

The Two Versions of J. S. Bach's *A-minor Invention, BWV 784*

DAVID NEUMEYER

All but one of Bach's Inventions and Sinfonias appear in the Klavierbuechlein vor Wilhelm Friedemann Bach, the famous pedagogical collection begun in 1720.¹ The final versions of these pieces were written in autograph score in 1723 – apparently not long after the Klavierbuechlein versions² – but nevertheless vary from the latter in numerous details. These variants are mostly a matter of single notes or ornaments, but in four cases more significant changes alter the shape of the final versions (in the Inventions in E-minor, F-major, and A-minor, and the Sinfonia in E^b-major).³ From this group I have chosen the A-minor Invention as the sub-

¹The missing piece is the C-minor Sinfonia, BWV 773. About half of the D-major Sinfonia is also lacking. Cf. Johann Sebastian Bach, Clavier-Buechlein vor Wilhelm Friedemann Bach, facsimile edition, edited by Ralph Kirkpatrick (New Haven: 1959), pp. 144ff. For a concise list of sources for the Inventions and Sinfonias, see Hermann Keller, Die Klavierwerke Bachs, 3rd edition (Leipzig 1950), pp. 108ff.

²Bach, Clavier-Buechlein, p. xvii.

³Effects of these changes on formal design are discussed in Kurt von Fischer, "Zum Formproblem bei Bach," in Bach-Gedenkschrift 1950, ed. Karl Matthaei (Zürich: 1950), pp. 150ff.

ject for analytical discussion because the four measures inserted in its final version demand the greatest changes in interpretation of the composition, affecting all the fundamental aspects of structure: motivic development, formal design, the "dramatic" argument (or psychological progression), and the harmonic-contrapuntal framework. In addition, this invention is a particularly good example of the mixture of compositional genres which is a special characteristic of the Inventions and Sinfonias.⁴

In the Klavierbuechlein, the A-minor Invention is 21 measures; in the final version, it is 25 measures.⁵ In both versions, the first 15 measures are identical (i.e., to two measures beyond the cadence on E).⁶ Measures 16-18 of the Klavierbuechlein version were most seriously affected by revision: they are quoted in Example 1, with surrounding measures to make the context clear. (To clarify the ensuing discussion, the Klavierbuechlein version will be labelled "I" when specific measures are cited, the final version "II.") These three measures (I, mm. 16-18) become seven in the final version (II, mm. 16-22). There is a close correspondence between pairs of measures in three instances: I, m. 16 and II, m. 17; I, m. 17 and II, m. 21; I, m. 18 and II, m. 22. The changes made, as we shall see, greatly improve the dramatic argument of the composition: the gradual developmental expansion of a motive derived from the subject comes to a highpoint in II, mm. 19ff., and focuses attention on the important dominant arrival in II, m. 22. Formal design is likewise affected: emphasis shifts from the cadence on C in m. 6 to the cadence on E in m. 13 as the articulating point in a binary plan. And, finally, the fundamental structure in the contrapuntal-harmonic framework is altered so that the greater part of the descent of the fundamental line in fact takes place in the newly inserted measures.

Any analytical discussion of the Inventions and Sinfonias must take into account the problem of form stereotypes and compositional genre, a problem, of course, related to the ambiguity of Bach's titles, but compounded by the fact that, in the Klavierbuechlein, he called the Inventions "Preambula" and the Sinfonias "Fantasien." No single form or set

⁴For a valuable discussion - to which my own is in debt - of the blending of dance and fugal genres, see Erwin Ratz, Einführung in die Musikalische Formenlehre, 3rd ed. (Vienna: 1973), pp. 43ff. (Inventions) and 113ff. (Sinfonias).

⁵Cf. Bach, Clavier-Buechlein, pp. 84-85.

⁶The only variant in the original version - d[#] on the second beat on measure 12 - is plainly erroneous.

Example 1. Klavierbuechlein Version, mm. 15-19.



of form stereotypes provides adequate explanation for the Inventions or Sinfonias,⁷ because they represent various

⁷Margarete Reimann, "Inventio," in Musik in Geschichte und Gegenwart, vol. 6 (Kassel 1957), col. 1388. Also, John Caldwell, "Invention," in New Groves Dictionary of Music and Musicians (London/Washington: 1980), vol. 9, p. 284. Philipp Spitta's comment that the Inventions exhibit "vollständige Neuheit der Form," however, gives a misimpression. See Johann Sebastian Bach, 4th ed. (Leipzig: 1930), vol. 1, p. 667. For a discussion of Spitta's comment, see Reinhard Oppel, "Beziehungen Bachs zu Vorgängern und Nachfolgern," in Bach Jahrbuch XXII (1925), p. 23. Even Hugo

syntheses of "formless" genres - prelude, fantasy, fugue, canon - and the formal and tonal stereotypes of dance movements. Bach apparently did begin this process of synthesis under the general rubric of prelude or fantasy (as his original titles suggest); that he actually intended to create an entirely new compositional genre is doubtful. He was content to do - though more consistently - what many of his predecessors had done with preludes or fantasies: incorporate elements of other types of composition into an otherwise "free" improvisation. On the other hand, Bach clearly did not intend to produce a miscellaneous collection of genre pieces like the two sets of Little Preludes. The rhetorical term "inventio" (= "idea"), which Bach himself invokes in his lengthy title for the collection, provides the clue;⁸ that is, there is a connection between the concentration of motivic development especially characteristic of the Inventions and Sinfonias and the dramatic argument in each. The motive, as "idea," is developed in a manner both "technical" (i.e., using devices of imitation, etc.) and dramatic (i.e., rhetorical). Thus, the unifying thread of the Inventions and Sinfonias is not a form stereotype, but a technique of motivic development. It is true that we can discern evidences of debt to one or another compositional type in most of the Inventions and Sinfonias. The most obvious examples include the E-major Invention, which retains the repeat sign of the binary-form plan; the C-minor and F-major Inventions, which begin as canons; and certain Sinfonias (e.g., those in A-major and B^b-major),⁹ which are very fugue-like in design, except for the anomaly of the accompanied first entrance. It is also true that these evidences are important to an understanding of the composition, but we must be wary of relying simply on genre

Leichtentritt says that the Inventions are "not bound to any particular form" in Musical Form (Cambridge, Massachusetts: 1951), p. 68.

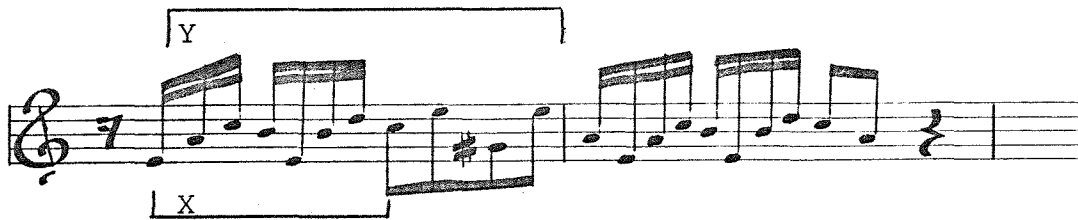
⁸Spitta, Bach, vol. 1, p. 666 (quoted in Keller, Klavierwerke, p. 110).

⁹Oppel cites a fugue by J.K.F. Fischer which may very well have been the model for the B^b-major Sinfonia: "Beziehungen Bachs. . .," pp. 21-22. Hugo Riemann also emphasizes the relation to fugue in both Inventions and Sinfonias in Katachismus der Kompositionslehre, vol. 1 (Musikalische Formenlehre), 2nd ed. (Leipzig: 1897), pp. 203ff. A.E.F. Dickinson says of the Sinfonias that Bach "developed a fresh, compressed fugue" in Bach's Fugal Works (London: 1956), p. 35. Leichtentritt makes the curious comment (cf. footnote 7 above) that "on the whole, the methods of the invention are closely allied to those of the fugue," by which he apparently means invertible counterpoint used as a "formal principle." See Musical Form, p. 309.

characteristics for analysis, especially formal plans and related harmonic-contrapuntal frameworks. It is not only a formal plan, but also the manifold interaction of form, the harmonic-contrapuntal framework, and motivic development, that determines the substance of these pieces.

In keeping with the view expressed above, we must hesitate to speak of a "subject" in the A-minor Invention, thereby invoking fugal terminology; we might equally well speak of a "theme phrase." Indeed, the latter is probably more appropriate to the shape of the opening measures. The thematic motive within this theme phrase is not the sixteenth-note arpeggiated figure (bracketed as "x" in

Example 2. "Theme Phrase" and "Subject."

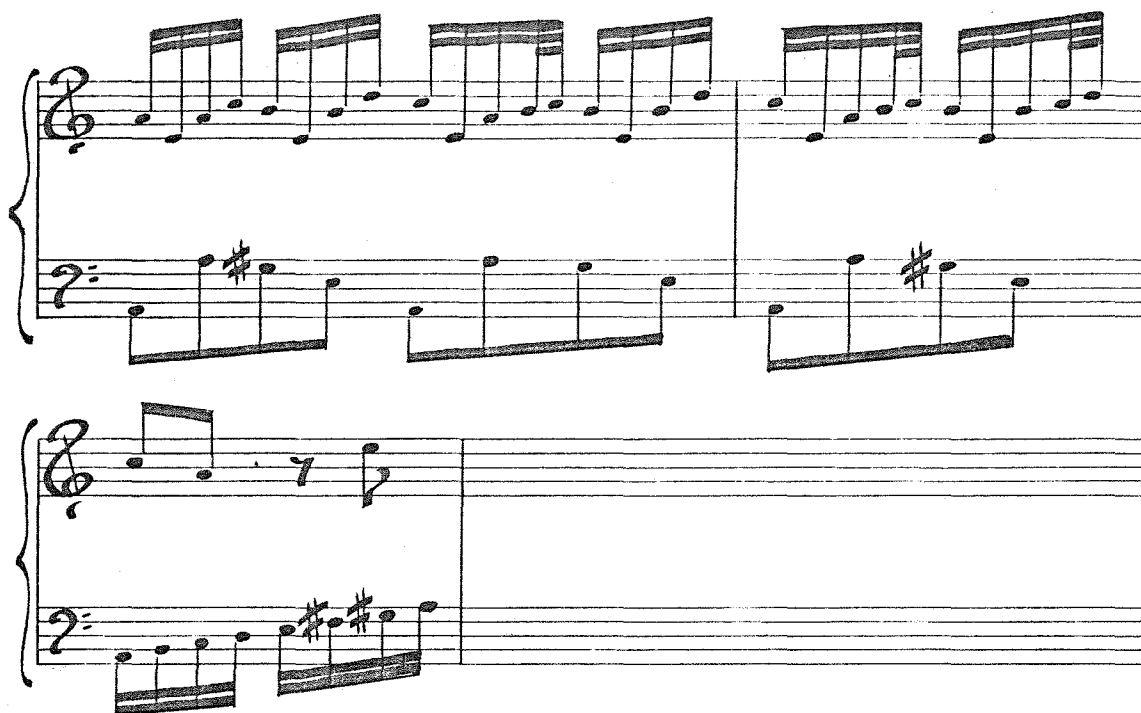


Example 2); Bach treats the entirety of measure 1 as a motivic unit (bracketed as "y"), as the source of the developmental material of the Invention, not motive "x." In other words, the "subject" is embedded in a two-measure theme phrase, whose second measure consists of repetition of the "subject." That "theme phrase" should take precedence over "subject," and thus a relationship to dance movement or related genre over fugue (despite the imitation in the left hand), is supported by Reinhard Oppel's demonstration of the very striking correspondence between the opening of this Invention and a passage taken from a concerto once ascribed to Vivaldi. The concerto, now tentatively ascribed to Marcello, was transcribed by Bach for solo keyboard as the sixth (BWV 977) in a series of sixteen concerto transcriptions.¹⁰ (See Example 3.)

It should be noted that the left hand sounds the complete

¹⁰Reinhard Oppel, "Zur Fugentechnik Bachs," in Bach Jahrbuch XVIII (1921), pp. 11-13. In this and the article previously cited, Oppel introduces many parallels of this kind as evidence that Bach's study of the music of his contemporaries shows in his own work, even to the extent of embellished or guarded quotation. Bach's keyboard transcription of the Vivaldi/Marcello Concerto appears in the Bach Gesamtausgabe, vol. 42, ed. Ernst Naumann (Leipzig: 1894), pp. 96ff.

Example 3. BWV 977, First Movement, mm. 34-35.

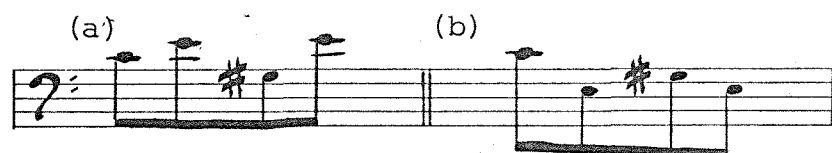


theme phrase (with subject repetition), finishing with c^1 -a at the beginning of measure 3. The fact that the left hand answers well before the right hand has finished the subject (i.e., motive "y"), so that subject, imitation, and repetition overlap, should not be seen as a barrier to the interpretation offered here. Though the use of the subject does have a few fugue-like characteristics, Bach does not treat the opening as a fugal exposition, but as merely including exposition-like imitation.¹¹ The difference in the shape of the eighth-note figure in the two parts in measure 1 is also not a difficulty, since Bach plainly regards them as interchangeable in later statements (cf. mm. 6ff. and 18). We can assume that Bach wrote the figure in the left hand of measure 2 to avoid writing the figure shown in Example 4a, which might be awkward to play against the right hand, or the figure in Example 4b, which is melodically and harmonically awkward.

Formal design in the Invention is primarily articulated by thematic restatement and cadential arrival points. The two principal intermediate cadences are on C in m. 6 and on E in m. 13. There is also a return to A-minor in measure 18

¹¹On the other hand, the sharp distinction between theme statements and developmental episode in the Invention does suggest some alliance with fugal process as well.

Example 4. Left Hand, m. 2, Alternative Figures.



(articulated not by a perfect cadence, but by change of surface design — end of a sequence figure — and recurrence of the subject after a long absence), as well as a dominant arrival at measure 22 (whose function is explained below). If the tonal design is viewed in terms of these broad articulating points, then the following plan results:¹²

Figure 1.

measure:	1	6	13	18	22	25
cadence:		C	E	(A)		A
in A-minor:	i	III	v	i	V	i
sections:	a-----	b-----	c-----	d-----		
		(a')		(a')		
binary plan:	A-----		B-----			

Thematic development is closely associated with this design. In section "a," the presentation of the theme phrase and subject is immediately followed by developmental sequence which leads to the cadence on C in measure 6. Section "b" then begins with a transposed repetition of the theme phrase (with inverted counterpoint), followed by further sequential development leading to the cadence on E. Section "c" does not begin with recurrence of subject material, but consists simply of another developmental sequence based on a new figure derived from the subject. (The whole of this section is no longer than the developmental sequence of section "b.") Section "d," of course, is distinguished by the subject reprise in both parts at the tonic level, though only a single measure — "subject," not "theme phrase" — is given before another developmental sequence is taken up (based on the figure from section "c"), which leads

¹²Kurt von Fischer proposes a "reprise-bar" form based on these four sections: a-a-b-a ("Zum Formproblem bei Bach," p. 151).

to an arrival on the dominant in measure 22, at which point there is yet another figure and another developmental sequence.

The articulative function of the cadences is thus enhanced by changes in design: the breaking of sequences and the shifting from developmental to subject material. On the other hand, the first half of the Invention (mm. 1-13) is unified across the bounds of the cadence by the recurrence of the theme phrase and the use of the same developmental figures (most of "b" is "a" with counterpoint inverted). Similar figures also connect sections "c" and "d," whose harmonic "joints" are of a different order, so that we can speak of a broad binary design with the cadence on E as the close of the first half.¹³ Finally, there is a kind of dramatic structure which in a sense operates independently of formal plan, whose leading impulse — the developmental figure of measure 3 — accumulates energy through its re-use and gradual expansion as the piece proceeds and leads to a climax point near the closing cadence. It should be emphasized that this process depends on changes that occur in the developmental figures derived from the subject, not on the use of the subject itself.

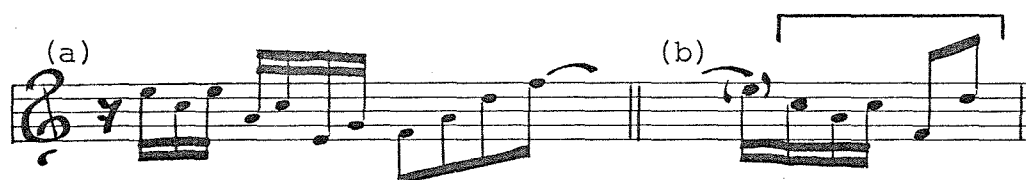
The first developmental figure (and source of all the others) keeps none of the pitch contours of the subject, except the general idea of arpeggiation, but is obviously derivative because of its identical rhythmic structure.¹⁴ (See Example 5a.) This new figure is compressed into a two-beat unit as the cadence approaches (Example 5b). The counterpoint of the first part of the sequence is then inverted in section "b" (m. 8 — see Example 6), but restored at the point the figure is compressed (m. 11). In the left hand, however, the sixteenth-note figure expands into a continuous series of sixteenths (Example 7), the first expansion of the motive and the basis of developmental figuration in the following sections. In section "c," the sixteenths and eighths of the subject are used separately in the two parts (Example 8). The right-hand figure, of course, is still derived from the developmental figure of measure 3, not directly from the subject. The one-beat extension of this figure presages the first figure of section "d," where,

¹³The half-measure extension of the cadence chord by the left-hand arpeggiation supports this interpretation, as does the harmonic instability of section "c."

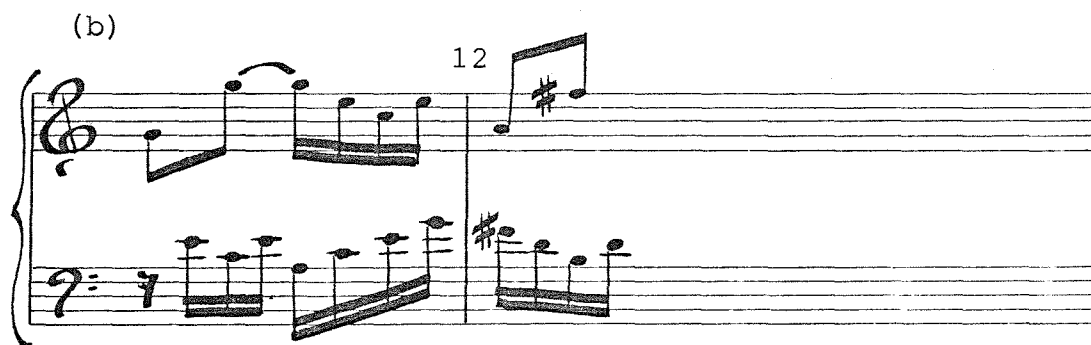
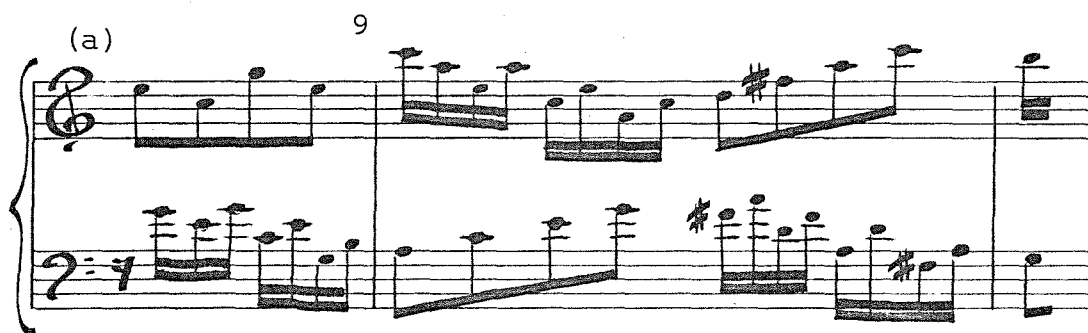
¹⁴Kent Kennan says of this that it "returns so frequently and so prominently in the course of the Invention that it is actually on a par with the motive in importance," yet he makes no reference whatever to the obvious relationship of this figure to the subject. See Counterpoint, 2nd ed. (Englewood Cliffs, N. J.: 1972), p. 129.

Example 5a. Developmental Motive, m. 3.

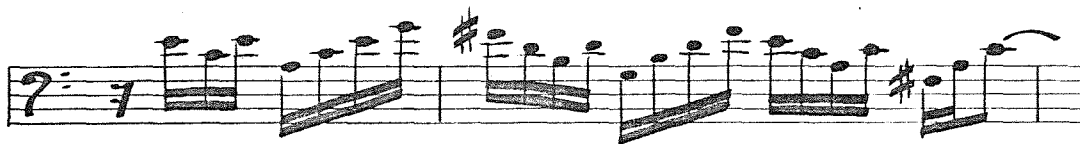
Example 5b. Compressed Motive, m. 5.



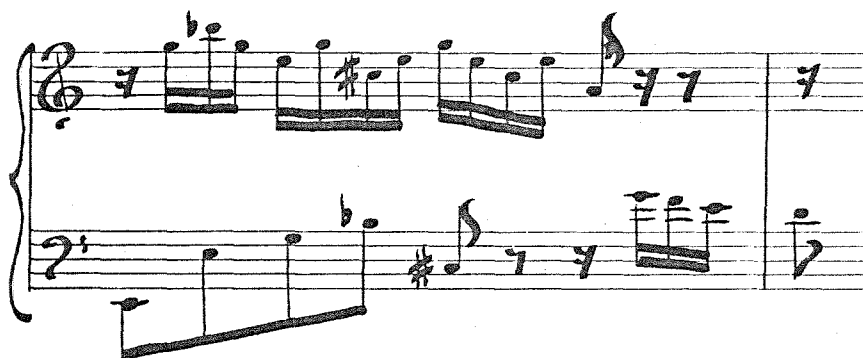
Example 6. Texture Inversion in Section "b," m. 8.



Example 7. Expanded Motive, mm. 11-12.

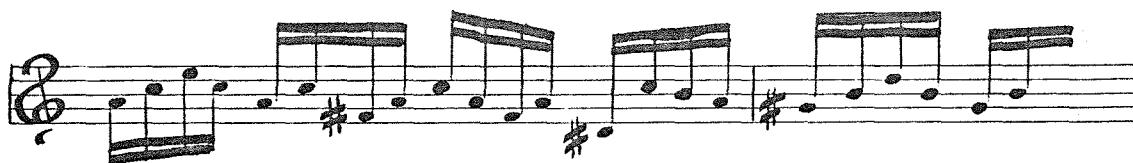


Example 8. Separation of Motive Elements, m. 14.



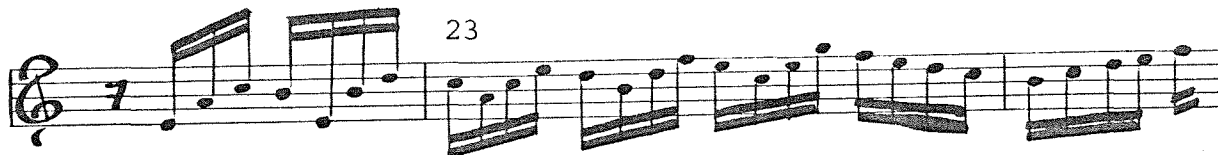
after the one-measure reprise, arpeggiation is combined in a single voice with the short descending figure as the basis of a sequence (Example 9). At the dominant arrival of

Example 9. Expanded Motive, m. 19.



measure 22, however, the figures revert to those of the subject itself, a striking change in design which has important consequences in the harmonic-contrapuntal structure. The left hand at first takes a descending arpeggiation figure (almost the inverse of motive "x"), but thereafter the string of sixteenths is maintained in the right hand (against eighths in the left - the division of section

Example 10. Right Hand, mm. 22-23.



Example 12. Fundamental Structure.

m. 2 6 7 13 19 20 22 25

5 4 3 2 1

5--6-7-6-5
3--4-5-4-3

a: i III v V i V⁷ i V i

In section "a," the theme phrase emphasizes c^2 in the upper voice. (See Example 13.)

("J. S. Bach, Invention No. 13 in A minor: Reduction and Graph," *In Theory Only*, I:8 (November, 1976): pp. 29-33) in which he takes and Graph, *In Theory Only*, I:8 3 as the first pitch in the fundamental line and posits an interruption at measure 22, with recovery of 3 and descent in mm. 24-25. This view is obviously erroneous. Among other things, Travis ignores parallels with the C-minor Fugue, *WTC I*, BWV 847, which Heinrich Schenker analyzes at length in "Das Organische der Fuge," in *Das Meisterwerk in der Musik*, vol. 2 (Munich: 1926), pp. 57ff. For a discussion of one critical point in Schenker's analysis, see below.

Example 13. Section "a" Graph.

The image displays two systems of musical notation for a piano piece. Each system consists of a grand staff with a treble clef on the upper staff and a bass clef on the lower staff. The notation includes various musical symbols such as notes, rests, and slurs. Fingerings are indicated by numbers 5, 6, 8, 10, and 11. Annotations include 'a: i' below the first staff of each system, and 'N' with a slur above the treble staff in the second system. A large bracket labeled '5' spans the final measures of both systems. The first system includes a slur labeled '8---10---10' over the bass staff and a slur labeled '6' over the treble staff. The second system includes a slur labeled '10' over the bass staff and a slur labeled '5' over the treble staff.

a: i

a: i

m. 4

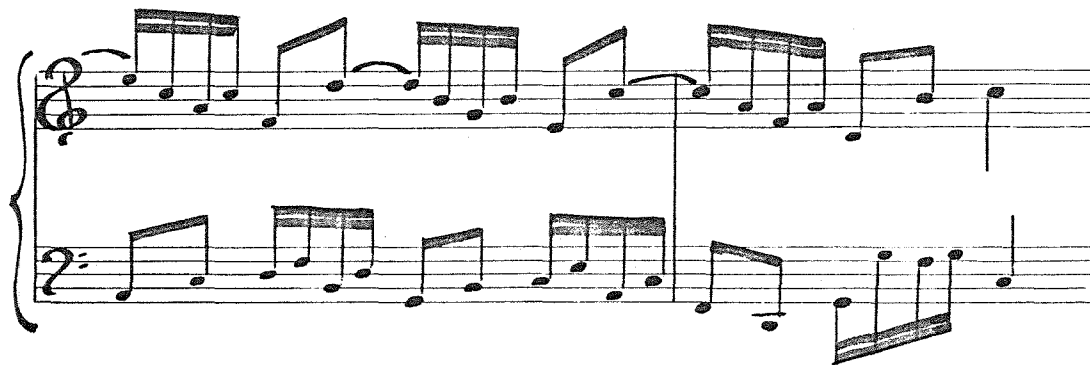
The image displays two systems of handwritten musical notation for measure 4. Each system consists of a piano accompaniment (piano) and a vocal line (voice). The piano part is written in treble and bass clefs, while the voice part is in treble clef. The notation includes various musical symbols such as notes, rests, and slurs. Above the voice line in both systems, the word "(third)" is written, indicating a third interval. Below the piano part in the first system, the labels "[ii v]" and "III" are present, likely referring to Roman numeral notation for chords. In the second system, the label "III" is also present. The handwriting is in black ink on a white background.

The pitch e^2 in measure 1 might have been taken as the first instance of the structural 5, but I have not used that interpretation primarily because e^2 becomes the originating point of the voiceleading movements of the soprano only in measure 3: it seemed a clearer reflection of the shape of the upper part to leave the theme phrase to c^2 . The two upper-voice registers thus established — e^2 as "structural soprano," c^2 as "structural alto" — dominate the melodic processes in the right hand throughout. The first instance of development of this registral relationship is in mm. 3-6, where the essential melodic movement is a linear descent from the structural soprano (e^2 of measure 3) to the structural alto (c^2 at the cadence in measure 6).

The change in the surface design in measure 5 — the condensation of the motive — reflects change in the underlying structures as well. In mm. 3-4, a neighbor-note construction in the upper voice is accompanied by a move from a to c in the bass and a change in harmony from i to III . The second half of the passage, then, moves within III , primarily by embellishment of its dominant.

A curious feature of measure 5 is the shift in chord basis on the second half of beats two and four because of the introduction of the pitches B and A , respectively. (See

Example 14. Mm. 5-6.

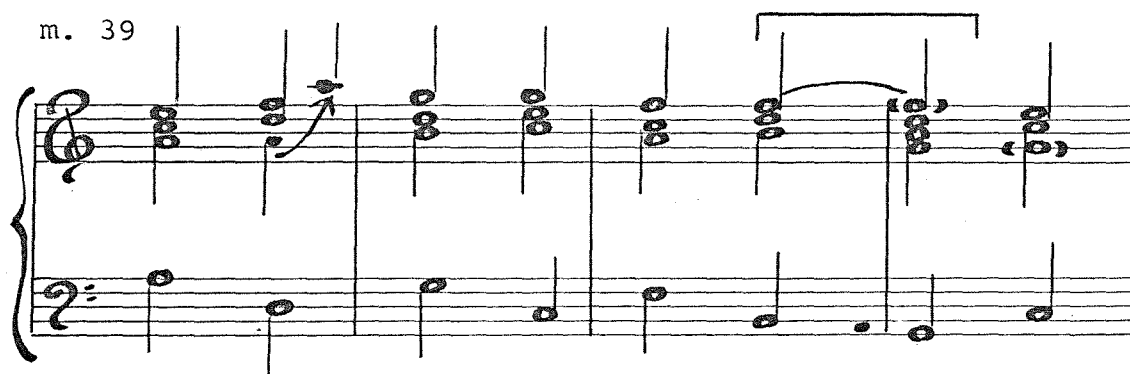


Example 14.) Roy Travis explains these as incomplete neighbor-notes (Example 15a), but his explanation is unacceptable because it ignores the characteristic seventh dissonances which generate the upper-voice voiceleading movements.¹⁶ Example 15b corrects Travis' interpretation by supplying these sevenths. Example 15c shows another alternative which posits more chords and doubled suspension resolu-

¹⁶Travis, "J. S. Bach, Invention No. 13," p. 30 (mid-ground graph).

tions (a figure hardly unknown in Bach). None of these interpretations, however, corresponds entirely to the events at the most obvious surface level – specifically, root movement by fifth (beat 1 to the beginning of beat 2; beat 3 to the beginning of beat 4) and the sense of striking a tonicized III at the beginning of beat 4. In Example 15d, I have tried to reconcile these various views using mostly triads. Example 15e adds sevenths where appropriate. It is on the latter two examples that the interpretation of Example 13 is based.¹⁷

¹⁷It should be added that the progression $vii^{\circ}-V$ which occurs here also occurs in the C-major Invention, mm. 12-13, and the A-major Invention, m. 6, as well as in the passage from the Marcello (?) Concerto Oppel cites (see footnote 10) as the model for mm. 3-6 of the A-minor Invention:



Example 15. Interpretations of mm. 5-6.

(a)

Interpretation (a) shows measures 5 and 6. The right hand (treble clef) plays a sequence of eighth notes: G4, A4, B4, C5, D5, E5, F5, G5. The left hand (bass clef) plays a sequence of eighth notes: F3, E3, D3, C3, B2, A2, G2, F2. Fingerings are indicated by numbers 1-5 below the notes. In measure 5, the right hand has fingerings 10, 10, 10, 10 and the left hand has 10, 10, 10, 10. In measure 6, the right hand has fingerings 10, 10, 8 and the left hand has 10, 10, 8.

(b)

Interpretation (b) shows measures 5 and 6. The right hand (treble clef) plays a sequence of eighth notes: G4, A4, B4, C5, D5, E5, F5, G5. The left hand (bass clef) plays a sequence of eighth notes: F3, E3, D3, C3, B2, A2, G2, F2. Fingerings are indicated by numbers 1-5 below the notes. In measure 5, the right hand has fingerings 6, 10, 6, 10 and the left hand has 5, 5, 5, 5. In measure 6, the right hand has fingerings 6, 10, 8 and the left hand has 5, 5, 8.

(c)

Interpretation (c) shows measures 5 and 6. The right hand (treble clef) plays a sequence of eighth notes: G4, A4, B4, C5, D5, E5, F5, G5. The left hand (bass clef) plays a sequence of eighth notes: F3, E3, D3, C3, B2, A2, G2, F2. Fingerings are indicated by numbers 1-5 below the notes. In measure 5, the right hand has fingerings 6, 10, 6, 10 and the left hand has 5, 5, 5, 5. In measure 6, the right hand has fingerings 6, 10, 8 and the left hand has 5, 5, 8. A large 'X' is drawn over the right hand's notes in measure 6, indicating a correction or deletion.

(d)

5-----8--10 5-----8-10 5-7-10--8

Example (d) is a musical score for a piano, consisting of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The music is written in a 12-tone system, with notes grouped into chords and connected by lines. The notation includes a series of notes in the upper staff, with a line indicating a sequence of notes: 5-----8--10 5-----8-10 5-7-10--8. The lower staff contains a few notes, including a whole note and a half note.

(e)

Example (e) is a musical score for a piano, consisting of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The music is written in a 12-tone system, with notes grouped into chords and connected by lines. The notation includes a series of notes in the upper staff, with a line indicating a sequence of notes: 5-----8--10 5-----8-10 5-7-10--8. The lower staff contains a few notes, including a whole note and a half note.

The harmonic-contrapuntal framework of section "b" is rendered in Example 16.

The first event is the regaining of e^2 in the upper voice by means of voice exchange. The alto is then transferred above the soprano (to c^3 in measure 9) at the point the subject statement ends and the sequence pattern begins anew. Thus, whereas the soprano — e^2 — began the sequence the first time, the alto — now c^3 , not c^2 — begins it the second time. The central event of the following measures is the line of the sixth whose function is the correction of the octave transfer of the alto and the regaining of the original soprano register — e^2 — in measure 13. In this passage, the sequence pattern operates in the same way as in section "a" with the same break in the pattern when the condensed motive appears and the same third shift in the lower part (beats 1 and 3 of measure 12).¹⁸

The pitch b^1 implied in the cadence chord of measure 13 is the structural alto voice of the Invention displaced by a half step (cf. Example 12). Section "c," then, is characterized by another register transfer of the structural alto: b^1 to b^2 — not sounded — altered to b^{b2} (measure 14). (See Example 17). The role of the voiceleading in the treble is again to bring the structural alto down to the original register of the soprano, a task accomplished by the second half of measure 17.

With this correction of register, the alto can be placed once more on c^2 for the reprise of measure 18 (see the graph for section "d," Example 18).

¹⁸Here Travis abandons his former interpretation and provides an explanation similar to my own, although now the bass notes of beats 1 and 3 of measure 12 are simply ignored in the reduction.

Example 16. Section "b" of Graph.

The musical notation is presented in two systems, each consisting of a treble and bass staff. The first system contains four measures. The second system contains two measures. The notation includes various musical symbols such as notes, rests, and slurs. Fingerings are indicated by numbers 6 and 10. The word "reg." is used to denote a specific articulation. A third system, labeled "III", is shown below the second system and contains a single measure.

System 1 (Measures 1-4):

- Measure 1: Treble staff has a half note G4, a quarter note A4, and a quarter note B4. Bass staff has a half note F3, a quarter note G3, and a quarter note A3. Fingering: 6 (bass), 10 (treble).
- Measure 2: Treble staff has a half note C5, a quarter note D5, and a quarter note E5. Bass staff has a half note B2, a quarter note C3, and a quarter note D3. Fingering: 6 (bass), 10 (treble).
- Measure 3: Treble staff has a half note F5, a quarter note G5, and a quarter note A5. Bass staff has a half note E3, a quarter note F3, and a quarter note G3. Fingering: 10 (bass), 5 (treble).
- Measure 4: Treble staff has a half note B5, a quarter note C6, and a quarter note D6. Bass staff has a half note F3, a quarter note G3, and a quarter note A3. Fingering: 10 (bass), 5 (treble).

System 2 (Measures 5-6):

- Measure 5: Treble staff has a half note E6, a quarter note F6, and a quarter note G6. Bass staff has a half note B2, a quarter note C3, and a quarter note D3. Fingering: 10 (bass), 10 (treble).
- Measure 6: Treble staff has a half note A6, a quarter note B6, and a quarter note C7. Bass staff has a half note E3, a quarter note F3, and a quarter note G3. Fingering: 10 (bass), 10 (treble).

System 3 (Measure 7):

- Measure 7: Treble staff has a half note D7, a quarter note E7, and a quarter note F7. Bass staff has a half note B2, a quarter note C3, and a quarter note D3. Fingering: 10 (bass), 10 (treble).

III

m. 11

The image displays two systems of musical notation for measure 11 of Bach's A-minor Invention. Each system consists of a piano (piano) staff and a violin (violin) staff. The piano staves are in treble clef with a key signature of one sharp (F#), and the violin staves are in treble clef with a key signature of one sharp (F#). The piano staves show fingering numbers (10, 10-7, 10---7, 10---7, 10, 8) and a slur labeled "(sixth)". The violin staves show fingering numbers (10, 10, 10--7, 10---7, 10) and a slur labeled "(sixth)". Both systems end with a fermata over the final note, marked with a "reg." (regular) and a "v" (violin) below the staff. The notation includes various accidentals (sharps, naturals) and slurs indicating phrasing and fingering.

Parallel to the opening of the Invention, the striking of e^2 (5) follows immediately on the statement of the subject, but now also signals the beginning of the descent of the fundamental line. In the sequence that unfolds this descent, the developmental figure of measure 3 is finally expanded into a continuous stream of sixteenths in the right hand. The first presentation of the figure (m. 3) and its fullest working-out, leading to the highest dramatic point in the piece, are thus both intimately associated with events of the fundamental line. A telling point in which this sequence differs from the earlier sequences and in which it confirms the status of the passage in the harmonic-contrapuntal framework is that the harmony shows no inclination to wander away from the tonic and dominant degrees.

To interpret the harmonic-contrapuntal framework of section "d" and to explain the interaction of the compositional components in sections "c" and "d," we must make reference to the Klavierbuechlein version once more. The formal design of the latter may be represented as follows:

Figure 2.

measure:	1	6	13	18	21
cadence:		C	E	(A)	A
in A-minor:	i	III	v	i	i
sections:	a-----	b-----	c-----		
		(a')			
binary plan:	A-----	B-----			

The two halves of the binary plan are not symmetrically balanced as in the final version, and, of course, emphasis is shifted away from the cadence on E to the cadence on C, as if the design were :i-----III: :v--V i: , not :i-----III---v: :V i: . The fundamental structure is interpreted in Example 19. Note that the fundamental line begins to descend after the "reprise" of I, m. 18, giving an interpretation to the events of the following measures essentially different from that in final version. In particular, the emphasis one might expect on the Neapolitan sixth chord — never used indifferently by Bach — occurs here through its inclusion in the harmonization of the fundamental line. Furthermore, the registral highpoint of the passage is reached when the line descends from 4 to 3 (I, m. 20). The Klavierbuechlein version also exhibits the gradual expansion of the sixteenth-note developmental figure. In section "c," it becomes three beats long (plus the scale figure in the left hand) at I, m. 14, condensed to the right hand in I, m. 17, and then made continuous with the "reprise" of I, m. 18. In this first version, then, the expansion of the develop-

Example 18. Section "d" Graph.

The image displays two systems of musical notation, each consisting of a piano (left) and guitar (right) staff. The piano staves are in treble clef, and the guitar staves are in bass clef. Both systems show a sequence of three measures, each with a harmonic analysis label below the staff: *i*, *V*⁷, and *i*.

System 1 (Top):

- Measure 1:** Piano staff has a half note G4 (F#4) and a half note E4. Guitar staff has a half note G2 (F#2) and a half note E2. A thick horizontal line is drawn above the piano staff, with an upward-pointing caret (^) and the number 5 above it.
- Measure 2:** Piano staff has a half note A4 (G#4) and a half note F#4. Guitar staff has a half note A2 (G#2) and a half note F#2. A thick horizontal line is drawn above the piano staff, with an upward-pointing caret (^) and the number 4 above it.
- Measure 3:** Piano staff has a half note B4 (A#4) and a half note A4. Guitar staff has a half note B2 (A#2) and a half note A2. A thick horizontal line is drawn above the piano staff, with an upward-pointing caret (^) and the number 3 above it.

System 2 (Bottom):

- Measure 1:** Piano staff has a half note G4 (F#4) and a half note E4. Guitar staff has a half note G2 (F#2) and a half note E2. A thick horizontal line is drawn above the piano staff, with an upward-pointing caret (^) and the number 5 above it.
- Measure 2:** Piano staff has a half note A4 (G#4) and a half note F#4. Guitar staff has a half note A2 (G#2) and a half note F#2. A thick horizontal line is drawn above the piano staff, with an upward-pointing caret (^) and the number 4 above it.
- Measure 3:** Piano staff has a half note B4 (A#4) and a half note A4. Guitar staff has a half note B2 (A#2) and a half note A2. A thick horizontal line is drawn above the piano staff, with an upward-pointing caret (^) and the number 3 above it.

In both systems, the first measure of the piano staff includes a crossed-out "6 10" indicating a specific voicing or fingering.

m. 22

The image displays two systems of musical notation for measure 22 of Bach's A-minor Invention. Each system consists of a piano part (treble and bass staves) and an organ part (treble and bass staves).

System 1 (Top):

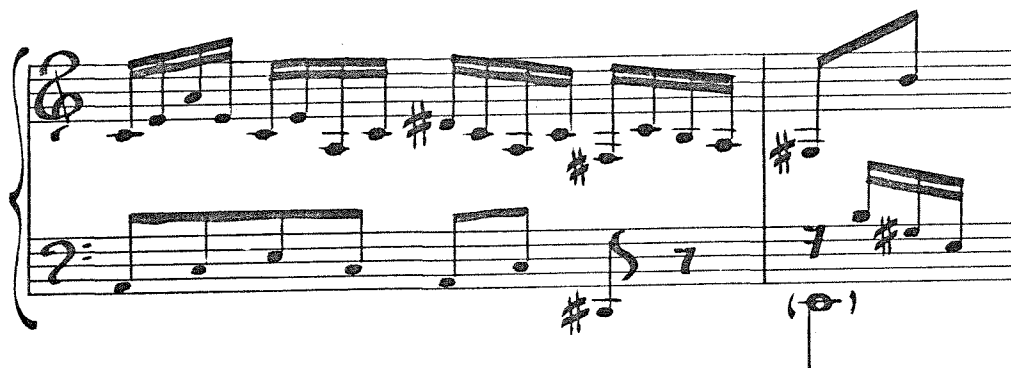
- Piano Part:** Features a melodic line with a slur and a bracket labeled "overlap" above it. Fingerings are indicated: 5 3, 6 4, 7 (dashed), 5, and 7 6 5 / 5 4 (dashed) 3. A "reg." (register) marking is present. The measure begins with a fermata and a 2-measure rest, and ends with a fermata and a 1-measure rest.
- Organ Part:** Features a sustained chord in the left hand and a melodic line in the right hand. Fingerings are indicated: 5 (dashed) 6 (dashed) 7 (dashed) and 7 (dashed) 6 (dashed) 5 (dashed) / 5 (dashed) 4 (dashed) 3 (dashed). The measure begins with a fermata and a 2-measure rest, and ends with a fermata and a 1-measure rest.

System 2 (Bottom):

- Piano Part:** Features a melodic line with a slur and a bracket labeled "overlap" above it. Fingerings are indicated: 5 (dashed) 6 (dashed) 7 (dashed) and 7 (dashed) 6 (dashed) 5 (dashed) / 5 (dashed) 4 (dashed) 3 (dashed). The measure begins with a fermata and a 2-measure rest, and ends with a fermata and a 1-measure rest.
- Organ Part:** Features a sustained chord in the left hand and a melodic line in the right hand. Fingerings are indicated: 5 (dashed) 6 (dashed) 7 (dashed) and 7 (dashed) 6 (dashed) 5 (dashed) / 5 (dashed) 4 (dashed) 3 (dashed). The measure begins with a fermata and a 2-measure rest, and ends with a fermata and a 1-measure rest.

low extreme - G[#] - plainly must be led to A in the following, reprise measure, though that A is not sounded. A virtually identical pattern obtains in II, mm. 21-22, where D[#] is reached just before the dominant arrival of m. 22, plainly suggesting an E (not sounded) on the first beat of

Example 20: II, mm. 21-22



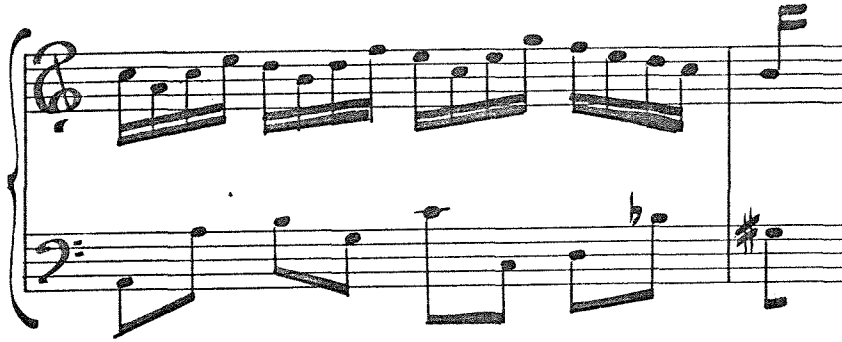
m. 22.¹⁹ (See Example 20; also cf. Example 18.) That this E is forceful, whether sounded or not, is evident from the fact that e is sounded after d[#] in the parallel place in the Klavierbüchlein (I, m. 18). E apparently was not sounded in the final version only for the performer's convenience (to avoid a rapid leap of the twelfth). The sixteenth rest was used, then, instead of the alternative - e - in order to bring the left-hand figure into conformity with the rhythmic shape of the subject. The register of this E is not reached again until II, m. 24, where neighbor-notes surround the bass of the cadential dominant.

The extreme bass register, represented by the pitch E, thus identifies a dominant pedal-point construction in II, mm. 22-24. Among other things, this suggests that Bach himself recognized that the material of I, m. 19 (II, m. 23) was problematic²⁰ and, so to speak, demoted it to the status of figuration above a pedal point. The cross relations and near parallels which abound in this measure could have been avoided simply by changing the bass. (See Example 21.) Had Bach done so, it might be plausible to interpret the descent

¹⁹The right hand also seems to participate in registral definition at this critical point: in II, mm. 21-22, the right hand drops into its lowest register in the piece, in so doing carrying the figure of I, m. 17, an octave lower.

²⁰Ernst Kurth draws attention to the awkwardness of this measure in Die Grundlagen des linearen Kontrapunkts, 2d ed. (Berlin: 1922), p. 461.

Example 21. II, m. 23, Alternate Bass.



of the fundamental line as occurring in this passage (as in I), but it is now the function of the cross relations and parallels precisely to be identified as figuration of "lesser" structural value, as stereotypical figuration in a pedal-point construction.

The pedal point on the dominant without continuous sounding of the bass pitch itself but with careful registral distinction is not at all uncommon in Bach's work. Heinrich Schenker discusses such a passage from the C-minor Fugue, WTC I, BWV 847.²¹ In his view, mm. 25-27 of this fugue are to be understood as figuration above a dominant pedal. (Example 22 is a harmonic reduction based on Schenker's graph.) Note that the dominant pitch — G — and its register are left in measure 25 for figuration in the "tenor" voice (G remains the lower extreme until measure 28) and that apparently consonant chords occur under the aegis of this pedal point (e.g., the triad of A^b in m. 27).²² In the first movement of the fifth Brandenburg Concerto, BWV 1050, the harpsichord begins its famous cadenza in measure 154 (though thirty-second note figuration begins sixteen measures earlier). More than one pedal point occurs in this cadenza, but the lengthiest is on the dominant from mm. 189-213. At one point the sustained dominant bass (A) is abandoned: in mm. 198-201, where material of obviously inferior harmonic value is arpeggiated.²³ (See Example 23 for a reduction.)

²¹Schenker, "Das Organische der Fuge," pp. 75-76.

²²The underlying voiceleading figure generated — $\begin{smallmatrix} 7 & 6 & 5 \\ 3 & 4 & 3 \end{smallmatrix}$ — was already common in the practice of Palestrina's generation. See Knud Jeppeson, Counterpoint, trans. by Glen Haydon (Englewood Cliffs, N.J.: 1939), pp. 139-194.

²³There are of course other places in the pedal points of this cadenza where a similar effect is achieved: if the bass is not frequently restruck, the longer note values will not sound continuously in the harpsichord (in contradistinction to an organ pedal-point).

Example 22. BWV 847, mm. 25-27 (With Reduction).

Handwritten musical score for "The Rose Tree" on three systems of grand staves. The notation includes treble and bass clefs, a key signature of one flat, and various musical symbols such as notes, rests, and fingerings. The third system includes fingerings for the right hand: 7-6-7, 9-8, 3-4-5, 6-5, and 4-3.

The two versions of the closing measures of the A-minor Invention are a study in Bach's ability to transform a passage simply by changing its contextual meaning. In the Klavierbüchlein version, the change in design at I, m. 18, — the abandoning of material based on the figure of m. 3 — signals both a dramatic climax and imminent closure of the fundamental line. In the final version, this same change of design combined with special definition of the bass register indicates a particular construction of foreground figuration. The special functions that I, mm. 18ff., has — climax of motivic development (expansion), dramatic highpoint, beginning of the descent of the fundamental line — all are assigned elsewhere in the final version. If we ask what the

Example 23. BWV 1050, First Movement,
mm. 198-201 (Reduction).

guiding force was in the revision, I would be inclined to agree with Kurt von Fischer that it was the desire "to clarify the formal symmetry"²⁴ – perhaps even to make a simple binary plan more obvious – but also to improve the dramatic argument. The formal design is linked to the dramatic argument (placement of climax point), which is linked, as we have seen, to motivic development (through expansion of the motive of measure 3), which is linked to the harmonic-contrapuntal framework (the greatest expansion of the motive occurs at the point the fundamental line begins to descend; a change of design occurs at the dominant arrival of II, m. 22).

Paul Hindemith said of Bach as a teacher that he was an "artist bursting with music, who opens to the student an uninhibited view into the realm of musical inspiration and lets him participate in the process of creation."²⁵ Bach, least of all major composers, might be suspected of separating the teaching of performance from composition. Though he does give the impression in this title-preface to

²⁴Kurt von Fischer, "Zum Formproblem bei Bach," p. 151.

²⁵Paul Hindemith, Johann Sebastian Bach: Heritage and Obligation (New Haven: 1952), p. 19.

the Inventions and Sinfonias that they have first of all a pedagogical function in the training of a keyboard performer, he also says they can provide "a thorough foretaste of composition." Still, the pieces themselves make abundantly clear that the path of influence runs in both directions: that, with Bach as with all great composer-teachers, creative composition informs teaching, but creative teaching can also inform composition. The evidence lies in the effect of the procedures of the Inventions and Sinfonias - the blending of genres, the motivic concentration, the balancing of the interaction of major constructive forces - on Bach's dance movements, preludes and fugues of subsequent years.