of conflating “developmental space” with the primary

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<sup>53</sup> If this line of reasoning is continued, it could be concluded that all of the sectional repeats in baroque dance forms constitute some manner of temporal distortion, the exact repetition of a formal unit rarely being understood to create two units in terms of the conceptual archetype, but rather continuing to represent a single unit, regardless of how many times it might be repeated. A number of authors have contributed to the growing body of critical research concerning the issue of subjective musical time, important examples include: Donald Bruce Anthony, “A General Concept of Musical Time with Special Reference to Certain Developments in the Music of Anton Webern” (Ph.D. diss., Stanford University, 1967); Barbara R. Barry, *Musical Time: The Sense of Order* (Stuyvesant, New York: Pendragon Press, 1990); Martin Boykan, *Silence and Slow Time: Studies in Musical Narrative* (Oxford: The Scarecrow Press, 2004); David Epstein, *Shaping Time: Music, the Brain, and Performance* (New York: Schirmer Books, 1995); Alan Marsden, *Representing Musical Time: A Temporal-Logic Approach* (Lisse, The Netherlands: Swets & Zeitlinger, 2000); Thomas Reiner, *Semiotics of Musical Time* (New York: Peter Lang, 2000).

thematic recapitulation, beginning a string quartet with the coda of the first movement leaves the listener without a reference point from which to identify, or even to perceive, a distortion in the formal design. The gestural and motivic association of the coda “theme” in this movement convinces the listener that the concluding portion of the movement has been performed before the thematic exposition. Through this manner of organization Beethoven fragments the listener’s perception of time, but does not significantly alter the idea of sonata form.

Beethoven’s symphonies provide a wealth of inexplicable passages, many of which may be rendered somewhat more susceptible to musical analysis if the possibility of temporal distortion is considered. The well-known “early” entrance of the horn in the tonic key of E-flat, four measures premature, in the first movement of the *Eroica* Symphony represents an almost unambiguous element of temporal incongruity; but does the horn entrance actually occur in the “wrong” place, or does the recapitulation simply begin earlier for the horn player than for the other musicians. The idea of “recapitulation” is ultimately a subjective reality, formulated within the mind of the listener and not an absolute entity correlated precisely to any specific chronometric position. Even if the exact moment of the recapitulation’s beginning were to be understood as a finite reality, it would necessarily represent a communication between the musicians and the listener, the horn player could then presumably initiate this message without the agreement of any other immediate or conceptually complementary musical voices.

Beethoven’s temporal distortions, especially in instrumental works, may often take the form of an apparent attempt to imitate or to reproduce the effects of an inept musical performance. The problematic horn entrance in the *Eroica* Symphony has already been addressed; another often cited example of a through-composed musical “error” occurs in the *Scherzo* of the Sixth Symphony. In this passage the connotation of “rustic” life and even the

direct representation of a poorly trained country band are almost certainly suggested by the drone bass and the *Volkston* of the melodic material. Although the temporal incongruities heard during the *Trio* section of this movement (especially between m. 87 and m. 145) resemble the mistakes that such a country band could easily commit, the listener may readily re-construct the implied metrical order, a temporal adjustment entirely independent of the literal text of the symphony is therefore received and understood by the subjective listener.

It is a possibility that Beethoven, in the same way as Charles Ives, was stimulated by the extreme complexity at times created through the mistakes of instrumentalists during musical rehearsals.<sup>54</sup> In addition to reproducing the dense texture corresponding to such linear-axis “mistakes,” Beethoven may have attempted to explore the possibility of multiple time-points simultaneously performed from the same, essentially intact, musical script. The *Trio* of the Ninth Symphony (in particular the melodic foreground between m. 514 and m. 591) includes a metric disjunction, understood more easily if the possibility of a written-out “mistake” is considered—the performer(s) might be unnecessarily extending the first note of the theme, thus distorting a four measure phrase through the imitation of a musical “error.”

The first movement of the Op. 127 Quartet, often described as a rather simplistic movement in contrast to those of Beethoven’s other late-period quartets, in reality provides a surprisingly sophisticated re-organization of the basic material of sonata-form. A distinctive

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<sup>54</sup> Henry Cowell describes the influence of George Ives’s unusual experiments with poly-tonality, as well as apparently random musical combinations, on the intellectual development of his son, the composer Charles Ives: “He [George Ives] liked, however, to try out new sound relationships with the material at his command—his band, his students, his family and friends. He was intrigued by musical happenstance, welcoming and examining the peculiarities of accidental rhythmic and tonal collision, as when two children played finger exercises in two different keys in adjacent houses, or when a passer-by whistled down the street while his wife, Mary Ives, sang a hymn in the kitchen—all audible to George Ives, standing between them, and interesting. Some such collisions he later arranged himself ... They remained in his son’s mind as possible patterns for broader musical development, and later on this is what he gave them.” See Henry Cowell, *Charles Ives and his Music* (New York: Da Capo Press, 1955), 11-12.

“frame” (mm. 1-6) begins the work and provides a firm textual division, ostensibly separating three distinct parts of the movement: exposition, development, and recapitulation. The development, however, inconveniently does not remain within its provided borders. Unlike other works, in which the development may be said to “spill over” or to co-exist with the recapitulation, in this quartet the dramatic presentation of the “frame” disallows any easy explanation of a blurred division between the two form sections. The listener is required to switch from hearing the start of the recapitulation at m. 135 to hearing the continuation of the development in mm. 147-166. Amazingly, the practical result is strangely easy to follow in terms of musical logic, perhaps because Beethoven has so masterfully managed our perception of this rather significant time distortion.

The fluidity of subjective time, required by Beethoven’s non-linear and multi-linear projections of traditional formal scripts, closely resembles Saint Augustine’s supposition that both past and future time, at least in terms of the human perception of these quantities, are functions of present time alone.<sup>55</sup> Augustine answered the question of God’s presumed temporal omnipresence by suggesting that only present time possesses an essential reality, i.e. that recollection of the past and speculation about the future are both actions occurring in the present time; God’s perfect condition, therefore, involves only an existence within an “eternal” present, since God could not have pre-dated his own creation.<sup>56</sup> In Beethoven’s complex distortions of form, relative to clock-time, all the phases of a conceptual script may co-exist simultaneously, although the archetype retains its temporal continuity.<sup>57</sup>

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<sup>55</sup> For a brief summary of Augustine’s understanding of “time” see Bertrand Russell’s *A History of Western Philosophy* (New York: Simon & Schuster, 1945), 352-5. Augustine’s definition of “time” is found in *Confessions*, chapter 20.

<sup>56</sup> “There are, he [Augustine] says, three times: ‘a present of things past, a present of things present, and a present of things future...’ time is subjective: time is in the human mind, which expects, considers, and remembers,” Russell, 354.

<sup>57</sup> The possibility of non-linear referentiality within a musical work, derived entirely from the conceptual

Non-linear temporal distortion may be perceived when an existing strand of continuity, for example “D-B-C-A” appears in the place of a conceptually normative sequence, such as “A-B-C-D.” Multi-linear temporal distortion, however, is understood when both the absolute time-space of an element and its conceptual time space co-exist and continue to generate antecedent temporal “strings” derived from each of their possible continuity-place projections, in other words, a multi-linear temporal distortion might be observed in the Op. 135 Quartet if the “coda” gesture at the beginning of the movement is understood not only to represent the function of the coda within the sonata allegro form-script, but also to simultaneously function as the introduction, thereby establishing a plurality of conceptually possible “maps” to the archetypal form-script, all of which unfold within a single formal design. Multi-linear continuity may be found in the works of many nineteenth and twentieth-century composers. The second movement from Brahms’s First Symphony, for example, is the product of a significant revision to the work’s original formal logic.<sup>58</sup> David Brodbeck has suggested that the clarinet theme in mm. 42-47 represents an allusion to a similar clarinet melody from the second movement of Schubert’s “unfinished” Symphony, mm. 66-83 in Schubert’s work.<sup>59</sup> In addition to the possible intertextual

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understanding of a work’s “beginning,” “middle,” and “ending” has been addressed by the composer John Cage, “we not only can go forward in time but we are able to go backwards in time... if music is conceived as an *object*, then it has a beginning, middle, and end, and one can feel rather confident when he makes measurements of the time. But when it [music] is *process*, those measurements become less meaningful.” (Cage suggests that in a musical *process*, it is often difficult or impossible to determine whether the conceptual direction of musical motion is “forward” or “backward;” Beethoven’s complex formal *processes* share this ambiguity of directional polarity, yet often manage to simultaneously reference the musical “object” of the sonata-form archetype), see John Cage, “Interview with Roger Reynolds,” in *Contemporary Composers on Contemporary Music*, ed. Elliot Schwartz and Barney Childs (New York: Holt, Rinehart, and Winston, 1967), 340.

<sup>58</sup> Brahms’s substantial revision to the second movement of his First Symphony has been the subject of thorough investigation, see Raymond Knapp’s “Brahms’s Revisions Revisited,” *Musical Times* 129 (1988): 584-8, and Michael Musgrave’s “Brahms’s First Symphony: Thematic Coherence and its Secret Origin,” *Music Analysis* 2 (1983): 117-33.

<sup>59</sup> David Brodbeck describes the allusive association between the clarinet themes of Brahms’s First Symphony and Schubert’s “unfinished” Symphony in *Brahms: Symphony No. 1* (Cambridge: Cambridge University Press, 1997), 52.

association of these two themes, Brahms's allusion may also suggest an element of semiotic formal substitution, similar to Beethoven's non-linear reference to sonata form in Op. 135. Since Schubert's clarinet melody functions as a true second-group theme in the "unfinished" Symphony, while Brahms's theme appears within the "B" section of a ternary form, the second movement of Brahms's First Symphony, at least in its final and published version, suggests or references an individual segment of the sonata-allegro formal archetype, without providing the actual sonata form itself. The gestural suggestion or allusion to a sonata-form *Gesangsthema* in this movement creates one of many multi-linear strands of continuity within the very complex "map" of perceived form and subjective formal association in Brahms's First Symphony.

Any attempt at a programmatic or narrative analysis of Richard Strauss's symphonic poem *Also sprach Zarathustra* seems to require a multi-linear approach to the re-construction, or reconciliation, of the work's musical text to its self-reported literary source. The struggle between two primary key areas, C major and B minor, is nowhere resolved more decisively than in the work's triumphant C-major introduction, sharply contrasting to the genre expectation of C-major symphonies with extended tonal conflicts, such as Beethoven's Fifth Symphony or Brahms's First Symphony, which normally conclude with the work's definitive acquisition of the primary tonal area. Whether the programmatic meaning of the tone poem is understood to represent Darwin's process of natural selection or Nietzsche's "path" to the *Übermensch* the work's triumphant introduction, together with its uncertain and languid conclusion, strongly implies some aspect of multi-linear continuity.<sup>60</sup>

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<sup>60</sup> For a discussion of Richard Strauss and the programmatic interpretation of *Also sprach Zarathustra* see Charles Youman's article "The Private Intellectual Context of Richard Strauss's *Also sprach Zarathustra*," *19<sup>th</sup> Century Music* 22 (1998): 101-43.

Multi-linear organization may be understood to function in a number of the works from the Second Viennese School, especially Schoenberg's Op. 19, No. 1 and the first movement of Webern's Op. 29.<sup>61</sup> Multi-linear continuity is achieved in these works through the association of individual pitches, or structural "cells," to non-adjacent motivic groupings, the relationship between these disjunct elements largely determined through the establishment of recurring motivic patterns, or through the tendency of isolated pitches to conceptually group together with chromatically neighboring pitch classes.<sup>62</sup>

A different type of multi-linear distortion may be observed in the case of the frequent and apparently incongruous layers of metrical dissonance present in Beethoven's instrumental music. In the *trio* of the third movement from the Sixth Symphony the woodwind soloists seem to be freely distorting melodic material in order to re-acquire metrical stability after a series of apparent "errors." A possible archetype for the melody in mm. 91-98 is provided in Example 5-2. In m. 94 the oboe soloist appears to augment the rhythmic values of both the  $f^2$  and the  $g^2$  relative to the archetype in order to synchronize the conclusion of the phrase with the bassoonist's entrance in m. 95. The bassoonist may himself have been lost, at least at the conceptual level, until his possibly belated entrance more than half-way through the phrase.<sup>63</sup> If the melodic pattern is subject to distortion through the imitation of a performance-type error, then the poly-metric texture in effect before the "error" is corrected at m. 94 requires the listener to accept a small scale time

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<sup>61</sup> See Jonathan D. Kramer's discussion of multi-linear continuity in atonal music in *The Time of Music*, 170-200.

<sup>62</sup> For an explanation of connectivity between individual pitches in atonal music through disjunct voice-leading see Roy Travis, "Directed Motion in Schoenberg and Webern," *Perspectives of New Music* 4 (1966): 85-9.

<sup>63</sup> Both the oboe and bassoon, however, are one measure short of completing a "normal" eight-measure phrase, the standard phrase length being strongly suggested by the implied harmonic rhythm of the bassoonist's cadential figure, as well as the initial eight measure harmonic pattern of the violins' accompanimental material. Perhaps an extra measure from the archetype should be understood to follow m. 95 in the oboe part, omitted by the oboist after the pre-mature entrance of the bassoon. When this phrase is repeated in m. 114 there is a suggestion that the clarinet may have expected the phrase to consist of eight full measures.



## Example 5-2

### A Possible Melodic Archetype for Mm. 91-8 of Beethoven's Sixth Symphony, Third Movement



Possible Melodic Archetype



distortion—the same kind of temporal distortion that is always produced when a performer omits material or lengthens note values in order to re-synchronize with an ensemble after the occurrence of an error. This is not a disruption to the large scale form, but a local displacement of metrical organization, inherently derived from the conflation of temporal continuities.

Essentially the same phenomenon of small scale time disruption may explain the unusual metric distortion of the *Trio* of the second movement from the Ninth Symphony. A possible archetype for the melodic material found in mm. 514-523 is provided in Example 5-3. In this example the degree of rhythmic distortion is considerably greater than in the previously discussed passage from the Sixth Symphony and there is no apparent logic to justify the imitation of a performance-type “error.” Moreover, the “error” is repeated in every re-iteration of the motivic unit. If this is a reference to the inherent rhythmic ambiguity associated with musical performance, then it is a considerably mannered and stylized allusion, in which the idea of

incessantly projecting the “error” strongly overpowers the thought of realistically portraying the ephemeral metric discontinuity of a normative yet imprecise performance. Considering the sharp metrical dissonance between the theme of the *Trio* and its rhythmic accompaniment, the listener must re-unite two independent temporal strands on an entirely subjective basis.

### Example 5-3

#### A Possible Melodic Archetype for Mm. 514-23 of Beethoven’s Ninth Symphony, Second Movement

Text Version



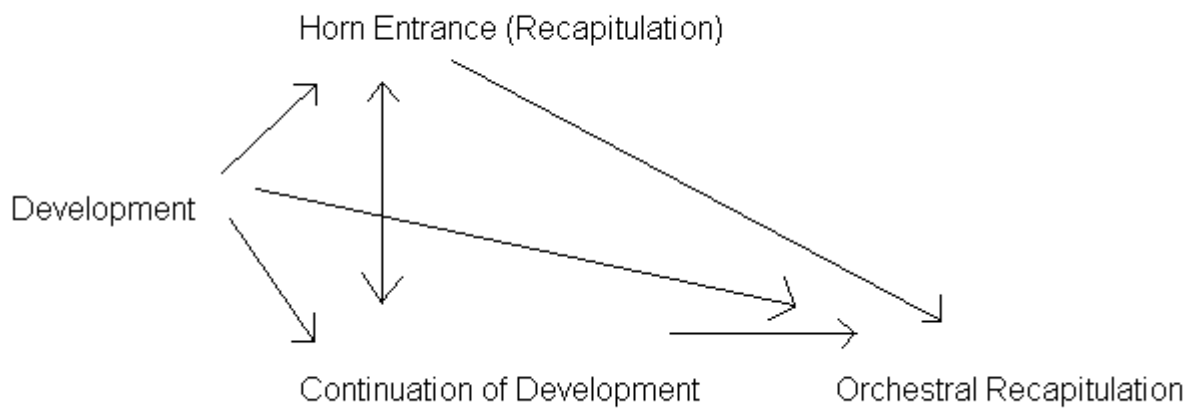
Possible Melodic Archetype



In contrast to the intensity of the cognitive disruption implied by the *Trio* from the Ninth Symphony, a slightly less complex method of multi-linear continuity is projected in the *Eroica* Symphony by the early entrance of the horn near the recapitulation of the first movement. This passage achieves a multi-linear texture through the plurality of gestural time-markers received by the listener at the same location within the work's ostensible clock-time progression. Continuation of the sonata-allegro form-script after the point of multiple signification necessarily establishes a multi-linear continuity, see Example 5-4.

#### Example 5-4

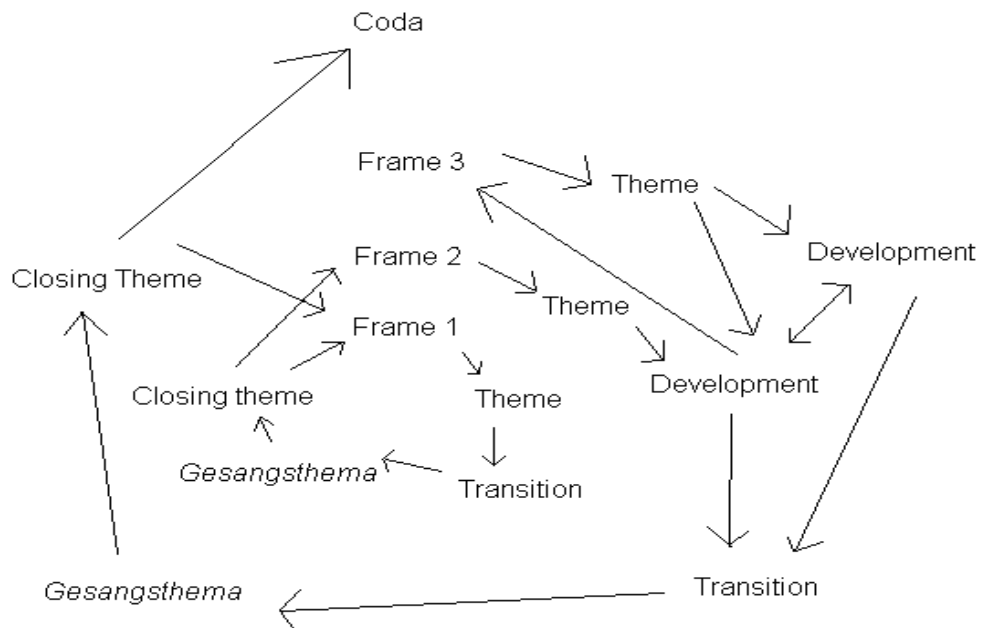
##### Multi-Linear Continuity Related to the Early Horn Entrance in the *Eroica* Symphony



Beethoven's capacity to weave an extremely complex web of multi-linear continuity may be observed in no better example than the first movement of Op. 127. The distinctive frame (mm. 1-6) from the movement's opening articulates an unambiguous division between formal sections each time it appears. Rotational form is thus suggested by the place-marking function of the frame, yet rotational continuity is undermined by the unusually strong suggestion of returning to a repetition of the first rotation, rather than a true continuation at each appearance of the frame, due to the abrupt and non-contextual quality of the frame's entrances, especially in m. 135, see Example 5-5. Additionally, a further layer of multi-linear continuity is produced by the continuation, harmonically and thematically, of the development section after the announcement of the primary recapitulatory articulation at the third appearance of the frame.<sup>64</sup>

### Example 5-5

#### Multi-Linear Continuity in the First Movement of Op. 127



<sup>64</sup> I refer here again to the surprising re-appearance of the frame in m. 135.

Perhaps the most effective quality of Beethoven's technique of temporal distortion is its inherent ability to maintain a level of tension throughout an extended musical span by leaving the listener in considerable doubt regarding both the extent to which the formal archetype may be disrupted, as well as the specific formal positioning of any particular time-point within the large-scale formal script. After the first "rotation" is completed the listener may expect the organization of thematic material to function as follows: frame, theme, transition, *Gesangsthema*, closing theme. Since the second "rotation" provides developmental material in place of the transition, the listener may assume that the second "rotation" represents the development section. The abrupt entrance of the frame in m. 135, however, creates a true moment of temporal disruption, since the apparently complete progression of the first "rotation" allowed the listener to assume that the frame would only re-enter after the orderly conclusion of a formal section. The listener is therefore surprisingly transferred from one conceptual location within the form-script to another, as if the listener had fallen asleep and missed the conclusion of the development. The third "rotation," after the appearance of the frame and the theme, continues the unfinished business of the development, requiring the listener, quite late in the course of the movement, to abandon the idea that the frame establishes meaningful formal boundaries. Despite the dramatic entrance of the frame in mm. 1-6, the listener must ultimately conclude that, to speak anthropomorphically, the frame is either unwilling or unable to control the formal structure of the movement and is therefore not a signifier of formal control, but rather an element of multi-linear formal disruption.

Ultimately, Beethoven's most significant method of time distortion may be understood to derive from his complex contrapuntal texture of internal motivic generation and repetition,

similar to the techniques described as “continuing variation” or *Grundgestalt*.<sup>65</sup> In the first movement of Op. 127 the portion of the frame heard in mm. 5-6 may be understood as a version of the same motive as mm. 1-2 and 3-4; however, in mm. 5-6 time seems almost to stop as the first violin spins out a small cadenza in place of the *tutti* eighth-note of the motive’s two previous iterations. During the theme (mm. 7-22) it may be observed that that the second violin and viola are not actually accompanying the melody, but rather attempting to play the melody itself. The two internal voices frequently match the first violin with a brief unison interval or a short passage of octave doubling, in a manner that Joseph Fux would certainly not advise.<sup>66</sup> On occasion the second violin does indeed manage to “catch-up” and joins the first violin at the octave, mm. 18-22, while in mm. 14-17 the viola and second violin actually beat the first violin to the opportunity of performing the theme, until the first violin itself “catches-up” in m. 18. What is significant about this passage is that the two internal voices apparently derive from a temporal distortion of the melody, as if they were unable to match the metrical pulse of the first violin, and therefore, in place of a true accompaniment, perform a strange rhythmical “gloss” or “trope” of the melody.

All of the movement’s thematic segments, such as the transition and the *Gesangsthema*, motivically derive from the theme. Thematic unity is established not only by the similarity of the structural motives to each other, but also by the strong correlation between thematic declamation and musical texture that is characterized primarily by metric competition between individual voice-parts. The inability of the voices to achieve a stable metrical organization during the

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<sup>65</sup> The theory of “developing variation” is described in Walter Frisch’s *Brahms and the Principle of Developing Variation* (Berkeley, California: University of California Press, 1983). For an explanation of Arnold Schoenberg’s concept of *Grundgestalt* see the dissertation of Graham Phipps, “Schoenberg’s *Grundgestalt* Principle; A New Approach with Particular Application to the Variations for Orchestra, Op. 31,” (Ph.D. diss., University of Cincinnati, 1976).

<sup>66</sup> For example, the second violin momentarily doubles the first violin on consecutive downbeats in mm. 7, 8, 9, and 10. The viola occasionally seems to anticipate important pitches of the first violin’s melodic line, for example on the second beat of m. 8.

process of thematic re-generation may partially explain the abandonment of the development in m. 135 in favor of the *tutti* frame. In mm. 28-40 of the transition there is a noticeable struggle to decide which measure is the hyper-metrical downbeat—it is finally decided by a plurality vote in m. 37, as the first violin and viola join together in unison. In the closing theme, mm. 65-74, there is another similar disagreement concerning the hyper-metrical downbeat. These small-scale time disruptions function in the same manner as the apparent imitation of performance-type “errors” in the symphonic *trios* previously discussed, requiring the listener to consciously decode the temporal disruption and to actively re-conceptualize the uncorrupted theoretical formal archetype.

Beethoven’s complex musical language appears to freely draw upon the subjective listener’s ability to comprehend and to internalize non-linear and multi-linear temporal continuities. Time distortion, often achieved through the manipulation of the listener’s expectation of gestural and formal continuity, or through the listener’s tendency to re-construct coherent metrical stability, allows Beethoven to re-locate musical meaning from its conventional placement within the text to a point inside the mind of the subjective listener. A central characteristic of the post-modern esthetic, whether encountered in experimental works of the twentieth century, or in Beethoven’s considerably more radical post-modernist expressions, is the de-stabilization and fragmentation of the temporal dimension. Acceptance of both small and large scale temporal distortion, in relation to chronometric or absolute time, is required to fully understand many of Beethoven’s most complex instrumental works, allowing the subjective listener to maintain the conceptual continuity of formal archetypes, while standing outside of the musical work and actively re-creating its meaning.

## CHAPTER 6

### TEMPORAL DISCONTINUITY AND THE LATE-PERIOD WORKS OF BEETHOVEN

The existence of music requires the finite existence of time. Just as a musical work must be constructed within the mind of the subjective listener in order to exist, a finite and specific quantity of time must also be constructed subjectively, thereby establishing the reality of the musical object and the temporal object as fundamentally equivalent entities. As Frank Samarotto has observed, “music *creates* time.”<sup>67</sup>

Beethoven’s music, especially the late-period works, seems to rely heavily upon the manipulation of musical time. One of the principal techniques for the control and organization of musical temporality is the frequent appearance of very sudden changes in tempo. In the first movement of Op. 127 this may be clearly heard in the juxtaposition of the *maestoso* opening frame, together with its subsequent re-appearances, in contrast to the *allegro* tempo of the main body of the movement. Although the primary analytical focus of this dissertation is concerned with the linearity of musical time and the significance in terms of both narrative and formal continuity that any distortion to normative musical time implies, the rhythmic and metric distortion inherently created by Beethoven’s extreme shifts in tempo in themselves fundamentally alter the listener’s ability to meaningfully interpret the temporal structure of a musical work, and thereby create the necessary perception of “markedness” that allows for a subjective impression of non-linear or multi-linear musical temporality.

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<sup>67</sup> “Music mediates time for us, presents it to us in a structured form. It is probably truer to say that music *creates* time for us, or at least creates a kind of time that we can sensuously experience, with which we can have a tangible relationship. Music is ultimately a metaphor for our experience of time, or better, what it is like to have experiences within time.” Frank Paul Samarotto, “A Theory of Temporal Plasticity in Tonal Music: An Extension of the Schenkerian Approach to Rhythm with Special Reference to Beethoven’s Late Music” (Ph.D. diss., City University of New York, 1999), 1-2.



Perhaps a connection could be made between the “markedness” or re-designation of large-scale formal sections that these sudden changes of tempo create and the distortion to the harmonic and metric organization within the level of the phrase that are generated by Beethoven’s unusual thematic and motivic rhythmic structures. Schenker has discussed the interaction between harmony and meter, suggesting that harmonic motion generally supersedes the importance of foreground rhythmic patterns, especially if the foreground rhythm is comprised of unusual or asymmetric motivic devices.<sup>68</sup> An acceptance of the general supremacy of harmonic directionality to foreground rhythm permits the creation of conceptually normative forms of a phrase that differ from the phrase’s actual musical text, derived entirely from general principles of harmonic voice leading.<sup>69</sup>

It was Heinrich Schenker’s opinion that counterpoint generates rhythm, that the various layers of voice leading structure within a segment of tonal music create a necessary hierarchical arrangement that may be translated into a metrical pattern. In other words, the functional sequence of harmonic progressions within any structural unit reveals a pattern, and usually a duple pattern, of relative salience. According to Schenker, “the roots of musical rhythm... lie in counterpoint.”<sup>70</sup>

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<sup>68</sup> See §47 from Heinrich Schenker’s *Der freie Satz*, Vol. III of *Neue musikalische Theorien und Phantasien* (Vienna: Universal Edition, 1935); second edition, ed. Oswald Jonas (Vienna: Universal Edition, 1956); *Free Composition*, trans. Ernst Oster (New York: Longman, 1979). [Hereafter this source will be referenced by the abbreviation “FC”]. See also Schenker’s analysis of Mozart’s K. 550, third movement in *Das Meisterwerk in der Musik II*; translated by William Drabkin (Cambridge: Cambridge University Press, 1996), 87.

<sup>69</sup> See William Rothstein’s dissertation “Rhythm and the Theory of Structural Levels,” (Ph.D. diss., Yale University, 1981), 138-47. See also Joel Lester, *The Rhythms of Tonal Music* (Carbondale, Illinois: Southern Illinois University Press, 1986), 197-8.

<sup>70</sup> “The descending fundamental line and the melodically rising bass constitute the first example of two linear progressions in contrary motion; this motion, regulated according to strict counterpoint, indicated the path for what follows... the necessity to create a balance between the tones of the linear progressions, which may differ in number, leads for the first time to an intrinsically musical rhythm... the roots of musical rhythm therefore lie in counterpoint... at the later levels rhythm undergoes corresponding changes until, still anchored in counterpoint, it receives its final form in the foreground, by the addition of meter,” FC §67.

Frank Samarotto has proposed an analytical system, known as the temporal plasticity framework, derived from an interpretation of Schenker's understanding of meter and rhythm.<sup>71</sup> In Samarotto's theoretical construction six distinct elements of rhythmic and metric perception are identified: uninterpreted pitches, uninterpreted durations, tonal structure, rhythmic structure, tonal hierarchy, and metric hierarchy.<sup>72</sup> Analysis of the perceived disagreement or dissonance between any of these elements results in a conceptual state that Samarotto refers to as temporal plasticity.

The elements of the temporal plasticity framework are in a constant state of tension within the mind of the listener. As the listener attends to one element or another the contradictions between these elements are perceived in fluctuating levels of intensity. These conflicts between contrasting elements of the framework, or more precisely the listeners attempt to resolve the implied structural ambiguity, creates the process of conceptual "plasticity" between independent layers of perceived structure.<sup>73</sup>

It is interesting to note that Schenker considered an upbeat, at any structural level, to inherently imply the "heightening of... conflict between rhythm and meter."<sup>74</sup> The greatly extended harmonic anacrusis that begins the second movement of Op. 127 could then be understood to generate the temporal plasticity that derives from the conflict of contrasting elements, not only through its ambiguous harmonic conflation of tonic and dominant harmony at the foreground level, but more fundamentally through the very positioning of such a significant

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<sup>71</sup> Samarotto, 41-62.

<sup>72</sup> Samarotto, 41. It is also possible to represent the six elements of the Temporal Plasticity Framework as the six axes of a three dimensional cube.

<sup>73</sup> Samarotto, 41-62.

<sup>74</sup> FC, §296.

background level structural upbeat. This structural anacrusis also asserts a clear expansion to the expected length and significance of an upbeat figure, thereby creating a number of uninterpreted pitches at surprisingly deep layers of the voice-leading structure, thus increasing the effect of temporal plasticity.<sup>75</sup>

Although the extensive initial dominant upbeat at the beginning of the second movement of Op. 127 appears to represent an expansion, it is a complex question of formal referentiality to ask what if any musical prototypes there are to which this structural anacrusis may be compared. Normally a musical passage, whether a brief foreground figure, or an important structural element, may only be described as an expansion if it is more lengthy than an analogous prototype, either in the same musical work or within a theoretical generic paradigm. In this case, the initial structural anacrusis may not simply be judged to be lengthier than the generic paradigm, because non-tonic openings are not inherently contrary to conventional formal expectations; rather, the extent of the dominant upbeat is perceived as lengthier than the foreground anacrusis in mm. 0-2. It is therefore both the “plasticity” of the conflict between rhythm and meter inherently established by the placement of the anacrusis figure, as well as the multi-linear temporal disjunction of multiple and conflicting layers of dominant-to-tonic harmonic scripts, that create the conceptual prototype to which the background-level anacrusis is perceived as an expansion.

Samarotto’s temporal plasticity framework may also be applied to the second movement of Op. 127.<sup>76</sup> If the rhythmic pulsation of the accompanimental pitches in mm. 0-2 are considered it becomes apparent that the most direct method for finding a tonal or metric

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<sup>75</sup> See FC, §297.

<sup>76</sup> See Frank Samarotto’s analysis of the Minuet form Mozart’s String Quintet in C Major, K. 515. Samarotto, 81-95.

hierarchy from these pitches is to suggest a duple pattern of organization. The pitches that do not easily fit into this pattern are the initial four notes of the foreground anacrusis figure in the first violin part in m. 2. The d flat<sup>1</sup> may be removed from the analysis since this pitch functions as part of the opening harmonic arpeggiation of the lower voices, but there are still too many pitches in the first violin part for a clear duple organization. The opening impulses in the arpeggiation figure establish the duple pattern of organization, especially if it is considered that each of these notes is played twice. Not until the actual anacrusis figure in the first violin part does the duple pattern dissolve, and then only in that voice part, since the other instruments again play their chord tones twice during the first violin's melodic upbeat. Although the final three notes of the first violin's opening anacrusis gesture is itself a very stable generic reference (sol-la-ti), the conflict between duple and triple tonal and metric hierarchies tends to establish the incongruity and therefore the structural salience of the opening dominant harmony and its surprisingly strong effect of temporal discontinuity.

In the case of the opening of the quartet's first movement it is not primarily an implied expansion or distortion to the background level harmonic-metric structure that creates the element of multi-linear temporality, although there is an important element of metric destabilization in m. 6, but rather the abrupt foreground shifts in tempo and texture established by the appearance and re-appearance of the initial frame (mm. 1-6). Beethoven's frequent insertions of rhythmically disjunct slow-tempo passages in his music certainly represent one of the composer's most characteristic stylistic features. William Kinderman has suggested that these parenthetical interruptions create the effect of a "suspension in time... or the enclosure of one time within another."<sup>77</sup> In the first movement of Op. 127 the internal re-appearances of the

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<sup>77</sup> William Kinderman, *Beethoven* (Oxford: Oxford University Press, 1995), 220.

opening frame do not directly function within the work's distinctively clear hypermetrical organization, yet they provide an important aspect of the movement's tonal structure and voice-leading progression; therefore, not only an effect of temporal plasticity is created through this conflict of background level rhythm and metrical source-material, but also an effect of multi-linear continuity, since material that must be considered "outside" of the meter significantly interacts with the rhythm of the background-level structure.

The rhythm of the *maestoso* itself establishes a somewhat plastic metrical pattern. Since the only changes in harmony occur on the second eighth notes of the second and fourth measures, a 5 + 3 eighth note rhythm is presented, which is of course a manipulation of a duple pattern such as 4 + 4.<sup>78</sup> This uneven meter is suspended at the trill in m. 6, the rhythmic ambiguity of the trill providing a transition into the *allegro* theme.<sup>79</sup>

The opening *maestoso* serves not only as preface to the movement, but as distancing reformulation that separates the listener from external reality, but also from the time-scheme of the body of the movement.<sup>80</sup> The contrast of meaningfully separated temporal planes is in fact not entirely new in Beethoven's instrumental music, but rather was a standard element of both vocal and instrumental music since at least the sixteenth century. Many of Beethoven's most astonishing instrumental effects may derive from the partial imitation of operatic gestures, in this case the simulation of an operatic-style recitative rhythmic scheme also suggests the narrative

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<sup>78</sup> See William Kinderman's discussion of the metrical instability of the *maestoso* frame; Kinderman, 285-6.

<sup>79</sup> Henrich Christoph Koch discussed the technique of interrupting or manipulating the normal metrical structure [*angenommene metrisches Bewegung*] of a short musical passage. See Nancy Kovaleff's translation of Koch's *Versuch einer Anleitung zur Composition* (New Haven, Connecticut: Yale University Press, 1983), 76-8.

<sup>80</sup> "The quartet opens with a thematic statement suggestive of a motto: a six-bar *Maestoso* segment featuring rising melodic fourths leads to a sustained trill. Only then, at the *Allegro*, does Beethoven strike a more intimate tone: *teneramente, sempre piano e dolce*... This thematic juxtaposition embodies a shift from a receptive, distanced gesture in the *Maestoso* to the more direct and spontaneous character of the *Allegro*." Kinderman, 285.

persona of the recitative-voice, the persona who is commenting upon a referenced reality that is external to the recitative itself.

Musical texts suggesting a complex or compound authorial voice, in terms of composer vs. narrator, evoke the illusive quality of inherently internal interpretation within the level of the narrative itself, or at least within the wider narrative construct; an idea which might be described as the reception or understanding of the narrative text by the narrator.<sup>81</sup> Lawrence Kramer has characterized narrative as “an act of continual reinterpretation.”<sup>82</sup> This line of reasoning assumes an independence of subjective *personae* within a single narrative text.<sup>83</sup>

The issue of voice in instrumental music has effectively been addressed by Edward T. Cone’s modern rendering of Aristotle’s three-part classification of poetic genres: “the lyric, dramatic, and narrative (for example, epic) modes. In the lyric, the poet speaks in his own voice; in the drama, he speaks only through the voices of his characters; in the narrative, he combines both techniques.”<sup>84</sup> The question of “persona” may then be raised regarding both the dramatic and epic categories, the author appearing to create a first-person voice distinct from the authorial persona itself.<sup>85</sup> In the case of the first movement of Beethoven’s Op. 127 the instrumental first-

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<sup>81</sup> “In his book *Allegories of Reading*, Paul de Man suggests that language is literary to the extent that it acknowledges and confronts its own rhetorical (i.e., inescapably figurative) character. If de Man is right, then it should be characteristic of literary narrative to foreground the process of narration—to tell, in effect, two stories: one referential, the other a story about storytelling. . . . The result is a certain dissonance between story and metastory,” see Lawrence Kramer, “‘As if a Voice Were in Them’: Music, Narrative, and Deconstruction,” in *Music as Cultural Practice, 1800-1900* (Berkeley, California: California University Press, 1990), 186. The reference is to Paul De Man’s *Allegories of Reading* (New Haven, Connecticut: Yale University Press, 1979), 3-19.

<sup>82</sup> Kramer, 183.

<sup>83</sup> “In principle, at least three distinct types of subject-position may operate within any literary narrative: that of the narrator(s), that of the person(s) whose experience or point of view focuses the narrative, and that of the fictive or projected author, who seeks (not always successfully) to integrate and interpret the others.” Kramer, 186.

<sup>84</sup> Edward T. Cone, *The Composer’s Voice* (Berkeley, California: University of California Press, 1974), 1. T.S. Eliot has also suggested an adaptation of Aristotle’s division of poetic genres, see Eliot’s *The Three Voices of Poetry* (London: Cambridge University Press, 1953).

<sup>85</sup> “One principle is clear: the persona is always to be distinguished from the composer. We must recall here the difference between the John Keats who tells us of hearing the nightingale and the John Keats who wrote the poem. The

person voice maintains separation from both the narrative text, i.e. the musical text of the quartet itself, and the authorial voice of the composer, since the author of the quartet may not claim the same degree of separation from the musical text as might be ascribed to the narrative voice or persona.

Ultimately it is the idea of “disjunction” which separates narrative from the dramatic and lyric modes of expression, usually obtained through a clear division between at least two time-spaces, one associated with the narrator or narrative persona, and one associated with the narrative text itself. An example, perhaps a rather simplistic one, may be demonstrated when “I,” the narrative persona, tell you the story of my fishing trip that took place last week. In this situation my current time-space, the time in which I am telling the story, is clearly separated from the time space in which my fishing trip took place, understood to represent “last week.”

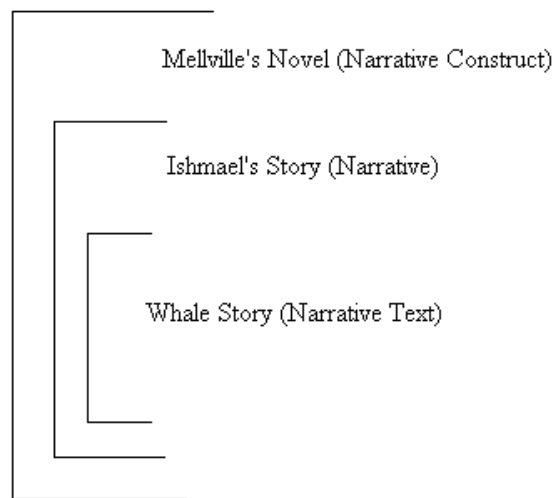
Herman Melville’s ingeniously economical narrative invocation “Call me Ishmael” immediately creates a dichotomy between two distinct voices, Ishmael’s voice and Melville’s voice. The subsequent text quickly supplies the required disjunction between Ishmael’s time-space and that of the whale story itself. Prose narrative usually begins with a clear time-separating formula such as “once upon a time,” *Es war einmal*, or “Let me tell you about my fishing trip,” but Melville’s more sophisticated voice-separating formula accomplishes an immediate plurality for the subjective voice of the narrative construct.

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same distinction applies to program music. Even if we decide that the subject experiencing “cheerful feelings on arrival in the country” is a character named Ludwig van Beethoven, this Beethoven is not the composer. He is an artistic construct—a self-portrait, as it were—through whose reactions Beethoven the composer conveys his message to us,” Cone, 84. Cone extends this idea to prose fiction, a genre which frequently relies upon narrative construction: “Prose fiction, too, according to this theory, is narrated not by the author directly but by his persona, who may or may not be a character in the story. Even when the author insists that he is talking to us in his own person we must not believe him; else we shall fall into the traps laid by the real Marcel Proust for those who try to identify him with the fictional Marcel, or with the supposed author pretending to write the autobiography of the fictional Marcel,” Cone, 2.

An important distinction in the study of prose narrative is that between the narrative text, analogous in the example of Melville’s novel to the whale story, and the so-called narrative construct, i.e. Melville’s entire work, including the fictional persona of Ishmael, see Example 6-1. This distinction is often conflated in discussions of narrative in reference to instrumental music. Carolyn Abbate, for example, explored the issue, but chose not to limit her critical approach to the more restricted paradigm.<sup>86</sup>

Example 6-1  
Narrative Text, Narrative, and Narrative Construct



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<sup>86</sup> “For Genette (among others), the notion of a subject’s distancing reformulation, the ‘voice,’ is the basic criteria of a narrative—as the ordering and reordering discourse of a subject-voice, ‘a first meaning—the one nowadays most evident and most central usage in common usage—has *narrative* refer to the narrative *statement*, the oral or written discourse that undertakes to tell of an event or series of events;” Carolyn Abbate, *Unsung Voices: Opera and Musical Narrative in the Nineteenth Century* (Princeton, New Jersey: Princeton University Press, 1991), 26. The quotation is from Gérard Genette, *Narrative Discourse*, translated by Jane E. Lewin (Ithaca, New York: Cornell University Press, 1980), 25.



The issue of time, or time-space displacement between “story” and “story-teller” is maintained in the first movement of Beethoven’s Op. 127 through a number of complex mechanisms. The re-appearance of the frame within the body of the movement creates an element of dissonance or contrast between at least two distinct points in time. Perhaps a threefold time displacement may even be proposed among the relative time-spaces of the narrator’s “live” text (i.e. the initial presentation of the frame), the body of the narrative, and quotation embedded within the narrative itself.

The idea of narrative seems to be inherent within the first movement of Beethoven’s Op. 127. In part the suggestion of a literary narrative may be established by the “persona” conveyed through the introductory recitative-like opening frame, but also equally derived from the referential narrative associations of the opening frame’s re-appearances within the body of the movement. Beethoven’s strikingly original expansion of the string quartet genre provides an unusual, yet not counter-typical example of the narrative voice within an instrumental musical form, a voice that is able to convey the narrative, yet remain distinct from the narrative text itself.

## CHAPTER 7

### ANALYSIS OF THE SKETCHES CORRESPONDING TO THE FIRST MOVEMENT OF OPUS 127

Although the Op. 127 Quartet may at first glance appear to represent a somewhat conventionalized approach to both the texture and form of the string quartet,<sup>87</sup> at least in comparison to the composer's other late-period works within the genre, careful study reveals that Beethoven's final essay on the subject of E-flat major chamber music provides an impressively complex expression of both formal integration and multi-linear temporal continuity. The first movement of the work includes a series of unmistakable disruptions to the sonata form archetype, including an almost unambiguously non-linear method of thematic organization that seems to skip over traditionally important gestural place markers, at times even appearing to proceed in retrograde motion relative to both "clock" time as well as the literal continuity of the musical foreground. Perhaps the most significant aspect of formal disruption in this movement derives from the distinctive gesture of the opening frame (mm. 1-6) and the return of this thematic delimiter at important formal boundaries and moments of sectional division. The ostensible function of the frame, that of separating and thereby describing or containing independent sections of the form, is itself ironically distorted by the seemingly abrupt and non-contextual appearance of the frame within the interior of the movement, forcefully interrupting the movement's primary structural quality of continuing thematic development so profoundly that the frame itself becomes an element of formal discontinuity. See Table 7-1 for a diagram of the movement's form

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<sup>87</sup> Basil Lam used the term "blinding simplicity" to describe this movement, see Basil Lam's *Beethoven String Quartets* (Seattle, Washington: University of Washington Press, 1975), vol. 2, 12.

Table 7-1

## Formal Diagram of Op. 127, First Movement

Measures	Form-Section	Primary Key Area
1-6	Frame	E-flat
7-32	Exposition First-Theme Group	E-flat
33-40	Transition	E-flat, G-Minor
41-66	Exposition Second-Theme Group	G-Minor
67-74	Exposition Closing Theme	G-Minor
75-80	Frame	G
81-134	Development	C, C-Minor
135-8	Frame	C
139-66	Development (Re-Continued)	C, A-flat
167-98	Recapitulation First-Theme Group	E-flat, A-flat
199-206	Transition	A-flat, F Minor
207-32	Recapitulation Second-Theme Group	E-flat
233-40	Recapitulation Closing Theme	E-flat
241-82	Coda	A-flat, E-flat

The “Krakow” sketches for the first movement of Op. 127 consist primarily of a single complete manuscript of the entire movement (Group D, pp. 81-91). The frequent cancellations and multiple layers of corrections within this manuscript, as well as numerous incomplete or incompletely notated passages, suggest the ephemeral plasticity of a working sketch, yet the document provides a complete and relatively coherent version of the entire text of the movement, similar to a draft or even a fair copy. The “Krakow” collection also includes an additional extended score of the beginning section of the movement (Group D, pp. 93-5).

A transcription of the complete score-sketch, pp. 81-91, is provided as Example 7-1. The text of this extended sketch differs from the published version of the movement mainly as a result of numerous minor variants in terms of figurative patterns as well as an occasional alternate substitution of one or more pitches within primarily harmonic groupings.<sup>88</sup> In many cases the manuscript includes multiple layers of text, the primary layer representing a version very similar to the published edition, while other layers reveal alternate or perhaps even improvisatory variations to the thematic content of the primary layer.<sup>89</sup> In some instances the secondary layer suggests a distortion to the phrase structure of the primary text, especially when an entire measure or more has been cancelled in the sketch, and therefore must be read as a secondary layer. The draft also includes significant variants for several important sections of the movement, such as mm. 39-44, 53-5, and 116-39.

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<sup>88</sup> A catalogue of these variant passages may be found in Appendix A.

<sup>89</sup> Joseph Kerman described Beethoven’s process of creating open-ended improvisatory sketches as analogous to the type of free improvisation that a composer would normally perform at the keyboard. See Kerman’s article “Beethoven’s Early Sketches,” *Musical Quarterly* 56 (1970), 515-38, see especially pages 525 and 538.

Example 7-1  
Group D, Pp. 81-91

Maestoso

Violin 1

Violin 2

Viola

Cello

9

Vln. I

Vln. II

Vla.

Vc.

18

Vln. I

Vln. II

Vla.

Vc.

*sempre p e dolce*

*f*

*cresc.*

*cresc.*

*cresc.*

*cresc.*

*f*

26

I

Vln. I

Vln. II

Vla.

Vc.

*sf*

*sf*

*sf*

*sf*

*p*

33

I

Vln. I

Vln. II

Vla.

Vc.

*cresc.*

*cresc.*

*cresc.*

41

I

Vln. I

Vln. II

Vla.

Vc.

*p*

40

Vln. I *p*

Vln. II

Vla.

Vc.

55

Vln. I *cresc.* *f* *p* *cresc.*

Vln. II *cresc.* *f* *cresc.* *cresc.*

Vla. *cresc.* *f* *cresc.* *cresc.*

Vc. *cresc.* *f* *cresc.* *cresc.*

63

Vln. I *f* *p* *f*

Vln. II *p* *f*

Vla.

Vc. *f* *p*

71

Vln. I

Vln. II

Vla.

Vc.

*p*

*sf*

*sf*

*sf*

*sf*

*sf*

80

Vln. I

Vln. II

Vla.

Vc.

*f*

*p*

*p*

*p*

*p*

*p*

*p*

87

Vln. I

Vln. II

Vla.

Vc.

*p*

*p*

*p*

*p*

*p*

*p*

*cresc.*



95

Vln. I

Vln. II

Vla.

Vc.

*p*

104

Vln. I

Vln. II

Vla.

Vc.

*f* *f* *f* *p*

*p*

112

Vln. I

Vln. II

Vla.

Vc.

120

Vln. I

Vln. II

Vla.

Vc.

First system of musical notation (measures 120-125). It features four staves: Violin I, Violin II, Viola, and Violoncello. The key signature has two flats (B-flat and E-flat). Measure 120 starts with a dynamic marking of *f*. The Violin I part has a melodic line with some grace notes. The Violin II part has a more rhythmic accompaniment. The Viola and Violoncello parts provide harmonic support with various chordal and melodic fragments.

126

Vln. I

Vln. II

Vla.

Vc.

Second system of musical notation (measures 126-131). The instrumentation remains the same. The Violin I part continues its melodic development. The Violin II part has a more active role with eighth-note patterns. The Viola and Violoncello parts continue their harmonic accompaniment. The key signature remains two flats.

132

Vln. I

Vln. II

Vla.

Vc.

Third system of musical notation (measures 132-137). The Violin I part features a melodic line with a dynamic marking of *ff* (fortissimo) in measure 135. The Violin II part has a rhythmic accompaniment. The Viola and Violoncello parts provide harmonic support. The key signature remains two flats. The system concludes with a dynamic marking of *f* and a fermata over the final notes.

140

Vln. I *p* *dolce* *f*

Vln. II

Vla.

Vc.

148

Vln. I *p* *f* *p* *f*

Vln. II *p* *f* *p* *f*

Vla. *p* *f* *p* *f*

Vc. *p* *f* *p* *f*

156

Vln. I *p* *f* *p* *f*

Vln. II *p* *f* *p* *f*

Vla. *p* *f* *p* *f*

Vc. *p* *f* *p* *f*

164

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

Vln. II *p*

Vla. *p*

Vc. *p*

171

Vln. I *p*

Vln. II

Vla.

Vc.

178

Vln. I *cresc.*

Vln. II

Vla.

Vc. *cresc.*

185

Vln. I

Vln. II

Vla.

Vc.

193

Vln. I

Vln. II

Vla.

Vc.

*p*

200

Vln. I

Vln. II

Vla.

Vc.

208

Vln. I

Vln. II

Vla.

Vc.

215

Vln. I

Vln. II

Vla.

Vc.

222

Vln. I

Vln. II

Vla.

Vc.

*f* *p* *cresc.*

Detailed description: This image shows three systems of a musical score for Violins I and II, Viola, and Cello. The first system starts at measure 208. The second system starts at measure 215. The third system starts at measure 222. The score is in a key signature of two flats (B-flat and E-flat) and a common time signature. The Violin I part features melodic lines with various articulations and dynamics. The Violin II part provides harmonic support with rhythmic patterns. The Viola and Cello parts play lower-register accompaniment. Dynamics include forte (f), piano (p), and crescendo (cresc.).

230

First system of musical notation (measures 230-238) for Violin I, Violin II, Viola, and Violoncello. The key signature has two flats. The Violin I part features trills and dynamic markings of *f* and *p*. The Violin II part has a melodic line with *f* and *p* markings. The Viola part has a rhythmic accompaniment with *p* and *f* markings. The Violoncello part has a steady bass line with *p* markings.

239

Second system of musical notation (measures 239-246) for Violin I, Violin II, Viola, and Violoncello. The Violin I part has a melodic line with a trill and a long phrase. The Violin II part has a melodic line with a trill. The Viola part has a melodic line with a trill. The Violoncello part has a steady bass line.

247

Third system of musical notation (measures 247-254) for Violin I, Violin II, Viola, and Violoncello. The Violin I part has a melodic line with a trill and dynamic markings of *Sime* and *cresc.*. The Violin II part has a melodic line with a trill and dynamic markings of *cresc.*. The Viola part has a melodic line with a trill and dynamic markings of *cresc.*. The Violoncello part has a steady bass line.

255

Vln. I

Vln. II

Vla.

Vc.

262

Vln. I

Vln. II

Vla.

Vc.

269

Vln. I

Vln. II

Vla.

Vc.

*cresc.*

*p dolce dimin*

*8<sup>va</sup>*

*loco*

*cresc.*

Detailed description: This image shows three systems of a musical score for Violins I and II, Viola, and Violoncello. The first system (measures 255-261) features Violin I with long, sustained notes and Violin II with a rhythmic eighth-note pattern. The second system (measures 262-268) includes dynamic markings: *cresc.* for Violin I, *p dolce dimin* for Violin II, and *8<sup>va</sup>* for Viola. The third system (measures 269-275) features *loco* for Violin I and *cresc.* for Violin II. The score is in a key with two flats and a 4/4 time signature.



277

I

Vln. II

Vla.

Vc.

*pp*

Example 7-2 provides a transcription of Group D, pp. 93-5, corresponding to mm. 1-72 of the published edition. The sketch begins in full notation, similar to the complete score-sketch of pp. 81-91, but becomes increasingly fragmentary and illegible, apparently changing from a draft-type manuscript into an improvisatory working sketch. Much of the material between m. 37 and m. 74 has been cancelled in the manuscript.<sup>90</sup>

<sup>90</sup> See Appendix B for a brief critical discussion of the variant material found in Group D, pages 93-5.

Example 7-2  
Group D, Pp. 93-6

1  
Violin 1

2  
Violin 2

Viola

Cello

10  
Vln. I

Vln. II

Vla.

Vc.

19  
Vln. I

Vln. II

Vla.

Vc.

27

I Vln.

II Vln.

Vla.

Vc.

*sf* *sf* *sf*

*p*

34

I Vln.

II Vln.

Vla.

Vc.

in 8va [loco]

43

I Vln.

II Vln.

Vla.

Vc.

53

I Vln.

II Vln.

Vla.

Vc.

61

I Vln.

II Vln.

Vla.

Vc.

*p*

70

I Vln.

II Vln.

Vla.

Vc.

⊗

The expressively static quality of this movement, perhaps appropriately described by commentators as an example of Beethoven’s most lyrical style of composition,<sup>91</sup> is achieved not only by the continuous variation of lilting melodic fragments and the calmly repeating subdominant to tonic foreground harmony, but more importantly by the disruption to phrase periodicity accomplished through the surprisingly gentle incongruity of formal harmonic gestures to the temporal location of the sounding middle ground progressions. This effect achieves an almost limitless extension of relatively unstable harmonic voice leading through the diminishment of formal place markers, such as the frame, to an almost ironic level of

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<sup>91</sup> According to Joseph Kerman “this movement lives not on contrast but on the inherent beauty of the consequent doublet phrases,” *The Beethoven Quartets* (New York: W. W. Norton & Company), 205. Although Kerman provides a brilliant and insightful analysis of Op. 127 in many ways, I differ with his description of several minor details. Firstly, it may be more accurate to describe the melodic content in mm. 7-14 as the primary theme and not as a consequent phrase, since it is the motive found in these measures that serves to generate the almost unending process of developmental variation throughout the remainder of the movement. Considered from a formalistic and purely practical perspective, this material must be labeled the primary theme simply because it is a doublet phrase and these types of phrases almost never occupy the role of consequent periodic member in Beethoven’s work (I am not aware of any example of this structural arrangement in the composer’s music)—these doublet phrases usually carry the burden of primary motivic declamation, at least during their principal utterance. Although Kerman’s commentary does in fact emphasize the role of “contrast” in Beethoven’s late-period quartets; I would suggest that, at least in this quartet, contrast between the “frame,” (mm. 1-6) and the primary theme (mm. 7-14) describes an almost dialectic process of dynamic opposition and that it is this element of tension that characterizes the movement as being fundamentally based upon contrast. The beautifully lyric thematic variations that abound within the movement’s exposition comprise the element to which the subsequent developmental content stands in such sharp distinction. At least two entries in Beethoven’s conversation books suggest that contemporary listeners, and probably Beethoven himself, considered the primary theme to begin in m. 7, see Birgit Lodes, “Temporality and Mythology in Op. 127/1,” in *The String Quartets of Beethoven*, ed. William Kinderman (Urbana, Illinois: University of Illinois Press, 2006), 172.

indeterminate significance. As shown in Example 7-3 the exposition of the movement outlines a progression from tonic to mediant harmony; the full acquisition of the major-mode mediant in measure 75, however, is both pre-figured as well as obscured by the emphasis on first inversion tonic harmony within the first theme area and the second theme's minor-mediante tonality. The appearance of the frame on the major mediant in measure 75 is of course itself somewhat paradoxical from the viewpoint of sonata-form generic expectation.<sup>92</sup>

The sketches corresponding to the exposition of the movement reveal several instances in which Beethoven seems to have significantly reworked passages that relate directly to both the relative level of intensity as well as the exact temporal location of significant background-level areas of G-centered harmony. On page 94 of Group D, corresponding to mm. 39-44 of the published version, Beethoven has apparently experimented with the quality of arrival that the G-minor *Gesangsthema* is allowed to carry into the foreground, see Example 7-4.<sup>93</sup> Although the first violin plays a powerful and distinct dominant to tonic melodic figure in mm. 40-1, the cello and second violin undermine this implied harmonic motion by cautiously slipping into G minor in m. 40, thereby suggesting that the G-minor gesture is at least in part a continuation of the tonic harmony of the exposition's first theme group, as well as creating a small scale temporal discontinuity in terms of the exact moment of arrival for the G-minor sonority.<sup>94</sup>

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<sup>92</sup> The keys in which the frame is presented, and thereby the succession of important key centers in the movement, i.e. first the tonic key of E flat, then G, and then C, could be understood as a reflection of the motivic outline of the frame's first appearance. See Lodes, 172.

<sup>93</sup> A transcription of Example 7-4 may be found by referencing mm. 39-44 of Example 7-2.

<sup>94</sup> Birgit Lodes has discussed the importance of the thematic and harmonic juncture that occurs in m. 40. "One of the prevailing characteristics of the exposition's Allegro is that every four-measure unit closes on the local tonic, something that imparts a repetitive, cyclic feeling rather than one of musical progression... This feeling changes, however, with the emergence of the second theme... The dominant preparation (m. 40) that precedes the second theme hints that the phrases will overlap from now on. It is a subtle hint, because the bass already touches the G, but is one nonetheless underscored by a crescendo." Lodes, 181

# Example 7-3

Mm. 1-80

5

I

7 14 19 22

IV V I

I<sup>6</sup> IV V I

24 29 32

I IV V I

35 37 38 39

G: IV  $V_4^6 \begin{array}{l} \text{---} 5 \\ \text{---} 3 \end{array}$

41 49 56 61 64 65

I V I V  $V_4^6 \begin{array}{l} \text{---} 5 \\ \text{---} 3 \end{array}$  I

75 80



Example 7-4

Group D, P. 94



On Page 92 of Group D, corresponding to mm. 53-5 of the published version, Beethoven has reworked the pattern of figuration for the first violin part, see Example 7-5.<sup>95</sup> In this passage Beethoven may have been concerned with the foreground elements of an important pre-cadential voice exchange, see Example 7-6. The version of the first violin part found in the sketches does not emphasize the foreground  $d^3$  as much as the published version while perhaps presenting the  $a^3$  in greater distinction than the published form. Beethoven's published version seems to intensify the implied G-D tonal ambiguity of this passage more clearly than the sketch, since the sketch version removes the cello's important B flat in m. 53 as well as the D sharp in both second violin and viola in m. 54, thus significantly stabilizing the harmonic motion of these measures.

In Joseph Kerman's monograph on the string quartets of Beethoven, the chapter devoted to the Op 127 and Op 132 Quartets is given the title "Contrast."<sup>96</sup> Despite the apparent elements of contrast and discontinuity that in many ways seem to dominate the surface of this movement,

<sup>95</sup> A transcription of Example 7-5 may be found by referencing mm. 53-5 of Example 7-1.

<sup>96</sup> Kerman, *The Beethoven Quartets*, 223-68.

both in terms of conceptual temporal linearity and foreground formal organization, there are significant and deeply interwoven aspects of real continuity that simultaneously bond the disparate thematic sections into an integrated and coherent formal whole. As Edward Laufer has suggested, the process of thematic re-statement and melodic transformation may serve the function of creating a level of structural continuity that supersedes or at least co-exists with apparently discontinuous surface-level attributes.<sup>97</sup> From the perspective of deep middleground or background-level voice leading the restatement or transformation of distinctive voice-leading

Example 7-5.

Group D, P. 92



<sup>97</sup> See Edward Laufer's article "Continuity in the Fourth Symphony," in *Perspectives on Anton Bruckner*, ed. Crawford Howie, Paul Hawkshaw, and Timothy Jackson (Burlington, Vermont: Ashgate, 2001), 115.

## Example 7-6 Mm. 48-65

The image shows a musical score for two staves, treble and bass clef, with a key signature of one flat. The score is labeled with measure numbers 48, 63, 64, and 65. The notation includes various note values and rests, with curved lines connecting notes across the staves and measures, illustrating a complex web of relationships. The score ends with a double bar line at measure 65.

structures, not to mention the extension of deep background level progressions, may also integrate discontinuous sections into a single structural expression.

Deryck Cooke has described a system of intricately connected motivic repetitions and transformations in the late-period quartets that may derive from the initial motivic statements of Op. 127.<sup>98</sup> In Cooke's analysis the motivic statement found in the opening introduction of Op. 127 establishes a basic pitch-pattern, labeled as pattern A, comprising two overlapping segments *x* and *y*, as shown in Example 7-7a. The first theme of the movement is generated from segment *y*, see Example 7-7b; while the second theme derives from an initial "inflected inversion" of *y* followed by a more direct subsequent expression of the basic form of *y*, see Example 7-7c. An important thematic episode within the development, mm. 116-34, provides a minor-mode expression of *x*, see Example 7-7d. According to Cooke, this new form of the motivic segment,

<sup>98</sup> Deryck Cooke, "The Unity of Beethoven's Late Quartets," in *Vindications; Essays on Romantic Music* (Cambridge: Cambridge University Press, 1982), 143-70.

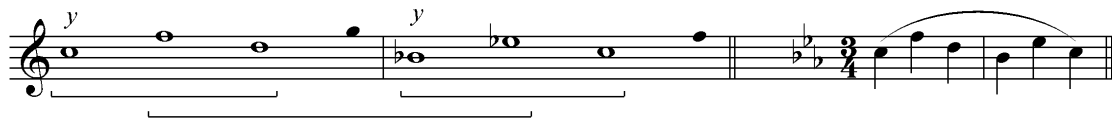
# Example 7-7

## Principal Motives Identified by Deryck Cooke

Example 7-7a



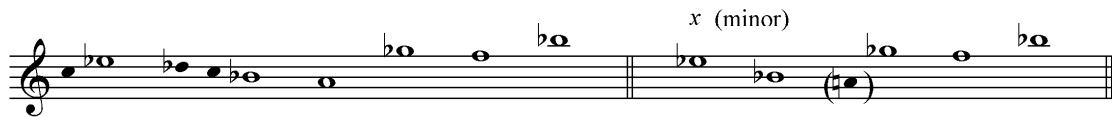
Example 7-7b



Example 7-7c



Example 7-7d



Example 7-7e



now labeled as pattern B, becomes the central motivic source for all of Op. 130, Op. 131, and Op. 132, see Example 7-7e.

Cooke's representation of an extremely dense level of motivic economy in this movement certainly serves to unify the discontinuous sectional character of the work through the control of easily recognizable thematic source materials. In addition to the elements of motivic cohesion described by Deryck Cooke, I would also emphasize the importance of the B-flat—B—C melodic figure, a thematic structure that I will henceforth describe as the "motive of chromatic expansion." This melodic grouping is first heard in mm. 5-6. The motive may of course be understood to form part of Cooke's *y* segment, but perhaps, at least in the first movement of Op. 127 the chromatic expansion itself is the primary element of thematic unity. This motive of chromatic expansion, together with a longer version of the expansion idea, returns a number of times in the course of the movement, as shown in Example 7-8.<sup>99</sup> Possibly it is the placement of the motive of chromatic expansion within Cooke's *x* and *y* motivic segments that lends such a distinctive quality of thematic cohesion to this often repeated melodic fragment.

In addition to the unity that is achieved through the frequent repetition of these foreground motivic elements, the movement is perhaps even more strongly held together by the expression of a singular background-level harmonic progression. As shown in Example 7-9, a coherent and unified structural design tends to mitigate the abrupt character of the movement's surface-level discontinuous sectionality.<sup>100</sup> This deep-level *Urfinie* is itself undermined, however, by the prolonged sense of harmonic stasis that is heard throughout the movement. As Birgit Lodes has observed, Beethoven seems to have avoided the structural emphasis of dominant

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<sup>99</sup> Example 7-8 is largely derived from illustrations in David Epstein's *Beyond Orpheus: Studies in Musical Structure* (Cambridge, Massachusetts: Harvard University Press, 1979), 216-7.

<sup>100</sup> See Appendix D for a more detailed voice-leading reduction of the first movement

# Example 7-8

## Motive of Chromatic Expansion

Example 7-8a

m. 5

*sf* *sf* *p* 6

Example 7-8b

m. 7

m. 10

Example 7-8c

m. 41

m. 75

m. 135

Example 7-8d

m. 125

m. 129

m. 133

Example 7-9  
Op. 127, Movement I

The image displays three systems of musical notation for piano accompaniment. Each system consists of a grand staff with a treble and bass clef. The first system shows a single chord labeled 'I' with a '5' and a '5' with a hat symbol above it. The second system includes measure numbers 7, 14, 19, and 22, with chord labels 'I<sup>6</sup>', 'IV V', and 'I' below the bass staff. The third system includes measure numbers 24, 29, and 32, with chord labels 'I', 'IV V', and 'I' below the bass staff.

35 37 38 39

G: IV      V  $\begin{matrix} 6 & 5 \\ 4 & 3 \end{matrix}$

41 49 56 61 64 65

I      V      I      V      V  $\begin{matrix} 6 & 5 \\ 4 & 3 \end{matrix}$       I

75 80



89 97 107 113

V I C: I V I

This system of music covers measures 89 to 113. The treble clef staff features a melodic line with a long slur over measures 89-97, and a shorter slur over measures 107-113. The bass clef staff has a long slur over measures 89-97 and a shorter slur over measures 107-113. Roman numerals V, I, C: I, V, and I are placed below the bass staff to indicate chord changes.

117 121 125 133

This system of music covers measures 117 to 133. The treble clef staff has a long slur over measures 117-121 and another long slur over measures 125-133. The bass clef staff has a long slur over measures 117-121 and a shorter slur over measures 125-133.

135 139

This system of music covers measures 135 to 139. The treble clef staff has a long slur over measures 135-139. The bass clef staff has a long slur over measures 135-139.

139 147 165 166 167

167 168 174 182

*Eb*: I<sup>6</sup> V I

182 188 197 198

IV

204 205

I

<sup>3</sup> <sup>2</sup> <sup>1</sup>

207 215 223 230 231

I V I

241 263 267 271 274 282

I<sup>6</sup> V I

harmony in this movement, thus producing a static texture characterized by repeating four measure units that generally progress from the subdominant to the tonic. Without the expected phrase delineation of prominent foreground dominants, Beethoven withholds the element of small-scale formal control that is usually the “key ingredient of tonal contrast and structuring.”<sup>101</sup> Even the expression of important background-level elements, in m. 207 and m. 230 for example, are unusually mild in terms of foreground harmonic salience. The characteristic ubiquity of this static harmonic texture is not sufficiently thorough to negate the functionality of the background harmonic progression, but rather tends to level the harmonic prominence of generically specific place-markings, thereby allowing the sonata-form archetype to assert its nominal presence, yet requiring the listener to consistently doubt the validity of the pre-supposed formal design.

Although a significant element of structural continuity may be achieved through the repetition and transformation of both foreground and background level voice-leading progressions, the primary character of the movement’s formal declamation is controlled by the work’s irrefutably discontinuous sectional partitioning, a system of internal segmentation that is almost entirely incongruent to the expected boundaries and thematic articulations of sonata form. This element of structurally formal contrast need not be understood as an abandonment of the generic formula, or even as a negation of esthetic unity, but rather as a semantic signifier of a narrative that is derived from “contrast” as an idea.<sup>102</sup> Unity, if not continuity, could therefore be preserved, at least at the conceptual, level through the surface level expression of a fractured and discontinuous formal texture.

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<sup>101</sup> Lodes, 171. For a further discussion of Beethoven’s avoidance of the dominant in this movement see Ulrich Siegele, *Beethoven: Formale Strategien der späteren Quartette* (Munich: text + kritik, 1990), 63.

<sup>102</sup> For a detailed analysis of formal disjunction as narrative signifier see Robert S. Hatten, “The Expressive Role of Disjunction: A Semiotic Approach to Form and Meaning in the Fourth and Fifth Symphonies,” in *Perspectives on Anton Bruckner*, 145-84.

It is, of course, primarily the “frame,” the opening *maestoso* in mm. 1-6, that serves as the central catalyst for both temporal and formal discontinuity in this movement. The frame is always separate from the primary musical text and yet a necessary part of the work, since it begins the movement, generates the first theme (which could not otherwise simply begin on the subdominant), and is performed by the same narrative source, i.e. the string quartet, as the main body of the movement. Perhaps the frame functions as the same distancing re-formulation of time that is usually employed in order to evoke the narrative voice, in most cases communicated directly by the narrative persona through marked literary phrases such as “once upon a time” or “call me Ishmael.”<sup>103</sup>

In many ways the manner in which the frame appears in this movement tends to work against the principles of sonata form. Firstly, the entrance of the frame in G major at m. 75 seems to articulate the commencement of the development section, but in the major mode of the key just introduced as the second theme, thereby closely associating points within the form that should be strongly contrasted. When the frame appears again in m. 135, this time in C major, it does not articulate a formal boundary, but rather is placed within the development. In this iteration the frame again continues the key of the previous material, but as in its previous G-major appearance the frame is not organically prepared by the preceding harmony and is heard as a non-contextual assertion. Beethoven seems to be suggesting a rotational form that is independent of the sonata form structure, creating a network of thematic connections and formal

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<sup>103</sup> Birgit Lodes has suggested that the non-linear temporal aspect of this movement may reference a “mythic” conception of time. “The core of the musical architecture [in this movement] is grounded in a careful balancing of thematic groupings that do not express a teleological direction... One of the central characteristics of myth is its cyclic time structure, which is fundamentally different from the more linear time normally assumed in Western civilization... Despite the majestic character of the chords [in the frame], we discern that time in a directional sense does not exist. We are rather left within a space without temporal calibration. Concerning its timing, the opening passage is not tangible, not earthbound. Moreover, each time the *Maestoso* returns throughout the movement... it occurs unexpectedly.” See Lodes, 188-9.

expectations that undermine sonata form, yet still maintaining the necessary elements of the formal archetype, perhaps as a counterpoint to the newly generated form structure.<sup>104</sup>

The unusual non-linear temporality of this movement seems to be achieved equally through elements of structural continuity as well as elements of structural discontinuity.<sup>105</sup> A highly segmented and discontinuous surface is by no means a necessary generator of non-linear temporality. In a typical and non-exceptional musical setting, perhaps in the instance a tightly controlled rondo or variation form movement for example, a highly segmented foreground could easily assist the listener to identify generic formal boundaries and therefore greatly increase the sense of temporal linearity. It is also not the case that the unusual disruptions to the traditional sonata-allegro formal script in this movement necessarily impede the perception of a linear design, since most non-standard or *sui generis* adaptations to sonata form maintain or even magnify the idea of temporal progression. The essential catalyst for the dissolution of temporal linearity in this movement is the juxtaposition of ironic and contradictory formal segmentation in a manner that prevents the listener from maintaining a singular linear perception of the formal sequence. In this way discontinuity achieves non-linear temporality; but equally important is the extension of background-level prolongations through elements of the implied “non-sonata” rotational form that might have been expected to require a background level articulation. The resulting harmonic stasis

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<sup>104</sup> Daniel Chua has discussed the association of thematic material in this movement in terms of non-sonata formal sectionalism and even referred to this compositional technique as a “sign of madness,” see Daniel Chua, *The “Galitzin” Quartets of Beethoven* (Princeton, New Jersey: Princeton University Press, 1995), 40. See also Nicholas Marston’s review of Chua’s *The Galitzin Quartets of Beethoven* in *Music & Letters* 78 (1997): 281-3. For a discussion of rotational form in relation to the study of Beethoven’s sketches see James Hepokoski’s “Rotations, Sketches, and the Sixth Symphony,” in *Sibelius Studies*, eds., Timothy L. Jackson and Veijo Murtomäki (Cambridge: Cambridge University Press, 2001), 322-51.

<sup>105</sup> William Kinderman has described the coexistence of both linear and non-linear temporal succession, especially in the middle three of the Galitzin quartets, as one of the most striking characteristics of these works. According to Kinderman, the “contrast-ridden surface” of this music as well as its “puzzling junctures,” “apparent discontinuities,” and “nonadjacent connections,” are not “simply disruptive. . . , [but] often constructive on another, perhaps higher, level.” See Kinderman’s “Beethoven’s Last Quartets,” in *The String Quartets of Beethoven*, ed. William Kinderman (Urbana, Illinois: University of Illinois Press, 2006), 281-2.

lends a quality of non-progression, and therefore non-linearity to the work—in this way continuity achieves non-linear temporality.<sup>106</sup>

In Chapter 5 of this dissertation we discussed the non-linear and multi-linear elements of the first movement's formal organization. The abrupt and non-continuous appearance of the “frame” during the inner portions of the movement as well as the surprising obstinacy of purely developmental motivic gestures during the recapitulation certainly characterize the movement as a work built largely upon melodic and formal contrast. In some cases these juxtapositions require the listener to accept non linear methods of sonata-form construction and to actively de-value “clock” time in favor of an entirely musical or conceptual temporal organization. An analysis of the movement's background voice-leading structure confirms the complexity of Beethoven's displacement of generic sectional dividers, at times appearing to manipulate or to re-arrange essential elements of the sonata principle to such an extent that the movement represents a reference to sonata form or even a trope upon the traditional sonata more than it actually provides a concrete instance of the formal ideal itself.

In many ways the primary harmonic structure of the movement is derived from the three appearances of the frame. As shown in Table 7-1 the movement begins in E flat major, moves to the key of G major-minor at the beginning of the exposition's second theme group, modulates to C major in the middle of the development section, and only gradually and faintly suggests a return to the tonic by way of strong subdominant harmony in the second half of the recapitulation. This establishes a “non-sonata” harmonic background (I-III-VI), which is much more prominent to the listener than the generic “sonata” harmonic background, as diagramed in Example 7-9. Each

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<sup>106</sup> “Subsurface motivic connections [in the first movement of Op. 127] function as a web of crisscrossing threads. These connections are not confined to directional procedures tying the piece together; they also allow for manifold foreground possibilities for structuring time.” See Lodes, 176.

articulation of the “non-sonata” harmonic background is forcefully announced by the re-appearance of the opening frame and the foreground harmony of the movement is much more congruent to the “non-sonata” harmonic background than to the expected generic archetype. The absence of any extended area of background-level dominant harmony significantly undermines the listener’s ability to perceive the movement as a sonata-type formal structure, at least in terms of salient background level harmonic progression.

Despite the apparent weakness of the generic sonata form’s harmonic structure, the movement nevertheless includes unmistakable motivic and gestural references to the sonata principle, and even relies upon the formal logic of a single large-scale recapitulatory reprise. Peter H. Smith has described the contrast between harmonic and genre-based formal structure as dimensional counterpoint.<sup>107</sup> Smith has analyzed a number of the instrumental works of Johannes Brahms, such as the C-Minor Piano Quartet, Op. 60, and found that often the clear articulation of harmonic motion at important moments of sonata form sectional transition is obscured or significantly undermined by the extension of counter-generic background level progressions through these areas of formal reference, thereby creating unique and often very complex background voice-leading progressions.

This process may be observed in the first movement of Beethoven’s Op. 127. At m. 167 the beginning of the recapitulation appears without dominant preparation or even a clearly defined tonic harmonization in the foreground. The end of the recapitulation’s first theme area ends with an unexpected cadence on the subdominant in m. 198. This cadence significantly undermines the parallel formal and harmonic function of the recapitulation in comparison to the exposition, a structural correspondence that was of course already weakened by the extension of

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<sup>107</sup> See Peter H. Smith’s *Expressive Forms in Brahms’s Instrumental Music; Structure and Meaning in His Werther Quartet* (Bloomington, Indiana: University of Indiana Press, 2005), see especially the first chapter, pp. 3-27.



the development section's background-level tonic harmony across the boundary line of the recapitulatory articulation. The subdominant peroration that concludes the recapitulation's first theme area intensifies the non-divided background progression of the movement's large scale form by suggesting, perhaps in a somewhat non-linear manner, a non-tonic type of recapitulatory design, and thereby lending an increased level of salience to the important background level pre-dominant harmony on which the recapitulation's first theme area cadences.

Perhaps the most interesting example of dimensional counterpoint, however, is the very deliberate weakening of each formal section's initial hypermetrical structural and harmonic "downbeat:" the beginning of the second theme group, both in the exposition and the recapitulation, is preceded by one measure of very dissonant anticipation in the bass, the development and the recapitulation fail to introduce new foreground harmonies, the tonic achieved at the end of the recapitulation's closing theme is immediately undermined by subdominant harmony at the beginning of the coda, and the two internal appearances of the frame continue the foreground harmonies of the preceding material. The practical result of this weakening of hypermetrical structure at each important point of sectional articulation is that the harmonic and motivic form of the movement is only able to comprise a small part of the work's actual text, while the unresolved areas of developmental treatment remain outside of the form and outside of the linear temporal progression. Indeed it is primarily the dimensional counterpoint between the literal text of the form and the considerably more concise conceptual formal design of the work that allows the element of dimensional counterpoint to extend beyond the limitations of the sonata principle. Beethoven's technique of composing paradoxical and inherently ironic progressions within the background structural progression of this movement seems to have achieved a level of linear and temporal conflation that surpasses the organic formal constructions of other

nineteenth-century composers, even Johannes Brahms, by not only integrating formal and harmonic prolongations into a complex non-divided sonata design, but also systematically undermining the necessary markers of formal continuity in addition to the essential locations of sonata-form articulation. Beethoven has extended the musical syntax of unbounded developmental treatment and evaded sectional divisions to such a degree in this movement that the necessary elements of the form appear to be inherently ironic or at least temporally mis-aligned.

In some instances the sketches include apparently re-worked passages that correspond to important moments of background-level harmonic articulation. The section of the sketch that corresponds to mm. 116-20 of the published score has been canceled in the sketch and then re-written in more complete notation. Interestingly the canceled version includes an empty measure in place of m. 116. This empty measure considered together with the two versions of the passage in the sketch suggests that the upper-voice acquisition of the pitch E-flat is a truly important element of the movement's structure and implies that the manner of presentation provided for this pitch in the first violin part was an issue upon which Beethoven spent at least a few moments of consideration, see Example 7-10.

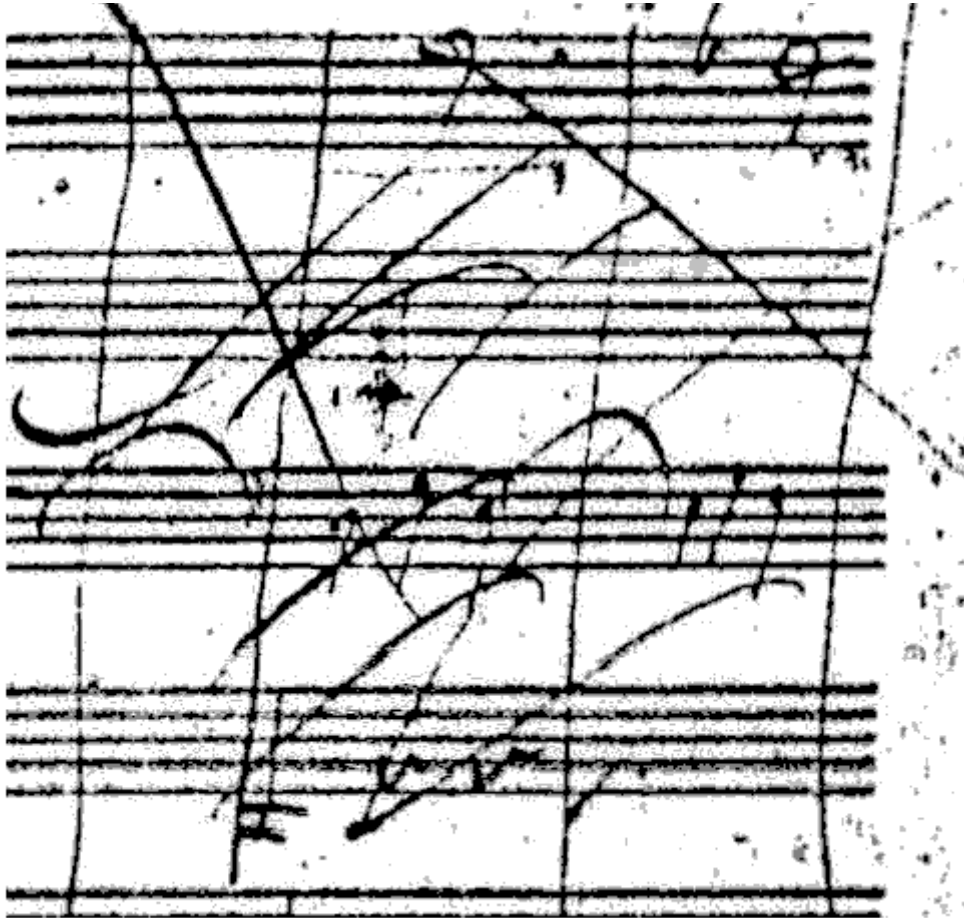
Mm. 121-39 are considerably different in the sketch than in the published score. The version of these measures in the sketch includes less imitative counterpoint and has been cancelled and then subsequently re-notated in several places. Birgit Lodes analyzes mm. 133-4 as an "extra" added segment that does not function within the scansion pattern of four-measure groupings that dominates most the movement's phrase structure.<sup>108</sup> Similar to the non-temporal and harmonically mis-aligned acquisition of G-minor harmony in mm. 40-1, the arrival of C-major harmony in mm. 133-4, two measures before the C-major entrance of the frame in m. 135,

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<sup>108</sup> Lodes, 183.

Example 7-10

Group D, P. 83 (Mm.116-20)



diminishes the value of the frame as a practical element of formal control and once again renders both sonata form and the place-marking function of the frame as ironic and enigmatic aspects of formal signification. See Example 7-11.<sup>109</sup>

The analyses of this movement and of the several passages that Beethoven either reworked within the “Krakow” sketches or else for which an alternate version is provided within the sketches, in comparison to the published version, demonstrate the complex intertextual relationship between a complete and historically privileged edition of a musical work and the many manuscript fragments of the same piece that may survive in the composer’s hand. This unstable balance between sketch materials and authoritative sources is further complicated by Beethoven’s process of creating freely improvised “experimental” drafts, which although directly related to the musical work may never have been intended to comprise any part of a finalized edition. In the case of the first movement from Op. 127 and the “Krakow” sketches related to this work, the alternate versions of several important passages demonstrate either the inherent flexibility of Beethoven’s highly sophisticated harmonic design or else the variability of the composer’s technique for the creation of foreground material that sometimes establishes and sometimes obscures the middleground harmonic progression. In most cases, analysis of the sketch variants reveals something important about the structure of Beethoven’s final version of the composition. Often the sketches help to demonstrate an aspect of the work that would not have been apparent without the assistance of Beethoven’s sketch improvisation.

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<sup>109</sup> A transcription of Example 7-11 may be found by referencing mm. 132-4 of Example 7-1.

Example 7-11

Group D, P. 85 (Mm. 132-34)



## CHAPTER 8

### ANALYSIS OF THE SKETCHES CORRESPONDING TO THE SECOND MOVEMENT OF OPUS 127

“Wollte man behaupten, die dem Adagio zu Grunde liegende Melodie spreche in ihren schönen Verhältnissen, in ihrer Ruhe die Befriedigung künstlerischen Schaffens aus, sie sei ein unmittelbarer Herzerguss und müsse das Werk eines Augenblickes sein: so würde man durch die Skizzen widerlegt werden. Die Melodie war eine langsame Geburt, gewiss auch eine schwere; erst nach wiederholten und gleichsam stossweise erfolgten Ansätzen konnte sie sich der nächtlichen Umhüllung entwinden.”<sup>110</sup>

Although Nottebohm examined a different group of sketches than the manuscripts discussed in this dissertation, the conclusion he has drawn regarding the “difficult birth” of the *adagio* melody could perhaps have been demonstrated equally well by an analysis of the “Krakow” materials.<sup>111</sup> A number of sharply contrasting versions for the beginning of the second movement may be found in the “Krakow” collection. Each version seems to explore different aspects, both harmonically and thematically, of the complex set of possibilities that the enigmatic *adagio* theme inherently contains within its basic structure. These variant expressions may then be retrospectively understood to remain, or to at least be represented, in some vestigial manner within the single yet multivalent published version.<sup>112</sup>

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<sup>110</sup> “If one wished to assert that the melody forming the basis of the *Adagio* expresses through its beautiful proportions and peacefulness the satisfaction of artistic creation, it must then have been a pure expression of the heart and a work created within a moment. Study of the sketches, however, directly refutes this impression. The melody had a slow and difficult birth, only after numerous and repeated partially successful attempts to begin could the melody free itself from its nocturnal envelope.” Gustav Nottebohm, *Zweite Beethoveniana*, Vol. 2 (Leipzig: Peters, 1887), 210. Unless otherwise cited, all translations are mine.

<sup>111</sup> Although Nottebohm primarily relied upon sketch notebooks from the Royal Library in Berlin, he seems not to have examined, or at least did not discuss, the materials that comprise the present-day “Krakow” sketch collection. See Nottebohm’s essay “Skizzen zum zweiten Satz des Quartetts Op. 127” in *Zweite Beethoveniana*, Vol. 2 (Leipzig: Peters, 1887), 210-20.

<sup>112</sup> Joseph Kerman has identified a similarity between the melody of the *Adagio* and Leonore’s aria *Komm Hoffnung*, see Joseph Kerman, *The Beethoven Quartets* (New York: W. W. Norton & Company), 210-3.

The “Krakow” collection includes more sketch materials related to the second movement of Op. 127 than to any other movement of the quartet. The sketches directly corresponding to the second movement include all of Group A, Group B pp. 1-8 and 31-7, all of Group C, Group D pp 77-80, and Group D p. 92. The sketches listed here include the most important, the most legible, and the most coherent materials within the “Krakow” collection. In addition there are numerous fragmentary sketches that may relate in some way to the *adagio*, or to ideas that may at one time have been intended for the *adagio*.

Group A provides a single relatively high quality manuscript of nearly the entire movement. An important non-continuous sketch may be found on pp. 19-20 of Group A, corresponding to mm. 99-107 of the published version. Example 8-1 is a transcription of the extended manuscript sketch that comprises the bulk of Group A; Example 8-2 provides a transcription of Group A, pp. 19-20. Critical notes for the transcription provided in Example 8-1 may be found in Appendix C.

# Example 8-1

## Group A

*Adagio, ma non troppo e molto contabile*

The musical score is arranged in three systems. The first system includes Violin 1 and 2, Viola, and Cello. The second system includes Violin I and II, Viola, and Cello. The third system also includes Violin I and II, Viola, and Cello. The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 12/8. The score features various dynamics including *pp* (pianissimo) and *cres.* (crescendo). The first system shows the Violin 1 and 2 parts with *pp* and *cres.* markings. The Viola and Cello parts also have *pp* and *cres.* markings. The second system shows the Violin I and II parts with *pp* and *cres.* markings. The Viola and Cello parts also have *pp* and *cres.* markings. The third system shows the Violin I and II parts with *pp* and *cres.* markings. The Viola and Cello parts also have *pp* and *cres.* markings.



Musical score for Violin I, Violin II, Viola, and Violoncello, measures 12-19. The score is in a key signature of three flats (B-flat major or D-flat minor) and a 3/4 time signature.

**Measure 12:** Violin I has a melodic line with a slur. Violin II has a rhythmic accompaniment. Viola has a rhythmic accompaniment with the text "Sime Sime Sime" written above the notes. Violoncello has a melodic line.

**Measure 16:** Dynamic markings include *cres* (crescendo) and *p* (piano).

**Measure 19:** Dynamic markings include *dimin* (diminuendo), *cres* (crescendo), *p* (piano), and *pp* (pianissimo).

The image displays a musical score for a string quartet, consisting of Violins I and II, Viola, and Violoncello (Vc.). The score is organized into three systems of two measures each, starting from measure 22.

- System 1 (Measures 22-23):** Features a melodic line in Violin I with a trill (tr) in measure 23. The Viola and Violoncello parts provide a rhythmic accompaniment with eighth-note patterns.
- System 2 (Measures 24-26):** Includes dynamic markings: *cres* (crescendo) and *dimin* (diminuendo). Violin I has trills in measures 24 and 25. The Viola part has a *cres* marking in measure 26.
- System 3 (Measures 27-28):** Continues the melodic and rhythmic development. The Viola part has a *cres* marking in measure 28. The Violoncello part has a *cres* marking in measure 28.

The score is written in a key signature of two flats (B-flat and E-flat) and a 2/4 time signature. The notation includes various musical symbols such as slurs, ties, and dynamic markings.

The image displays a musical score for a string ensemble, consisting of Violins I and II, Violas, and Cellos. The score is organized into three systems, with measures 30, 32, and 34 marked at the beginning of each system. The key signature is B-flat major (two flats), and the time signature is 4/4.

**System 1 (Measures 30-31):**  
Violins I and II, Violas, and Cellos all begin with a fortissimo (*sf*) dynamic, which then softens to piano (*p*). A crescendo (*cres*) marking appears in the second measure of each part.

**System 2 (Measures 32-33):**  
Violins I and II feature a crescendo (*cres*) leading into a fortissimo (*sf*) dynamic. Violas and Cellos also show a crescendo (*cres*) in the second measure.

**System 3 (Measures 34-35):**  
Violins I and II start with a fortissimo (*sf*) dynamic. A fortissimo (*sf*) dynamic is also present in the Viola and Cello parts. A *rit.* (ritardando) marking is placed above the Violin I staff in the second measure.

36 *loco*

Vln. I *p* *dimin* *cres* *p* *pp*

Vln. II *p* *dimin* *cres* *p* *mp*

Vla. *p* *dimin* *cres* *p* *mp*

Vc. *p* *dimin* *cres* *p* *pp*

*Andante con moto*

Vln. I *p*

Vln. II *p*

Vla. *Sime* *Sime* *Sime*

Vc. *p* *Sime* *Sime* *Sime* *Sime*

41

Vln. I *cres* *dimin*

Vln. II *cres* *dimin*

Vla. *cres* *dimin*

Vc. *cres* *dimin*

This musical score consists of three systems, each with four staves: Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Cello (Vc.). The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 4/4. The first system (measures 43-44) features a *pp* dynamic. The Violin I part has trills (*tr*) and a long slur. The Violin II part has a long slur. The Viola and Cello parts have slurs labeled *Sime*. The second system (measures 44-45) continues the *pp* dynamic. The Violin I part has trills (*tr*) and a long slur. The Violin II part has a long slur. The Viola part has slurs labeled *Sime*. The Cello part has a long slur. The third system (measures 45-46) features a *cres* dynamic. The Violin I part has trills (*tr*) and a long slur, ending with a *sfz* marking. The Violin II part has a long slur. The Viola part has a long slur. The Cello part has a long slur. The *sfz* marking is also present in the Viola and Cello parts.

46 *loco*

Vln. I  
Vln. II  
Vla.  
Vc.

Detailed description: This system covers measures 46 and 47. The key signature has three flats (B-flat, E-flat, A-flat). Measure 46 features a 'loco' marking over the first violin part. The first violin (Vln. I) has a melodic line with a slur and a fermata. The second violin (Vln. II) has a similar melodic line with trills. The viola (Vla.) and cello (Vc.) parts provide a rhythmic accompaniment with eighth notes.

47

Vln. I  
Vln. II  
Vla.  
Vc.

*poco cres* *piu cres*

Detailed description: This system covers measures 48 and 49. The key signature remains three flats. Measure 48 has a 'poco cres' (poco crescendo) marking. Measure 49 has a 'piu cres' (piu crescendo) marking. The first violin (Vln. I) and second violin (Vln. II) parts are highly active with sixteenth-note patterns. The viola (Vla.) and cello (Vc.) parts continue with their accompaniment.

49

Vln. I  
Vln. II  
Vla.  
Vc.

*f* *p*

Detailed description: This system covers measures 50 and 51. The key signature remains three flats. Measure 50 has a forte (*f*) dynamic marking. Measure 51 has a piano (*p*) dynamic marking. The first violin (Vln. I) and second violin (Vln. II) parts show dynamic contrast. The viola (Vla.) and cello (Vc.) parts continue with their accompaniment.

The image displays a musical score for a string quartet, consisting of Violin I, Violin II, Viola, and Cello. The score is organized into three systems, corresponding to measures 51, 52, and 53. The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 4/4.

**System 1 (Measures 51-52):**  
Measures 51 and 52 feature a melodic line in Violin I, with Violin II, Viola, and Cello providing harmonic support. The music is characterized by sustained notes and some rhythmic patterns. A *cres* (crescendo) marking is present in measure 52 for the Violin II and Cello parts.

**System 2 (Measure 53):**  
Measure 53 is marked with a dynamic of *p* (piano) and includes performance instructions: *dolce* (softly) for Violin I, *dol* (dolando) for Violin II, Viola, and Cello. The Violin I part features a rapid sixteenth-note passage, while the other instruments play sustained notes. Trill ornaments (*tr*) are indicated for Violin II and Cello.

54

Vln. I

Vln. II

Vla.

Vc.

55

Vln. I

Vln. II

Vla.

Vc.

56

Vln. I

Vln. II

Vla.

Vc.

*tr*

*cres*

*p*

*Sime*

*p*

*p*

*p*



57

Vln. I

Vln. II

Vla.

Vc.

*dimin* *cres*

58

Vln. I

Vln. II

Vla.

Vc.

*p*

*Adagio*

61

Vln. I

Vln. II

Vla.

Vc.

*cres* *p* *cres*

*cres* *p* *cres*

*cres*

66

Vln. I

Vln. II

Vla.

Vc.

*cres* *p* *cres* *f* *p*

*f* *cres* *p* *cres* *f* *p*

*f* *cres* *p* *cres* *f* *p*

*f* *cres* *p* *cres* *f* *p*

7

Vln. I

Vln. II

Vla.

Vc.

*espressivo* *cres* *f* *p* *dimin*

*cres* *f* *p* *dimin*

*cres* *f* *p* *dimin*

*f* *p* *dimin*

*tempo primo* *cantabile*

Vln. I

Vln. II

Vla.

Vc.

*pp* *pp* *pp* *pp*

*Sime* *Sime* *Sime*

*pp*

This musical score consists of three systems for Violin I, Violin II, Viola, and Violoncello. The key signature is three flats (B-flat major or D-flat minor) and the time signature is 3/4. The score includes various musical notations such as dynamics (*cres*, *p*), articulation (*tr*), and performance instructions (*Sime*).

**System 1 (Measures 79-80):**  
Violin I: Starts with a *cres* dynamic, playing a melodic line with slurs and trills. Measure 80 begins with a *p* dynamic.  
Violin II: Accompanying chords and eighth-note patterns, also starting with *cres* and moving to *p* in measure 80.  
Viola: Similar accompaniment to Violin II, with *cres* and *p* dynamics.  
Violoncello: Bass line with eighth-note patterns, including trills and *cres* dynamics.

**System 2 (Measures 81-82):**  
Violin I: Features trills and melodic fragments, with *cres* dynamics.  
Violin II: Chords and eighth-note accompaniment, with *cres* dynamics.  
Viola: Chords and eighth-note accompaniment, with *cres* dynamics.  
Violoncello: Bass line with eighth-note patterns, including trills and *cres* dynamics.

**System 3 (Measures 83-84):**  
Violin I: Melodic line with trills, starting with *p* and moving to *cres*.  
Violin II: Chords and eighth-note accompaniment, with *p* and *cres* dynamics.  
Viola: Chords and eighth-note accompaniment, with *p* and *cres* dynamics.  
Violoncello: Bass line with eighth-note patterns, including trills and *cres* dynamics.

**System 4 (Measures 85-87):**  
Violin I: Melodic line with trills, with *cres* dynamics.  
Violin II: Chords and eighth-note accompaniment, with *cres* dynamics.  
Viola: Chords and eighth-note accompaniment, with *cres* dynamics.  
Violoncello: Bass line with eighth-note patterns, including trills and *cres* dynamics.

86

Vln. I *rinf*

Vln. II *Sime* *Sime* *Sime* *Sime* *rinf*

Vla. *rinf* *Sime* *Sime* *Sime* *rinf*

Vc. *rinf* *tr* *rinf*

88

Vln. I *tr* *cres* *tr* *cres*

Vln. II *cres*

Vla. *cres*

Vc. *tr* *cres*

90

Vln. I *tr* *rinf* *tr* *rinf*

Vln. II *rinf* *rinf*

Vla. *rinf*

Vc. *rinf* *rinf*

Detailed description: This page of a musical score contains three systems of staves for string instruments. The first system (measures 86-87) features four staves: Violin I, Violin II, Viola, and Violoncello. Violin I has a melodic line with trills and a dynamic marking of *rinf*. Violin II, Viola, and Violoncello have accompaniment with a *Sime* (sustained) marking. The second system (measures 88-89) shows a crescendo in Violin I, Violin II, and Viola, with trills in Violin I and Violoncello. The third system (measures 90) continues with *rinf* dynamics across all parts.

92

Vln. I

Vln. II

Vla.

Vc.

*cres* *dimin* *p*

*cres* *dimin* *p*

*cres* *dimin* *p*

*cres* *dimin* *p*

95

Vln. I

Vln. II

Vla.

Vc.

*sotto voce* *pizz.*

*pizz.*

*pp* *sotto voce*

*pizz.*

99

Vln. I

Vln. II

Vla.

Vc.

*arco* *p* *cres*

*arco* *p* *cres*

*arco* *p* *cres*

*arco* *p* *cres*

The image displays a musical score for a string quartet, consisting of Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Violoncello (Vc.). The score is divided into three systems, with measure numbers 103, 107, and 109 indicated at the beginning of each system.

**System 1 (Measures 103-106):** The key signature is three sharps (F#, C#, G#). The time signature is 4/4. The Violin I part features a melodic line with a crescendo (*cres*) starting in measure 105. The Violin II part has a dynamic marking of *p* (piano) in measure 104. The Viola and Violoncello parts also have a dynamic marking of *p* in measure 104. The Viola part has a crescendo (*cres*) in measure 105.

**System 2 (Measures 107-108):** The key signature changes to three flats (Bb, Eb, Ab). The time signature remains 4/4. The Violin I part has a dynamic marking of *p* and a *dol* (dolce) marking in measure 107. The Violin II part has a dynamic marking of *p* and a *dol* marking in measure 107. The Viola part has a dynamic marking of *p* in measure 107. The Violoncello part has a dynamic marking of *p* in measure 107. There are trill (*tr*) markings in measures 108 and 109 for the Violin I and Viola parts.

**System 3 (Measures 109-112):** The key signature remains three flats. The time signature remains 4/4. The Violin I part has a dynamic marking of *p* and a *dol* marking in measure 109. The Violin II part has a dynamic marking of *p* in measure 109. The Viola part has a dynamic marking of *p* in measure 109. The Violoncello part has a dynamic marking of *p* in measure 109.

112

Vln. I

Vln. II

Vla.

Vc.

115

Vln. I

Vln. II

Vla.

Vc.

116

Vln. I

Vln. II

Vla.

Vc.

*f* *p* *cres*

*f* *p* *cres*

*f* *p* *cres*

*f* *p* *cres*

*dimin* *cres*

*dimin* *cres*

*dimin* *cres*

*dimin*

*dimin*

*dimin*

*dimin*

Detailed description: This image shows a page of a musical score for a string quartet, specifically measures 112 through 116. The score is arranged in four systems, each containing staves for Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Violoncello (Vc.). The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 2/4. Measure 112 shows the beginning of a section with a melodic line in Vln. I and rhythmic accompaniment in the other parts. Measure 115 introduces dynamic markings: *f* (forte) for Vln. II, Vla., and Vc., and *p* (piano) for Vln. I. Crescendo markings (*cres*) are placed above the Vln. I and Vc. staves. Measure 116 continues the piece, featuring *dimin* (diminuendo) markings for Vln. II, Vla., and Vc., and *cres* markings for Vln. I. The notation includes various note values, rests, and phrasing slurs.

118

118-121

Vln. I: *pp*, *tr*

Vln. II: *pp*, *Sime*

Vla.: *pp*, *pi*

Vc.: *pp*

Measures 118-121: Vln. I has a melodic line with trills. Vln. II has a sustained note with the word "Sime". Vla. has a melodic line. Vc. has a rhythmic accompaniment.

121

121-124

Vln. I: *pp*, *cres*

Vln. II: *p*, *pp*, *cres*

Vla.: *p*, *pp*, *cres*

Vc.: *p*, *pp*, *cres*

Measures 121-124: Vln. I has a melodic line with a crescendo. Vln. II has a melodic line with a piano dynamic. Vla. has a melodic line with a piano dynamic. Vc. has a rhythmic accompaniment with a piano dynamic.

124

124-127

Vln. I: *p*, *cres*

Vln. II: *p*, *cres*

Vla.: *p*, *cres*

Vc.: *p*, *cres*

Measures 124-127: Vln. I has a melodic line with a piano dynamic and a crescendo. Vln. II has a melodic line with a piano dynamic and a crescendo. Vla. has a melodic line with a piano dynamic and a crescendo. Vc. has a rhythmic accompaniment with a piano dynamic and a crescendo.



126

Vln. I  
Vln. II  
Vla.  
Vc.

*p* *pp* *lento*  
*p* *pp* *lento*  
*p* *pp* *lento*  
*m* *lento*

Detailed description: This is a page of a musical score for a string quartet, measures 126-128. The score is written for Violin I, Violin II, Viola, and Cello. The key signature is three flats (B-flat, E-flat, A-flat) and the time signature is 4/4. Measure 126 begins with a first violin part playing a half note G4, followed by a half note F#4, and then a half note E4. The second violin part plays a half note G4, followed by a half note F#4, and then a half note E4. The viola part plays a half note G4, followed by a half note F#4, and then a half note E4. The cello part plays a half note G3, followed by a half note F#3, and then a half note E3. In measure 127, the first violin part plays a half note G4, followed by a half note F#4, and then a half note E4. The second violin part plays a half note G4, followed by a half note F#4, and then a half note E4. The viola part plays a half note G4, followed by a half note F#4, and then a half note E4. The cello part plays a half note G3, followed by a half note F#3, and then a half note E3. In measure 128, the first violin part plays a half note G4, followed by a half note F#4, and then a half note E4. The second violin part plays a half note G4, followed by a half note F#4, and then a half note E4. The viola part plays a half note G4, followed by a half note F#4, and then a half note E4. The cello part plays a half note G3, followed by a half note F#3, and then a half note E3. Dynamics markings include *p* (piano) and *pp* (pianissimo) for the violins and viola, and *m* (mezzo) for the cello. The tempo marking is *lento* (slowly).

Example 8-2

Transcription of Group A, Pp. 19-20,  
Compared to the Published Version of Mm. 99-107

Version in the Sketch

The image displays three systems of musical notation for string instruments, comparing a sketch version with a published version. The instruments are Violin 1 (Vln. 1), Violin 2 (Vln. 2), Viola (Vln.), and Cello (Cello).

- System 1:** Shows the sketch version. Vln. 1 has a melodic line with a long note and a slur. Vln. 2, Vln., and Cello have accompaniment.
- System 2:** Shows the published version. Vln. 1 has a different melodic line. Vln. 2, Vln., and Cello have different accompaniment.
- System 3:** Shows the published version. Vln. 1 has a different melodic line. Vln. 2, Vln., and Cello have different accompaniment.

Example 8-2 (Continued)

Published Version

The musical score is organized into three systems. The first system consists of Violin 1, Violin 2, Viola, and Cello. The second system consists of Violin I, Violin II, Viola, and Cello. The third system consists of Violin I, Violin II, Viola, and Cello. The score includes various musical notations such as dynamics (p, cresc, p dolce), articulation (pizz., arco), and phrasing slurs. Red annotations highlight specific musical phrases and dynamics.

**System 1:**

- Violin 1:** *pizz.*, *arco*, *cresc.*
- Violin 2:** *cresc.*
- Viola:** *pizz.*, *arco*, *cresc.*
- Cello:** *cresc.*

**System 2:**

- Violin I:** *p*, *cresc.*, *p*
- Violin II:** *p*, *p*
- Viola:** *p*, *cresc.*, *p*
- Cello:** *p*, *cresc.*, *p*

**System 3:**

- Violin I:** *cresc.*, *p dolce*
- Violin II:** *cresc.*, *p dolce*
- Viola:** *cresc.*, *p*
- Cello:** *cresc.*, *p*

Group B, pp. 1-8, is an extended sketch of the beginning of the movement, corresponding to mm. 1-103 of the published edition. One of the most important aspects of this sketch is the abbreviated beginning of the movement provided in the initial measures of the sketch. Much of this sketch is illegible and in many cases the text has been heavily cancelled by the composer, or has been re-written upon by one or more subsequent layers of fragmentary sketches. A transcription of Group B, p. 8, may be found in Example 8-3; a transcription of Group B, pp. 6-7, may be found in Example 8-4.

### Example 8-3 Group B, P. 8, (Mm. 99-103)

The musical score for Example 8-3, Group B, P. 8, (Mm. 99-103) is presented in two systems. The first system includes staves for Violin 1, Violin 2, Viola, and Cello. The second system includes staves for Violin I, Violin II, Viola, and Cello. The music is in 12/8 time and features complex rhythmic patterns and melodic lines.

Example 8-4  
Group B, Pp. 6-7 (Mm. 59-75)

The musical score for Example 8-4, Group B, Pp. 6-7 (Mm. 59-75) is presented in three systems. The key signature is three sharps (F#, C#, G#) and the time signature is 4/4. The first system includes Violin 1 and 2, Viola, and Cello. The second system includes Violin 1 and 2, Viola, and Cello, with a measure number of 64. The third system includes Violin 1 and 2, Viola, and Cello, with a measure number of 70. The score is written for a string quartet.

Group B, pp. 31-7, provide an assortment of mostly illegible compositional working sketches relating to various parts of the second movement of Op. 127. P. 31 is one of the most legible sections of this grouping and provides a sketch of the beginning of the movement.

Example 8-5 is a transcription of the semi-legible sketch found on p. 31.

### Example 8-5 Group B, P. 31 (Mm. 1-5)

The musical score for Example 8-5 is presented in two systems. The first system, labeled '1', contains measures 1 through 5. It features four staves: Violin 1 (top), Violin 2, Viola, and Cello (bottom). The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 12/8. The Violin 1 part begins with a series of eighth notes in the second measure, while the other instruments play rests or simple harmonic accompaniment. The second system, labeled '2', contains measures 6 through 8. The Violin 1 part continues with a melodic line, while the Violin 2, Viola, and Cello parts provide harmonic support with chords and simple rhythmic patterns.

Group C consists of a collection of extremely fragmentary sketches related to the second movement of Op. 127, although some material in this grouping undoubtedly pertains to other unidentified works. The sixteen pages of Group C are arranged in oblong format and much of the material is heavily cancelled and illegible. The first page of Group C provides an alternate version for the beginning of the movement. A transcription of Group C, p. 51 may be found in Examples 8-6.

Example 8-6  
Group C, P. 51 (Mm. 1-2)

The image shows a musical score for four instruments: Violin 1, Violin 2, Viola, and Cello. The score is for measures 1 and 2. The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 12/8. The Violin 1 part begins with a quarter note G4, followed by quarter notes A4 and B4, and a half note C5. The Violin 2 part has a quarter rest in measure 1 and a quarter note G4 in measure 2. The Viola part has a quarter rest in measure 1 and a half note G4 in measure 2. The Cello part has a whole rest in measure 1 and a whole note G3 in measure 2.

Group D, pp. 77-80, provides another grouping of cancelled and largely illegible sketch materials related to the second movement of Op. 127. These pages begin with an alternate version of the beginning of the movement. Example 8-7 is a transcription of the semi-legible sketch found on p. 77.

Group D, p. 92, is an important one-page sketch of the beginning of the movement. Although the sketch has been heavily cancelled by a large X covering nearly the entire page, it contains a significant variant form of the movement's opening measures. A transcription of this variant may be found in Example 8-8.

### Example 8-7 Group D, P. 77 (M. 3)

The musical score for Example 8-7 consists of four staves: Violin I, Violin II, Viola, and Cello. The key signature is three flats (B-flat, E-flat, A-flat) and the time signature is 12/8. The Violin I part begins with a melodic line that is slurred over the first three measures. The Violin II, Viola, and Cello parts provide harmonic support with sustained notes.



Example 8-8  
Group D, P. 92 (Mm. 1-15)

The musical score is written in 12/8 time and consists of three systems. The first system (measures 1-3) is for Violin 1 and 2, Viola, and Cello. The second system (measures 4-5) is for Violin I and II, Viola, and Cello. The third system (measures 6-8) is for Violin I and II, Viola, and Cello. The key signature is three flats (B-flat, E-flat, A-flat). Measure numbers 1, 1a, 1b, 2, and 6 are indicated above the staves.

The image shows a musical score for four instruments: Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Violoncello (Vc.). The score is divided into two systems. The first system covers measures 10 through 13, and the second system covers measures 14 through 17. The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 3/4. The Violin I part features a melodic line with eighth and sixteenth notes, often beamed together. The Violin II part provides a harmonic accompaniment with quarter and eighth notes. The Viola and Violoncello parts play a steady eighth-note accompaniment, with the cello part often featuring a more active bass line. The score includes various musical notations such as slurs, ties, and dynamic markings.

The form of the movement is traditionally analyzed as a theme with six variations.<sup>113</sup> See the diagram of form provided in Table 8-1. Variations 3 and 5 may not be truly independent and equal renditions of the theme, however, since they differ significantly from the primary variations in terms of thematic content. Similar to the third movement of the Ninth Symphony, the second movement of Op. 127 represents a compound variation form that includes significant areas of non-linear and non-thematic sectional substitution. These non-linear interjections function outside of the temporal flow of the variation process and imply a multi-linear formal continuity.

<sup>113</sup> Kerman, 210-8.

Table 8-1

## Formal Diagram of Op. 127, Second Movement

Measures	Form-Section	Primary Key Area
0-20	Theme	E flat
20-38	Variation 1	E flat
38-58	Variation 2	E flat
59-76	Variation 3 [First Contrasting Episode]	F flat [Written as E Major]
76-95	Variation 4	E flat
95-108	Variation 5 [Second Contrasting Episode]	D-flat Minor [Written as C-sharp Minor]
109-26	Variation 6	E flat

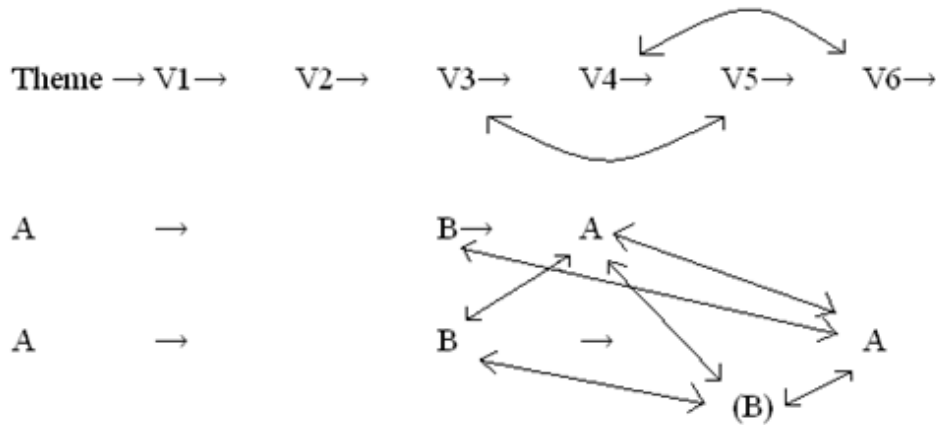
Kerman has suggested that the form of the movement may be perceived as a three-part ABA structure, with the theme and the first two variations as part A, the third variation as the contrasting B section, and the fourth, fifth, and sixth variations forming the concluding A section.<sup>114</sup> If this formal plan is understood by the listener then a plurality of linear continuities must also be perceived since variations 3 and 5 relate to each other much more strongly than they do to their adjacent primary variations. As shown in Example 8-9, variations 3 and 5, which may also be described as the first and second contrasting episodes, form an important non-linear connection with each other, thereby creating a plurality of formal scripts. The listener must either perceive the return of the large-scale A section to be either temporarily abandoned for variation 5

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<sup>114</sup> Kerman, 218.

Example 8-9

Multi-Linear Continuity in the Second Movement of Op. 127



(the second contrasting episode), or else to begin twice, once in m. 76 at the beginning of variation 4, and once in m. 109 at the beginning of variation 6.

Examples 8-3 and 8-4 provide transcriptions of fragmentary sketches from the “Krakow” materials that seem to display Beethoven’s interest in thematically and harmonically connecting variations 3 and 5. In Example 8-3 the important C sharp in the cello part during mm. 102-3 are not present, replaced by a form of the canonic imitation that is found in the viola part of the published version. This significantly obscures the foreground salience of the important background-level subdominant (D flat written as C sharp) that is expressed in this passage. In Example 8-4 Beethoven seems to have experimented with the idea of beginning the E-major third variation on a strong C-sharp minor chord in root position, thus presenting the important background-level subdominant at the beginning of the third variation rather than at the beginning of the fifth variation, or at least foreshadowing its later true arrival.<sup>115</sup> Another difference between

<sup>115</sup> The prominent C sharp in m. 58 suggests that a background-level subdominant may be established directly before the beginning of the third variation and that this prolonged subdominant might extend until the end of the fifth variation.

the sketch transcribed in Example 8-4 and the published version of these measures is the voicing of the important augmented sixth chord in m. 66. In the published version this chord includes two consecutive half-step intervals, derived from the pitches A sharp, B natural, and C, possibly representing an altered form of the motive of chromatic expansion from the first movement (B flat, B natural, and C) as a simultaneity. In the sketch this chord is much less dissonant, dispensing with the sustained B natural pedal and actually sounding a pure C-major triad for the first half of the second beat.

Even the primary variations (variations 1, 2, 4, and 6) do not allow an entirely linear perception of temporal continuity. Although the structural phrasing of the theme may be reflected somewhat clearly in the first variation, variations 2 and 4 seem to conceal the theme's established harmonic framework through complex melodic figuration. Most significantly the important dividing dominants of the half cadences in m. 6 and m. 13 of the theme are significantly obscured in these variations. The listener is therefore left without the necessary points of reference upon which to directly map the expected linear progression of the theme onto the harmonic structure of the variations, but must instead follow a seemingly new, and somewhat harmonically non-directional path through material that may or may not be strophically equivalent to the original theme. The important contrasting sections, i.e. variations 3 and 5, tend to confirm the listener's possible assumption that the thematic material of the inner portions of the movement may not participate in the same linear continuity as the primary theme and its most closely related variations.

William Kinderman analyzes the movement as a set of five variations and a single contrasting episode in the subdominant (variation 5).<sup>116</sup> In Kinderman's analysis a special

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<sup>116</sup> William Kinderman, "Beethoven's Last Quartets," in *The String Quartets of Beethoven*, ed. William Kinderman (Urbana, Illinois: University of Illinois Press, 2006), 287-90.

significance is attached to the third variation, the first non-tonic variation, that I have described as the first contrasting episode, especially the striking augmented sixth chord in m. 66. A comparison is made between this chord and the unusual setting of the words *Über Sternen muss er wohnen* in the Ninth Symphony. In the symphony these words are set to an abrupt and somewhat non-contextual E-flat major chord, the flat submediant of the local G major tonic. In both instances the prominent flat submediant harmony (represented by an augmented sixth chord in m. 66, but also emphasized by true flat submediant sonorities in mm. 70 and 74) is the apparent goal of a parenthetical excursion away from the tonic key of the larger structural section of the form, creating an unexpected diversion from the narrative and periodic continuity inherently suggested by the variation form archetype.

Deryck Cooke identified his motive A in the melody of the second variation (see Example 8-10a) and a version of motive y, labeled as yy, in variation 3 (see Example 8-10b).<sup>117</sup> In addition, I would also suggest that Cooke's motive B, the central four-note motive of the Galitzin quartets, may be found in mm. 0-2, the dissonant D flat in the first violin resolving to the C in the second violin part in m. 3, creating a small-scale but important multi-linear continuity since the D flat is part of a primary motivic declamation in the first violin part, but at the same time must simultaneously connect to a subsequent resolution pitch in another voice, at another temporal location. The resolution of this dissonant D flat not only requires the listener to either conflate or to re-arrange the voice leading expectations of the first and second violin parts, but also to accept that the resolution of the D flat will occur one beat late, on the second beat of the third measure instead of the first beat, the harmonic downbeat of m. 3 already being delayed by the one-beat retardation of the tonic A flat in the cello part. A further element of multi-linear

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<sup>117</sup> Deryck Cooke, "The Unity of Beethoven's Late Quartets," in *Vindications; Essays on Romantic Music* (Cambridge: Cambridge University Press, 1982), 150-1.

## Example 8-10 Motives Identified by Deryck Cooke

Example 8-10a



Example 8-10b



voice leading may be observed by the resolution of the other two pitch classes that form part of the B motive in this passage, namely the G to A flat resolution in the first violin part that actually occurs either simultaneously to the D flat to C resolution or else as a nested parenthetical expression within the same voice, see Example 8-11.

A version of Cooke's motive B may be found as the subject of canonic imitation at the beginning of the fifth variation, also described as the second contrasting episode. Example 8-2 provides a transcription of one of the fragmentary "Krakow" sketches in which this opening subject does not include the important paired half step intervals of motive B, but rather the three

## Example 8-11 Motive B in Mm. 0-3

*Adagio, ma non troppo e molto cantabile*

The musical score shows four staves: Violin 1, Violin 2, Viola, and Cello. The key signature is three flats (B-flat, E-flat, A-flat) and the time signature is 3/8. The music is marked *Adagio, ma non troppo e molto cantabile*. The first three measures show the entrance of Motive B. The Violin 1 part starts with a rest in the first measure, then enters in the second measure with a piano (*pp*) dynamic. The Violin 2, Viola, and Cello parts enter in the second measure with a piano (*pp*) dynamic. The motif consists of the notes E, G-sharp, and C-sharp. The dynamics are marked *pp*, *cresc.*, and *p* across the three measures.

itches E—G-sharp—C-sharp. This motive may represent a form of Cooke’s motive A, as that motive is likely the goal of a transformative process within the subsequent canon, but more importantly the pitch levels E—G—C comprise another important motivic thread connecting several of the seemingly extra-temporal passages of contrasting material in Op. 127, such as the E—G-sharp—C-sharp motive at the beginning of the third variation or the E-flat—G—C foreground structure in the first violin part during the opening *maestoso* of the first movement.<sup>118</sup> The keys of the three presentations of the *maestoso* frame in the opening movement are E flat, G, and C.

<sup>118</sup> Daniel Chua provides a discussion of the E—G—C motive, see Daniel Chua, *The “Galitzin” Quartets of Beethoven* (Princeton, New Jersey: Princeton University Press, 1995), 44-52.



As shown in the structural voice-leading graph of the entire movement, Example 8-12, the initial iteration of the theme includes two dividing half cadence.<sup>119</sup> After the theme is completed in m. 20 the middleground-level dividing dominants in the subsequent variations are significantly obscured and seem to progress in a rather non-directional manner towards the final background-level tonic in m. 109. The important rising fifth motive from D flat to A flat that is first heard in mm. 0-2 in the first violin part is repeated at a slightly deeper foreground level in mm. 100-9 and mm. 125-6. The motive may also be heard at the background level over the course of the entire movement, beginning on D flat in m. 1, progressing to E flat in m. 13, F flat in m. 100, G in m. 112, and ending on A flat in m. 126.

The most significant aspect of non-linear temporality that the listener is likely to experience in this movement derives directly from the non-directional phrase structure of the inner variations. Since the clearly articulated cadential place markers of the theme are not equally apparent in the inner variations, the listener is left without a clear reference to the progression of the form. Beginning with the second variation the foreground thematic content is sufficiently obscured to prevent the listener from necessarily perceiving the generic variation formal script, and since the expected series of progressive strophic variations is not presented in a recognizable manner the listener may assume that the majority of the movement is part of a free-variation fantasia-like structure or may be part of a parenthetical insertion within a larger formal design. The listener may well perceive a three-part ABA form with the theme and the first two variations as section A, the third variation as a contrasting and developmental B section, and the final three variations as the concluding A section; however, this suggested formal pattern itself presents an element of multi-linear continuity, since both the extra-temporal linkages

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<sup>119</sup> See Appendix E for a more detailed voice leading reduction of the second movement.

# Example 8-12

## Op. 127, Movement II

3      6 7 10      14 15      18 19      20

I      V I V      I<sup>6</sup> V I V       $\begin{matrix} 6-5-6-4 \\ 4-3-4-2 \end{matrix}$  [I<sup>6</sup>] IV V I

### Variation 1

24      28      32      35 36      37      38

I V I V      I<sup>6</sup> V I      I<sup>6</sup> V  $\begin{matrix} 5-6-4-2 \\ 3-4-2 \end{matrix}$  [I<sup>6</sup>] IV V I

### Variation 2

39 42 43      47      49 50      52 53      56      58

I V I V V      IV V  $\begin{matrix} 6-5-6 \\ 4-3-4 \end{matrix}$  V<sub>4</sub><sup>6</sup> I<sup>6</sup> IV

Variation 3

59 62 63 66 67 70 71 74 75 76

E [F#]: I V I Aug6 V<sup>6</sup> bVI V<sup>6</sup> I bVI V<sup>6</sup> I

[A#b: bVI]

Variation 4

77 80 81 84 86 88 89 92 93 94

I V V<sup>6</sup>  $\frac{6-5-4}{4-3}$  V  $\frac{6-5-4}{4-3-4}$  [  $\frac{5}{3}$  ] (V<sub>2</sub><sup>4</sup>[I<sup>6</sup>] IV V I)

Variation 5

97 98 99 100

Db: I<sup>6</sup> IV V I

102 104 105 107 109

Ab: IV V I

Variation 6

109 112 113 116 117 119 124 126

I V V<sub>2</sub><sup>4</sup> I<sup>6</sup> I<sup>6</sup> V I

between the non-primary variations to each other, as well as the veiled but still significant references to the traditional pattern of strophic variation form, contrasts with the three-part form and thereby initiates a plurality of formal scripts that the listener must simultaneously experience.

The listener may actually perceive a pattern of “concealed” or “hidden” repetition, perhaps better described by the term multi-level motivic repetition, as the primary manifestation of the variation principle in this movement. Since the harmonic structure of the inner variations is disguised so thoroughly by melodic figuration and the two contrasting variations do not

immediately suggest a thematic connection to the theme, it may be more likely that the listener will identify the similarity between the harmonic structure of the theme and the background structure of the entire movement than recognize the subtle allusion to the harmonic pattern of the theme that can be found in the inner variations only after careful study and repeated hearings. This suggests that a complex series of potential multi-linear continuities may be understood to unfold in this movement in terms of the variation principle, especially if it is considered that the entire movement may seem to the listener to represent a very lengthy first variation following the initial statement of the theme.

In many musical works the structural voice-leading of a thematic or sectional division, such as the initial thematic declamation of a movement in variation form, will resemble the large scale voice-leading reduction of the entire movement.<sup>120</sup> The “non-tonic” opening of the second movement from the Op. 127 Quartet, in regard to both the small-scale formal section supplying the initial presentation of the theme, as well as the movement’s overall large-scale design, suggests a similarity or correspondence between foreground harmonic organization of the thematic declamation (mm. 1-20) and the background-level structure of the entire movement.<sup>121</sup> Example 8-13 provides a voice-leading analysis of the complete second movement compared to a reduction of the theme alone. Significant aspects of multi-level motivic repetition described by the graphs in Example 8-13 include a distinct emphasis on subdominant harmony shortly before the final cadential motion and the absence of unambiguous tonic harmony at the beginning of

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<sup>120</sup> Charles Burkhart provides an explanation of multi-level motivic repetition in “Schenker’s ‘Motivic Parallelisms,’” *Journal of Music Theory* 22 (1978): 145-75, also see Allen Cadwallader’s dissertation “Multileveled Motivic Repetition in Selected Intermezzi for Piano of Johannes Brahms” (Ph.D. diss., University of Rochester, NY, 1982).

<sup>121</sup> A very similar pattern of translation between small and large scale tonal progressions is the subject of Irene Montefiore Levenson’s dissertation “Motivic-Harmonic Transference in the Late Works of Schubert: Chromaticism in Large and Small Spans” (Ph.D. diss., Yale University, CT, 1981).

Example 8-13

Voice-leading Reduction of the Entire Movement Compared to Mm. 1-20.

Entire Movement

3 100 107 109

I IV V I

Mm. 1-20

3 6 7 10 14 15 18 19 20

I V I V I<sup>6</sup> V I V I

6 5 6 4 / 4-3-4-2 [I<sup>6</sup>] IV V I

each progression.<sup>122</sup> Correlation between the small and large scales of harmonic progression in this movement, as shown in Example 8-13, may in addition to “hidden” structural repetition, also represent an element of multi-linear temporal continuity, the subjective recognition of the individual elements of “repetition” in this movement requiring the listener to actively integrate and compare two distinctly contrasting temporal frames of reference, one comprised of only twenty measures, the other consisting of more than one hundred and twenty-five measures.<sup>123</sup>

An important and somewhat unusual element of both multi-level structural repetition and multi-linear continuity in this movement is that the significant three-measure dominant anacrusis at the beginning of the movement functions simultaneously as the hypermetrical “upbeat” for both levels of the pattern of hidden repetition. As shown in Example 8-13, the dominant harmony in mm. 0-3 corresponds to the same level of structure in the graph of the twenty-measure theme as it does in the graph of the entire movement. Perhaps this multiple function of the initial dominant “upbeat” helps to explain Beethoven’s numerous experiments with different versions of these measures in the “Krakow” sketches, some contracted and some expanded in terms of length compared to the published version.

Example 8-14 provides a transcription of material taken from Group B, p. 1, corresponding to mm. 0-3 of the second movement. The sketch reveals a significantly shorter expression of the movement’s initial acquisition of foreground tonic harmony, the preliminary dominant sonority extending only the duration of four eighth notes in the sketch, but expanded to

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<sup>122</sup> Joseph Kerman has described the similarity of the harmonic pattern of the opening theme to the harmonic design of the entire movement, especially the connection between the important subdominant harmony shortly before the final cadence of the theme and the minor subdominant key-area of the fifth and penultimate variation. Kerman also notes the F flat in the cello line in m. 17 that very subtly foreshadows the minor subdominant of the fifth variation. See Kerman, 215.

<sup>123</sup> The tendency of the human mind to perceive similarity between overtly dissimilar objects or ideas is a basic premise of *Gestalt* psychology. The issue of musical form as a psychic *Gestalt* was often addressed by nineteenth and early twentieth-century German psychologists, see Mitchell G. Ash, *Gestalt Psychology in German Culture, 1890-1967: Holism and the Quest for Objectivity* (Cambridge: Cambridge University Press, 1995), 87-88.

Example 8-14

Transcription of Group B, P. 1 (Mm. 0-1),  
Compared to Mm. 0-3 of the Published Version

Mm. 0-1 from the Sketch

Musical score for Mm. 0-1 from the Sketch. The score is in 12/8 time and B-flat major. It features four staves: Violin 1, Violin 2, Viola, and Cello. The Violin 1 part begins with a melodic line in the first measure, which continues into the second measure. The Violin 2 part has a whole rest in the first measure and a half note chord in the second measure. The Viola part has a whole rest in the first measure and a half note chord in the second measure. The Cello part begins with a melodic line in the first measure, which continues into the second measure.

Mm. 0-3 of the Published Version

Musical score for Mm. 0-3 of the Published Version. The score is in 12/8 time and B-flat major. It features four staves: Violin 1, Violin 2, Viola, and Cello. The Violin 1 part has a whole rest in the first measure, followed by a melodic line in the second and third measures. The Violin 2 part has a whole rest in the first measure, followed by a melodic line in the second and third measures. The Viola part has a whole rest in the first measure, followed by a melodic line in the second and third measures. The Cello part has a melodic line in the first measure, followed by a melodic line in the second and third measures. The dynamic marking *pp* is present in the second measure of each part.



more than two entire measures in the published version. Although both versions begin with melodic and agogic emphasis placed upon the dominant sonority of the anacrusis, the published version greatly augments and prolongs this opening gesture, thereby establishing the initial dominant harmony as a primary element of the opening theme's structural voice-leading, if not the organization of the movement as a whole. The increased importance of the non-tonic opening in this movement, specifically as it is presented in the published version's expanded form, mirrors a similar large-scale progression from dominant towards tonic harmony that unfolds over the course of the entire movement.<sup>124</sup> Beethoven's apparent revision of this passage suggests that the exact manner and presentation of the movement's initial dominant sonority was an important aspect of the work's compositional history. The decision to expand the opening gesture from a brief motivic anacrusis to an extended period of harmonic stasis demonstrates the composer's assumption that the structural function of the shorter passage would be easily translated to the longer version through the linear and strongly directional cognitive bias of the subjective listener, revealing Beethoven's acceptance of an almost complete fluidity in regard to the variability of temporal continuities.

One of the most striking aspects of the beginning of the movement is the extended dominant harmony of the initial three-measure anacrusis. A dominant seventh chord is very slowly developed over the course of these measures in a manner that is at once rhythmically unsettled yet unusually emphatic in terms of structural and harmonic salience. This is perhaps the passage that Nottebohm referred to as a *langsamer Geburt*. These measures seem to establish an unmistakable suggestion of cadential motion at the very commencement of the movement, yet the expected tonic resolution is immediately undermined by the asynchronous resolution of the

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<sup>124</sup> Poudie Burstein has provided a thorough treatment of the so called "non-tonic" opening, an important theory for the structural analysis of music from the common practice era, see Burstein's dissertation "The non-tonic Opening in Classical and Romantic Music" (Ph.D. diss., City University of New York, 1988).

bass in m. 3. The listener is required to determine his or her own opinion in regard to the exact temporal location that marks the beginning of tonic harmony—and to what level the real or apparent structural tonic may correspond to the unusually strong initial declamation of dominant harmony heard at the beginning of the movement.

The initial tonic harmony that is suggested by the motivic gesture in the melody leading to m. 3 is profoundly destabilized by the continuation of the E-flat in the bass after the downbeat of that measure. This may be a rather subtle gesture on Beethoven's part, but clearly the continuation of the dominant across the borderline of the apparent structural downbeat significantly weakens the thematic integrity of the anacrusis as a finite representation of dominant harmony. It is significant that the sketches reveal so many attempts to re-compose or to experiment with the harmony and form of these measures, see Examples 8-5, 8-6, 8-7, 8-8, and 8-9.

In Examples 8-5, 8-6, and 8-7 Beethoven has extended or expanded the bass appoggiatura of the E flat to A flat harmonic resolution in m. 3. The appoggiatura is extended to two full beats in Examples 8-6 and 8-7; in Example 8-5 the A flat is reduced to a vestigial presence on the last eighth note of the measure. Example 8-8 provides a detailed sketch analogous to the first fifteen measures of the published version, but including an introductory dominant preparation that is two measures longer than the already lengthy anacrusis figure of the final version. The G flats in m. 1a and m. 1c of Example 8-8 are not only an unexpected harmonic surprise for the listener who may have only heard the published version of this movement, but also provide a very early and clearly non-contextual foreshadowing of the G flat

in m. 119, where it is part of a functioning although obscured dominant of the subdominant as part of the movement's closing middleground cadential progression.<sup>125</sup>

Because of this structural and harmonic uncertainty the tonic in m. 3 may be understood as either an appoggiatura upon a dominant chord, with E-flat as the functioning bass, or as a tonic chord that is weakened by its presentation in second inversion. Example 8-15 represents the tonic as a functional aspect of the foreground harmonic progression. In this graph the tonic in m. 3 provides the necessary assertion of tonic harmony for the dominant in m. 6 to achieve a true

### Example 8-15 Voice-Leading Reduction, Mm. 0-6 (Functional Tonic in M. 3)

<sup>125</sup> If the prominent C sharp in m. 58 is understood to establish a background-level subdominant that extends until the end of the fifth variation, then the apparent tonic key of A flat major in the fourth variation must function as a dominant of the subdominant, the G flats shown in the sketch transcribed in Example 8-8 would then foreshadow the importance of the dominant of the subdominant in the harmonic design of this movement. The F flat in the viola part in m. 1b of Example 8-8 may also reference the minor subdominant key area of D flat minor (enharmonically spelled as C sharp minor) that is heard in variation 5 and pre-figured in variation 3. Danial Chua has discussed the function of the G flat in m. 119, see Chua, 27-8.

periodic half cadence. Example 8-16 describes the tonic in m. 3 as a double appoggiatura. In this representation there is not a true half cadence in m. 6, but rather an extension of the middleground dominant that began at the beginning of the movement. Another important sign of the weak tonic is that the very prominent D-flat in the first violin part at m. 2 is not resolved in m. 3, suggesting that the dominant seventh sonority is prolonged rather than being resolved in m. 3, see Example 8-17.

### Example 8-16 Voice-Leading Reduction, Mm. 0-6 (Extended Dominant in M. 3)

m. 1                      m. 2                      m. 3                      m. 6

V

V  $\begin{matrix} 6 & \text{---} & 5 \\ 4 & \text{---} & 3 \end{matrix}$

## Example 8-17 Voice-Leading Reduction, Mm. 0-20

The image shows a musical score for Example 8-17, Voice-Leading Reduction, Mm. 0-20. It consists of two staves: a treble staff and a bass staff. The treble staff contains a melodic line with a triplet of eighth notes in measure 3, indicated by a '3' with a hat symbol above it. The bass staff contains a voice-leading reduction with harmonic symbols: I, V, I, V, I<sup>6</sup>, V, I, V, [I<sup>6</sup>] IV, V, I. Fingering numbers are provided for the bass staff: 3, 6, 7, 10, 14, 15, 18, 19, 20. A line connects the first 'I' in the bass staff to the first 'I' in the treble staff.

The multivalent quality of the tonic in m. 3, as well as the implied multivalence of subsequent tonic harmonies such as the one in m. 20, establishes an element of multi-linear continuity within both the formal and structural design of the movement, expressed primarily through the continued progression of these plural harmonic scripts. When the tonic chord arrives in m. 3 there are two harmonic locations that are simultaneously suggested, in the sense that a specific point within a normative harmonic progression must necessarily imply a finite temporal moment. If a truly functional tonic arrives in m. 3 then the movement essentially begins with a tonic “downbeat” and the preceding measures represent little more than an extended anacrusis; if m. 3, however is understood as a 6-4 appoggiatura upon the dominant then nothing has really begun in this measure in terms of harmonic progression, except that a strong aspect of motivic and thematic multivalence has been suggested and that the listener must now expect to extend the initial background dominant for a significant span of musical time. Since each of

these narrative-harmonic scripts must be understood to proceed throughout the remainder of the movement a complex multi-linear web is initiated, derived from at least two narrative structures, one in which the movement has begun with a clear structural downbeat and one in which a complex, deceptive, and unresolved dominant is maintained.

If a multiplicity of signification is communicated by the harmonic multivalence of the initial foreground level tonic in m. 3, then this same temporal multi-linearity must hold for the larger structural level repetition of this same harmonic script. Compare the graph of the initial twenty measures, Example 8-14 or Example 8-18, to the background level graph of the entire movement in Example 8-14. The principle of hidden structural repetition may not only translate the extended dominant anacrusis from the beginning of the movement to the background level, but more significantly the harmonic ambiguity of the initial tonic in m. 3 transfers to the background structure by undermining the stability of the numerous foreground tonic projections during all of the first three variations, mm. 21-95.

The two crucial locations that allow the listener to perceive the movement's primary pattern of concealed motivic repetition are the initial twenty measures and the subdominant second contrasting episode, also known as variation 5, especially mm. 99-107. These measures occupy an important position in relation to the background voice-leading of the movement, since the projection of subdominant harmony in these measures creates the essential element of correspondence between the large-scale structure of the movement and the small-scale structure of the theme that signifies the most apparent aspect of hidden motivic repetition—in other words, mm. 99-107 of the large-scale design directly relate to mm. 17-19 of the small-scale thematic declamation. Example 8-2 provides a transcription of variant material from the “Krakow” sketch sources corresponding to mm. 99-107 of the second movement. In this portion of the sketch

Beethoven seems to have experimented with a conflation of the first violin, second violin, and viola parts within the first violin part alone. Beethoven's reworking of this passage suggests the importance played by subdominant harmony in the general structure of the movement, retrospectively re-valued as an element of "hidden" repetition after the listener has heard the movement's large-scale design in its entirety. The composer's cancellation and subsequent revision of at least one "draft" version of this passage may perhaps reveal an effort to reformulate or to re-address the listener's capacity to perceive an important "place marking" within the movement's pattern of multi-level structural repetition.

The Schenkerian principle of "prolongation" may in some ways inherently incorporate the idea of multi-linear temporal continuity, especially if harmonic progressions of vastly contrasting temporal durations are considered to be similar or even identical voice-leading constructions. Example 8-18 provides a photographic reproduction of a marginal annotation from the "Krakow" sketches, probably relating to m. 34 of the published version of the Op. 127 String Quartet, second movement.<sup>126</sup> In the main body of the sketch's text (not shown in Example 8-18) Beethoven seems to have experimented with a different rendering of the sixteenth-note figuration currently found in the first violin part at m. 34, in the published version, and to have later canceled this revision by marking large strikes across the first violin staff. In the margin of the sketch Beethoven has inscribed a symbolic annotation (Example 8-18) in a manner unusually similar to modern Schenkerian analytical notation, possibly representing a form of graphic voice-leading reduction corresponding to the sixteenth-note figuration in the first violin part of m. 34. Beethoven seems to have suggested that a fifth progression extends from E-flat to B-flat,

#### Example 8-18

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<sup>126</sup> This sketch may be found on page 3 of Group B.

Photo-Reproduction from the Sketch Relating to M. 34  
Compared to M. 34 of the Published Version.

Photo-reproduction taken from the Sketch



M. 34 of the Published Version

(Second Half of the Measure, First Violin Part)



implicating the continued background prolongation of dominant harmony through this portion



of the movement. Both reductive techniques, Schenker's method as well as Beethoven's improvised short-hand technique, apparently eliminate precise rhythmic durations, and therefore remove the element of finite temporality from the critical assessment and encoding of the selected musical fragment.<sup>127</sup>

Heinrich Schenker was intrigued by a letter from Beethoven to Prince Nikolai Galitzin that seems to directly address the non-linear continuity of a foreground event in the second variation. In the letter Beethoven insists that the last thirty-second note of beat three in the viola part of m. 48 must be a D flat, as part of a 6-4 chord over the A flat in the bass, with D flat as the root, and that the disputed thirty-second note must not be changed to a C, which would create a 6-3 chord over the bass, with F as the root.<sup>128</sup> Heinrich Schenker's very insightful analysis of Beethoven's letter suggests that the composer was concerned about the expression of two foreground third progressions in contrary motion, each comprised of parallel thirds, that are not literally present in the score. As shown in Example 8-19, the D flat and F in the viola part, although not a simultaneity in the score, represent the middle notes of a descending third progression composed in parallel thirds, while the E flat and G flat in the first and second violin parts, that actually sound at the same time as the viola's D flat, represent the middle notes of an ascending third progression also composed in parallel thirds. Schenker therefore expects the

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<sup>127</sup> Heinrich Schenker's system of analytical notation was subject to a significant process of refinement and evolution during the theorist's lifetime, see William Renwick "Brackets and Beams in Schenker's Graphic Notation," *Theoria* 3 (1988): 73-85. The application of Schenkerian analytical notation to a wide range of often conflicting theoretical perspectives, as found in the academic discourse of the present day, has produced, perhaps paradoxically, an usual amount of standardization in regard to certain graphical conventions, see Kofi Agawu, "Schenkerian Notation in Theory and Practice," *Music Analysis* 8 (1989): 275-301.

<sup>128</sup> The literature concerning this single thirty-second note includes Beethoven's letter itself, no. 1405 in Emily Anderson's translation of Beethoven's letters; Schenker's article "Beethoven zu seinem Opus 127," *Tonwille* 7, 39-41; Oswald Jonas's article "A Lesson with Beethoven by Correspondence," *Musical Quarterly* 38 (1952): 215-21; and William Drabkin's article "Think of a Letter," *Musical Times* 139 (1998): 39-45.

## Example 8-19 Schenker's Diagram of M. 48

*a* *b* *c*  
*für* *nicht*

$\flat 7-6-5$        $\flat 7-6-5$   
 $5-4-3$              $5-3-3$

listener to hear an implied structural continuity as the primary foreground voice-leading for this very brief parallel progression.

Schenker observes that the motivic basis for this portion of the second variation derives from m. 11 and m. 12 of the theme, which present foreground descending and ascending third progressions.<sup>129</sup> Beethoven's letter and Schenker's article reference the idea of multi-linear continuity in several ways, including of course the structural and motivic continuity between the theme and the second variation, even extending to the motivic continuity of a brief motive in diminution within an inner voice. Perhaps more significantly, Beethoven's letter, especially an earlier draft of the letter found in the De Roda sketchbook (unknown to Schenker), provides an explanation of Beethoven's belief that a composer must break the rules of counterpoint when musical intuition requires him to do so.<sup>130</sup> The specific contrapuntal issue that Beethoven

<sup>129</sup> In the letter Beethoven states that "the motives are already written in the theme in this way." Schenker correctly identifies this comment as a reference to the melodic third progressions in m. 11 and m. 12.

<sup>130</sup> "As soon as our feelings reveal a new path to us, all the rules must be thrown out." For the original French and

describes is the dissonance created by an anticipation, a technique that the composer uses almost constantly in the Op. 127 Quartet and that inherently invokes the listener's acceptance of temporal distortion.

Although the "Krakow" sketches provide no alternate version of the D flat on the third beat that Beethoven addressed in his letter, there is a possible earlier canceled layer for the first half of m. 48 in the viola part of the extended score sketch (Group A). This canceled layer is transcribed in Example 8-20. The two differences between the published version and the canceled layer in the sketch suggest that the viola and the cello might have switched content with each other in the canceled version. The published version of the cello part provides a closer correlation to the motive in m. 12 of the theme and therefore prepares the possible motivic continuity of the implied contrary motion parallel third progression that Schenker suggests may be heard in the second half of the measure.

The "Krakow" sketches for the second movement of Op. 127 reveal that Beethoven experimented with significant variations to the published form of the *adagio* movement, such as the radically different harmonization of the melody found on p. 92 of Group D (see Example 8-8), or the contracted opening of the movement found in Examples 8-6 and 8-9, an essential or primal level of organizational structure was privileged by the composer in place of self-generative or diverging thematic treatment. In other words, despite the inherently developmental character of this variation movement, Beethoven apparently intended to maintain the elegance of the hidden, multi-level repetition at the cost of discarding surface level thematic development at several crucial moments of articulation, as may be seen by Beethoven's decision not to publish a version derived from sketches such as Example 8-9. In order to maintain this structural unity

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German text as well as an English translation of the earlier draft of the letter in the De Roda sketchbook, see William Drabkin, "Think of a Letter," *Musical Times* 139 (Autumn 1998), 39-45.

# Example 8-20

## Group A, M. 48 (Canceled Layer)

Published Version

Musical score for the Published Version of Example 8-20, Group A, M. 48 (Canceled Layer). The score is written for Violin 1, Violin 2, Viola, and Cello. The key signature is three flats (B-flat, E-flat, A-flat) and the time signature is common time (C). The music features a complex rhythmic pattern with many sixteenth and thirty-second notes. The first violin part starts with a fermata and a dynamic marking of *piu cresc.* The other parts also feature *piu cresc.* markings. The score is presented in a single system with four staves.

Canceled Layer

Musical score for the Canceled Layer of Example 8-20, Group A, M. 48 (Canceled Layer). The score is written for Violin I, Violin II, Viola, and Cello. The key signature is three flats (B-flat, E-flat, A-flat) and the time signature is common time (C). The music features a complex rhythmic pattern with many sixteenth and thirty-second notes. The first violin part starts with a fermata and a dynamic marking of *piu cresc.* The other parts also feature *piu cresc.* markings. The score is presented in a single system with four staves.

Beethoven needed to significantly emphasize both the importance and the structural multi-valence of the theme's initial dominant harmony, sketches such as those transcribed in examples 8-6 or 8-9 becoming unusable because of their suppressed initial area of dominant harmony. Multi-linear temporal organization is of course inherent in the harmonic scheme of hidden repetition, but perhaps a more intense unity within the temporal dimension is achieved in this work through Beethoven's extreme economy with the basic elements of multi-level repetition, suggesting either a unitary structural model, or else a form of temporally ubiquitous expression of the movement's harmonic script. Similar to Saint Augustine's deduction that only present time exists, Beethoven's multi-temporal unfolding of a singular harmonic design implies that only one process is underway in the work, although the listener's ability to locate the finite position of any one particular moment within that progression may remain almost entirely subjective.

## CHAPTER 9

### ANALYSIS OF THE SKETCHES CORRESPONDING TO THE THIRD AND FOURTH MOVEMENTS OF OPUS 127

“With those of the IX<sup>th</sup> symphony and the VII<sup>th</sup> quartet (Op. 59, No. I), this *scherzo* is the most advanced work Beethoven ever wrote. But while the *Allegretto scherzando* of the Op. 59 derives its highly developed construction from variety and musical treatment of *motifs*, the *scherzo* of the quartet in E flat is evolved from the germ of an idea gradually developed to complex maturity.”<sup>131</sup>

The third movement of the Op. 127 Quartet again demonstrates the extent to which Beethoven seems to have disguised through surface level elements of rudimentary melodic formulae, or references to pre-existing melodic tropes, the true extent of thematic and motivic continuity inherently contained within his ubiquitous quasi-developmental texture of additive variation. Joseph de Marliave not only commented upon the extreme complexity of this movement’s melodic structure, but also attempted to analyze the composer’s process of thematic transformation at the beginning of the movement. Marliave identified four primary-level motives, heard at the beginning of the *Scherzo*, and suggested that these motivic cells generate all of the movement’s subsequent material (see Example 9-1).<sup>132</sup> This observation is perhaps supported by the alternate version of the beginning of the *Scherzo* found in the “Krakow” sketches (Group B, p. 17), especially by Beethoven’s re-arrangement of these same primary-level motives in a different temporal sequence, even at their first occurrence within the sketch version.

The most important sketches in the “Krakow” collection related to the third movement of Op. 127 are pp. 17-21 of Group B and pp. 27-30 of Group B. The first sketch (pp. 17-21) provides an assortment of semi-fragmentary work products that offer an interesting re-

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<sup>131</sup> Joseph de Marliave, *Beethoven’s Quartets* (London: Oxford University Press, 1928), 241. [This book was originally published in French by the Librarie Félix Alcan, Paris in 1925].

<sup>132</sup> Example 7-1 is a representation of an example found in Joseph de Marliave’s *Beethoven’s Quartets*, page 242.

## Example 9-1

### Marliave's Motivic Analysis of Op. 127, Third Movement

The image displays a musical score for the third movement of Op. 127, specifically Marliave's Motivic Analysis. The score is arranged in two systems. The first system includes staves for Violin 1, Violin 2, Viola, and Cello. The Violin parts are marked with 'pizz.' (pizzicato). The Viola and Cello parts are marked with 'pizz.' and 'arco' (arco). The Cello part includes dynamic markings 'pp' and 'arco', and is annotated with letters A, B, and C. The second system includes staves for Violin I, Violin II, Viola, and Cello. The Cello part is annotated with 'D'. The score is in 3/4 time with a key signature of two flats.

arraignment of the movement's initial thematic material. Pp. 27-30 comprise a single and much higher quality sketch of the beginning section of the *Scherzo*, resembling a functional draft in terms of legibility and the degree of notational completion.

Example 9-2 provides a transcription of the sketch from Group B, p. 17, corresponding to mm. 1-26 of the published version (contracted to nineteen measures in the sketch). In the sketch Beethoven seems to have experimented with omitting several measures found in the published version, probably mm. 10-14, although this passage could perhaps be better characterized as conflated rather than as omitted in the sketch. M. 9-16 extend and repeat the idea of a cadential resolution formula, yet never achieve either a true authentic cadence or a convincing half cadence. The sketch also clearly omits the important *pizzicato* half cadence that

Example 9-2  
Group B, P. 17

Musical score for Violin 1, Violin 2, Viola, and Cello. The score is in 3/4 time and B-flat major. Violin 1 and Viola are silent throughout. Violin 2 has a melodic line starting in the fourth measure. The Cello has a rhythmic accompaniment with a trill in the fourth measure.

Musical score for Violin 1, Violin 2, Viola, and Cello. The score is in 3/4 time and B-flat major. Violin 1 has a trill in the fourth measure. Violin 2 has a melodic line with a trill in the fourth measure. Viola has a melodic line starting in the fourth measure. The Cello has a rhythmic accompaniment with a trill in the fourth measure.



12 *8<sup>va</sup>* *loco* *tr*

Vln. 1

Vln. 2

Vla.

Vlc.

Detailed description: This system contains measures 12 through 17. The first violin (Vln. 1) and second violin (Vln. 2) parts are in treble clef with a key signature of two flats. Measure 12 is marked with a first octave (*8<sup>va</sup>*) and a *loco* instruction. Both violins play a melodic line consisting of eighth and sixteenth notes, with trills (*tr*) in measures 13, 14, and 17. The viola (Vla.) and cello (Vlc.) parts are in bass clef. The viola plays a trill in measure 12 and rests in subsequent measures. The cello plays a rhythmic accompaniment of eighth notes in measures 12-14 and rests in measures 15-17.

18 *tr* *tr*

Vln. 1

Vln. 2

Vla.

Vlc.

Detailed description: This system contains measures 18 through 20. The first violin (Vln. 1) part has trills (*tr*) in measures 18 and 20. The second violin (Vln. 2) part plays a sustained note in measure 18, followed by rests in measures 19 and 20. The viola (Vla.) part plays a sustained note in measure 18, followed by rests in measures 19 and 20. The cello (Vlc.) part plays a rhythmic accompaniment of eighth notes in measure 18, followed by rests in measures 19 and 20.

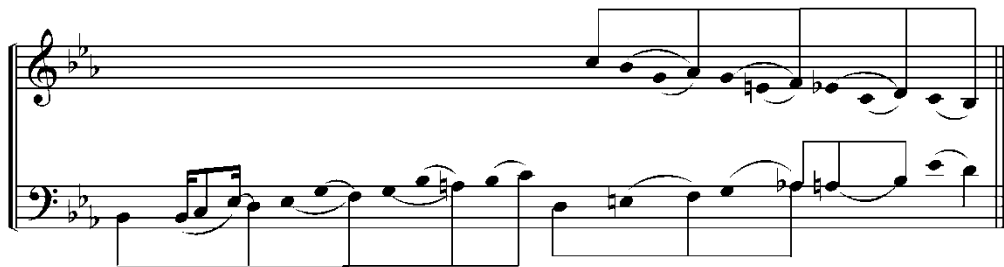
opens the published form of the movement. Example 9-3 provides a voice-leading reduction of the published form of mm. 1-36.

### Example 9-3 Voice-Leading Reduction of Mm. 1-36

The musical score for Example 9-3 is a voice-leading reduction of measures 1-36. It consists of two staves, treble and bass clef, with a key signature of two flats and a common time signature. The notation includes various note values, rests, and dynamic markings. A large slur covers the entire passage. Fingerings are indicated by numbers 1, 2, 17, 20, 27, and 36. A double bar line is at the end of the passage.

Daniel Chua has observed that the primary foreground motive of the third movement consists of a rising series of thirds followed by the inversion of this pattern, a falling series of thirds, see Example 9-4.<sup>133</sup> In addition, the pattern of consecutive thirds is controlled by a chromatic motive that articulates the cadences, as shown in Example 9-5.<sup>134</sup> Deryck Cooke finds two forms of his motive A in the movement's initial theme, labeled as motive *y* and motive *yy*, see Example 9-6.<sup>135</sup> Cooke's motive B, the central four-note motivic cell for all of the Galitzin quartets may also be found in this opening subject, see Example 9-7.

### Example 9-4 Daniel Chua's Analysis of the Rising Third Motive



<sup>133</sup> Daniel Chua, *The Galitzin Quartets of Beethoven* (Princeton, New Jersey: Princeton University Press, 1995), 14.

<sup>134</sup> Chua, 14.

<sup>135</sup> Cooke, 151.

Example 9-5  
Daniel Chua's Analysis of the Chromatic Motive

The image shows a musical score for a piano piece, consisting of two staves: a treble clef staff on top and a bass clef staff on the bottom. The key signature is two flats (B-flat and E-flat), and the time signature is 4/4. The score is divided into four measures. In the first measure, the treble staff has a quarter note G4, a quarter note A4, and a quarter note B4. The bass staff has a whole rest. In the second measure, the treble staff has a quarter note C5, a quarter note B4, and a quarter note A4. The bass staff has a quarter note G4, a quarter note F4, and a quarter note E4. In the third measure, the treble staff has a quarter note G4, a quarter note F4, and a quarter note E4. The bass staff has a quarter note D4, a quarter note C4, and a quarter note B3. In the fourth measure, the treble staff has a quarter note D4, a quarter note C4, and a quarter note B3. The bass staff has a whole rest. Above the treble staff, there are three groups of notes, each consisting of a quarter note followed by an eighth note beamed to it, and another eighth note beamed to the quarter note. These groups are: G4-A4-B4, C5-B4-A4, and G4-F4-E4. These notes are positioned above the treble staff, indicating they are not to be played but are part of the analysis.

Example 9-6  
Deryck Cooke's Motive A



# Example 9-7 Deryck Cooke's Motive B

B



Beethoven may have considered the specific sequencing of the motivic fragments identified by Marliave to signify the formal or temporal positioning of individual points within the overall form script. Marliave's motive B always follows motive A, creating an ascending aggregate form of the motivic complex; motive D always follows motive C, creating a descending aggregate form of the complex. Only at the beginning of the movement, the important initial utterance of the theme, does the ascending aggregate form precede the descending form, thereby signifying each subsequent appearance of the theme as a non-primary or referential expression. Although this manner of thematic organization might appear to enhance the formal stability of the movement by establishing the unitary nature of the initial thematic progression, the unique appearance of the prime motivic aggregate only at the beginning of the form serves to fundamentally undermine the necessary element of formal repetition and thematic rotation that is expected in a traditional instrumental *Scherzo*. The absence of the prime thematic aggregate at both the beginning of the "false repeat" of the first theme in m. 81, as well as the formal return of the scherzo-A-section in m. 269 create a non-linear or multi-linear progression in terms of the movement's thematic continuity, see the diagram of form in Table 9-1.

In m. 11-14 of the sketch found on p. 17 of Group B (Example 9-2) Beethoven experimented with a non-syntactic form of the motive (opposite in terms of directionality) as a counterpoint to the primary syntactic form. These non-syntactic contrapuntal elements were not included in the published version of the movement. One could interpret the meaning of the movement's missing ascending motivic aggregate, lost after its first and only appearance, as analogous to both the harmonic and thematic organization of the work as a whole. Harmonically the movement begins with a brief but emphatic half cadence in mm. 1-2 and never entirely

Table 9-1

## Formal Diagram of Op. 127, Third Movement

Measures	Form Section	Directionality of Primary Motivic Aggregate
1-2	Half cadence	N/A
3-36	Scherzo A	Ascending
37-69	Scherzo B	Descending
70-80	<i>Apostrophe</i>	Descending
81-122	Scherzo A (False Repeat)	Descending
123-43	Scherzo B (False Repeat)	Descending
144-268	Trio	N/A
269-307	Scherzo Return A	Descending
308-40	Scherzo Return B	Descending
341-51	<i>Apostrophe</i>	Descending
352-414	Scherzo Return (False Repeat)	Descending
415-26	Second Trio	N/A
Codetta	427-35	Descending



regains this firm background-level tonic until the last measure of the movement, if in fact even that tonic sonority is not merely a foreground feature. Thematically the movement's necessary element of periodic repetition is rendered deeply ironic through the absence of the ascending form of the theme at each expected return, but also and perhaps even more profoundly by the disruption of the *apostrophe* before important moments of sectional articulation, see the diagram in Table 9-1.

The sketches for this movement demonstrate the variable nature of Beethoven's compositional process in regard to a work that itself represents a highly variable state of formal multi-valence. Whatever the purpose or purposes might have originally been for the "Krakow" sketch materials, these work products demonstrate that Beethoven at least considered alternate arrangements of thematic content for the movement. Perhaps this should not be surprising considering that the published version itself presents the listener with an ironically unfinished entity, which the listener must either subjectively re-compose or else accept as a paradoxical manifestation of non-continuous repetition within a very traditional instrumental form normally based upon true repetition.

In the finale Beethoven returns to the rustic tone of the opening movement, again building a complex and intricate formal structure from a patterning of continuous thematic repetition. Similar to the formal scheme of traditional European folk dances the music unfolds from sustained reiteration of entire phrases, which are then subjected to progressively varied treatment at each recurrence, while still retaining the cyclical alternation of distinct sectional division. In this movement Beethoven continues the practice of harmonic misdirection that had already been well established in the first movement of the Op. 127 Quartet, as demonstrated by the opening C-minor figuration, the abrupt modulation to the dominant in m. 23, and the

inclusion of secondary key areas such G major and E major. As Michael Steinberg has observed, the movement contains a significant aspect of formal or temporal misdirection, most significantly seen in the development section's apparent thematic emulation of the exposition, as well as by the gradual deterioration of sectional form into an amorphous and reflective coda.<sup>136</sup>

The most significant sketch in the "Krakow" collection related to the fourth movement of Op. 127 may be found on p. 9 of Group B. Although this sketch is not entirely legible it provides a relatively continuous text possibly corresponding to mm. 9-12 of the published version. There are other materials in the "Krakow" sketches that may correspond to the fourth movement of the Op. 127 Quartet, but these sketches are mostly illegible and extremely fragmentary. Example 9-8 provides a transcription of the sketch found on p. 9 of Group B.

The sketch of the fourth movement does not include the initial C-minor figuration in mm. 1-4. Although the published version's invocation of C-minor may be readily understood by the listener as a superficial gesture, beginning the movement without this element of harmonic slight-of-hand re-values the importance of E-flat major in terms of the middleground harmonic structure of the movement. A voice-leading reduction of the entire movement is shown in Example 9-9.

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<sup>136</sup> Michael Steinberg, "Notes on the Quartets," in *The Beethoven Quartet Companion*, eds. Robert Winter and Robert Martin (Berkeley, California: University of California Press, 1994), 227.

Example 9-8  
Group B, P. 9

Musical score for Violin 1, Violin 2, Viola, and Cello. The score is in 4/4 time and features a key signature of two flats (B-flat and E-flat). The Violin 1 part contains a melodic line with eighth and sixteenth notes. The Violin 2, Viola, and Cello parts are currently blank.

Musical score for Violin 1, Violin 2, Viola, and Cello. The score is in 4/4 time and features a key signature of two flats (B-flat and E-flat). The Violin 1 part contains a melodic line starting at measure 6. The Violin 2, Viola, and Cello parts are currently blank.

12

Vln. 1

Vln. 2

Vla.

Vlc.

Detailed description: This system contains measures 12 through 16. The first violin (Vln. 1) part features a melodic line of eighth notes, starting on a G4 and moving up to a G5. The second violin (Vln. 2) part is silent. The viola (Vla.) part is silent. The violoncello (Vlc.) part provides a rhythmic accompaniment with eighth notes, starting on a G2 and moving up to a G3.

17

Vln. 1

Vln. 2

Vla.

Vlc.

Detailed description: This system contains measures 17 through 21. The first violin (Vln. 1) part has a melodic line with a long note, starting on a G4 and moving up to a G5. The second violin (Vln. 2) part is silent. The viola (Vla.) part is silent. The violoncello (Vlc.) part is silent.

## Example 9-9 Movement IV

Daniel Chua has observed that the melodic subject of the fourth movement contains the same intervallic sequence as the theme of the first movement, see example 9-10.<sup>137</sup> Deryck Cooke has noted that the recapitulation of the primary subject in m. 188 of the fourth movement includes not only the intervallic pattern of the first movement theme, but also the actual pitches in the first violin's contrapuntal response, see Example 9-11.<sup>138</sup> Cooke's motive B, the central four-note motive of the Galitzin quartets may also be found in the fourth movement's primary subject, as shown in Example 9-12.

<sup>137</sup> Daniel Chua, *The Galitzin Quartets of Beethoven* (Princeton, New Jersey: Princeton University Press, 1995), 47.

<sup>138</sup> Deryck Cooke, *Vindications; Essays on Romantic Music* (Cambridge: Cambridge University Press, 1982), 152.

Example 9-10  
Comparison of Movement I and Movement IV,  
Primary Themes

The image displays two musical staves in 3/4 time, both in a key signature of three flats (B-flat major or D-flat minor). The first staff shows a primary theme consisting of six quarter notes: B-flat, D-flat, F, B-flat, D-flat, and F. A bracket underneath groups the first four notes. The second staff shows a primary theme consisting of six quarter notes: B-flat, D-flat, F, B-flat, D-flat, and F. A bracket underneath groups the first four notes. Both staves end with a double bar line.

Example 9-11  
Mm. 188-9, Violin Parts

The image displays two staves of violin parts, labeled 1 and 2, in 3/4 time and a key signature of three flats. Staff 1 (Violin 1) features a melodic line with slurs over the first two measures and the last two measures. Staff 2 (Violin 2) features a rhythmic accompaniment with slurs over the first two measures and the last two measures. Both staves end with a double bar line.

## Example 9-12

### Deryck Cooke's Motive B in the Primary Subject



Example 9-13 provides a voice-leading reduction of the published version of mm. 1-12. In the published version Beethoven seems to have implied a multi-layered, or non-linear harmonic progression. One layer establishes a dominant sonority in m. 5 and cadences on the tonic in m. 11; another layer establishes a supertonic sonority in m. 5 and arrives at a half cadence on the dominant in m. 12. The sketch version seems to have been an attempt to resolve only the second of these two harmonic progressions. Since there is no bass line in the sketch at the point that correlates to m. 11 of the published version, the tonic pitch in the bass is not present in order to establish an authentic cadence at this point. In addition Beethoven has apparently also altered the first violin part at this measure to avoid the suggestion of tonic harmony.

## Example 9-13 Voice-Leading Reduction of Mm. 1-12

1                    5                    7                    11                    12

V                    I  
II                    V

Joseph Kerman has suggested a conceptually normative form of the theme, similar to the conceptual archetypes that were proposed for themes from the Sixth and Ninth symphonies in Chapter 4 of this dissertation. Kerman's normative theme regularizes the hypermetrical organization of the melody by conflating mm. 19 and 20 of the published version and ending the phrase on a clear half cadence, see Example 9-14. The sketch on p. 9 of Group B also shortens the final segment of the phrase by one measure and provides a more emphatic dominant sonority than the published version, see m. 7 of Example 9-8.<sup>139</sup>

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<sup>139</sup> Joseph Kerman's discussion of the fourth movement from Op. 127 may be found in *The Beethoven Quartets* (New York: W. W. Norton & Company), 234-8. Kerman also discusses the structural importance of the A-flat to G melodic motion that is so often repeated in this movement at various octaves and at various levels of voice leading, similar to the middleground pattern shown in Example 9-9.



## Example 9-14

### Joseph Kerman's Normative Form of the Primary Theme



The sketch on p. 9 of Group B demonstrates that several thematic elements of the movement's beginning section are able to operate independently, and that Beethoven at least considered a different order of presentation for this material. The voice leading analysis of these passages and their structural connectivity must allow for an understanding of their inherent functional plasticity. The voice leading of the published version represents a primary layer of structural content, yet latent within the published text are the remains of several additional non-continuous versions for the structure of this part of the movement.

## CHAPTER 10

### THE PHENOMENOLOGY OF TEMPORAL DISCONTINUITY AND THE POSTMODERN ESTHETIC IN BEETHOVEN'S LATE-PERIOD STRING QUARTETS

For Martin Heidegger the concept or knowledge of “being” was inextricably connected to the idea of temporality. In fact time was described as the “horizon” for any possible understanding of “being.”<sup>140</sup> If it may be said that beings exist in time, then Beethoven’s distortion of linear temporality must not only re-organize time, but must also re-structure the existence of certain objects, ideas, or “beings.” As the listener conceptually unifies the non-adjacent threads of thematic, motivic, and harmonic continuity in Op. 127, both the concept of “continuity” and the listener’s awareness of temporality are displaced from their normative objective valuation into a subjective position of primary significance.

According to Dorothea Frede, “‘to be’ means ‘to be already understood as.’”<sup>141</sup> Beethoven’s temporal discontinuities may not attempt to directly call into question the existence of the musical works in which they reside, although there is the clear possibility of existential ambiguity in the epitext *muss es sein* from the Op. 135 Quartet, but rather the existential location or perhaps simply the meaning of the existence of musical works as finite “beings” seems to be the primary issue in many of Beethoven’s instrumental works. In other words, Beethoven’s discontinuous structures require so much active re-construction by the listener that there is a significant fusion between the “being” that is hearing the music and the “being” that is being heard. This conflation of subjective and objective “being” may have been Beethoven’s purpose for the distortion of temporal linearity.

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<sup>140</sup> See the introduction to William D. Blattner’s *Heidegger’s Temporal Idealism* (Cambridge: Cambridge University Press, 1999), 1-30.

<sup>141</sup> Dorothea Frede, “The Question of Being: Heidegger’s Project,” in *The Cambridge Companion to Heidegger*, ed. Charles B. Guignon (Cambridge: Cambridge University Press, 1993), 57.

The opening six-measure “frame” of Op. 127 represents a fragment that is both incomplete and distinctive. The recognition of a pattern in regard to its formal role in the first movement of Op. 127 is perhaps more of an exercise generated by the need of the listener to theorize either a specific or a general overreaching function for this fragmentary interruption than an actual apprehension of cyclic structure. It is therefore the listener’s perception of his own formal construction that is perceived and not the objective element itself.

Heidegger’s understanding of phenomenological intentionality can be compared to Beethoven’s self-referential temporal discontinuities.<sup>142</sup> When the composer distorts the linear coherence of a traditional formal design by creating a plurality of possible continuity scripts, he is necessarily fracturing the listener’s ability to intend or to perceive the musical work. A new process of *intention* may of course be established, in which the work is not considered as a single self-revealing entity, but rather as a group of possible “beings;” the nature of the *intendum*, the perceived thing, however, would then be fundamentally disconnected from the subjective act of perceiving; and more significantly the process of perceiving would then involve an object or “being” that is no longer finite. Beethoven may have been expressing a fundamental anxiety regarding the perception of musical meaning, or at least uncertainty regarding the listener’s process of re-constructing a level of ideal reality from any specific musical work, rather than simply “understanding” a musical work through the transaction that Heidegger calls “empty” intentionality, that is the perception or ideation (*vornehmen*) of a “being” that is not self-revealing or self-substantiating. The mid-movement entries of the *maestoso* “frame” in the first movement of Op. 127 seem to communicate more to the listener through their interruption of an otherwise continuous musical flow than through their finite musical content.

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<sup>142</sup> See Martin Heidegger’s discussion of intentionality in *History of the Concept of Time*, trans. Theodore Kisiel (Bloomington, Indiana: Indiana University Press, 1985), 36-47.

Beethoven may have been attempting to question the nature of a musical work as an object. Similar to Wittgenstein's distinction between "seeing" and "seeing as," Edmund Husserl described the relation between direct perceptual intuition of or "acquaintance" with an object and a deeper level of ideation in which meaning is given to all intended entities.<sup>143</sup> For Husserl these two processes are strictly correlated, since all reflection upon or consciousness of objects, whether real or imagined, ascribes meaning to them. Beethoven seems to accelerate the listener's process of understanding a musical work as an entity with meaning by disturbing the effect of direct intuition and requiring the listener to actively and subjectively ascribe meaning to the music. The larger structure of the second movement of Op. 127, for example, arises from the exploitation of idiosyncratic methods of continuity, such as the harmonic connection between the flat submediant and the minor subdominant key areas, or the motivic connections between variations that are too thoroughly disguised to be perceived without sustained and intentional analysis.

Another fundamental aspect of ontology that may be called into question through Beethoven's distortion of temporal linearity relates to Heidegger's reading of Immanuel Kant's notion of "perception." According to Heidegger there are three elements within the act of perception: perceiving (the general notion that a thing may be perceived), perceived (the finite object of perceiving), and the perceivedness of the perceived.<sup>144</sup> It is perhaps the third member of this trilogy that Beethoven manipulates most directly. Since any specific musical work will always be the perceived thing, regardless of its form or structure, the second element cannot be fundamentally displaced; however, the quality of perceivedness may be significantly altered, in

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<sup>143</sup> See the discussion of perceptual intuition in James M. Edie's *Edmund Husserl's Phenomenology* (Bloomington, Indiana: Indiana University Press, 1987), 7-9.

<sup>144</sup> See Heidegger's discussion of the intentionality of perception in *The Basic Problems of Phenomenology*, trans. Albert Hofstadter (Bloomington, Indiana: Indiana University Press, 1982), 55-76.

fact the existence, or specifically the “extantness,” of a musical work may become infinite or entirely subjective if the time in which it is perceived or intended is ambiguous or unknowable.

Understanding the musical language or structure of Beethoven’s late-period quartets presents, of course, a challenge. If the meaning of these works is unknowable, then their interpretation derives not from perception, but rather from subjective formulation. If the structure of the second movement of Op. 127 is not immediately perceived, but rather understood after careful analysis, then is Beethoven’s music the actual object of intention or has the *intentionum* become the structure created by the music analyst?

Edmund Husserl attempted to describe the qualities of time as an objective element. Interestingly a musical example is used to demonstrate that a purely objective element cannot be entirely removed from the phenomenological perception of time—when a melody is heard, says Husserl, the perception of the music must derive from the apprehension of the pitches in a finite two-dimensional succession of events.<sup>145</sup> Beethoven may have attempted to alter exactly this close connection between music and objective temporal placement by so strongly suggesting the distortion of musical continuity. As Husserl describes Objectivity, it is not the primary or real qualities of an entity that creates phenomenological objectiveness, but rather its *intended* characteristics.

The lived and experienced content is “Objectified,” and the Object is now constituted from the material of this content in the mode of apprehension. The object, however, is not merely the sum or complex of this “content,” which does not enter into the object at all. The object is more than the content and other than it...<sup>146</sup>

Husserl’s view of “time-consciousness” may be compared to Beethoven’s process of temporal distortion and discontinuity. According to Husserl, only the idea of “now” can be a

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<sup>145</sup> Edmund Husserl, *The Phenomenology of Internal Time-Consciousness*, trans. James S. Churchill (Bloomington, Indiana: University of Indiana Press, 1964), 23

<sup>146</sup> Husserl, *The Phenomenology of Internal Time-Consciousness*, 27.

temporal designation that is not objective or produced by intention. All temporal constructions that involve either the future or the past must be formed entirely of elements that do not actually exist, but rather did exist or will have existed. It is exactly this mutability of reality and temporal sequence that Beethoven seems to exploit in his discontinuous forms. Husserl describes the attributes of entities associated with the now as follows:

The temporal species of past and future have the peculiarity that they do not determine the elements of the sensuous representations with which they combine, as other supervening modes do, but alter them instead. A louder tone *c* is nevertheless a tone *c*, and so too is a weaker tone *c*. On the other hand, a tone *c* that *was* is not a tone *c*, a red that *was* is not a red. Temporal determinations do not determine: they alter essentially, exactly as the determinations “represented,” “wished,” and the like, do. A thaler represented, a possible thaler, is no thaler. Only the determination “now” constitutes an exception. The *A* that now exists is certainly an actual *A*. The present does not alter, but on the other hand it does not determine either. If I append the now to the representation of a man, the man acquires no new characteristics thereby, nor is any characteristic designated in him. The fact that perception represents something as now adds nothing to the quality, intensity, and spatial determination of what is represented.<sup>147</sup>

Heidegger contended that not only do all intended beings exist *in* time, but that the perception and the perceivedness of “beingness” itself, the self-perceiving aspects of the *Dasein*,<sup>148</sup> exist *in* time. The “state of being” can only be understood as an expression of time and the fundamental element of the self-perceiving *Dasein* is temporality, since it is only capable of existing in the now and it must always have already existed before the now. The “state of being” represents an intended idea that is primarily a function of time.<sup>149</sup>

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<sup>147</sup> Edmund Husserl, *On the Phenomenology of the Consciousness of Internal Time*, trans. John Barnett Brough (Boston: Kluwer Academic Publishers, 1991), 15 (emphasis is mine). [I am referencing two translations of Husserl’s *Vorlesungen zur Phänomenologie des inneren Zeitbewusstseins*; henceforth I shall refer to this translation as Husserl (Brough) and the previously cited translation as Husserl (Churchill)].

<sup>148</sup> The *Dasein* is a complex notion that Heidegger defines somewhat differently than other philosophers. Heidegger was insistent that the *Dasein* is not a subject, since the *Dasein* exists “within” the same universe as its objects and did not create all attributes of all objects, yet the *Dasein* in everyday terms is what would be called the “self” or possibly even the “mind.” You, the psychic entity who is reading this dissertation, are the *Dasein*.

<sup>149</sup> Blattner, 254-61.

Beethoven's formal discontinuities seem to increase the listener's perception of his own temporal existence. The importance of intended objects and their temporal characteristics to the self-referential "sense of being" that is inherent to the *Dasein* cannot be overstated, at least within Heidegger's understanding of phenomenology.<sup>150</sup> Since the horizon of "being" is fundamentally temporal, an intended object that fundamentally shifts or distorts this element presents the necessity of temporal linearity to the listener's attention by seeming to threaten its continued sustainability. Just as an automobile may be said to "always" drive upon a road, or a boat may be said to "always" float upon water, the self-perception of the *Dasein* may be said to "always" exist within time; if the road for the automobile or the water for the boat becomes problematic or ceases to continue, then the existential parameters of the tautology are tested, in the same way that the continued projection of temporal linearity seems to re-structure the self-perception of the *Dasein*.

If Beethoven alters the nature of the listener's understanding of temporal linearity by requiring the formal continuity of a musical work to be conceptually re-structured, then a necessary aspect of the listener's "sense of being" must also be re-constructed and therefore re-evaluated. Not only the listener's perception of the musical work's "state of being" is re-formulated, but more importantly the listener's basic sense-of-being-in-the-world that is an *a priori* aspect of the *Dasein*. According to Heidegger, "Being is understood and conceptually comprehended by means of time."<sup>151</sup>

The purpose or the meaning behind Beethoven's temporal discontinuities may not have been simply to call into question the perception of existence, but possibly to call attention to an element of perceived temporal objectivity that would have been more important to Beethoven as

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<sup>150</sup> Heidegger, *History of the Concept of Time*, 135-42.

<sup>151</sup> See Heidegger's description of *Zeitlichkeit* and *Temporalität* in *The Basic Problems of Phenomenology*, 275.

a composer, namely the aspect of temporal apprehension that relates directly to Saint Augustine's assertion that only present time exists and that both past and future time are abstract representations created by a mind that must always remain within the omnipresent now. For Edmund Husserl the perception of music was an important metaphor for the apprehension of temporal objectivity. The listener perceives music as a temporal object, yet the temporal structuring that must be accomplished by the listener is always enacted within the now.

...for the comprehension of a sequence of representations... it is necessary that they be the absolutely simultaneous Objects of a referential [beziehended] cognition which embraces them completely and indivisibly in a single unifying act... Whenever consciousness is directed towards a whole whose parts are successive, there can be an intuitive consciousness of this whole only if the parts combine in the form of representatives... of the unity of the momentary intuition... That several successive tones yield a melody is possible only in this way, that the succession of psychical processes [is] united... in a common structure.<sup>152</sup>

Although a musical work has an actual temporal reality in the universe it is only the representation of the temporal structure by a mind that must be confined to the present that can be perceived. Musical structure, in the same way as any object derived from the succession of multiple temporal events, is created by the listener and not transferred or directly intuited from the world. Beethoven, possibly having discovered this principle of musical perception through his experiments with form, seems to radically alter the linearity of form in some of his late-period works in order to allow the listener to freely create the temporal structure through the process of representation.

The representation of form is the only true structure of a musical work. A number of possible events, such as barking dogs, noisy children, or errors by the musicians may alter or render uncertain the actual sonic reality of a musical performance (musical notation providing an idealized but not entirely specific representation of performance); therefore, it is only in the mind

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<sup>152</sup> Husserl (Churchill), 40-1.



of the listener, a mind that structures both time and temporal form, that musical works exist. Beethoven's understanding of this process allows not only for the creation of non-linear continuity, which the subjective listener will re-arrange, but more importantly multi-linear continuity, which the listener must actively evaluate and which may comment upon the temporal embodiment of the *Dasein* itself.

Beethoven's requirement that a musical work's primary strand of conceptual continuity reside or be re-constructed within the mind of the subjective listener suggests a postmodern esthetic in regard to musical time.<sup>153</sup> Irony, fragmentation, and syntactic discontinuity are common features of both the postmodern trend of late twentieth and twenty-first century performance artworks as well as Beethoven's fundamentally anti-formalist approach to musical composition.<sup>154</sup> The important element of self-referentiality and inherent contradiction displayed in postmodern musical works transposes the subjective source of meaning from the text of the work itself to a point within the mind of the listener. Beethoven achieves this re-arrangement of semantic voicing through the apparent temporal discontinuities found in many of his instrumental works.<sup>155</sup>

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<sup>153</sup> For a detailed analysis of "postmodernism" in terms of literary structure and semantic organization see Linda Hutcheon's *The Poetics of Postmodernism* (New York: Routledge, 1990). An important aspect of the "postmodern" esthetic, according to Hutcheon, is the structural inclusion or integration of fragmentation and/or discontinuity. Jonathan D. Kramer's article "Postmodern Concepts of Musical Time" specifically addresses the temporal organization of the finale from Mahler's Seventh Symphony and the preface to Charles Ives's *Putnam's Camp*, see Jonathan D. Kramer, "Postmodern Concepts of Musical Time," *Indiana Theory Review* 17 (1996): 21-61.

<sup>154</sup> Concerning the question of whether or not the term "postmodern" should be applied to an art work from the early nineteenth century, Umberto Eco has described the applicability of the "postmodern" esthetic to a certain type of artistic or literary work from any historical period. "Actually, I believe that postmodernism is not a trend to be chronologically defined, but, rather, an ideal category—or, better still, a *Kunstwollen*, a way of operating. We could say that every period has its own postmodernism, just as every period would have its own mannerism (and, in fact, I wonder if postmodernism is not the modern name for mannerism as metahistorical category)," Umberto Eco, "Postmodernism, Irony, the Enjoyable," in *Postmodernism and the Contemporary Novel*, ed. Brian Nicol (Edinburgh: Edinburgh University Press, 2002), 110-1.

<sup>155</sup> "We should expect postmodern musical time to be created at least as much by listeners as by composers, to differ from one listener to another, and to be fragmented, discontinuous, nonlinear, and multiple. The notion of the multiplicity of musical time—that music can enable listeners to experience different senses of directionality, different temporal narratives, and/or different rates of motion, all *simultaneously*—is indeed postmodern," Kramer, 22. In the

The fluidity of subjective time, required by Beethoven's non-linear and multi-linear projections of traditional formal scripts, closely resembles Saint Augustine's supposition that both past and future time, at least in terms of the human perception of these quantities, are functions of present time alone.<sup>156</sup> Augustine answered the question of God's presumed temporal omnipresence by suggesting that only present time possesses an essential reality, i.e. that recollection of the past and speculation about the future are both actions occurring in the present time; God's perfect condition, therefore, involves only an existence within an "eternal" present, since God could not have pre-dated his own creation.<sup>157</sup> In Beethoven's complex distortions of form, relative to clock-time, all the phases of a conceptual script may co-exist simultaneously, although the archetype retains its temporal continuity.<sup>158</sup>

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same article Jonathan D. Kramer has provided the following list of traits that are likely to be found in a postmodern musical work, Kramer 21-2.

1. is not simply a repudiation of modernism or its continuation, but has aspects of both;
2. is, on some level and in some way, ironic;
3. does not respect boundaries between sonorities and procedures of the past and of the present;
4. seeks to break down barriers between "highbrow" and "lowbrow" styles;
5. shows disdain for the often unquestioned value of structural unity;
6. refuses to accept the distinction between elitist and popular values;
7. avoids totalizing forms (e.g., does not an entire piece to be tonal or serial or cast in a prescribed formal mold);
8. includes quotations of or references to music of many traditions and cultures;
9. embraces contradictions;
10. distrusts binary oppositions;
11. includes fragmentations and discontinuities;
12. encompasses pluralism and eclecticism;
13. presents multiple meanings and multiple temporalities;
14. locates meaning and even structure in listeners, more than in scores, performances, or composers

<sup>156</sup> For a brief summary of Augustine's understanding of "time" see Bertrand Russell's *A History of Western Philosophy* (New York: Simon & Schuster, 1945), 352-5. Augustine's definition of "time" is found in *Confessions*, chapter 20.

<sup>157</sup> "There are, he [Augustine] says, three times: 'a present of things past, a present of things present, and a present of things future...' time is subjective: time is in the human mind, which expects, considers, and remembers," Russell, 354.

<sup>158</sup> The possibility of non-linear referentiality within a musical work, derived entirely from the conceptual understanding of a work's "beginning," "middle," and "ending" has been addressed by the composer John Cage, "we not only can go forward in time but we are able to go backwards in time... if music is conceived as an *object*, then it has a beginning, middle, and end, and one can feel rather confident when he makes measurements of the time. But when it [music] is *process*, those measurements become less meaningful." Cage suggests that in a musical *process*, it is often

An essential aspect of Beethoven's fragmented formal archetypes is the process by which the dis-ordering of sequential sections inherently lends extended meaning, and therefore value, to both the conceptually normative sequence, as well as the new non-ordered arrangement. As Linda Hutcheon has observed, postmodern art "asserts and then deliberately undermines such principles as value, order, meaning, control, and identity."<sup>159</sup> Hutcheon has also suggested that individual fragments of a dis-ordered artwork form complex and dense networks of intertextual associations and that each of these fragments "enacts or performs, as well as theorizes, the paradoxes of continuity and disconnection, of totalizing interpretation and the impossibility of final meaning."<sup>160</sup> Since Beethoven's complex formal scripts for the late string quartets seem to both revalue and simultaneously de-legitimate the "bourgeois" consciousness of coherent form, the question of form itself must be considered. It is possible to question whether or not these movements might actually represent an attempt to destroy the *idea* of form through their compelling re-arrangement of formal principles. If fragmentation itself is the meta-textual conceit that Beethoven intended to express, then study of the composer's fragmentary sketches is that much more significant and relevant to the spirit of the works themselves.

Beethoven's process for the re-construction, or perhaps even the re-symbolization of formal archetypes dialectically opposes the previous social order of bourgeois classical formal models. This tension may then result in the re-valuation, either one way or the other, of the fundamental meaning and signification of the classical forms, at least as these forms may be

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difficult or impossible to determine whether the conceptual direction of musical motion is "forward" or "backward;" Beethoven's complex formal *processes* share this ambiguity of directional polarity, yet often manage to simultaneously reference the musical "object" of the sonata-form archetype, see John Cage, "Interview with Roger Reynolds," in *Contemporary Composers on Contemporary Music*, ed. Elliot Schwartz and Barney Childs (New York: Holt, Rinehart, and Winston, 1967), 340.

<sup>159</sup> Hutcheon, 12.

<sup>160</sup> Hutcheon, 14-5.

understood to represent functional and finite expressions of a socially valid synthesis. The various expressions of human communication that include either ritualistic elements of socially-necessary repetition, or else systematically conform to pre-existing stylistic controls, tend to assume the epistemological structure of narrative; eighteenth-century sonata form may perhaps represent the perfect example of such a socially-constructed narrative, since it is derived from an almost entirely abstracted language of expressive symbols. When Beethoven disrupts the rules of such a musical narrative he is essentially calling into question the validity of the meta-narrative, and it is this deeper layer of narrative that may serve to ground the “legitimacy” of the art work itself.<sup>161</sup> This concept of Beethoven’s apparent attack on the meta-narrative of classical form is extremely relevant to the study of Beethoven’s sketch fragments, since in a world without formal meta-narratives all that remains is the expression of independent “versions” of the “well lost” original.<sup>162</sup> From this perspective it could be suggested that Beethoven’s fragmentary sketches are all equally valid in comparison to the published versions of these works, and that the sketch fragments need not necessarily be compared to the published version, but perhaps the published or stable version should sometimes be thought of as a variant of the sketch fragment. In terms of Platonic idealism, if there is no universal form for a thing, then logically there can never be individual expressions of it.

We must therefore conclude that in a universe without established or universal forms, but rather a number of equally valid versions of an unknown and unknowable archetype, the foundational principles for the coherent expression of meaning become almost entirely

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<sup>161</sup> Brian McHale discusses the “anxiety of metanarratives” in *Constructing Postmodernism* (New York: Routledge, 1992), 5.

<sup>162</sup> See Brian McHale’s description of a world with only versions of a lost original form in *Constructing Postmodernism*, 5.

subjective. In this environment the importance of generic or stylistic gestures greatly supersedes the usually more semantically rich language of formal signification. In many of his late period compositions Beethoven blends or merges contrasting elements of musical style, such as operatic recitative with plainsong, or folk music with academic counterpoint.<sup>163</sup> This process requires the listener to compress his awareness of musical time, both in terms of the intellectual understanding of the customary time and places associated with the referenced musical styles, but more importantly in order to understand the necessary temporal compression inherently suggested by the accumulation of multiple strands of musical continuity simultaneously expressed within a single work.

Umberto Eco has suggested that a postmodern plot may be constructed through the quotation of plots from pre-existing literary works.<sup>164</sup> It is perhaps a similar process through which Beethoven seems to provide quotations of coherent and established musical forms, while simultaneously composing an intensely ironic and often counter-intuitive structural framework into which these suggestive quotations are placed. In the case of a musical work, any significant multiple layering of meaning involves an element of temporal distortion. It is interesting to note that although the most important aspect of multi-linear temporality at work in Beethoven's late period music involves the conflation of large sections of the form, the manipulation of small-scale time compression or augmentation found in many of the sketch fragments is perhaps an echo of that effect. If the rejection of classical musical semantics that is typical of Beethoven's experimental style can be thought of as a form of modernism, and surely the process of systematically de-signifying an established meta-language must be considered an historically

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<sup>163</sup> David Harvey has described the ironic conglomeration of socially incongruous artistic expressions as "flexible accumulation," see Harvey's essay "Time-Space Compression and the Postmodern Condition," in *Postmodernism and the Contemporary Novel*, ed. Brian Nicol (Edinburgh: Edinburgh University Press, 2002), 40.

<sup>164</sup> Eco, 110.

modernist expression, then the idea of ironically quoting fragments from that destroyed language must also be thought of as a post-modern expression.<sup>165</sup>

Post-modernism in music must almost necessarily concern the fragmentation of time. Since music, unlike the plastic or literary arts, can only be understood as an expression of finite time, the process of communicating an ironic extension of any musical structure requires a subjective re-formulation of time. The indispensable substrate of music is time itself. Post-modernism has been described as the re-textualization, or perhaps more directly as the re-texting of existing artifacts.<sup>166</sup> The study of Beethoven's sketch fragments provides an opportunity to explore some of the composer's most interesting experiments with the re-texting of his own musical materials, and more importantly the re-texting of his own non-linear language for the creation of musical continuity.

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<sup>165</sup> "The avant-garde destroys, defaces the past... But the moment comes when the avant-garde (the modern) can go no further, because it has produced a metalanguage that speaks of its impossible texts (conceptual art). The postmodern reply to the modern consists of recognizing that the past, since it cannot really be destroyed, because its destruction leads to silence, must be revisited: but with irony," Eco, 111.

<sup>166</sup> "If one takes '(post)' in the sense of an 'after,' one has posited a traditional notion of history based upon 'period'—a unique, homogeneous segment of time which in its totality represents the 'spirit of an age.' Only traditional modernists read (post)modernism in this way... Those who oppose such a progressive, linear notion of history and believe that history is in itself a problematic issue (since it is only a representation)... regard '(post)' to be a sign of 'reading,' interpretation, and 'textuality.' For these, (post)modernism would mean the re-reading or textualization of modernity," Mas'ud Zavarzadeh and Donald Morton, *Theory, (Post)Modernity, Opposition: An "Other" Introduction to Literary and Cultural Theory* (Washington, D.C.: Maisonneuve, 1991), 46.

## CONCLUSION

“Time is not a reality, but a concept, or a measure.”<sup>167</sup>

Although most people think about music as the organization of sound, it really is time that is the single irreplaceable aspect of musical expression. Sound, of course, is nothing more than the perception of vibrating pressure waves traveling through the air. These vibrations can only be measured, understood, or perceived in terms of the time required between sonic waves. Without time there could be no sound. More importantly the vital aspect of musical sound is the repeated pulsation of periodic cycles. Without time there could be no rhythm, no melodic patterns, nor any kind of larger musical structure.

If “music” is really “time,” then is it possible that “time” is actually “music?” Imagine a musical composition derived purely from the flashing of colored lights. The lights would flash in predictable and unmistakably ordered rhythmic patterns. This composition would exist almost entirely within the listener’s perception and understanding of time. In this example “time” becomes “music.” The process of thinking about time, of comparing or contrasting one unit of time to another, requires the listener to perform a series of operations very similar to the most fundamental principles of musical form, such as repetition, variation, continuation, etc.

Beethoven’s work is often characterized by the stark manipulation of one or more of the basic elements of music. Sometimes it may be tone color that is subject to the composer’s novel methods of re-organization, at other times it may be harmony, or texture. In his late-period compositions, Beethoven seems to have approached the idea of manipulating the most

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<sup>167</sup> Antiphon the Sophist, *Truth*, Fragment 9. For a modern translation as well as the original Greek text of Fragment 9 see Gerald J. Pendrick’s *The Fragments: Antiphon the Sophist* (New York: Cambridge University Press, 2002) 106-7.

fundamental aspect of music itself by intentionally attempting to control the listener's perception of time.

The study of Beethoven's fragmentary compositional sketches is, therefore, especially relevant in the case of these time-distorting late period works. Since the sketch fragments often suggest alternative versions of important passages from the finished works, a multi-linear relationship is necessarily implied in order to conceptually model the co-existent expression of both the published version and the sketch version. More importantly the sketches often suggest an alterity to the linear flow of the published form of the music that may not have been obvious to the listener from hearing the published form alone.

Beethoven's sketches reveal a significant pattern of reworking and re-creating textual variants for significant portions of the Op. 127 Quartet. In a number of instances the variant material in the sketches appears to re-order important aspects of the works' background voice-leading structure. Systematic study of the composer's sketches provides the music analyst with a rare insight into Beethoven's technique for the construction of profoundly complex musical designs. This dissertation has attempted to describe in detail a selected number of these variant readings from the sketches, and thereby demonstrate previously unexamined relationships between the background structure of the sketch variants and the published versions of the same musical works.

“Time present and time past  
Are both perhaps present in time future,  
And time future contained in time past.  
If all time is eternally present  
All time is unredeemable.”<sup>168</sup>

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<sup>168</sup> These are the first five lines from T. S. Elliot's *Four Quartets* (New York: Harcourt, Brace & World, 1943), 3.



APPENDIX A  
CRITICAL NOTES FOR EXAMPLE 7-1

## Introduction

Example 7-1 provides a transcription of the complete score-sketch of the first movement found on pages 81-91 of Group D. The sketch differs from the published version of the movement in many significant ways. There are a large number of discrepancies regarding the beaming of eighth or sixteenth notes, slur indications, dynamic markings, and staccato markings. These elements of the score-sketch differ from the published version in almost every measure of the text. In many cases orthographic variants such as the beaming of eighth notes or the absence of slur markings in the sketch may derive from the incomplete nature of Beethoven's sketching process, but in some instances the specific notation of the sketch appears to indicate the possible interpretation of a musical gesture that differs from the interpretation implied by the notation of the published score. Part I of the critical notes for Example 7-1 lists areas of the sketch that differ from the published version in terms of pitch, motivic, or thematic content. Part II of the critical notes for Example 7-1 describes areas of the sketch that differ from the published version in terms of orthography. The abbreviation "BH" indicates the Breitkopf and Härtel collected works edition.

### Part I

- M. 13            The third beat of the second violin part is an  $f^1$  quarter note, instead of e flat<sup>1</sup> and  $f^1$  eighth notes.
- M. 30            b flat<sup>2</sup> in the first violin part, rather than b natural<sup>2</sup>.
- Mm. 30-1        Second violin, viola, and cello parts differ significantly from BH.
- Mm. 38-9        The second violin does not enter in imitation to the entrance of the first violin and viola parts in the previous measure. M. 38 and the first two beats of m. 39 are *tacit*.
- Mm. 48-9        These measures differ significantly from BH in all parts.
- M. 50            Viola part differs significantly from BH.
- M. 51            Cello part differs significantly from BH.
- Mm. 53-5        These measures differ significantly from BH in all parts.
- M. 56            Second violin and viola parts differ significantly from BH.
- M. 57-60        Second violin part differs significantly from BH.
- M. 63            Second violin part differs significantly from BH.
- M. 64            Viola and cello parts differ significantly from BH.
- Mm. 65-72      Second violin, viola, and cello parts differ significantly from BH.

- M. 72            There is a canceled measure following m. 71 that may be an alternate version of m. 72.
- M. 80            Second violin, viola, and cello parts differ significantly from BH.
- Mm. 82-8        Viola part differs significantly from BH.
- Mm. 83-9        Second violin part differs significantly from BH.
- Mm. 84-7        There is a secondary canceled layer in the viola part.
- Mm. 89-92       Cello part differs significantly from BH.
- Mm. 92-4        First violin part differs significantly from BH.
- Mm. 92-7        Second violin and viola parts differ significantly from BH.
- Mm. 100-6       Beethoven notates several pitches as F sharp that are F naturals in BH and several pitches as E natural that are E flats in BH. It is likely that Beethoven considered these measures to be played with a key signature of two or three flats.
- Mm. 107-10      Second violin part differs significantly from BH.
- Mm. 107-12      Viola part differs significantly from BH.
- Mm. 109-10      First violin part differs significantly from BH.
- Mm. 119-20      Viola part differs from BH; some of the notation is illegible.
- Mm. 121-34      All parts differ significantly from BH. Most of these measures include cancellations.
- Mm. 147-66      Second violin, viola, and cello parts differ significantly from BH.
- Mm. 171-3        Viola part differs significantly from BH.
- M. 174           First violin part differs significantly from BH.
- Mm. 236-8        Second violin, viola, and cello parts differ significantly from BH.
- M. 280           The viola part differs significantly from BH, but this measure is nearly illegible because of conflicting multiple layers of text.

## Part II

- M. 1            Tempo indication is not legible.  
Forte dynamic marking is provided only in the first violin part.  
Notation of the second violin part is missing or illegible.  
Stem direction for the viola half note is downward. [In many instances Beethoven notates downward stems on the right side of the note heads. This practice is corrected in the current transcription in order to conform to the customary notation of printed scores].
- M. 2            *Sforzando* indication is provided only in the first violin part.  
Stem direction of the first eighth note in the viola part is downward.  
Stem direction for the cello part is downward.  
There is no staccato indication for the final eighth note.
- M. 3            There is no *sforzando* indication.  
Second violin part is missing or illegible.  
Stem direction for the viola and cello parts is downward.
- M. 4            A dark smear covers all the notation in this measure except for the final eighth note in the first and second violin parts.  
There is no staccato indication for the final eighth note in the first and second violin parts.
- M. 5            The sketch does not include double stops for the second violin part and the first dotted quarter note of the viola part.  
Stem direction for the final eighth note in the first violin and cello parts is downward.  
Staccato indication for the final eighth note is only provided for the first violin part.
- M. 7            There is no double bar line at the beginning of the measure.  
Tempo indication is not legible.  
The indication “*sempre p e dolce*” is only provided for the first violin part.  
The indication “*teneramente*” is missing or illegible.  
Stem direction in the cello part is downward.
- M. 7-9          There is no slur in the second violin part.
- M. 7-10        There is no slur in the cello part.
- M. 8            Stem direction in the cello part is downward.
- M. 8-9         There is no slur in the viola part.

- M. 9 Stem direction for the first violin part is downward.  
Stem direction in the cello part is downward.
- Mm. 9-13 There is no slur in the second violin part.
- M. 10 Stem direction in the cello part is downward.
- Mm. 10-1 There is no slur in the viola part.
- M. 11 Stem direction for the second two quarter notes in the viola part is downward.  
Stem direction for the half note in the cello part is downward.
- Mm. 11-3 There is no slur in the cello part.
- M. 12 Stem direction in the viola part is downward.
- M. 13 Stem direction in the first violin part is downward.  
Stem direction in the cello part is downward.  
There is a semi-legible layer in which the cello slur begins at the start of the measure.
- Mm. 13-4 There is no slur in the second violin part.  
The slur in the viola part begins in m. 14.
- M. 14 Stem direction in the first violin part is downward.
- M. 15-8 There is no slur in the cello part.
- M. 16 There is no dynamic indication of *p*.  
Stem direction in the viola part is downward.
- M. 17 There is no dynamic indication of *p*.  
Stem direction in the second violin part is downward.
- M. 17-8 The slur in the first violin part is notated beneath the staff.
- M. 18 Stem direction for the first two quarter notes in the viola part is downward.  
The slur in the viola part does not extend to m. 19.
- Mm. 18-21 There is no slur in the cello part.
- M. 19 The six eighth notes in the cello part are beamed together. Stem direction is downward.
- Mm. 19-20 The slur in the first violin part is notated beneath the staff.

- M. 20 Stem direction is downward for the first four eighth notes in the viola part.  
The six eighth notes in the cello part are beamed together. Stem direction is downward.
- M. 21 Stem direction in the second violin part is downward.
- M. 22 Dynamic indication of *f* is only provided in the first violin part.  
There is no staccato indication for the second quarter note in the first violin part.  
Eighth notes on beats two and three in the second violin and viola parts are indicated by half notes with one slash.
- Mm. 23-4 Eighth notes in the second violin and viola parts are indicated by dotted half notes with one slash.
- M. 24 Stem direction in the cello part is downward.
- M. 25 Eighth notes on the first two beats in the second violin part are indicated by a half note with one slash.  
Eighth notes in the viola part are indicated by a dotted half note with one slash.  
Stem direction in the cello part is downward.  
There is no slur in the cello part.  
There is no staccato indication in the cello part.
- M. 26 Stem direction in the first violin part is downward.  
Eighth notes on the first beat in the second violin and viola parts are indicated by quarter notes with one slash. Eighth notes on beats two and three in the second violin and viola parts are indicated by half notes with one slash.  
There is no slur in the cello part.
- M. 27 There are no staccato indications.  
Eighth notes on the first two beats in the second violin and viola parts are indicated by half notes with one slash.  
The six eighth notes in the cello part are beamed together.
- M. 28 *Sforzando* indication is only provided in the first violin part.  
There are no staccato indications on the third beat.  
Eighth notes on the third beat in the second violin part are indicated by a quarter note with one slash.  
Eighth notes on the first two beats in the viola and cello parts are indicated by half notes with one slash.
- M. 29 *Sforzando* indication is only provided in the first violin part.  
There are no staccato indications.  
There is no slur in the second violin, viola, and cello parts.  
Eighth notes on the first beat in the first violin part are beamed together; eighth notes on beats two and three in the first violin part are beamed together.

Stem direction in the second violin part is downward.  
Eighth notes on beats two and three in the second violin and viola parts are indicated by quarter notes with one slash.  
Eighth notes on beats two and three in the cello part are indicated by a half note with one slash.

- M. 30 *Sforzando* indication is only provided in the first violin part.  
Staccato indications are only provided for the second and third beats of the first violin part.  
The six eighth notes in the first violin part are beamed together.  
There is no slur in the second violin, viola, and cello parts.  
Eighth notes on the first two beats in the second violin and viola parts are beamed together. Stem direction is downward.  
Eighth notes on the second and third beats in the cello part are indicated by quarter notes with one slash. Stem direction for the third beat is downward.
- M. 31 *Sforzando* indication is only provided in the first violin part.  
Staccato indications are only provided in the first violin part.  
The six eighth notes in the first violin part are beamed together.  
There is no slur in the second violin, viola, and cello parts.  
The last eighth note in the second violin part is illegible.
- M. 34 d natural courtesy accidental is not provided in the cello part.
- M. 35 There is no dynamic indication of *p*.  
Stem direction in the first violin part is downward.  
There is no slur in the viola part.  
There are no staccato indications in the cello part.  
Stem direction in the cello part is downward.
- M. 36 There is no dynamic indication of *p*.  
Stem direction in the first violin part is downward.  
There are no staccato indications in the second violin part.  
Stem direction in the second violin part is downward.  
There are no staccato indications for the first two beats of the viola part.  
There are no staccato indications in the cello part.  
Stem direction in the cello part is downward.  
There is a secondary layer in the first violin part that is identical to the first violin part in the previous measure.
- M. 37 The six eighth notes in the first violin and viola parts are beamed together.
- M. 38 Stem direction in the first violin part is downward.  
Stem direction in the viola part is downward.

- M. 39            There are no staccato indications.  
 There are no slurs in the first violin and viola parts.  
 Stem direction for the first quarter note in the first violin part is downward.  
 Stem direction in the cello part is downward.
- M. 40            Crescendo indication is not provided in the cello part.  
 Stem direction for the last eighth note in the second violin part is downward.  
 The two quarter notes in the viola part are double stops, d and d<sup>1</sup>.  
 The beam for the eighth notes on the first beat in the cello part is divided. Eighth notes on the second and third beats in the cello part are provided as a half note tremolo; the beam is divided.
- M. 41            There is no double bar line at the beginning of the measure.  
 Dynamic indication of *p* is only provided in the first violin part.  
 The first two beats in the second violin part are two quarter notes, g<sup>1</sup> and g, rather than a double stopped half note.  
 Stem direction in the viola and cello parts is downward.
- Mm. 41-2        There is no slur in the viola part.
- Mm. 41-4        Crescendo and decrescendo expression markings are only provided in the first violin part.
- M. 42            Stem direction in the viola and cello parts is downward.
- M. 43            Stem direction for the second and third beats in the second violin part is downward.  
 There is no slur in the viola part.  
 The double stop in the cello part is indicated with separate stem directions, rather than both pitches on the same stem.
- M. 44            Stem direction in the second violin part is downward.  
 The second beat of the viola part is two eighth notes, d and g, rather than a quarter note d.  
 Stem direction of the last quarter note in the cello part is downward.
- Mm. 44-5        There is no slur in the viola part.
- Mm. 44-6        There is no slur in the cello part.
- M. 45            There is no *dim* indication.  
 There is no courtesy accidental for the f natural<sup>2</sup> in the first violin part.  
 Stem direction for the first quarter note in the second violin part is downward.  
 Stem direction in the cello part is downward.
- Mm. 45-6        The dotted half note in m. 45 of the viola part is not tied to the half note in m. 46.



- M. 46            There is no slur in the second violin part.  
Stem direction in the viola and cello parts is downward.
- M. 47            Crescendo indication is missing or illegible.  
The third beat in the second violin part is a quarter note c sharp<sup>1</sup>, rather than  
eighth notes C sharp<sup>1</sup> and C sharp<sup>2</sup>.  
Stem direction in the cello part is downward.  
There is no slur in the second violin, viola, and cello parts.
- Mm. 49-50      There is no slur in the second violin and cello parts.
- M. 50            The six eighth notes in the first violin part are beamed together.  
Stem direction in the second violin part is downward.
- M. 51            The six eighth notes in the first violin part are beamed together.  
Stem direction for the first quarter note in the second violin part is downward.
- M. 52            There are no slurs in the second violin and cello parts.
- M. 56            Dynamic indication of *f* is indicated in all parts.  
Staccato indications are only provided for the eighth notes on beat two and three  
in the first violin part.  
The six eighth notes in the first violin part are beamed together.  
Eighth notes on beats two and three in the cello part are beamed together.  
The last eighth note in the cello part is c, rather than c<sup>1</sup>.
- M. 57            Dynamic indication of *p* is only provided in the first violin part.
- M. 57-8          There are no slurs in the first violin part.  
The cello part is one octave lower than BH.  
There are no crescendo and decrescendo expression markings in the cello part.
- M. 59-60        Stem direction in the cello part is downward.  
There are no crescendo and decrescendo expression markings in the viola and  
cello parts.
- M. 60            The first quarter note in the first violin part is illegible.  
The second quarter note in the cello part is illegible.
- M. 63            There are no staccato indications.  
There is no *f* dynamic indication.  
There is a slur in the first violin part.  
The first two eighth notes in the viola part are on the pitch b flat, rather than g and  
f natural<sup>1</sup>.  
Stem direction in the viola part is downward.

The first eighth note in the cello part is D, rather than e flat.  
The first two eighth notes in the cello part are beamed together with a divided beam. Eighth notes on beats two and three in the cello part are beamed together; stem direction is downward.

- M. 64            There are no staccato indications.
- Mm. 64-74      There are no grace notes after the trills in the first violin part.
- M. 65            Dynamic indication of *f* is only provided in the first violin part.
- Mm. 66-74      There are no *tenuto* indications.
- M. 75            There is no double bar line at the beginning of the measure.  
Stem direction in the viola and cello parts is downward.  
The half note in the cello part is not double stopped.
- M. 76            There are no staccato indications.  
*Sforzando* indication is only provided in the first violin part.  
Stem direction in the first violin part is upward.  
The first eighth note in the second violin part is a double stopped d<sup>1</sup> and b<sup>1</sup>, rather than a triple stopped g, d<sup>1</sup>, and b<sup>1</sup>.  
Stem direction in the viola and cello parts is downward.
- M. 77            Stem direction in the viola and cello parts is downward.
- M. 78            There are no staccato indications.  
*Sforzando* indication is only provided in the first violin part.
- M. 79            There are no staccato indications.
- M. 80            There is a dynamic indication of *f* in the first and second violin parts.  
Dynamic indication of *p* is only provided in the first and second violin parts.  
Decrescendo expression marking is only provided in the first and second violin parts.
- M. 81            There is no double bar line at the beginning of the measure.
- Mm. 81-2        There is no slur in the first violin part.
- Mm. 81-146     There are no slurs in the cello part.
- Mm. 84-8        There are no slurs in the first violin part.
- Mm. 87-143     There are no slurs in the viola part.

- Mm. 88-90 Stem direction in the viola part is downward.
- M. 89 There is no crescendo indication.
- Mm. 89-92 There is no slur in the second violin and viola parts.
- M. 94 The second beat in the cello part is eighth notes, c and G, rather than a quarter note G.  
There is no decrescendo expression marking.
- M. 95 There is no dynamic indication of *p*.
- Mm. 95-109 There are no slurs in the first violin part.
- M. 96 There is a decrescendo expression marking in the first violin part.
- M. 97 There is a dynamic indication of *p* in the first violin part.
- Mm. 98-100 Stem direction in the second violin part is downward.
- Mm. 98-106 Stem direction in the viola part is downward.
- M. 99 There is a quarter note  $g^2$  on the first beat in the first violin part.  
There is no dynamic indication of *p*.
- M. 100 The dotted half note in the viola part is f sharp, rather than f natural, or the natural symbol is not indicated.
- M. 101 There is a canceled secondary layer in the cello part.
- M. 102 Dynamic indication of *p* is missing or illegible.
- Mm. 102-3 There is a canceled secondary layer in the viola part.
- M. 103 There is no crescendo indication.  
The dotted half note in the second violin part is e natural<sup>2</sup>, rather than e flat<sup>2</sup>, or the natural symbol is not indicated.
- M. 104 There is a crescendo indication in the first violin part.  
The dotted half note in the cello part is F sharp, rather than F natural, or the natural symbol is not indicated.
- Mm. 104-6 Stem direction in the viola part is downward.
- M. 105 The dotted half note in the cello part is E natural, rather than E flat, or the natural symbol is not indicated.

- M. 106 The dotted half note in the second violin part is f sharp<sup>2</sup>, rather than f natural<sup>2</sup>, or the natural symbol is not indicated.
- M. 107 There is a change of key signature at the beginning of the measure; the new key is indicated by three flats.  
Dynamic indication of *f* is only provided in the first violin part.
- M. 108 Dynamic indication of *f* is missing or illegible.
- M. 109 Dynamic indication of *f* is only provided in the first violin part.  
Stem direction for the second quarter note in the cello part is upward.
- M. 112 There is no indication of diminuendo.  
Beaming for the first beat in the first and second violin parts is divided.  
Stem direction for the second and third beats in the first violin part is downward.  
Beaming for the second and third beats in the viola part is divided.
- M. 113 There is no dynamic indication of *pp*.  
Stem direction in the first violin part is downward.
- M. 114 Beaming for the first beat in the cello part is divided.
- M. 116 The viola part is illegible.
- M. 117 There is no double bar line or change of key signature.
- M. 118 There is no indication of crescendo.  
Stem direction in the viola part is downward.  
There is a courtesy accidental provided for the b flat in the viola part.
- M. 119 There is no *Maestoso* indication.  
There is no double bar line at the beginning of the measure.  
Dynamic indication of *ff* is only provided in the first violin part.  
There is a secondary canceled layer in the viola part.
- M. 136 There are no *sf* indications.  
There are no staccato indications.  
The first eighth note in the second violin part is a double stop c<sup>2</sup> and e<sup>2</sup>, rather than a quadruple stop g, e<sup>1</sup>, c<sup>2</sup>, and e<sup>2</sup>; the quarter note and the last eighth note are b<sup>1</sup>, rather than a double stop f<sup>1</sup> and b<sup>1</sup>.  
Stem direction in the second violin part is downward.  
The first eighth note in the viola part is a double stop e and g, rather than a double stop c and g; the quarter note and the last eighth note are a double stop f and g, rather than a double stop d and g.

- M. 137      The double stopped half note in the second violin part is c<sup>2</sup> and e<sup>2</sup>, rather than an octave double stop e<sup>1</sup> and e<sup>2</sup>.  
The double stopped half note in the viola part is e and g, rather than c and e.
- M. 138      There are no *sf* indications.  
There are no staccato indications.
- M. 139      There is no *Allegro* indication.  
There is no double bar line at the beginning of the measure.  
Dynamic indication of *f* is only provided in the first violin part.
- Mm. 139-40   Decrescendo expression marking is only provided in the violin part.
- M. 140      Dynamic indication of *p* is only provided in the first violin part.
- Mm. 141-2    Slurs in the first violin part are indicated beneath the staff.
- M. 142      There are no staccato indications.  
Stem direction in the second violin part is downward.
- M. 143      Beaming for the first beat in the second violin part is divided.  
Eighth notes on the second and third beats in the second violin part are indicated by quarter notes with one slash.
- M. 144      There are no staccato indications in the second violin and cello parts.  
Eighth notes in the second violin part are beamed in groups of two.  
Beaming for the third beat in the second violin part is divided.  
The four eighth notes on the first two beats in the viola part are beamed together.  
Staccato indications are provided for the eighth notes on the second beat and the quarter note in the viola part.
- M. 145      There are no staccato indications in the viola part.  
The six eighth notes in the cello part are indicated by a dotted half note with one slash.
- Mm. 145-6    The first violin part is notated one octave lower with an *octava* indication.
- M. 146      There are no staccato indications.
- M. 147      The first quarter note in the first violin part is notated one octave lower with an *octava* indication continuing from m. 145.
- Mm. 147-66   There are no slur indications, with the exception of those following grace notes, in the first violin part.
- M. 148      Stem direction for the grace note in the first violin part is downward.

- M. 159            There is no double bar line or change of key signature at the beginning of the measure.
- Mm. 166-7        It is not clearly indicated that the double stop in the viola part continues across the bar line from m. 166 to m. 167.
- Mm. 166-73      There are no slurs in the viola or cello parts.
- Mm. 166-79      There are no slurs in the second violin part.
- M. 167            Dynamic indication of *p* is only provided in the first violin part.  
The first two beats in the second violin part are quarter notes  $f^1$  and  $f$  sharp<sup>1</sup>, rather than a half note  $f^1$ .  
There is a canceled secondary layer in the second violin part.
- M. 169            There is no staccato indication in the first violin part.
- M. 170            The quarter note is tied to the following eighth note in the viola part.  
Beaming for the second and third beats in the cello part is divided.
- Mm. 170-1        There is no slur in the first violin part.
- M. 171            The third quarter note in the second violin part is not a double stop.
- M. 172            There is no courtesy accidental provided for the  $c$  natural<sup>1</sup> in the second violin part.
- M. 173            There is no slur for the second and third beats in the first violin part.
- Mm. 174-5        The slur that begins in m. 174 in the first violin and cello parts appears to extend through the first beat of m. 175, although this is not clearly indicated in the cello part.
- M. 175            Stem direction for the first beat in the first violin part is downward.
- M. 176            The eighth notes in the viola part are  $d$  and  $e$  flat, rather than  $c^1$  and  $d^1$ ; this notation could be an erroneous inscription in the treble clef.
- Mm. 176-7        There are no slurs in the viola part.
- Mm. 176-80      There are no slurs in the cello part.
- Mm. 176-204     There are no slurs in the first violin part.
- M. 177            There are no double stops in the viola part.

- M. 178 Treble clef notation begins after the first eighth note in the cello part.  
The six eighth notes in the cello part are beamed together.
- M. 179 Crescendo indication is only provided in the first violin and cello parts.  
The six eighth notes in the viola part are beamed together.
- M. 180 The six eighth notes in the second violin and viola parts are beamed together.
- M. 181 Eighth notes in the second violin part are beamed in groups of two.  
There are no slurs in the second violin part.  
There is no slur on the second and third beats in the cello part.
- M. 182 There is no dynamic indication of *f*.  
The last three eighth notes in the first violin part are indicated by a dotted quarter note with one slash.  
Eighth notes on the second and third beats in the second violin part are indicated by a half note with one slash.  
Eighth notes on the first and third beats in the viola part are indicated by quarter notes with one slash.
- M. 183 Eighth notes on the first two beats in the first violin, second violin, and viola parts are indicated by half notes with one slash.
- M. 184 Eighth notes on the second and third beats in the first violin part are indicated by a half note with one slash.  
Eighth notes in the second violin and viola parts are indicated by dotted half notes with one slash.
- Mm. 184-280 There are no slurs in the cello part.
- M. 185 Eighth notes in the first violin, second violin, and viola parts are indicated by dotted half notes with one slash.  
The six eighth notes in the cello part are beamed together.  
There is no indication of *louré* bowing in the cello part.
- M. 186 There is no dynamic indication of *f*.  
Eighth notes on the second and third beats in the second violin and viola parts are indicated by half notes with one slash.
- M. 187 There is no indication of *louré* bowing in the first violin part.  
Eighth notes in the second violin and viola parts are indicated by dotted half notes with one slash.

- M. 188            There is no dynamic indication of *f*.  
 Eighth notes in the second violin part are indicated by a dotted half note with one slash.  
 Eighth notes on the first two beats in the viola part are indicated by a half note with one slash.  
 Beaming for the first four eighth notes in the cello part is divided.  
 Eighth notes on the third beat in the cello part are indicated by a quarter note with one slash.
- M. 189            The A flat<sub>5</sub> in the first violin part is a half note, rather than a dotted quarter note; there are two eighth notes at the end of the measure, rather than three.  
 The last beat in the second violin part is a quarter note e flat<sup>2</sup>, rather than eighth note double stops c<sup>1</sup> and e flat<sup>1</sup>.  
 Eighth notes in the cello part are indicated by a dotted half note with one slash.  
 There is no indication of *louré* bowing in the viola part.
- M. 190            Eighth notes in the first violin, second violin, and cello parts are indicated by half notes with one slash.
- Mm. 190-2        There is a secondary canceled layer in the first violin part.
- Mm. 190-239     There are no slurs in the viola part.
- M. 191            Eighth notes in the first violin part are indicated by a dotted half note with one slash.  
 There is no indication of *louré* bowing in the second violin part.
- Mm. 191-241     There are no staccato indications.
- M. 192            Stem direction for the third beat in the first violin part is downward.  
 Eighth notes on the second and third beats in the viola and cello parts are indicated by half notes with one slash.
- Mm. 192-243     There are no slurs in the second violin part.
- M. 193            Stem direction in the first violin part is downward.  
 There is no indication of *louré* bowing in the first violin part.  
 The three eighth notes beginning on the second beat in the viola part are indicated by a dotted quarter note with one slash.  
 Eighth notes on the second and third beats in the cello part are indicated by a half note with one slash.
- M. 194            There are no *sf* indications.  
 Eighth notes on the first and third beats in the viola and cello parts are indicated by quarter notes with one slash.



- M. 195      There are no *sf* indications.  
Eighth notes on the first beat in the viola and cello parts are indicated by quarter notes with one slash.
- M. 196      There are no *sf* indications.  
Eighth notes on the second and third beats in the viola and cello parts are indicated by quarter notes with one slash.
- M. 197      There are no *sf* indications.  
Beaming for the eighth notes in the second violin part is divided.  
There is no courtesy accidental provided for the d natural in the viola part.  
The last eighth note in the viola part is not beamed together with the preceding three eighth notes.  
The three eighth notes beginning on the second beat in the cello part are indicated by a dotted quarter note with one slash.
- M. 198      Dynamic indication of *p* is only provided in the first violin part.
- M. 200      Second violin part is tacit.
- M. 201      There is no dynamic indication of *p*.  
After the first beat the second violin part is tacit.  
Eighth notes in the second violin and viola parts are beamed in groups of two.  
Stem direction in the second violin part is upward.  
There is a courtesy accidental provided for the *f*<sup>1</sup> in the viola part.  
There is a partial secondary layer in the viola part.  
Stem direction in the cello part is downward.
- M. 203      The six eighth notes in the second violin and cello parts are beamed together.
- M. 204      First violin part is tacit.  
Stem direction in the second violin part is downward.
- M. 205      Stem direction in the second violin part is downward.  
The first note in the viola part is a c half note, rather than an e flat dotted quarter note; the measure ends with two eighth notes, rather than three eighth notes.
- M. 206      There is no crescendo indication.  
The six eighth notes in the first violin part are beamed together; stem direction is downward.  
There is no double stop in the second violin part; stem direction is downward.

- M. 207           There is no dynamic indication of *p*.  
Stem direction in the viola part is downward.
- Mm. 207-10   Crescendo and decrescendo expression markings are not indicated.
- M. 208           The six eighth notes in the first violin part are beamed together.
- Mm. 208-9     Stem direction in the viola part is downward.
- M. 210           The six eighth notes in the first violin part are beamed together.  
Stem direction in the second violin part is downward.
- M. 211           There is no diminuendo indication.
- Mm. 211-2     There are no slurs in the first violin part.
- M. 212-3       The dotted half note in the second violin part is not tied to the eighth note in m.  
213
- M. 213           There is no crescendo indication.  
The six eighth notes in the first and second violin parts are beamed together.
- M. 214           There is no dynamic indication of *p*.  
There are no slurs in the first violin part.
- M. 215           Stem direction for the grace note in the first violin part is downward.  
The six eighth notes in the second violin and cello parts are beamed together.
- Mm. 215-7     Crescendo and decrescendo expression markings are not indicated.
- M. 216           The six eighth notes in the second violin and cello parts are beamed together.
- M. 217           The six eighth notes in the second violin part are beamed together; beaming is  
divided.  
Beaming for the first two eighth notes in the cello part is divided.  
Eighth notes on the second beat in the cello part are indicated by a quarter note  
with one slash.
- Mm. 217-8     There are no slurs in the first violin part.
- M. 219           There is no diminuendo indication.  
Eighth notes on the third beat in the first violin part are indicated by a quarter note  
with one slash.
- M. 220           Eighth notes on the second and third beats in the first violin part are beamed  
together.

- M. 221      There is no crescendo indication.  
Eighth notes on the first two beats in the first violin, second violin, and cello parts are beamed together.  
Eighth notes on the third beat in the first violin part are indicated by a quarter note with one slash.  
Beaming for the eighth notes on the third beat in the second violin part is divided.  
The bass clef indication preceding the third beat in the cello part is missing.  
Stem direction in the cello part is downward.
- Mm. 221-41    There are no slurs in the first violin part.
- M. 222      Dynamic indication of *f* is only provided in the first violin part.  
The group of six eighth is beamed together in all parts.  
There is no courtesy accidental provided for the e flat<sup>2</sup> in the second violin part.  
Beaming in the viola part is divided.  
Stem direction in the cello part is downward.
- M. 223      Dynamic indication of *p* is only provided in the first violin part.
- Mm. 223-6    Crescendo and decrescendo expression markings are not indicated.
- M. 226      Stem direction in the first violin is downward.
- M. 227      There is no crescendo indication.  
There is a secondary canceled layer in the second violin part.
- M. 229      There is no dynamic indication of *f*.  
There is a crescendo indication.  
The six eighth notes in the second violin, viola, and cello parts are beamed together.  
The third eighth note in the viola part is e flat, rather than e flat<sup>1</sup>.
- M. 230      The six eighth notes in the second violin and viola parts are beamed together;  
stem direction is upward.  
The first eighth note in the second violin part is e flat<sup>1</sup>, rather than a flat<sup>1</sup>.
- Mm. 230-1    There are no double stops in the viola part.
- M. 231      There is a dynamic indication of *f* in the first violin part.  
After the first beat the second violin part is *tacit*.
- M. 232      Second violin part is *tacit*.
- Mm. 232-4    There are no *tenuto* indications.

- M. 233            There is a secondary layer in the cello part.
- M. 234            The second and third beats in the second violin part are a flat<sup>1</sup> quarter notes,  
                         rather than double stopped quarter notes f<sup>1</sup> and d<sup>2</sup>.  
                         There are no double stops in the viola part.  
                         Stem direction in the cello part is downward.
- M. 235            Dynamic indication of *f* is only provided in the first and second violin parts.  
                         The first beat in the second violin part is an octave double stop, g and g<sup>1</sup>, rather  
                         than g<sup>1</sup> and e flat<sup>1</sup>.  
                         After the first beat the second violin part is *tacit*.
- M. 240            There is a slur in the viola part.
- M. 241            The quarter note on the second beat in the second violin part is e flat<sup>1</sup>, rather than  
                         a flat.
- Mm. 243-4        Viola part is illegible after the first quarter note in m. 243.
- Mm. 243-7        There are no slurs in the viola part.
- Mm. 245-62       There are no slurs in the second violin part.
- Mm. 246-7        Stem direction in the viola part is downward.
- M. 248            The six eighth notes in the viola part are beamed together; beaming is divided.
- Mm. 248-73       There are no slurs in the viola part.
- M. 250            Eighth notes on the first two beats in the first violin part are beamed together.
- Mm. 250-1        First violin part is indicated by measure repeat symbols, referring to m. 250.
- M. 253            Crescendo indication is not provided in the cello part.  
                         The third beat in the second violin part is a quarter note d<sup>2</sup>, rather than eighth  
                         notes d<sup>2</sup> and c<sup>2</sup>.
- Mm. 253-81       Stem direction is downward in the second violin part.
- Mm. 254-5        Eighth notes on the first two beats in the second violin part are beamed together;  
                         stem direction is downward.
- M. 256            The first two beats in the second violin part are one octave lower than BH.  
                         The third beat in the second violin part is a quarter note b flat<sup>2</sup>, rather than eighth  
                         notes b flat<sup>2</sup> and b flat<sup>1</sup>.

The first two beats in the viola part are a half note  $d^2$ , rather than quarter notes  $d^2$  and  $e \text{ flat}^2$ .

The third beat in the viola part is  $e \text{ flat}^2$ , rather than  $e \text{ flat}^1$ .

- M. 257 Stem direction in the second violin part is downward.
- Mm. 257-60 There are no slurs in the first violin part.
- M. 258 There is no double stop in the second violin part.  
Eighth notes on the first two beats in the viola part are beamed together.
- M. 259 Eighth notes on the first two beats in the second violin part are beamed together.  
The six eighth notes in the viola part are beamed together.
- Mm. 259-62 Crescendo and decrescendo expression markings are only indicated in the first violin part.
- M. 261 There is no courtesy accidental provided for the  $a \text{ flat}^1$  in the second violin part.
- M. 262 Eighth notes in the cello part are beamed in groups of two.
- M. 263 Crescendo indication is only provided in the first violin part.
- Mm. 263-4 Eighth notes on the first two beats in the second violin part are beamed together.  
The six eighth notes in the viola part are beamed together.
- M. 265 There are no courtesy accidentals provided for the  $a \text{ flat}^1$  and the  $b \text{ flat}^1$  in the second violin part.  
The slur in the first violin part is indicated beneath the staff.
- Mm. 265-82 There are no slurs in the second violin part.
- Mm. 266-9 There are no slurs in the first violin part.
- M. 267 Dynamic indication of *p* is only provided in the first violin part.  
Indication of *dolce* is only provided in the first violin part.
- Mm. 267-8 Diminuendo indication is provided in m. 267, rather than m. 268.  
Diminuendo indication is only provided in the first violin part.
- Mm. 268-9 Eighth notes on the first two beats in the second violin part are beamed together.
- M. 270 The six eighth notes in the second violin part are beamed together.

- M. 271 Crescendo indication is only provided in the first violin part.  
The six eighth notes in the first violin part are beamed together.  
There is no courtesy accidental provided for the d natural<sup>2</sup> in the second violin part.
- Mm. 271-2 There are no slurs in the first violin part.  
Stem direction in the viola part is downward.
- Mm. 272-3 The first violin part is notated one octave lower than BH with *octava* indication.
- M. 273 Eighth notes are beamed in groups of two.
- M. 274 There is no diminuendo indication.  
The first quarter note in the first violin part is notated one octave lower than BH with *octava* indication.
- Mm. 274-6 There are no slurs in the first violin part.
- Mm. 275-82 There are no slurs in the viola part.
- M. 277 There is no dynamic indication of *p*.
- M. 278 There is no dynamic indication of *p*.  
There is no double stop in the second violin part.  
The viola part appears to be an e flat<sup>1</sup> dotted half note; however, both the viola and cello parts are nearly illegible and include one or more secondary layers.
- M. 280 Dynamic indication of *pp* is only provided in the first violin part.  
There is no double stop in the second violin part.  
The quarter note on beat three in the cello part is missing or illegible.
- M. 283 There is a double stop in the viola part.

APPENDIX B  
CRITICAL NOTES FOR EXAMPLE 7-2

## Introduction

Example 7-2 provides a transcription of the incomplete score-sketch of the first movement found on pp. 93-5 of Group D. The sketch differs from the published version of the movement in many significant ways. Beginning in full notation, similar to the complete score-sketch of pages 81-91, the document becomes increasingly fragmentary and illegible, apparently changing from a draft-type manuscript into an improvisatory working sketch. Much of the material between m. 37 and m. 72 has been cancelled in the manuscript. Example 7-2 corresponds to mm. 1-72 of the published version. Following m. 72 of the transcription a fragment is included that may correspond to the second theme area of the exposition, similar to mm. 41-63 of the published version. There are many discrepancies in regard to the beaming of eighth or sixteenth notes, slur indications, dynamic markings, and staccato markings. These elements of the score-sketch differ from the published version in almost every measure of the text, only the most significant of these differences are listed in this appendix—the reader may easily take notice of these discrepancies by comparing Example 7-2 to the published work. In many cases orthographic variants such as the beaming of eighth notes or the absence of slur markings in the sketch may derive from the incomplete nature of Beethoven's sketching process, but in some instances the specific notation of the sketch appears to indicate the possible interpretation of a musical gesture that differs from the interpretation implied by the notation of the published score. Listed below are areas of the sketch that differ from the published version in terms of either pitch, motivic, or thematic content, or significant orthographic variation from the published versions. The abbreviation "BH" indicates the Breitkopf and Härtel collected works edition.

- Mm. 3-6      All parts differ significantly from BH.
- Mm. 10-4     All parts differ significantly from BH.
- M. 14        There is a secondary canceled layer in the first violin, second violin, and viola parts.
- Mm. 17-9     There is a secondary canceled layer in the first violin part.
- Mm. 17-23    All parts differ significantly from BH.
- M. 20        There is a secondary canceled layer in the viola part.
- Mm. 21-2     There is a secondary canceled layer in the first violin part.
- M. 26        There is a secondary canceled layer in the first and second violin parts.
- Mm. 26-31    All parts differ significantly from BH.
- Mm. 30-1     There is a canceled measure between m. 30 and m. 31.
- M. 35        There is a secondary canceled layer in the viola part.



- M. 38            Preceding m. 39 the sketch includes a canceled measure and then an illegible measure.
- Mm. 39-70      These measures are cancelled in the sketch.
- Mm. 39-84      All parts differ significantly from BH.
- Mm. 42-72      These measures correspond to mm. 41-77 of the published version.
- Mm. 74-81      These measures may correspond to mm. 41-63 of the published version.
- Mm. 74-84      These measures in the sketch include multiple layers, often harmonically and thematically inconsistent with each other, probably representing independent single-staff sketch fragments more than a true “score” sketch.

APPENDIX C  
CRITICAL NOTES FOR EXAMPLE 8-1

## Introduction

Example 8-1 provides a transcription of the complete score-sketch of the second movement that comprises the bulk of Group A. The guiding principle behind all textual issues that might require some degree of subjective interpretation has been to consider the manuscript as if it were the only available source for the production of a published edition. Taking into account the abbreviations and incomplete notational practices consistent with a compositional sketch, Example 8-1 reproduces only the text which is explicitly provided or implied by the sketch source. Significant textual differences between the sketch and important printed editions of the work are detailed in the following notes. Important orthographic differences, such as the direction and shape of slur markings or the notation of multi-note beamings have only been listed when they differ significantly from the published versions. Abbreviations for the published editions referenced below are provided here:

BH	Breitkopf and Härtel collected works edition
OAS	<i>Originalausgabe Stimmen</i> (Mainz: B. Schott, 1826)
M. 2	In Beethoven's sketch the text-crescendo marking is usually indicated by the abbreviation <i>cres.</i>
M. 3	There is a canceled secondary layer in the viola part.
Mm. 3-9	Stem direction in the first violin part is downward.
M. 4	There is a canceled secondary layer in the second violin part.
Mm. 5-6	There are no slurs in the second violin part.
Mm. 5-10	Stem direction in the cello part is downward.
M. 6	There are no slurs in the viola part.
M. 7	Stem direction for the dotted half note in the viola part is downward.
M. 8	Stem direction in the viola part is downward.
M. 9	After the first quarter note, stem direction in the second violin part is downward. OAS does not provide accent marks in the first and second violin parts.
M. 10	Stem direction in the cello part is downward.
Mm. 11-3	The printed editions and the sketch provide differing staccato and loured markings for the second violin and viola parts.

- M. 12 Stem direction for the grace note in the first violin part is downward.
- M. 14 Stem direction in the first violin part is downward.  
Stem direction for the double stops in the viola part is downward.
- M. 15 The second, third, and fourth beats in the viola part are indicated by the abbreviation *Sime*, in reference to the first beat of the measure; there is no indication of *louré* bowing in the viola part.
- M. 15-7 Stem direction in the cello part is downward.
- M. 16 Stem direction for the double stops in the viola part is downward.
- M. 17 After the first note, stem direction in the second violin part is downward.
- Mm. 18-23 Stem direction in the first violin part is downward.
- M. 19 There is no courtesy accidental provided for the g natural in the second violin part.  
In Beethoven's sketch the text-diminuendo marking is usually indicated by the abbreviation *dimin.*
- M. 20 The dynamic indication of *p* that appears after the mid-measure double bar line is only provided in the first violin and viola parts.  
OAS does not include a mid-measure bar line in the viola or cello parts.
- M. 24 Stem direction for the grace notes in the first violin part is downward.  
Eighth notes on the fourth beat in the second violin part are beamed together.  
Stem direction for the fourth beat in the viola part is downward.
- M. 25 Beaming for the eighth notes on the second beat in the first violin part is divided.  
Beaming for the sixteenth notes on the second beat in the second violin part is divided.
- M. 26 Stem direction in the second violin part, except for the eighth note following the quarter note on the third beat, is downward.  
Stem direction for the first two beats in the viola part is downward.
- M. 27 Stem direction in the second violin part for the first two beats and the quarter note on the third beat is upward; stem direction for the last two sixteenth notes is downward.  
Beaming for the sixteenth notes on the first beat in the viola part is divided.
- M. 28 Stem direction in the second violin part for the first eighth note and the first two quarter notes that are tied together is downward.  
Stem direction in the viola part is downward.

The last two sixteenth notes in the viola part are not beamed together with the previous two eighth notes.

Stem direction for the third and fourth beats in the cello part is downward.

The last two sixteenth notes in the cello part are indicated as *louré* bowing, rather than a slur that includes the last quarter note and the last two sixteenth notes.

- M. 29      Stem direction in the first violin part is downward.  
Stem direction for the third and fourth beats in the viola part is downward.  
Stem direction in the cello part is downward.  
There is no slur for the third beat in the cello part.
- M. 30      Stem direction in the first violin part is downward.  
The two eighth notes and two sixteenth notes on the third beat in the first violin part are beamed together.  
There is no courtesy accidental provided for the b flat<sup>2</sup> in the first violin part.  
Beaming for the third beat in the viola part is divided.
- M. 31      Beaming for the third beat in the second violin and viola parts is divided.
- M. 32      Crescendo indication is placed on the last eighth note of the third beat, rather than on the fourth beat.  
The last two sixteenth notes in the first violin part are not beamed together with the preceding two eighth notes.  
Beaming for the third beat in the second violin part is divided.
- M. 33      The two eighth notes and two sixteenth notes on the third beat in the first violin part are beamed together.  
The dotted eighth note and the three sixteenth notes on the fourth beat in the first violin part are beamed together.
- M. 34      The last eighth note on the first beat in the first violin part is not beamed together with the preceding dotted eighth note and sixteenth note.  
Beaming for the second beat in the second violin part is divided.  
Stem direction for the second, third, and fourth beats in the viola part is downward.  
Stem direction in the cello part is downward.  
The two eighth notes and two sixteenth notes on the fourth beat in the cello part are beamed together.
- M. 35      The first violin part is notated one octave lower than BH with *octava* indication.  
Beaming for the third and fourth beats in the viola part is divided.  
Beaming for the third beat in the cello part is divided.

- M. 36      The first two beats in the first violin part are notated one octave lower than BH with *octava* indication.  
 The first two eighth notes in the viola part are indicated by a quarter note with one slash.  
 Beaming for the third beat in the cello part is divided.
- M. 37      Beaming for the last two sixteenth notes in the first and second violin parts is divided.  
 Beaming for the first beat in the viola part is divided.  
 Stem direction for the third and fourth beats in the viola part is downward.  
 The last two sixteenth notes in the cello part are indicated in bass clef, rather than tenor clef.
- M. 38      The last three sixteenth notes in the viola and cello parts, although separated by sixteenth rests, are beamed together.  
 The entire measure in the cello part is indicated in bass clef, rather than the first part of the measure being indicated in tenor clef.
- M. 39      The first four sixteenth notes in the viola and cello parts, although separated by sixteenth rests, are beamed together.  
 The third and fourth beats in the viola part are provided by a *Sime* indication, in reference to the first two beats of the measure.  
 The third and fourth beats in the cello part are provided by *Sime* indications, in reference to the second beat of the measure.
- M. 40      Stem direction for the  $g^1$  on the second beat in the first violin part is downward.  
 Beaming for the first two sixteenth notes on the third beat in the second violin part is divided.  
 Stem direction for the last sixteenth note on the third beat in the second violin part is downward.  
 The second and third beats in the viola and cello parts are provided by *Sime* indications, in reference to the first beat of the measure.
- M. 41      Beaming for the first two sixteenth notes on the third beat in the first violin part is divided.  
 Beaming for the first two sixteenth notes on the second beat in the second violin part is divided.  
 Beaming for the first two sixteenth notes on the fourth beat in the second violin part is divided.  
 Stem direction for the second beat in the viola part is upward.  
 Stem direction in the cello part is downward.
- M. 42      The second, third, and fourth sixteenth notes in the viola and cello parts, although separated by sixteenth rests, are beamed together.  
 There is an erroneous “extra” sixteenth note indicated in the viola part.

- M. 43      Stem direction for the grace notes is downward.  
 Thirty-second notes in the first and second violin parts are beamed in groups of four.  
 Stem direction for the fourth beat in the second violin part is downward.  
 Beaming for the first beat in the viola part is divided.  
 The second half of the second beat in the viola part is provided by a *Sime* indication, in reference to the first half of the beat; the second half of the third beat is provided by a *Sime* indication, in reference to the first half of the beat; the first half of the fourth beat is provided by a *Sime* indication, in reference to the first half of the third beat.  
 Sixteenth notes on the first beat in the cello part are beamed in groups of two.  
 The second beat in the cello part is provided by two *Sime* indications, in reference to the second half of the first beat.
- M. 44      Stem direction for grace notes in the first violin part is downward.  
 Beaming for the last two sixteenth notes on the second beat in the first violin part is divided.  
 Thirty-second notes on the fourth beat in the first violin part are beamed in groups of four.  
 Stem direction in the second violin part, except for the grace notes, is downward.  
 Beaming for the first two sixteenth notes in the viola part is divided.  
 The second half of the first beat in the viola part is provided by a *Sime* indication, in reference to the first half of the beat; the second beat is provided by two *Sime* indications, in reference to the first half of the first beat.  
 Sixteenth notes on the third and fourth beats in the viola part are beamed in groups of two.  
 Stem direction in the cello part is downward.
- M. 45      The fourth beat in the first violin part is notated one octave lower than BH with *octava* indication.  
 Stem direction for the grace notes on the third beat in the second violin part is downward.  
 Beaming for the fourth beat in the second violin part is divided.  
 Stem direction in the cello part is upward.  
 There is a courtesy accidental provided for the last a flat sixteenth note in the cello part.
- M. 46      The first eighth note in the first violin part is notated one octave lower than BH with *octava* indication.  
 Grace notes are provided after the trill on the third beat in the second violin part.  
 The grace notes after the trill on the fourth beat in the second violin part appear to be indicated as d flat<sup>2</sup> and e flat<sup>2</sup>, rather than d natural<sup>2</sup> and e flat<sup>2</sup>.  
 There is an erroneous “extra” sixteenth note indicated on the fourth beat in the second violin part.  
 Stem direction for the third beat in the viola part is downward.  
 Stem direction for the first two beats in the cello part is upward.

- M. 47      Beaming for the first beat in the second violin part is divided.  
 Stem direction for the second beat in the second violin part is downward.  
 Beaming for the second beat in the viola part is divided.  
 Sixteenth notes on the first two beats in the cello part are provided by a half note tremolo indication.
- M. 49      Beaming for the first beat in the second violin part is divided.  
 Beaming for the second beat in the second violin and cello parts is divided.
- M. 50      Stem direction in the second violin part is downward.  
 The fourth beat in the viola and cello parts is illegible.
- M. 51      Stem direction for the first eighth note in the second violin part is downward.  
 Stem direction in the viola part is downward.  
 The last eighth note on each beat in the cello part is not beamed together with the preceding sixteenth and thirty-second notes.  
 With the exception of the last eighth note on the first beat, stem direction in the cello part is downward.
- M. 52      Stem direction for the first two beats in the second violin and cello parts is downward.  
 With the exception of the first eighth note, stem direction in the viola part is downward.  
 Beaming for the third beat in the cello part is divided.
- M. 53      Beethoven's sketch usually indicates "dolce" by the abbreviation *dol*, although the full *dolce* is sometimes provided.  
 Thirty-second notes in the first violin part are beamed in groups of four.  
 Beaming for the first two sixteenth notes in the second violin part is divided.  
 Stem direction for the third and fourth beats in the second violin part is downward.  
 Thirty-second notes on the fourth beat in the second violin part are beamed in groups of four.  
 Stem direction for the third beat in the viola part is downward.
- Mm. 53-8      Sixteenth notes in the cello part are beamed in groups of four.
- M. 54      Stem direction for the grace notes on the third beat in the first violin part is downward.  
 Stem direction in the second violin part, with the exception of the grace notes, is downward.



- M. 55      Thirty-second notes on the first beat in the first violin part are beamed in groups of four.  
 Sixteenth notes on the second beat in the first violin part are beamed in groups of two.  
 Beaming for the first beat in the second violin part is divided.  
 Thirty-second notes on the second and fourth beats in the second violin part are beamed in groups of four.  
 Sixteenth notes on the third beat in the second violin part are beamed in groups of two.
- M. 56      Beaming for the third beat in the first violin part is divided.  
 Sixteenth notes on the first two beats in the viola part are beamed in groups of two.  
 Beaming for the first two sixteenth notes on the first, third, and fourth beats in the viola part is divided.  
 The second half of the first beat in the viola part is indicated by a *Sime* indication, in reference to the first half of the beat.  
 Stem direction for the second half of the third beat in the viola part is downward.
- M. 57      Stem direction for the last sixteenth note on the first beat in the second violin part is downward.  
 Thirty-second notes on the second beat in the second violin part are beamed in groups of four.  
 Stem direction for the fourth beat in the second violin part is downward.  
 Beaming for the last two sixteenth notes in the viola part is divided.
- M. 58      Diminuendo indication is only provided in the first violin part.  
 The first two sixteenth notes in the second violin part are not beamed together.  
 Stem direction for the first two beats in the second violin part is downward.  
 Beaming for the first two sixteenth notes in the viola part is divided.  
 Beaming for the third beat in the cello part is divided.
- M. 59      There is no double bar line at the beginning of the measure.  
 Tempo indication is *Adagio*, rather than *Adagio molto espressivo*.  
 Stem direction in the first violin part is downward.  
 There is no slur in the second violin part.
- M. 61      Stem direction in the first violin part is downward.  
 After the first beat, stem direction in the viola part is downward.
- Mm. 61-4    Stem direction in the second violin part is downward.
- M. 62      Eighth notes on the third beat in the cello part are indicated by a quarter note with one slash.  
 There is no slur between the third and fourth beats in the cello part.

- Mm. 62-3 Stem direction in the viola part is downward.
- M. 64 There is no slur in the second violin part.
- Mm. 64-6 There are no slurs in the cello part.
- M. 65 Stem direction for the last eighth note in the second violin part is downward.
- M. 66 Stem direction in the second violin part is downward.  
Stem direction for the half note and the first eighth note in the cello part is downward.
- M. 69 After the first beat, stem direction in the second violin part is downward.
- Mm. 69-73 Stem direction in the first violin part is downward.
- M. 70 Beaming for the third beat in the first violin part is divided.  
Stem direction for the fourth beat in the second violin part is downward.  
After the first dotted quarter note, stem direction in the cello part is downward.
- M. 73 Beaming for the first beat in the second violin part is divided.  
There is no crescendo indication in the cello part.
- Mm. 73-4 The first violin part includes an *octava* indication in OAS.
- M. 74 Stem direction for the fourth beat in the viola part is downward.
- M. 76 Eighth notes on the third beat in the second violin and viola parts are indicated by quarter notes with one slash.  
Eighth notes on the fourth beat in the second violin, viola, and cello parts are indicated by dotted quarter notes with one slash.
- M. 77 Change of key signature occurs after the second beat, rather than after the first beat.  
There is an indication of *cantabile* on the third beat.  
Stem direction for the quarter note on the third beat in the first violin part is downward.  
Eighth notes on the second beat in the second violin part are indicated by a quarter note with one slash.  
The third and fourth beats in the second violin part are provided by *Sime* indications, in reference to the second beat of the measure.
- M. 78 The second, third, and fourth beats in the second violin part are provided by a single *Sime* indication, in reference to the first beat of the measure.  
Stem direction for the second beat in the cello part is downward.

- M. 79           The second and fourth beats in the second violin part are indicated by dotted quarter notes with one slash.  
The last eighth note on the third beat in the cello part is not beamed together with the preceding eighth notes.
- M. 80           Eighth notes on the first and fourth beats in the second violin part are indicated by dotted quarter notes with one slash.  
The second and third eighth notes on the third beat in the second violin part are indicated by a quarter note with one slash.  
Stem direction for the grace notes in the cello part is downward.  
Stem direction for the second beat in the cello part is downward.  
There is a canceled secondary layer in the first violin part.
- M. 81           Stem direction in the first violin part is downward.  
Beaming for the first beat in the second violin part is divided.  
Eighth notes on the second and third beats in the second violin part are indicated by a dotted half note with one slash.  
Eighth notes on the fourth beat in the second violin part are indicated by a dotted quarter note with one slash.  
Eighth notes in the viola part are indicated by dotted half notes with one slash.
- M. 82           Eighth notes on the second and third beats in the second violin part are indicated by dotted quarter notes with one slash.  
The first two eighth notes on the fourth beat in the second violin part are indicated by a quarter note with one slash.  
Eighth notes on the first two beats in the viola part are indicated by dotted quarter notes with one slash.  
The first two eighth notes on the third and fourth beats in the viola part are indicated by quarter notes with one slash.  
Stem direction in the cello part is downward.
- M. 83           After the first eighth note, the third beat in the second violin part is illegible.  
Eighth notes on the fourth beat in the viola part are indicated by a dotted quarter note with one slash.
- M. 84           Eighth notes on the first two beats in the second violin and viola parts are indicated by dotted half notes with one slash.
- M. 85           The second and third eighth notes on the first beat in the second violin part are indicated by a quarter note with one slash.  
Eighth notes on the second beat in the second violin part are indicated by a dotted quarter note with one slash.  
The third and fourth beats in the second violin part are provided by *Sime* indications, in reference to the second beat of the measure.  
Eighth notes on the first beat in the viola part are indicated by a dotted quarter note with one slash.

- The second, third, and fourth beats in the viola part are provided by *Sime* indications, in reference to the first beat of the measure.  
Stem direction for the grace notes in the cello part is downward.
- Mm. 85-7 Stem direction in the first violin part is downward.  
The second violin part is provided by four *Sime* indications, in reference to the second beat of m. 85.  
The first beat in the viola part is indicated by a dotted quarter note with one slash.  
The second, third, and fourth beats in the viola part are provided by *Sime* indications, in reference to the first beat of the measure.  
The fourth beat in the cello part is indicated in tenor clef, rather than bass clef.
- M. 87 The second and third eighth notes on the first beat in the second violin part are indicated by a quarter note with one slash.  
Eighth notes on the second and third beats in the second violin part are indicated by dotted quarter notes with one slash.  
Eighth notes on the first beat in the viola part are indicated by a dotted quarter note with one slash.  
Eighth notes on the second and third beats in the viola part are indicated by a dotted half note with one slash.  
Stem direction for the grace notes in the cello part is downward.  
There is no courtesy accidental provided for the a flat in the cello part.
- M. 88 Beaming for the third beat in the first violin part is divided.  
There is no crescendo indication in the second violin part.  
Stem direction for the second beat in the viola part is downward.  
The three eighth notes on the first beat in the cello part are beamed together.  
Beaming for the second beat in the cello part is divided.
- M. 89 There is a crescendo indication in the first and second violin parts.  
Stem direction for the first, third, and fourth beats in the viola part is downward.
- Mm. 89-90 Stem direction in the first violin part is downward.
- Mm. 89-97 Stem direction in the second violin and cello parts is downward.
- M. 91 Stem direction on the third beat in the first violin part is upward.
- M. 92 Beaming for each of the four groups of three eighth notes in the first violin part is divided.  
Decrescendo expression marking is only provided in the first violin and cello parts.  
There is a canceled secondary layer in the cello part.
- M. 93 There is a canceled secondary layer in the first violin part.  
Stem direction in the viola part is downward.

- M. 94            Stem direction in the second violin part is downward.
- M. 97            Stem direction for the second beat in the viola part is upward.
- M. 99            Stem direction in the second violin part is downward.  
Stem direction in the viola part, except for the last eighth note, is downward.
- M. 100           There is no double bar line at the beginning of the measure.  
Stem direction for the fourth beat and the last eighth note of the third beat in the  
viola and cello parts is downward.
- Mm. 100-2       Stem direction in the second violin part is downward.
- M. 101           Stem direction in the viola and cello parts is downward.
- M. 102           Stem direction in the viola part, except for the quarter note on the third beat, is  
downward.
- M. 103           Stem direction in the first violin and viola parts is downward.
- M. 104           Stem direction in the first violin part is downward.  
Stem direction for the quarter note on the second beat in the viola part is  
downward.
- M. 105           The slur in the second violin and viola parts appears to include the last dotted half  
note in the measure.  
Stem direction is downward for the dotted half note on the third beat in the viola  
part.
- M. 106           Stem direction in the viola part is downward.  
In the cello part there is a slur on the second beat and another slur connecting the  
third and fourth beats, rather than a single slur connecting the second,  
third, and fourth beats.
- Mm. 106-7       Stem direction in the cello part is downward.
- M. 107           There is no double bar line at the beginning of the measure.
- M. 108           Stem direction for the third beat in the viola part is downward.  
The two eighth notes and two sixteenth notes on the fourth beat in the viola part  
are beamed together.
- M. 109-10       Stem direction in the cello part is downward.

- Mm. 110-3 Page 20 of Group A, corresponding to measures 110½ through 113, is missing from the sketch.
- M. 114 Stem direction for the second and third beats in the viola part is downward. Beaming for the fourth beat in the viola part is divided.
- M. 115 The first sixteenth note in the second violin part is beamed together with the following sixteenth notes.  
The cello part is indicated in the bass clef, rather than changing to the tenor clef after the first sixteenth note on the first beat and then changing back to the bass clef after the first sixteenth note on the fourth beat.
- M. 116 Stem direction for the third beat in the second violin and viola parts is downward.
- M. 117 Stem direction for the first two beats in the cello part is downward. Beaming for the fourth beat in the cello part is divided. Slurs in the cello part are indicated above the staff.
- M. 118 Eighth notes in the second violin and viola parts are indicated by dotted half notes with one slash.
- Mm. 118-20 Since the triplet eighth notes in the second violin and viola parts are indicated in the sketch by slash and dotted repeat markings, the staccato articulation markings indicated in BH are not explicit in the sketch.
- M. 119 Stem direction in the first violin part is downward. Eighth notes on the first two beats in the second violin and viola parts are indicated by dotted half notes with one slash. The third and fourth beats in the second violin part are provided by a *Sime* indication, in reference to the first half of the measure. The fourth beat in the viola part is indicated by a dotted quarter note with one slash.
- M. 120 Eighth notes in the second violin and viola parts are indicated by dotted half notes with one slash.
- M. 121 Beaming for the second and fourth beats in the second violin part is divided. Beaming for the last two eighth notes in the viola part is divided.
- M. 122 Stem direction for the dotted half note in the second violin part is downward.
- M. 123 Stem direction in the second violin part is downward.
- M. 124 Stem direction for the first four eighth notes on the third beat in the first violin part is downward. Stem direction in the second violin and viola part is downward.

- M. 125      Stem direction for the last two sixteenth notes in the second violin and viola parts is downward.  
Stem direction for the first four sixteenth notes on the second beat in the viola part is downward.  
Stem direction for the second, third, and fourth beats in the cello part is downward.
- M. 126      There is no indication of ritardando.  
The measure ends with a single bar line.  
Stem direction in the second violin and cello parts is downward.  
Stem direction for the first two beats in the second violin part is downward.  
Eighth notes on the second beat in the viola and cello parts are indicated by dotted quarter notes with one slash.

APPENDIX D

VOICE-LEADING REDUCTION OF THE FIRST MOVEMENT



Maestoso

*f sf sf sf sf sf > p*

motive of chromatic expansion (*mce*)

I

(5)

Allegro

*7 teneramente*

*sempre p e dolce*

*mce*

I<sup>6</sup> IV V

14

*mce*

(5)

*cresc.*

*cresc.*

I IV

21

(5)  
mce

*f*

*f*

V I

27

(5)

*sf*

*sf*

*sf*

*sf*

*sf*

*sf*

IV V

32

mce

*p*

I G: IV

58

G:  $\hat{3}$  2nd Theme Group

*cresc.* *p*

G: V  $\begin{matrix} 6 \\ 4 \end{matrix}$   $\begin{matrix} 5 \\ 3 \end{matrix}$  I

44

*dim.* *cresc.* *p*

*dim.* *cresc.* *p*

V I

51

*dim.* *cresc.* *p*

*dim.* *cresc.* *p*

V

58

*cresc.* *f*

*cresc.* *f*

$V_4^6$   $V_3^5$

65

*f* *p* *f* *p*

*f* *f*

Development

72

*pp* *f* *sf* *sf* *sf*

*pp* *f* *sf* *sf* *sf*

Maestoso

80 *p* *p* *Allegro*

84 *cresc.* *cresc.*  $\hat{G}: 5$   $\hat{1}^6$

91  $\hat{4}$   $\hat{3}$   $\hat{2}$   $\hat{1}$  *f* *f* *p* *p* *V* *I*

98

*p* *cresc.*

*p* *cresc.*

105

*f* *f* *f* *p*

*f* *f* *f* *p*

I V

112

*dim.* *pp* *cresc.*

*dim.* *pp* *cresc.*

I

119

ff

This system of music covers measures 119 to 123. It is written for piano in a key with two flats (B-flat and E-flat). The melody in the right hand features a long, sweeping phrase that spans across the system, marked with a solid slur. The bass line provides a steady accompaniment. A dynamic marking of *ff* (fortissimo) is placed in the second measure. A dashed line is drawn below the bass line, indicating a specific phrasing or articulation.

124

This system of music covers measures 124 to 128. The right hand continues with a melodic line, featuring a series of sixteenth-note passages. The left hand maintains a consistent rhythmic pattern. A dashed line is drawn below the bass line, continuing from the previous system.

129

tr

This system of music covers measures 129 to 133. The right hand features a melodic line with trills, indicated by the *tr* marking above the notes. The left hand continues with its accompaniment. A dashed line is drawn below the bass line, continuing from the previous system.

134

Maestoso

Allegro

*ff* *sf* *sf* *f* *p*

*sf* *sf*

141

3

147

*f* *p* *f* *p*

*sf* *p* *sf* *p*



154

*f* *p* *f*

*sf* *p* *sf*

*mce*

160

*p* *f* *p* *cresc.*

*p* *f* *sf* *p* *-cresc.*

Recapitulation

166

*mce* *p*

*Eb: 5*

*Eb: I<sup>6</sup>*

172

*mce*

(5)

178

(5)

*cresc.*

*f*

*cresc.*

*f*

V I

184

*f*

190

*p* *sf*

195

*sf* *sf* *sf* *p*

4

IV

201

2nd Theme Group

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

3

I

208

dim. cresc. dim. cresc.

214

(3) p dim. mce dim. dim. (I)

220

cresc. f p cresc. f p I<sup>6</sup>

226

*cresc.* *f* *ten.* *p*

*cresc.* *f* *p*

*V*<sub>6</sub>  $\frac{6}{4}$   $\frac{5}{3}$  *I*

*Coda*

233

*ten.* *ten.* *ten.* *ten.* *ten.* *ten.*

*p* *p* *f* *ten.* *p* *p*

*f* *p*

241

*p*

*p*

*V*<sub>5</sub>  $\frac{5}{1}$

248

*cresc.*

*cresc.*

254

*p*

*p*

261

*cresc.*

*p dolce*

*cresc.*

*p dolce*

4

IV

IV<sup>6</sup>

268

*dim.* *cresc.*

IV V<sub>4</sub><sup>6</sup>

274

*dim.* *p* *pp*

*dim.* *p* *pp*

I V I

APPENDIX E

VOICE-LEADING REDUCTION OF THE SECOND MOVEMENT



Maestoso

*pp* *pp* *pp* *cresc.* *cresc.*

*p* *p*

<sup>3</sup><sub>3</sub>

I

6 *tr*

V I

9

*pp*

*pp*

V

12

$I^6$  V I

15

*cresc.*

*cresc.*

V

18 Variation 1

6 — 5 - 6 — 4  
4 — 3 - 4 — 2

[I<sup>6</sup>] IV V I

21

23

I V

25

musical score for measures 25-26, featuring piano and treble clefs, with dynamic markings *cresc.* and a first ending bracket labeled 'I'.

27

musical score for measures 27-28, featuring piano and treble clefs, with dynamic markings *cresc.* and a fifth ending bracket labeled 'V'.

29

musical score for measures 29-30, featuring piano and treble clefs, with dynamic markings *sf* and *p*.

31

*cresc.* *cresc.*

*cresc.* *cresc.*

I<sup>6</sup> V I

33

*sf* *cresc.*

*sf* *cresc.*

34

*sf* *cresc.*

*sf* *cresc.*

36

*p* *dim.* *cresc.*

*p* *dim.* *cresc.*

I<sup>6</sup> V<sup>5</sup><sub>3</sub> 6<sub>4</sub> 4<sub>2</sub> [I<sup>6</sup>] IV V

Variation 2

Andante con moto

38

*p* *pp* *p* *p*

*p* *pp* *p*

I I

40

*p*

42

*cresc.* *dim.*

*cresc.* *dim.*

V

Detailed description: This system contains measures 42 and 43. The key signature has three flats (B-flat, E-flat, A-flat). The treble clef part features a melodic line with a crescendo from measure 42 to 43, followed by a decrescendo. The bass clef part has a similar dynamic contour. A fermata is placed over the final note of measure 43 in both staves. A bracket labeled 'V' spans the first half of measure 42.

43

*pp*

*pp*

I

Detailed description: This system contains measures 43 and 44. The treble clef part has a piano (*pp*) dynamic and features a dense, sixteenth-note texture. The bass clef part also has a piano (*pp*) dynamic and features a similar sixteenth-note texture. A bracket labeled 'I' spans the first half of measure 44.

44

Detailed description: This system contains measures 44 and 45. The treble clef part continues with a dense sixteenth-note texture. The bass clef part continues with a similar sixteenth-note texture.

45

*cresc.*

*p*

This system contains measures 45 and 46. The treble clef staff features a complex melodic line with many sixteenth notes and some grace notes. The bass clef staff has a simpler accompaniment. Both staves are marked with *cresc.* at the beginning. A dynamic marking of *p* (piano) is placed at the end of measure 46. A large slur covers both staves from the start of measure 45 to the end of measure 46.

46

*V*

This system contains measures 46 and 47. The treble clef staff continues the melodic line from measure 45. The bass clef staff has a steady accompaniment. A dynamic marking of *V* is placed at the end of measure 47. A large slur covers both staves from the start of measure 46 to the end of measure 47.

47

*poco cresc.*

*piu cresc.*

*V*

This system contains measures 47 and 48. The treble clef staff has a melodic line with many sixteenth notes. The bass clef staff has a steady accompaniment. Both staves are marked with *poco cresc.* at the beginning of measure 47. A dynamic marking of *piu cresc.* is placed at the end of measure 48. A large slur covers both staves from the start of measure 47 to the end of measure 48. A dynamic marking of *V* is placed at the end of measure 48.



Musical score for measures 49-50. The piece is in a key with three flats (B-flat major or D-flat minor). Measure 49 starts with a treble clef and a forte (*f*) dynamic. The bass line begins with a forte (*f*) dynamic and a piano (*p*) dynamic marking. The music features a complex rhythmic pattern with sixteenth and thirty-second notes.

IV

Musical score for measures 51-52. Measure 51 begins with a treble clef. The bass line has a dynamic marking of  $V_4^6$ . Measure 52 has a dynamic marking of  $V_3^5$ . The music continues with the same complex rhythmic patterns as the previous section.

Musical score for measures 53-54. Measure 53 starts with a treble clef and a dynamic marking of  $V_4^6$ . The bass line has a dynamic marking of *cresc.*. Measure 54 has a dynamic marking of *cresc.*. The music features a complex rhythmic pattern with sixteenth and thirty-second notes.

53

*dol.*

*dol.*

This system contains measures 53 and 54. The treble clef staff features a complex melodic line with many sixteenth notes, starting with a *dol.* (dolce) marking. The bass clef staff provides a steady accompaniment of eighth notes, also marked with *dol.* A large slur spans both staves across the two measures.

54

This system contains measures 55 and 56. The treble clef staff continues the intricate melodic pattern from the previous system. The bass clef staff continues with its eighth-note accompaniment. A large slur spans both staves across the two measures.

55

*cresc.*

*cresc.*

This system contains measures 57 and 58. The treble clef staff shows a continuation of the melodic line, with a *cresc.* (crescendo) marking. The bass clef staff also features a *cresc.* marking. A large slur spans both staves across the two measures.

56

*p*

*p*

V<sub>4</sub><sup>6</sup>

57

*dim.*

*cresc.*

*dim.*

*cresc.*

Variation 3

Adagio molto espressivo

58

*dim.*

*p*

*p*

I<sup>6</sup> IV F<sup>b</sup> [E]: I

60

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

V I

65

*cresc.* *f* *p* *cresc.* *p* *cantabile* *cresc.*

*cresc.* *f* *p* *cresc.* *p* *cresc.*

Aug6 V<sup>6</sup>

70

*f* *p* *espressivo* *cresc.*

*f* *p* *cresc.*

bVI V<sup>6</sup> I

74 Tempo I. Variation 4

*f* *p* *dim.* *pp*

*f* *p* *dim.* *pp*

$\flat$ VI  $V^6$  I

77

*p* *pp*

Ab: I  
[V/IV]

79

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

*p* *cresc.* *p*

V

81

*cantabile*

$V_4^6$

83

*cresc.*

*p*

*cresc.*

$V_3^5$

85

*rinf.*

$V$

87

*rinf.* *p* *cresc.*

*rinf.* *p* *cresc.*

V<sub>6</sub> ————— 6 — 5 — 6  
 V<sub>4</sub> ————— 4 — 3 — 4

89

*rinf.* *rf*

91

*rf* *cresc.*

(V<sub>2</sub><sup>4</sup>)

Variation 5

93

*dim.* *p* *pp*

*sotto voce*

(I<sup>6</sup> IV V I)

96

*sotto voce* *pizz.* *pp*

Db [C#]: I<sup>6</sup> IV

99

*arco* *cresc.* *pp*

V I



102

*p* *cresc.* *p*

*p* *s. cresc.* *p*

Ab: IV

105

*cresc.* *p dolce*

*cresc.* *p*

V

108

*cresc.* *p dolce*

*cresc.* *p p*

I I

110

Musical score for measures 110-111. The treble clef staff contains a complex melodic line with many sixteenth notes and some accidentals. The bass clef staff contains a simpler line with quarter notes and eighth notes. A brace underlines the bass staff.

111

Musical score for measures 111-112. The treble clef staff continues the melodic line with some accents (>) over the final notes. The bass clef staff has a long slur over several notes, with a dashed line above it indicating a crescendo.

112

Musical score for measures 112-113. The treble clef staff has a crescendo (*cresc.*) leading to a piano (*p*) dynamic. The bass clef staff also has a crescendo (*cresc.*) leading to a piano (*p*) dynamic. A fermata is placed over the final note of the treble staff, and a 'V' symbol is at the bottom.

113

*cresc.*

*cresc.*

V

This system contains measures 113 and 114. Both staves feature a continuous eighth-note accompaniment. The treble staff begins with a *cresc.* marking. A large slur encompasses both staves, and a Roman numeral 'V' is centered below the system.

114

This system contains measure 114. Both staves continue with eighth-note accompaniment. A large slur encompasses both staves.

115

*f* *p* *cresc.*

*f* *p* *cresc.*

This system contains measures 115 and 116. The treble staff starts with a forte (*f*) dynamic, transitions to piano (*p*) at the beginning of measure 116, and then has a *cresc.* marking. The bass staff starts with a forte (*f*) dynamic, transitions to piano (*p*) at the beginning of measure 116, and then has a *cresc.* marking. A large slur encompasses both staves.

116

$V_4^6$   $V_2^4$   $I^6$

117

*dim.* *cresc.* *pp*

*dim.* *cresc.*

$I^6$

119

*pp* *pp*

arco  
pizz.

121

*cresc.* *p* *cresc.*

*cresc.* *p* *pp*

124

*p* *arco*

*p* V

125

*cresc.* *p pp*

*cresc.* *p pp*

I

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