

Chapter 7

On questions of motivic thorough-composition in Beethoven's late works

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In his late works, Ludwig van Beethoven (1770-1827) developed the “science of composition”—the mastery of which Josef Haydn once spoke in lauding tones, in reference to Wolfgang Mozart¹—to a theretofore unattained degree.

In Beethoven's late works, motivic thorough-composition, as a unity creating the idea of the development of the whole, has opened up utterly new horizons of thinking, not only as a musical metaphor, but as a compositional method.² In the words of Prof. Norbert Brainin, who dedicated 40 years with his colleagues of the Amadeus Quartet, struggling to achieve an adequate performance of the late quartets, Beethoven is here very advanced, not only as a composer, but as an artistic personality: “Beethoven's late quartets are something very special. They are the fruit of the development which Beethoven underwent, in the last ten years of his life and creative activity. During those last years, Beethoven went through a development—I can only treat it as a spiritual development—which from that time on, placed him above all other artists. Up until that time, there were many artists of his rank, Mozart and Bach, of course, Handel, Shakespeare, Dante, Goethe, and Schiller. . . . I believe, from that point on, he is alone, all, all alone. And it was in this spiritual condition, that he created the last quartets, the *Missa Solemnis*, the Ninth Symphony, and some of the piano sonatas, such as Op. 109 and 111. In these works, Beethoven is unequalled as an artist, as a mind.”³

What should be considered as late works, are particularly the works beginning with Op. 102, the Sonatas for Violoncello and Piano, that is, works that were composed sometime after 1815 according to a “new manner.” To this group of

FIGURE 7.1

From Beethoven's sketchbooks: two passages from the B \flat minor fugue in Part I of J.S. Bach's *Well-Tempered Clavier*



FIGURE 7.2

From Beethoven's sketchbooks: two passages from Fugue IV of J.S. Bach's *The Art of the Fugue*



works, belong the great piano sonatas Op. 106, 109, 110, and 111. Among them should also be counted the great choral works, the *Missa Solemnis* Op. 123, as well as the Ninth Symphony Op. 125, and the late quartets, Op. 127, 132, 130, 133, 131, and 135.

In his late works, Beethoven struggled increasingly intensively with the *Freiheit/Freude* (freedom/joy) paradox, as an impulse to new musical works. In the Ninth Symphony, Beethoven elaborated his more than twenty-year involvement with Schiller's work, “the great song of joy,” which was to become the kernel of a new “double fugal” mode of composition

in the fourth movement. Here, the concept “*tantôt libre, tantôt recherchée*,” “as free, as it is strict,” which Beethoven wrote on the piece originally composed as the last movement of the Op. 130 string quartet, the “*Große Fuge*,” is a key to understanding how Beethoven, in a creative way, so magnificently further developed the discoveries made by Bach, Haydn, and Mozart.

As one can perceive from Beethoven's sketches and other evidence of his work methods, in each new great work, the artist engaged himself intensively, in the detailed solutions of his esteemed musical predecessors, especially Bach and Mozart;

at times, he copied out in his own hand, decisive passages of surprising progressions. Thus, in the Poldrini sketchbook (dating around 1824/25, with 128 pages), next to notes on the first movement of the Ninth Symphony and on the “Hammerklavier” Sonata Op. 106 in B \flat major, containing a great fugue, there are two passages copied from the fugue in B \flat minor from Book I of J.S. Bach’s *Well-Tempered Clavier* (Figure 7.1), two passages copied out of Bach’s *The Art of the Fugue* (Fugue IV, which shows the elaboration of the theme in reverse) (Figure 7.2), as well as a passage copied from a treatise on the fugue by F.W. Marpurg. There are also sketches for the unfinished string quintet fugue Op. 137 (D major).

Here, the modal possibilities, for example in the C major/C minor relationship, and somewhat special singularity passages for creating new “development paths,” always provided Beethoven the incentive for new experiments. A typical example is Beethoven’s intensive involvement with and search for new “combinations,” during his work on the Fifth Symphony in C minor, when he copied a passage from Mozart’s great G minor Symphony K. 550, from the last “*Allegro assai*” movement, measures 146-174; here, in his motivic thorough-composition of the theme through bold progressions, Mozart also plumbs precisely the use of the particular possibilities of Lydian intervals (Figure 7.3).

In Beethoven’s late works, motivic thorough-composition is constantly worked through rigorously to the “form stretching,” boundary-crossing “extreme.”⁴

Thereby, the musical process itself becomes a complete expression; it is not merely an “elaboration” of the “particle themes,” but is rather actually transformation and creation of higher orders of the musical metaphor, a very special challenge to performers.⁵

How else could one explain the magnificent effect of the “Credo” fugue in Beethoven’s *Missa Solemnis*, in which he seems on the one hand to work rigorously with the techniques which Bach created in his fugal works—the reversal, backward reading of the theme, the shortening of the note values—and yet so reshaped, that something new and profound about the nature of man is created, which is really “moving,” in Schiller’s sense?

Here, a tremendous struggle with the musical substance, that is, the generative interval structures, is involved. [text continues on page 80]

FIGURE 7.3

From Beethoven’s Fifth Symphony sketches: part of the final movement of Mozart’s Symphony No. 40 in G minor, K. 550

continued on following page

FIGURE 7.3 (continued)

The musical score is divided into three systems, each containing six staves for different instruments: Flute (Fl.), Oboe (Ob.), Bassoon (Bsn.), Violin (VI.), Viola (Vla.), and Violoncello/Contrabass (Vc. Cb.).

- System 1 (Measures 162-165):** The Flute part begins with a melodic line starting on a whole note G4. The Oboe and Bassoon parts provide harmonic support with sustained notes. The Violin and Viola parts play a rhythmic accompaniment of eighth notes, while the Violoncello/Contrabass part plays a similar eighth-note pattern.
- System 2 (Measures 166-170):** The Flute part continues its melodic line. The Oboe and Bassoon parts have more active parts, including some sixteenth-note passages. The Violin and Viola parts continue their accompaniment, and the Violoncello/Contrabass part provides a steady bass line.
- System 3 (Measures 171-174):** The Flute part has a rest in measure 171. The Oboe and Bassoon parts have rests in measures 171 and 172, with notes in 173 and 174. The Violin and Viola parts continue their accompaniment, and the Violoncello/Contrabass part provides a steady bass line.

Sketches, for instance on the reworking of the “joy” theme of the Ninth Symphony (Figures 7.4) or the double-fugal subject of the “et vitam venturi” fugue, document this (Figures 7.5 and 7.6). Here the double-fugal principle at the center of the composition, is increasingly developed into the actual heart of the transformation. Thus, for example, in the final movement of the Ninth Symphony, from measure 655-729, where Beethoven develops “Freude, schöner Götterfunken” and “Seid umschlungen, Millionen” in double-fugal fashion (Figure 7.7). Most extraordinary, the polyphonically interlinked musical manifolds are rigorously worked through in the “Große Fuge.” [text continues on page 84]

FIGURE 7.4
Beethoven’s working sketches of the generative theme of his Symphony No. 9

Dei - ne Zau - ber bin - den wie - der, was die Mo - de streng ge - teilt, al -

1 etc.

2 etc.

3 etc.

4

5

6

7

FIGURE 7.6
‘Et vitam venturi’ double fugue from ‘Credo’ of Beethoven’s Missa Solemnis

Soprano *p* Et vi - tam ven - tu - ri sae - - - cu - li,

Alto

Tenor *p* a - - - men, a -

Bass

S. a - - men, a - men, a - men, a - - -

A. *p* Et vi - tam ven - tu - ri sae - - - cu - li,

T. - - - - - men

B. *p* a - - - - - men, a -

The subject (sung by the sopranos) is counterposed to the countersubject (sung by the tenors).

FIGURE 7.5

Beethoven's 'experimental' sketches for the 'et vitam venturi' section of the 'Credo' in his *Missa Solemnis*



FIGURE 7.7

**Double fugue in final choral movement of Beethoven's
Symphony No. 9**

Violin I
Violin II
Viola
Soprano
Alto
Tenor
Bass
Violoncello
Contrabass

Freu - de, schö - ner Göt - ter - fun - ken, Toch - ter aus E - ly - si - um, —
Seid — um - schlun - gen, Mil - li - o - nen,
wir be - tre - ten feu - er - trun - ken, Himm - li - sche, dein Hei - lig - tum!
die - sen Kuß der gan - zen Welt! Seid
Seid —

ff f f f f f f
ff sf sf sf sf sf f f
f f f f f f ff
f f f f f f ff
ff

Vc. Cb.

ff

continued on following page

FIGURE 7.7 (continued)

The musical score is for a choral and instrumental ensemble. It consists of seven staves. The top two staves are for Violin I (VI.) and Viola (Vla.), both in treble clef. The next three staves are for vocal parts: Soprano (S.), Alto (A.), and Tenor (T.), all in treble clef. The Bass (B.) part is in bass clef. The bottom staff is for Violoncello and Double Bass (Vc. Cb.), in bass clef. The key signature has one sharp (F#) and the time signature is 4/4. The score includes dynamic markings such as *sf* and *f*. The lyrics are in German and are placed below the vocal staves.

VI. *sf* *sf*

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

S. Freu - de, Freu - de,

A. um - schlun - gen, Mil - li - o - nen,

T. um - schlun - gen, Mil - li - o - nen,

B. *f* Freu - de, schö - ner Göt - ter - fun - ken, Toch - ter aus E - ly - si - um,

Vc. Cb. *f* *f* *f* *f* *f* *f* *f* *f*

FIGURE 7.8

Beethoven sketch for Op. 133 'Große Fuge'



Two examples from the late quartets Op. 132 and 130 may be able to open access to Beethoven's thinking, to Beethoven's motivic thorough-composition. These belong to the three quartets which Beethoven dedicated to the St. Petersburg Prince Galitzin: Op. 127, Op. 132, and Op. 130, completed in this order. The Op. 127 E \flat major quartet was composed mainly in the period between 1822 and 1825, and belongs therefore to the composition phase of the *Missa Solemnis* (between 1819 and 1823) as well as the Ninth Symphony (begun 1822-1824); the Op. 132 A minor quartet was completed between 1824 and 1825, and performed in September 1825; and Op. 130, with the concluding "Große Fuge" movement, composed between May and December of the same year. Beethoven later published the powerful concluding fugue separately as Op. 133, and composed a new finale to Op. 130 (sometime in October-November 1826, one year before his death). This extremely intense creative process, often involving several works simultaneously, poses a challenge to people today, to comprehend the spiritual struggle with the "musical thought-object" in its diversity and method.⁶

The late quartets, above all Op. 127, 130, 132, and 133, but also in another form, Op. 131 and 135, show in increasingly strong measure that an overlapping musical idea-substance binds them together; not in the reduced sense of "the same four-note chromatic motif involving a sixth," but rather as a discussion process, a fly-wheel of new musical thinking in expanding the heretofore explored well-tempered "space" of the 24-key domain. Such are the sketchbook entries, which were apparently noted down three-fourths of a year apart, for example, in a Berlin sketchbook (aut11/2), in the sketches for Op. 127, for a planned overture on the theme B-A-C-H (B \flat -A-C-B \sharp), as well as sketches for Op. 132 and 133. Here Beethoven transposed a fugal theme not used in Op. 127 into B \flat major, and conducted some work with it and a countersubject (Figures 7.8 and 7.9).

Beethoven's mode of composition

FIGURE 7.9

Opening of Beethoven's Op. 133 'Große Fuge'

The score is for the opening of Beethoven's Op. 133 'Große Fuge'. It is in G major, 6/8 time, and consists of four staves: Violin I, Violin II, Viola, and Violoncello. The tempo is marked 'Allegro' at the beginning and 'Meno mosso e moderato' at measure 17. The score includes dynamic markings such as *f*, *ff*, *sf*, *sfz*, *fz*, *f*, and *p*. Measure numbers 10, 17, and 25 are indicated. The score shows the initial development of the fugal theme and its interaction with a countersubject.

which breaks through form, is already recognizable alone in the expansion of the general four-movement form of the quartet, handed down by Haydn and Mozart. Thus, Op. 127 does have four movements; however, Beethoven introduces the first movement with a “*Maestoso*” (slow), a path which he also treads as introduction to Op. 130, Op. 132, and then as an independent movement in Op. 131. The movement structure itself must bend to the succession of ideas. Thus, Beethoven writes six movements in Op. 130: first movement: “*Adagio, ma non troppo—Allegro*” in B \flat major; second movement: “*Presto—L’istesso tempo*” in B \flat minor; third movement: “*Andante con moto, ma non troppo*” in D \flat major; fourth movement: “*Alla danza tedesca. Allegro molto espressivo*” in G major; fifth movement: “*Cavatina. Adagio molto espressivo*” in E \flat major; sixth movement: “*Finale*” in B \flat major, which Beethoven added later. Originally, Beethoven conceived for the Finale what was later published separately as the “*Große Fuge*” Op. 133, appearing in the original manuscript under the title “*Overture*.” Beethoven developed this double-fugal movement, internally with multiple movements, “*Overture. Allegro—Meno mosso e moderato—Allegro; Fuga. (Allegro)—Meno mosso e moderato—Allegro molto e con brio*,” into a major work of over 740 measures, which remains unparalleled in Classical music creations.

There are conversations with Beethoven from around the time of the composition of Op. 132 and 130, on musical generative interval-groups. For example, there is an entry by Karl Holz, a violinist friend of Beethoven’s, in a conversation book from 1825, in which Holz talks about the “Kyrie-fugue theme” from Mozart’s *Requiem* (Figure 7.10). Holz says he thinks Haydn also worked on this as a fugal theme in his quartet Op. 20, No. 5 in F minor, and he cites this passage, which is very closely related to the C minor theme from J.S. Bach’s *A Musical Offering*. Figure 7.11 shows the Holz entry, showing some errors in his memory of Haydn’s quartet.

Beethoven took great care in these late quartets to emphasize the *cantabile* (song-like) presentation, and thus names the second movement in quartet Op. 127 “*Adagio, ma non troppo e molto cantabile*”; in Op. 130, he characterizes the fifth movement as “*Cavatina. Adagio molto espressivo*,” and adds for each instrument “*sotto voce*”; and in the most moving part, Bee-

FIGURE 7.10
 ‘Kyrie’ double fugue opening from Mozart’s *Requiem*

thoven writes “*beklemmt*” (tormented, constricted). Professor Brainin, when asked about the presentation of this difficult piece, makes clear why “knowledge” is not to be won from the musical text alone, but that one has to be in a position to be able to “read between the notes” in order to really grasp the composer’s expression and then transmit it adequately:

“I have a special way of doing this [passage in Op. 130 where Beethoven has written “*beklemmt*”] . . . Oppressed, really oppressed . . . constricted, that is, struggling for breath. . . I play it like a *ponticello*, that is, high up on the bridge. There is a little whistle in there, too. A couple of people mocked the way I play it. There are always some, who are annoyed by one thing or another that I do, and don’t like it. It is either too hard for them, too soft, too sweet, or I don’t know what. But they have not the slightest idea what they are talking about, because they do not understand anything about Beethoven. I play it as it really is; I do not improve anything and I do not worsen anything. If it is hard, then I play it hard, if it is not so hard, then I do not play it so hard. That is in fact what is magnificent about Beethoven, that he has this incredible tenderness in himself and this incredible severity. This, I would almost say, Old Testament severity. It is like, when Moses is on Mount Sinai and receives the tablets with the commandments from God. That is what it is like!”⁷

Beethoven’s Opus 132 String Quartet

Beethoven’s String Quartet No. 15, Op. 132 in A minor, illustrates the essence of the higher development of musical composition represented in his late works. In these compositions Beethoven expands, in an entirely new way, man’s conception of the well-tempered system of polyphony,

FIGURE 7.11
 Holz’s entry in Beethoven’s conversation book, showing Haydn fugue theme

scale with a B \sharp instead of B \flat .) By the ironical combination of these two similar, yet different, modalities, Beethoven provokes the mind of the listener to re-discover for himself this new, higher modality.

To grasp the conception of the new higher modality of Beethoven's late quartets, it is necessary to think of the entire well-tempered system, and the characteristics of the *bel canto* human singing voice, as a One. From this standpoint, think now of the various keys and modes as sub-divisions whose characteristics are merely reflections of the ordering of the entire system.

As an example, look at the modes of the first and third movements of Op. 132 (**Figure 7.12**). The key of A minor is distinguished by the half-step intervals characteristic of the minor mode—between the second and third (B-C) and the fifth and sixth (E-F). In the Lydian mode, these two half-steps are displaced to occur between the fourth and fifth intervals (B-C) and the seventh and eighth (E-F). This difference shifts, and inverts, the Lydian interval from second to sixth (B-F) in A minor, to the tonic to the fourth (F-B) in the Lydian mode.

As previously discussed, this Lydian interval is a crucial singularity in the domain of well-tempered polyphony, evidencing the boundary between the neighboring keys that sub-divide the well-tempered system as a whole. This interval is embedded in minor keys, between the second and sixth, and, in major keys between the fourth and seventh, but, it is “transcendental” with respect to the tonic in any given key. That is, the Lydian interval, formed by the tonic of any given key, is outside that key, but lies on the boundary between that key and the neighboring one. Again, to grasp this point, the reader must abandon the formal assumptions of generally accepted musical theory, and recognize that the well-tempered system of *bel canto* polyphony is not built up from the keys, but, instead the various keys, modes, and their inversions, are determined by the universal characteristics of the system as a One.

The Lydian mode is therefore distinguished by the positioning of the Lydian interval on the tonic itself, giving this mode an unstable quality with respect to the 48 well-tempered keys.

Yet, in Op. 132, it is the third movement, written in the Lydian mode, which “appears” stable, while the first movement in A minor seems highly turbulent. Bee-

FIGURE 7.12
Modes of the first and third movements of Quartet Op. 132

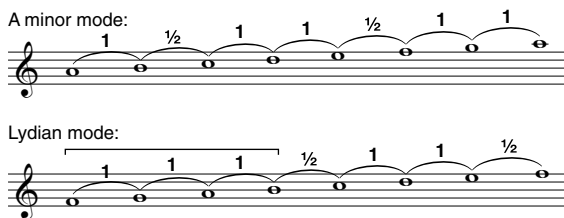


FIGURE 7.13
Opening of Quartet Op. 132 in A minor



thoven demands the listener forsake all previous assumptions about what is possible in musical composition, exciting in the listener's mind those very qualities of creative discovery which most listeners may not even know they had.

Both movements begin with the string quartet playing a chorale, as if they were a quartet of human voices, calling to mind the primacy of the human singing voice as the basis of well-tempered polyphony. Both choral openings are formed as a Classical canon with staggered voice entrances that imitate, invert, and project the intervals of the previous voices. Each opening choral canon is based on the characteristic singularities of the other, and each opening

states these singularities in a highly ambiguous way. Upon hearing the first notes, a quizzical thought is coaxed in the listener's mind, that something very new is about to be stated.

The opening eight measures of the first movement (**Figure 7.13**) are composed almost entirely of ascending and descending half-steps, played canonically, as inversions and projections of each other. The listener hears each half-step note pair and the intervals between the intervals, of the half-step note pairs. For example, the 'cello's opening G \sharp -A, f-e. The listener hears these intervals in sequence, while also hearing the intervals of the minor sixth, A-f and G \sharp -e, diminished seventh

FIGURE 7.14
Opening of third, 'Lydian' movement of Quartet Op. 132

Heiliger Dankgesang eines Genesenen an die Gottheit, in der lydischen Tonart.
Molto adagio

The score shows the opening of the third movement, 'Heiliger Dankgesang eines Genesenen an die Gottheit, in der lydischen Tonart.' It is marked 'Molto adagio'. The score is for Violin I, Violin II, Viola, and Violoncello. The music features a 'Lydian' mode with a major sixth (G#-f) and a fifth (A-e). The score includes dynamics like 'sotto voce', 'cresc.', and 'p'.

(major sixth) G#-f, and fifth A-e. With the entrance of the viola's descending a-g# in the second measure, these fifth and sixth intervals are heard in sequence, and at once, teasing us into the frame of mind from which we can see this newly discovered conception.

As the opening eight measures unfold, by a series of ascending and descending half-steps, separated by the fifth-sixth relationship articulated in the opening two measures, the string choir generates lawfully, by the principle of inversion, virtually the entirety of all possible Lydian intervals. These Lydian intervals are not heard as dissonances, as transitions in the development from one mode to another, but, as, so to speak, development of development.

But this is not just an opening shot: Beethoven maintains this quality of development throughout this composition, and throughout the late quartets as a whole.

Turn again to the opening of the third movement (Figure 7.14). Beethoven titled this movement, "A convalescent's holy song of thanks to God, in the Lydian mode." In contrast to the first movement, Beethoven unfolds the choral opening in the Lydian mode, directly, without introducing any sharps or flats. Here the canon proceeds by the characteristic intervals of A minor, even though the movement follows strictly the ordering of a simple Lydian scale. Unlike the first movement, where virtually every Lydian interval is generated, the only Lydian interval generated here is the 1st-B on the last beat of measure 7. But, as in the first movement, this Lydian interval is not heard as a dissonance, but as internal to the modality of the composition.

After these choral introductory settings, both movements proceed in an entirely unexpected way. In measure 11 of the first movement (Figure 7.15), the 'cello, which stated the original opening half-step, now states, in its high register, a motivic idea (a'-b'-c''-b'-a'-g#) that embodies, transinitely, the conception underlying the opening eight-measure chorale. This motivic idea is then developed, within this new musical domain, with frequent reference to the opening eight measures. See measures 103-106 (Figure 7.16) and measures 193 and 202 (Figure 7.17).

The third movement proceeds in a different but complementary way. The opening choral canon is followed by a contrasting "Andante" labeled "Neue Kraft fühlend" ("Feeling new strength"). The new power is obviously a reference to the

FIGURE 7.15
'Transfinite' motivic idea in first movement of Op. 132

The score shows measures 11 and 12 of the first movement. It features a 'Transfinite' motivic idea in the first movement of Op. 132.

FIGURE 7.16
Development of opening theme of Op. 132

The score shows measures 103-106 of the first movement. It features the development of the opening theme of Op. 132.

higher powers of the human mind which Beethoven has achieved by his new discovery, powers that transform the universe as a whole. The “*Andante*” is introduced with the change from the Lydian mode to the key of D major, formed by changing F to F# and C to C#.

The opening chorale section returns twice more, each time in a more condensed way; and, the third time, it is labelled, “*Mit innigster Empfindung*” (“With utmost fervent sentiment”) (Figure 7.18).

Each time, the listener is brought to new powers of cognition, as the potential of a new, higher modality is unfolded. The summit is articulated in the most beautiful manner in measures 191-192 (Figure 7.19).

The contrasts between the opening of the two movements demonstrates, that the new, higher modality of these late quartets, is not representable by some formal structure, akin to a mathematical formula, but, as in all true human knowledge, lies outside the confines of such formalism, and is expressible only metaphorically, i.e., through beauty.

Beethoven’s Opus 130 String Quartet

In one of the first mentions of this quartet, Beethoven notes in May 1825, “*letztes Quartett mit einer ernsthaften und schwergängigen Einleitung*” (“last quartet with a serious and difficult introduction”).

It is noteworthy here, that the first sketches indicate a C major setting, and only later did Beethoven transpose the thematic material one whole-step lower to B \flat major.⁹ The first seven measures of the introduction, the opening steps, will provide multiple opportunities for development. Thus Beethoven, having established the register with the choice of the key B \flat major, introduces as a singularity the characteristic of the mezzo-soprano voice, the register shift on e \flat ’-e \flat ’’. On the first beat of measure 6 (Figure 7.20), the new register of the voice carried by the first violin, is underlined in its meaning also through dynamics, as the move to e \flat ’’ is played with a *crescendo* moving to *forte*.

At the beginning of his “serious and difficult” introduction, Beethoven has the step-wise descending line played in unison, from B \flat down to G. The ’cello—an octave lower—ends the first measures with a descending fifth G-C, and leads in ascending scale steps up to F, then—now displaced an octave higher—to follow up the next descending fifth f-B \flat with an upwards-striving scale in B \flat major (which

FIGURE 7.17

Development of both themes of first movement of Op. 132

FIGURE 7.18

Third chorale variation in third movement of Op. 132

FIGURE 7.21

E \flat minor is inversion of B \flat major

FIGURE 7.19
High-point of Op. 132 third movement

are elements of the later development); this, though, as a countervoice to the first violin, which in measure 1 in the same place sings an ascending g-e \flat sixth, and the second violin, which sings an ascending g-c' fourth. In measures 2-4, Beethoven displaces the violin voice one octave, in order to let the registral possibilities of the opening unfold in as differentiated a way as possible, simultaneously, in the few interval steps: the potential of the falling fifth and the relative rising fourth, the alliteration or projection of the rising sixth g-e \flat , and the implied descending third g'-e \flat , simultaneously the shift from e \flat ' to e \natural '.

Now, what should be recalled, is which peculiarities in B \flat major/B \flat minor, and reversals, Beethoven uses as the occasion for bold expansions of the modality. (For example, the backward inversion of B \flat major/E \flat minor, a combination in which, in the famous "beklemmt" "Cavatina" passage, E \flat minor should be heard in connection with the first movement (Figure 7.21). One should note the determining role of the Lydian intervals in the major/minor possibilities: B \flat major/B \flat minor-E \natural , or G minor/G major-D \flat , or D \flat major/C \sharp minor-G \sharp , and so on. Already, in the "serious, difficult" introduction, Beethoven uses the introduction of the A \flat , also in regard to B \flat minor, when he later has the 'cello play A \flat in measure 12.

In measure 7, Beethoven leads the 'cello, playing *piano* in the tenor clef, into the next singularity, the shift from f'-f \sharp '-(g'), and develops the countervoice with the second violin—now singing as a mezzosoprano—which again the 'cello answers, with reversals and expansions of

FIGURE 7.20
Opening of Beethoven String Quartet Op. 130

the first measures. Thus the “*Allegro*” “double-fugal head” (sixteenth notes descending d''-b'-g'-e'-c'-g), now played *forte*, with the countervoice of the ascending fourth b'-e'' (measures 14-16), is prepared as the beginning of new development possibilities, such that Beethoven now introduces the sharp “*Adagio/Allegro*” contrast and the “fourth motif” with the “sixteenth-note counterpoint.”

In the later development phase, Beethoven works this quartet motif into a shortened, anapest-like motif (**Figure 7.22**, measures 118-122). The sixteenth-note motif is also shortened to three sixteenth notes, an incredible concentration of the musical elaboration process (measures 64-70 in **Figure 7.23**). These measures follow an idea of the sixteenth-note motif transformed through D \flat (measures 53-63 in **Figure 7.23**). Here, the process of coming into being of the change beginning the opening measures 4-6, lends itself wonderfully to study. (Example: The first violin summarizes measures 4-6 in one single measure (49), introduced by a falling sixth, over two octaves, striving toward the violin's g'' in measure 50, with the 'cello counterpoint in measures 7-9 summarized here, and then, in unison, the chromatic ascent from F-d \flat , and so forth.) [*text continues on page 92*]

FIGURE 7.22

Anapest-like motif introduced in Op. 130 quartet

The figure displays a musical score for measures 118-122 and 123 of the Op. 130 quartet. The score is written for four staves: Violin I, Violin II, Viola, and Cello/Double Bass. The key signature is one sharp (F#) and the time signature is 3/4. Measures 118-122 feature a rhythmic motif of three sixteenth notes followed by a quarter note, repeated in all four parts. Measure 123 shows a continuation of this motif, with a chromatic ascent in the first violin part.

FIGURE 7.23

D_b section in Op. 130 first movement

The musical score is presented in four systems, each with four staves (two treble and two bass clefs). The key signature is D-flat major (two flats), and the time signature is common time (C). Measure numbers 49, 53, 59, 64, and 68 are indicated at the beginning of their respective systems. The score includes various dynamic markings: *sf* (sforzando), *dim.* (diminuendo), *p* (piano), *pp* (pianissimo), and *pp ben marcato* (pianissimo ben marcato). The first system (measures 49-52) features a complex rhythmic texture with sixteenth-note patterns and accents. The second system (measures 53-58) is marked *corda C sotto voce* and *p*, showing a more melodic and sustained texture. The third system (measures 59-63) is marked *pp ben marcato* and features a prominent sixteenth-note accompaniment. The fourth system (measures 64-68) continues the *pp ben marcato* texture, with a *pp* marking appearing in the final measures.

To conclude the first movement, Beethoven presents once again the increasingly developed “face” of his idea discovery, so to speak, in retrospect, in a manner similar to that in the Ninth Symphony, such that the musical beauty becomes truly real only now, as thought process and recollection of the growing and developing process (Figure 7.24).¹⁰ [text continues on page 94]

FIGURE 7.24
Conclusion of first movement of Op. 130 quartet

The musical score is presented in four systems, each with four staves (Violin I, Violin II, Cello/Double Bass, and Bass). The key signature is three flats (B-flat major/C minor) and the time signature is common time (C).

- System 1 (Measures 207-210):** Measures 207-210 feature a powerful *sf* (sforzando) dynamic. Measures 210-215 are marked *Adagio, ma non troppo* and *dim.* (diminuendo), with dynamics ranging from *sf* to *p* (piano).
- System 2 (Measures 216-219):** Measures 216-219 are marked *Allegro*. Measures 219-220 are marked *Adagio, ma non troppo*. Dynamics include *cresc.* (crescendo), *p*, *f non legato*, and *pp* (pianissimo).
- System 3 (Measures 220-223):** Measures 220-223 are marked *Allegro*. Dynamics include *f* (forte), *p*, and *pp*.

The score concludes with a *pp* dynamic in the final measure (223). The text "continued on following page" is located at the bottom right of the score.

FIGURE 7.24 (continued)

Musical score for Figure 7.24 (continued), measures 223-231. The score is written for four staves (treble and bass clefs) in a key signature of two flats (B-flat and E-flat). The tempo and dynamics are marked as *p* (piano) and *cresc.* (crescendo). The score is divided into three systems:

- System 1 (Measures 223-227):** All four staves feature a steady eighth-note accompaniment. The upper staves (treble clef) have a melodic line with some chromaticism. Dynamics are marked *p* and *cresc.* throughout the system.
- System 2 (Measures 228-230):** The music transitions to a *pp* (pianissimo) dynamic. The upper staves have a more sparse melodic line, while the lower staves (bass clef) feature a dense, rhythmic accompaniment of sixteenth notes. A fermata is placed over the final measure of this system.
- System 3 (Measures 231-235):** The music continues with a *pp* dynamic. The upper staves have a sparse melodic line, and the lower staves have a rhythmic accompaniment. A fermata is placed over the final measure of this system.

In his essays, Wilhelm Furtwängler, in reference to the work of Heinrich Schenker, spoke about the need to “listen from afar” in interpreting Classical works, and especially Beethoven’s. This listening from afar, reflects Beethoven’s compositional method of motivic thorough-composition, since even with several melodic lines that initially seem very different—when one listens to them over a longer period of time, repeatedly, particularly over long stretches of the development—only then is the “origin,” the “historical root” unlocked. Only with this comprehension, are the performer and the listener of today in a position to be able to come somewhere close to grasping the whole. In the context of this chapter, it is impossible to cite every single example, but it is important to challenge the reader to develop this “listening from afar” and “comparative listening” regarding Beethoven’s late works. Thus, one must compare the second movement of the Op. 130 (Figure 7.25), despite its “*presto*” (very quick) tempo, with the beginning of the first movement, not only because of the B \flat major/B \flat minor shift, but also to study the downward move of the first and second violins and their motifs, f’-e \flat -d \flat -f’ (violin I) and d \flat -c’-b \flat -a (violin II), and to try to understand the variational motive as coming out of the beginning of the first movement. The scale projections in measures 48-63 (Figure 7.26), first from B \flat , then C (minor), followed by chromatic descents from c’’, then from e \flat ’’, and finally from g \flat ’’, leading back to the original B \flat minor theme, demand special attention to Beethoven’s manner of “path-finding” to reach new manifolds. For the “scherzo” character, one must focus on the target note g \flat ’’ (enharmonically f \sharp ’’) in reference to the C major/C minor domain, or also, of course, in reference to keys “related” to B \flat minor. Similarly, the relationship of the three quarter-note descending lines in the ’cello and viola (measures 17, 19, etc.) as well as the second violin in its answer (measures 19, 21, etc.) in the “trio” section of the second movement (Figure 7.27), must be heard in connection with the shortened theme of the three sixteenth notes from the development of the first movement (see measures 64ff., “*ben marcato*,” in Figure 7.23). The opening of the third movement (especially measures 1-5) (Figure 7.28) must be compared with measures 53ff. and especially 59ff. from the first movement (Figure 7.23), as well as the ’cello line in measure 106 (Figure 7.29).

FIGURE 7.25
Opening of second movement of Op. 130 quartet

Thus, the “legacy” of the double-fugal “head” of the “Große Fugue,” the coming into being of the fugue theme in B \flat (b \flat -b \flat -b \flat -a \flat -g \flat -b \flat -c’-a’-b \flat -a’), as well as the countersubject d’-f’’, will be more readily understood (Figure 7.30). Even the opening of the Overture with the sixteenth-note ascent of over two octaves to g’’’ (Figure 7.9, measure 1, Violin I) must be heard with the “serious and difficult” beginning of the first movement (the first violin) (Figure 7.20, measures 1 and 6) (including also the octave transposition in measures 2-4 of the first movement), where the relations to the beginning of Op. 132 and also 131 (Figure 7.31) are more obvious).

For Beethoven, the voice-leading of all compositions, whether purely instrumental or with choral voices, is truly “human song” and—as the “Holy song of thanks to God” marking prefixed to the third section of Op. 132 indicates—not merely metaphor. Rather, Beethoven’s studies were involved with the working-out of ideas into “developable material”—for example, even in the small form of singable canons, precisely in the late phase of his creative work, and not merely because he wanted to write something ironic to a friend. For example, sketches

for the canon, “Schwenke dich ohne Schwänke” (woO 187) (a pun on the name of an acquaintance, C.G. Schwenke with the word “Schwänke,” meaning a cheap joke), are found among Beethoven’s sketches for the Op. 127 and drafts for an overture on the B-A-C-H theme from about 1824. Typical of Beethoven in his working phase, was the desire he often expressed to interlocutors, to examine compositions of Bach or Mozart. Thus, in his 1824 letter to the poet Nageli, he asked not only for Nageli’s own lectures on music, but also for the score of Bach’s five-voice mass in B \flat minor. Nageli had also sought out contributors in 1818 in order to have the Bach mass printed, but at the time it did not succeed for lack of support, and the first part appeared only in 1833.

Thus, not only for the performer, but also for the educated, sensitive listener, Beethoven’s late works are a challenge, to recognize the often strongly paradoxical ideas as “the derivation of a musical creative principle of a whole.” In this context, it is significant that, as emerges from his sketchbooks, precisely in the working group of the late quartets, Beethoven also proposes score sketches, alongside single-

FIGURE 7.26

Scale projections in Op. 130 second movement

48

p *p* *p* *p* *p* *p*

ri - tar - dan - do

54 *L'istesso tempo*

f *p*

f *f* *f* *f*

60

f *p* *pp*

f *pp* *pp* *pp*

f *pp* *pp* *pp*

voice drafts; this signifies that the progress of all single voices and their cross voices, that is, the unity in multiplicity, became more and more strongly Beethoven's chief compositional consideration.

Norbert Brainin also stresses this in a recent interview on the question of "Beethoven's Art of Four-Voice Composition": "In his late quartets, Beethoven writes a kind of four-voice counterpoint, in which the four voices must be played or sung together, and yet each voice is treated very individually. All voices sing something very important—and in fact everything is equally important. The balance is perfect; the voices need not bother to worry, how

loudly they are singing, or how softly, because everything is so perfectly composed. The most important element in this is the motivic thorough-composition, because the motifs which Beethoven uses all come out of the piece itself, and are connected. One finds this above all in the late quartets, but naturally also, in part, in his earlier works. The same applies here and there to Mozart. In Mozart, too, the four voices sing, and it is so perfectly composed, that one ought actually only to sing it—but: It must be correctly sung, with the right voice, correctly produced, and it must really come out of the body. I am not a singer, but I assume that a *bel canto*-

trained singer would be able to do it right away."¹¹

Beethoven's late work will only be understood, when one takes to heart the advice given by Socrates to Protarchos, on the One and the Many, in the dialogue *Philebus*: "A gift of the gods to man, as I consider it, was once hurled down from the gods through some Prometheus together with a fire of the most brilliant kind, and the ancients, who were better than we and were closer to the gods, handed it down as a legend, that everything which we say, is, consists of One and Many, which, however, has limitation and unlimitedness growing together within it. Let it be our affair, now, since this was once so ordered, to assume an idea and seek it out, in every single case in everything, and one will find one, since it is therein."

1. "I say to you before God, as an honest man, your son is the greatest composer that I know by person or name: he has taste and above that the greatest sense of composition." Statement by Josef Haydn, Feb. 12, 1785, after the performance of six quartets dedicated to Haydn, which introduced the revolution in Classical composition through motivic thorough-composition. See videotape, "*Motivführung bei Josef Haydn und Wolfgang Amadeus Mozart*," with Professor Norbert Brainin and the Henschel Quartet, February 1993, Dr. Böttiger Verlag, Wiesbaden, Germany.

2. See Lyndon H. LaRouche, "That Which Underlies Motivic Thorough-Composition," *EIR*, Sept. 1, 1995 (Vol. 22, No. 35).

3. Norbert Brainin, video, *op. cit.*

4. On "form breaking": Even the neo-Kantians stood up in their own defense against the Romantics very early, who wanted to characterize this characteristic of Beethoven as the "destruction of every musical form," that is, the intercession of total arbitrariness. Thus, Paul Natorp wrote in his 1920 speech on "Beethoven and Us": "It is fully erroneous, to consider that the decisive aspect of his last period of creative activity ought to be recognized in the destruction of musical form. It has as little to do with destruction, as so-called non-Euclidean geometry had to do with overthrowing only one, single sentence or proof of Euclid. It is far more a question of going out *beyond* one or some of its binding assumptions, which had unexpected and unintended results, not overthrowing Euclid, but rather—in one blow—letting not only one or two, but an unforeseeable multiplicity of new geometries come into being, above Euclid's; each, under its assumptions, with the same, much higher certainty and strictness—because based on more general ground—as the old one. So is the relationship between Bee-

thoven's expansion of form and what had been considered theretofore as the only possible musical form."

5. Cf. Professor Norbert Brainin: "In Beethoven, it started with Op. 59. Of course, he had always composed very well, but up to then he had not applied motivic thorough-composition deliberately, only unconsciously. I believe that it was first consciously applied in Op. 59. Perhaps it was similar in the case of Haydn, since his last quartet composition before Op. 33, was Op. 20. And, if I did not know that these works had been written before the development of motivic thorough-composition, I would merely say, 'There, perhaps, it is not so fully explicit.' The fact is, that he applied it first consciously in Op. 33. With Beethoven, it is similar. But he did not only apply a method: He brought new elements in, but always used the old ones again."

In response to the question of the "new" with reference to the great model, J.S. Bach, Professor Brainin said: "Freedom lies in expression. It is a matter of other things, than with Bach. In Bach, it is pure spirit, in Beethoven, it is interpretation. Beethoven even said, 'It is not enough to write fugues.' What does that mean? It means he did not want to write fugues in the manner of Bach; he had learned from him how one writes fugues. But the way in which he wrote fugues, is always directed at an aim." Quoted from videotape interview, "*Motivführung*: Prof. Norbert Brainin, Primarius des Amadeus-Quartetts, erläutert und demonstriert die Kompositionsmethode der späten Quartette Ludwig van Beethovens. Meisterklassen im Schloß Dolna Krupa, 20-22 Sept. 1995, mit dem Moyzes Quartett (Bratislava) und dem Auer Quartett (Budapest)," available through the Schiller-Institut Vereinigung für Staatskunst e.V., e-mail info@schiller-institut.de.

6. See Lyndon H. LaRouche, Jr., "Mozart's 1782-1786 Revolution in Music," *Fidelio*, Winter 1992 (Vol. 1, No. 4): "In its most essential features, what we may say of thought-objects, as in scientific work, we may say also of musical thought-objects. The J.S. Bach *Musical Offering* underscores the place of a major/minor-key cross-over *dissonance*—e.g., a formal discontinuity—in the process of composition. The subsumption of many resolved discontinuities under the governance of a single, well-defined ordering-principle for that succession as a whole, presents us, in the instance of any single such composition, with a process analogous to the idealized theorem-lattice, *A, B, C, D, E, . . .*

"The definitional significance of such a musical thought-object as musical, rather than simply a thought-object, is the following. Firstly, even the individual thought-objects, *of a series*, within a succession, are provoked, in the individual's sovereign creative mental processes, by the polyphonic lawfulness of the Classi-

FIGURE 7.27
'Trio' section of Op. 130 second movement



FIGURE 7.28
Opening of third movement of Op. 130 quartet



cal, well-tempered musical medium. Secondly, the ordering of a series of such thought-objects, as a composition, or part of it, is a higher-order thought-object, which latter is defined, generated by a negative feature of a process of composition. The natural rules of polyphony flowing from singing voices of the most natural training (i.e., *bel canto*) are the basis for defining an anomaly, and, thus, are the basis for the generation of a musical thought-object. In other words, the thought-object is referenced in respect to its place in the development occurring in the musical medium. Since only the Classical mode of

FIGURE 7.29
'Cello figure references back to first movement



FIGURE 7.30
 'Head' of Beethoven's Op. 133 'Große Fuge'

FIGURE 7.31
 Opening of Beethoven String Quartet Op. 131 in C# minor

composition permits this determination, those musical thought-objects are defined in respect to the Classical form of the medium."

7. Norbert Brainin, interview, *Ibykus*, Vol. 5, No. 15, 1986.

8. Bruce Director, "What Mathematics Can Learn from Classical Music," *Fidelio*, Winter 1995 (Vol. III, No. 4).

9. Jelena Wjaskowa, "Das Anfangsstadium des schöpferischen Prozesses bei Beethoven—Eine Untersuchung anhand der Skizzen zum ersten Satz des Quartetts Op. 130," in *Beethoven, Aufsätze und Dokumente*, Vol. III, ed. by Harry Goldschmidt (Berlin: 1988).

10. Cf. Lyndon H. LaRouche, "That Which Underlies Motivic Thorough-Composition," *op. cit.*, on the question of memory in musical performance: ". . . what we have just said, obliges us to examine this matter of memory on a time-scale. We discover, immediately, that there is something essential in the influence of the musical idea upon the performance, the which can not be explained as an attributed epiphenomenon on the tone's sensation. There is a contradiction, a devastating paradox, which can be, and is heard as a musical idea, an idea which can not be attributed to the senses as such.

"The devastating paradox is situated thus: See how the idea of the performance as an entirety, shapes the performance of the intervals adressed within each moment of the performance. We are confronted immediately with the existence of two musical ideas, both representing the composition taken as an entirety.

"One of these two is efficiently superior to the other. The first of these two, is the performer's earlier grasp of the perfected idea of the composition as a finished whole; that is the idea which should never change in the musician's mind during the execution of the performance. This idea, the musician brings to the performance from an earlier, relatively perfected experience of the composition's completed performance.

"The second idea, also pertaining to the composition as an entirety, is the notion of the incompletd idea of the same whole, in process of emergence, not yet *reperfected*: at each point mid-performance. The same principle governs not only the performance, and the practice leading to the performance of that composition; it is also the experience of the hearer.

"The first must control the second. The tension between these two, axiomatically distinct qualities of idea of the composition as a whole, is readily recognized as the motivating 'tension,' that sense of 'suspension,' which supplies a quality of psychic intensity, which is to be perceived as the 'energy' of the successful performance."

11. Norbert Brainin, " 'As free, as it is rigorous'—Beethoven's Art of Four-Voice Composition," *Fidelio*, Fall 1998 (Vol. VII, No. 3).