

CHAPTER NINE

WRITING TWO-PART INVENTIONS

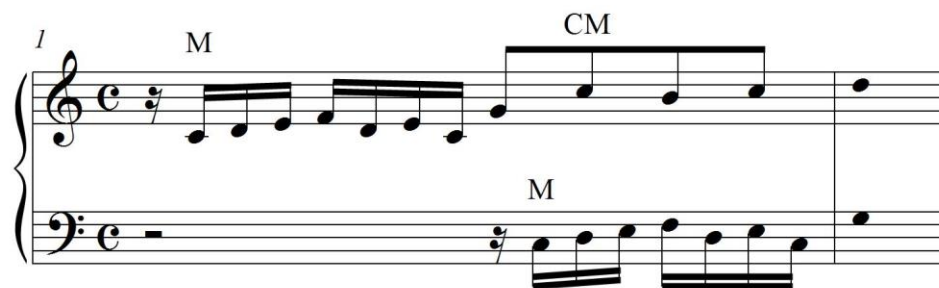
Once you have studied and written short pieces in two-part form, as well as canons, sequences, and examples of double counterpoint, you will be well prepared to come to grips with the two-part invention. What is an invention? It is a short contrapuntal piece which features a musical motive that is the principle musical idea of the whole composition. A motive is a short musical statement with a specific melodic and rhythmic shape. In inventions the motive typically is treated imitatively and is heard in various contexts throughout the work. Frequently (not always!) there is a counterpoint to the motive that appears with the motive through much of the work. This is called a Countermotive.

In terms of overall harmonic structure, the invention is very closely related to the examples of two-part form that we have examined previously: Once the tonic key has been established, a move to the dominant key is called for if the piece is in a major key. [If in a minor key, a move to the relative major is expected. Notice the similarity to pieces in two-part form!] After this first modulation, an invention may explore other keys that are closely related to the home tonic before eventually returning with a convincing close in the home tonic. The motive is utilized in all of the chosen keys.

The transition from one key to another is usually effected by means of sequential treatment, wherein the motive, if it is a short motive, may constitute the principal melodic substance of the sequence. The collection of Fifteen Two-Part Inventions by J.S. Bach conveys most clearly all of the concepts stated above. We can learn a great deal from the first Invention in C Major, so it shall be examined in great detail. Here is the motive, as stated at the very beginning alone:



Imitation at the octave is very common to get things going, and this indeed is what happens beginning on beat three:

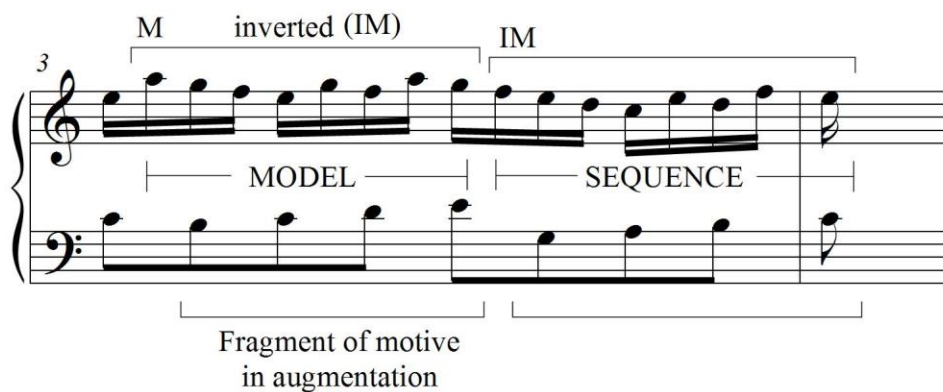


The upper part continues in counterpoint to the motive on beats three and four. Is this a countermotive? It appears with the motive three more times during the composition, and may, therefore just barely qualify as a countermotive. We shall use the abbreviation "M" for the Motive and "CM" for the Countermotive.

In measure two the motive is transposed up a fifth to the dominant degree, again using imitation at the octave, and ending with a cadence in the tonic:



Much more frequently observed as a counterpoint to the motive is a stepwise passage of four notes which first appears in measure three, together with the motive, which is now in *contrary motion* in the upper part:



The abbreviation for a motive stated in contrary motion will be IM (inversion of the motive). Notice too that this four-note passage of eighth notes is *derived* from the first four notes of the original motive in *augmentation*. The abbreviation for such a fragment of a motive, whatever shape it may take, will be FM. Furthermore, the first two beats of measure three form the model for a sequence (down a third), whose purpose is to move into the dominant key, G Major. We can see the modulation to G major commencing in measure 4, while the sequence continues. The motive appears in both parts in measure 5, and measure 6 prepares for a firm Perfect Authentic Cadence culminating on the first beat of measure 7. In measure 6 we see another fragmentation of the motive on the first two beats of the upper part. The last two beats of measure 6 are free counterpoint, designed to form a strong cadence.

What can we observe in measure 7 and 8? Its similarity to the beginning of the piece is striking, but the motive now begins in the lower part, imitated in the upper part at the octave. It's a typical example of double counterpoint at the octave, here transposed to the key of G Major. Here are measures 4 through 8:

The musical score consists of three systems of two staves each (treble and bass clef).
 System 1 (Measures 4-5):
 - Measure 4: Treble clef has two eighth-note pairs labeled 'IM'. Bass clef has a quarter note labeled 'FM' followed by a half note.
 - Measure 5: Treble clef has a quarter note labeled 'IM' followed by a half note. Bass clef has a quarter note labeled 'M' followed by a half note.
 System 2 (Measures 6-7):
 - Measure 6: Treble clef has two eighth-note pairs labeled 'FM'. Bass clef has two eighth-note pairs labeled 'SEQ.'. The last two beats of measure 6 are marked 'Double Counterpoint of Meas. 1-2'.
 - Measure 7: Treble clef has a quarter rest followed by a half note. Bass clef has a quarter note followed by a half note.
 System 3 (Measures 8-9):
 - Measure 8: Treble clef has a quarter rest followed by a half note. Bass clef has a quarter note followed by a half note.
 - Measure 9: Treble clef has a quarter note followed by a half note. Bass clef has a quarter note followed by a half note.

The double counterpoint we are pointing out here is not *exact* all the way, which brings us to the very important concept of "change of interval". Notice 1) the interval on the first note of measure 8 is a 6th (not the expected 4th if we maintain strict double counterpoint); strict imitation would have produced a strong beat chord tone perfect 4th, which Bach in his wisdom simply avoided by placing the F# in the top part instead of a D, and 2) on the last two beats of measure 8, the top part imitates the bottom part at the interval of a 5th, not the octave. Such procedures are common in the style, and, in fact, any style that utilizes imitation. So expect to observe "change of interval" (or intervals) reasonably often in your study of counterpoint and feel free to employ it as needed.

In our study of canon, we wrote in strict imitation to learn the methods of imitative writing, but when it comes to composing pieces that employ the process of imitation, it is common practice to make use of the freedom to make subtle alterations.

Bach's C Major Invention consists of only 22 measures of music; our discussion thus far has already taken us more than one third of the way through the piece. Measures 7 to 22 are shown below:

The image displays a musical score for measures 7 through 15 of a piece. The score is written in two staves, with the upper staff in treble clef and the lower staff in bass clef. The key signature is one sharp (F#), and the time signature is 3/4. The music features a complex interplay of two voices, with frequent interval changes and imitative passages. Measure 7 shows a 6th interval between the first notes of the two parts. Measure 8 illustrates a change of interval, with the top part imitating the bottom part at a 5th interval. The score continues with various rhythmic patterns and intervallic relationships, culminating in measure 15.

After confirming the modulation to G major in measures 7 and 8, where does Bach take us? Measure 9 returns to C Major and sets up a one-measure sequence that moves up a step (compare measure 9 with measure 10), using the IM in both parts. The sequence leads us through a secondary dominant (V/ii); is Bach modulating to D Minor? No, he is merely preparing the way for a full entry into A Minor. The first two beats of measure 11 form a model for a sequence that moves down a third. Those stepwise eighth notes (FM), plus the IM are once again utilized. The sequence is broken on beat 3 of measure 12 in the upper part, while the lower part continues the sequence. Measure 13 and 14 lead us into a strong PAC with mostly free counterpoint, but two instances of the motive (M and IM) are still in the picture.

But notice if you will—and this is VERY important—the *economical use of musical material Bach has employed*: compare the lower and upper parts from measure 11 through beat two of measure 13 with both parts starting on measure 3 through beat two of measure 5. It's pure double counterpoint, transposed to another key, and very effective indeed! Furthermore, the lower part carries on with its duplication of previous material as it moves into beat three of measure 14 (compare with measure 5 through the first two beats of measure 6).

After the cadence in A Minor culminating on beat one of measure 15, Bach sets up the longest model and sequence of the piece in his movement back to the tonic key. Measures 15 through 16 serve as the model for a sequence in measures 17 through 18, in which the M and IM are treated imitatively against held tones. In doing so he touches upon V7/IV briefly before preparing for the final PAC in C Major.

Something very interesting is happening in measures 19 and 20. Have we seen something similar earlier? Compare measures 19 through the 1st half of measure 20 with measures 11 through the first two beats of measure 12. Another example of double counterpoint, but with a twist: both parts are now used in *contrary motion*. What's fascinating here is that this process produces the identical harmonic intervals in both versions! Since this was not explored in the chapter on double counterpoint, let's take a closer look. Example A shows a short passage in two-part counterpoint with all of the harmonic intervals labeled. Example B is the same passage in double counterpoint, but both parts are in contrary motion. The resultant harmonic intervals are identical to those in Example A.

Example A shows two parts in parallel motion. The upper part starts on G4 and moves up stepwise to E5, while the lower part starts on D4 and moves up stepwise to B4. The harmonic intervals between the notes are labeled as 3, 9, 8, 3, 5, 6, °5, and 3. Example B shows the same two parts in contrary motion. The upper part starts on G4 and moves down stepwise to E4, while the lower part starts on D4 and moves down stepwise to B3. The harmonic intervals between the notes are also labeled as 3, 9, 8, 3, 5, 6, °5, and 3.

To finish with the C Major Invention, measure 21 sets up the final cadence, moving through V7/IV again, and using M and that stepwise set of eighth notes. When all is said and done, those eighth notes seem to qualify as the CM of the piece. Bach takes the liberty of fleshing out the final chord with a five-note chord.

The use of the entire motive throughout this composition, even as the basis for sequences, is fairly typical of two-part inventions that use a short motive.

An analysis of this work reveals several contrapuntal procedures that are used regularly in inventions and in other works that are contrapuntal in nature:

1. A harmonic scheme that is much the same as pieces in two-part form
2. Imitation of the motive
3. Minor alterations of the motive
4. The use of double counterpoint
5. Sequences of various lengths
6. The employment of a countermotive (CM)
7. Fragmentation of the Motive
8. Modulations restricted to keys that are closely related to the tonic key
9. Repetition of passages by transposition to a different key.
10. Transpositions of the motive (and/or countermotive) to other scale degrees

Let us move on to another two-part Invention, this time the one in D Minor, and see what may be ascertained from its analysis. The full Invention is shown below.

The motive of two-measure length features an archlike structure. Imitation at the octave occurs as expected. One more statement of the motive in imitation at the octave appears in measure 5. The arpeggiated accompaniment in eighth notes in measures 3 and 4 has CM properties, since measures 5 and 6 also contain the arpeggiation, but this pattern is soon abandoned and does not return until measures 26-27, and once more in measures 44-45.

As you should expect from a piece in minor mode, the first modulation is to the relative major, F Major, which is well prepared by two different sequences, in both of which the motive appears in its entirety. Measures 7-8 are the model, its sequence in measures 9-10. The next model starts immediately in measures 11-12, the sequence in measures 13-14. The new figure in the top part of measure 11 is derived from the first three notes of the motive, as are the ascending eighth notes in the bottom part of measures 8 and 10. The passage culminates in a strong cadence in F Major in measure 18. The motive is evident in every measure. Notice the rhythmic structure of the cadence measure 17 and compare with measures 37, 48, and 51. This similarity of cadence measure structure is common in Bach's Inventions and fugues. Bach wastes no time setting up a dominant pedal (upper part) in measure 19 while the motive moves sequentially up a 3rd in the lower part. Again, economy of material is demonstrated in the lower part of measures 21-25, which are derived from the upper part of measures 10-14. In measures 22-25 the upper part employs the motive in contrary motion (IM) for the first—and practically only—time. Measures 23-24 move briefly through V7/ii, but as you may see on the next page, measure 25 takes us quickly back to F Major. Here are measures 1-24:

The musical score displays measures 1 through 24 of a two-part Invention in D minor. The notation is in 3/8 time and uses a grand staff with a treble clef for the upper part and a bass clef for the lower part. The key signature has one flat (B-flat). Measures 1-4: The upper part begins with a two-measure archlike motive (G4-A4-B4-C5), followed by a similar motive starting on a higher pitch (D5-E5-F5-G5). The lower part provides an arpeggiated accompaniment of eighth notes. Measures 5-10: The upper part repeats the archlike motive at the octave. The lower part continues with the arpeggiated accompaniment. Measures 11-14: The upper part introduces a new figure derived from the first three notes of the motive. The lower part features ascending eighth notes. Measures 15-18: The passage culminates in a strong cadence in F Major (relative major). Measures 19-24: The piece continues with a dominant pedal in the upper part and the motive moving sequentially up a third in the lower part.

Musical score for measures 10-24. The piece is in G minor. Measures 10-14 show a rhythmic pattern of eighth notes in the right hand and a steady eighth-note bass line. Measures 15-19 show a melodic line in the right hand with a fermata over measure 19. Measures 20-24 show a melodic line in the right hand with a fermata over measures 20-21, and a bass line with a fermata over measure 24.

Fast swings here; measure 26 moves us into the region of A Minor, which proves to be the only other closely related key that Bach explores in this piece. A dominant pedal in measures 29-35 are obviously connected to the earlier pedal in F, this time, however, much extended.

Musical score for measures 25-32. The piece is in G minor. Measures 25-28 show a melodic line in the right hand with a fermata over measure 28, and a bass line with a fermata over measure 28. Measures 29-32 show a melodic line in the right hand with a fermata over measures 29-30, and a bass line with a fermata over measures 29-32.

The image displays a musical score for measures 33 through 52, arranged in four systems. Each system consists of a grand staff with a treble clef on top and a bass clef on the bottom. The key signature is one flat (B-flat). Measure numbers 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, and 52 are indicated above the treble clef staff. The score shows a sequence of chords and melodic lines, with a notable shift in tonality from A Minor to G Minor at measure 38, and a return to F Major at measures 40-41. The piece concludes with a fermata over the final note in measure 52.

Measures 30-31 are the model for sequences in the upper part in measures 32-33 and 34-35, followed by preparation for a big cadence in A Minor in measures 36-37. It is interesting to note that as soon as the tonic note of A Minor is sounded at Measure 38, Bach takes a very sudden shift to G Minor. We know that A Minor and G Minor themselves are not closely related keys, but both of these keys *are* closely related to D Minor, the principle tonality of the composition. This sudden swing to a key two fifths removed in the circle of fifths will be observed in subsequent works of J.S. Bach. Measures 40-41 move quickly back to F Major.

The return to D Minor takes place in a subtle way, in that Bach interprets the first beat of Measure 42 not only as I in F, but as i6 of D Minor, and he uses the motive transposed to the third degree of the scale as the first statement in D Minor. Measures 44-45 are identical to measures 5-6. Measures 46-48 prepare us for the final cadence, but Bach gives us a Deceptive Cadence, and the piece finishes with a surprising IM (modified) in the upper voice as the final cadence is approached.

The harmonic scheme of this Invention is: D Minor - F Major - a touch of G Minor - A Minor - a touch of G Minor - a touch of F Major - D Minor. What Bach seems to be hinting at to a degree here is a mirror structured harmonic plan, like a palindrome, with A Minor as the fulcrum.

As you come across other short-motive inventions you will find the same or very similar processes that were discovered in the above analyses of the C Major and D Minor Two-Part Inventions. Before we take a look at the so-called long-motive invention, let us turn our attention to creating an original short-motive two-part invention from scratch. The first task of course is to write a usable motive – one that has melodic and harmonic possibilities, some short statement that has an acceptable shape and some interest.

Here is the motive I have chosen for a brief, short-motive invention in A Minor in 3/4 meter:



We'll use a countermotive (CM) that forms acceptable counterpoint with the motive, with the intention of using the CM in several contexts:

Nothing too complicated here; simple, clear harmony that establishes the tonality, a straightforward CM forming Second Species counterpoint and that invites further continuation. As is typical, begin with imitation of the M at the octave, bring in the CM, establish tonality, and prepare to make the move to the relative major, C Major. Work out a plan of keys to which to modulate. The keys closely related to A Minor are C Major, G Major, E Minor, F Major and D Minor. I (quite arbitrarily – flip a coin!) chose first G Major, then E Minor, then work out the return to A Minor.

In all likelihood double counterpoint will play a role. Use the CM reasonably often in conjunction with the M. Set up sequences that assist in modulating, and use the M as principal material in the sequences. Let all of your experience in writing pieces in two-part form come to your aid in creating convincing lines. Consider using fragments of the M (FM). How about some contrary motion of the M (IM)? Think of transposing M to various degrees of the scale.

Plan strong cadences. Don't pause too long on cadences. See how Bach moves through cadence measures and keeps the music flowing. Elided cadences are common; this is where the final cadence measure of a phrase serves also as the first measure of the next phrase. Try to keep a good rhythmic flow. Remember to use secondary dominants as desired to enrich the harmony. Look for a climax, a high point, most often signaled by a highest pitch in the top part.

Most of these considerations have found a place in the invention, which may be seen in its entirety on the next two pages.

M is heard unaccompanied in the lowest part in measure 1. Imitation at the octave in measure 2, with the CM below it. Measure 3 offers a surprise: beat one, the a minor triad, is interpreted as vi of C Major and we quickly find ourselves in C Major with M above, with a highly modified CM below. Measure 4 confirms C Major with another M below, CM above. Notice that measure 4 displays double counterpoint of the material in measure 2. More C Major in measures 5 and 6, with a three-measure sequence (down a 2nd), that moves us smoothly into G Major. Measure 8 is a cadence measure, and in measure 9 M is heard in G Major with a fragment of the CM below (FCM). Another surprise in measure 10: M is heard in contrary motion (IM), serving as a model for a three-measure sequence (down a 3rd this time), that leads into E Minor starting in measure 11. Instead of a full a cadence in E Minor, the music swings into tonic A Minor in measure 13, with M in the bottom part against a held trill above on the D (the 7th of V7). Measure 14 has M below – transposed to the raised sixth step of the scale – with free counterpoint above. More M in Measure 15. Measure 16 uses M on

V7/iv, reaching the high point (A above the staff) before swinging back toward the final close. Measure 17 has a quickened harmonic rhythm (four harmonies in two beats), using fragments of M below. Measure 18, the cadence measure is free, bringing it all to, hopefully, a satisfactory end on a four-part chord.

The musical score consists of eight measures, organized into four systems of two staves each (treble and bass clefs).
 - **Measure 1:** Key of *a*m. Annotations: 'M' above the treble staff, 'M' above the bass staff.
 - **Measure 2:** Annotations: 'M' above the treble staff, 'CM' above the bass staff.
 - **Measure 3:** Key of C. Annotations: 'M' above the treble staff, 'CM (modified)' above the bass staff.
 - **Measure 4:** Annotations: 'CM' above the treble staff, 'M' above the bass staff.
 - **Measure 5:** Annotation: 'MODEL' with arrows pointing left and right.
 - **Measure 6:** Annotation: 'SEQ.' with arrows pointing left and right.
 - **Measure 7:** Annotation: 'SEQ.' with arrows pointing left and right.
 - **Measure 8:** Annotation: 'CADENCE' with arrows pointing left and right. Key of G.

9 M IM

FCM MODEL

11 IM M

SEQ. CM

Key of em

13 M (modified) M

Key of am

15 M M

FCM

17 FM

tr

The student should analyze several of Bach's Two-Part Inventions that employ short motives. The one in D Major is particularly interesting in its overall key scheme. Look for a palindromic structure: D - A - e - (b) - e - A - D. Notice that B Minor (in parenthesis) forms the pivot point of this mirror-structure scheme. Look for slight changes of interval in the structure of M. Does Bach use a CM? Double counterpoint? Contrary motion of M (IM)? What about the structure of cadence measures – is there a similarity among them?

Now let us examine an invention with a long motive, Bach's Two-Part Invention in G Minor.

TWO-PART INVENTION NO. 11

J. S. Bach

The musical score for Two-Part Invention No. 11 in G Minor by J.S. Bach is presented in a grand staff format. It consists of eight measures, with measure numbers 1 through 8 indicated above the staff. The key signature is G minor (two flats). The time signature is 3/4. The right hand (treble clef) plays a melodic line with a long, flowing motive, while the left hand (bass clef) provides a rhythmic accompaniment. Measure 4 is marked with a '(b)' above it, indicating a modulation to B minor. The score includes various musical notations such as slurs, ties, and dynamic markings.

9 *tr*

Musical notation for measures 9 and 10. Measure 9 features a treble clef with a melodic line containing a trill and a bass clef with a rhythmic accompaniment. Measure 10 continues the melodic line with a trill and a trill-like flourish.

11 12

Musical notation for measures 11 and 12. Measure 11 shows a treble clef with a melodic line and a bass clef with a rhythmic accompaniment. Measure 12 continues the melodic line with a trill and a trill-like flourish.

13 14 (b)

Musical notation for measures 13 and 14. Measure 13 features a treble clef with a melodic line and a bass clef with a rhythmic accompaniment. Measure 14 continues the melodic line with a trill and a trill-like flourish.

15 16 2

Musical notation for measures 15 and 16. Measure 15 shows a treble clef with a melodic line and a bass clef with a rhythmic accompaniment. Measure 16 continues the melodic line with a trill and a trill-like flourish.

17 18

Musical notation for measures 17 and 18. Measure 17 features a treble clef with a melodic line and a bass clef with a rhythmic accompaniment. Measure 18 continues the melodic line with a trill and a trill-like flourish.

19 20

Musical notation for measures 19 and 20. Measure 19 shows a treble clef with a melodic line and a bass clef with a rhythmic accompaniment. Measure 20 continues the melodic line with a trill and a trill-like flourish.

The image shows a musical score for three measures (21, 22, and 23) in G minor. Measure 21 features a melodic line in the treble clef and a bass line in the bass clef. Measure 22 continues the melodic line and bass line. Measure 23 shows a cadence in the treble clef and a bass line. The key signature is one flat (B-flat).

The first feature to be aware of is the largely *sequential* structure of the M itself. The motive is two measures long and is accompanied by what, from subsequent observation, we will label as a long fragment of the inversion of the countermotive (FICM). The full CM is, in fact, not revealed until the top part of measures 3 and 4! Beat 2 of measure one is an important shape that is used in many places, even later in the M in contrary motion (beats 3 and 4 of measure 2). Imitation at the octave starts below in measure 3 and 4, cadencing on beat one of measure 5 on *i6* of G Minor. What is amazing is Bach's contrapuntal skill whereby the CM, now stated as a melodic version of the FICM in Measure 1 and 2, forms perfectly satisfactory counterpoint with M in its original form. Another remarkable of double counterpoint with a twist!

Following the cadence into measure 5, Bach does a somewhat peculiar thing: he gives short shrift to the obligatory move to B Flat Major – only one measure, only an FM with an IAC into Measure 5. The top part of measure 5 serves as a model for a sequence in measure 6, with an intended move to D Minor as a principal modulation. An IAC into measure 7 then brings the complete M in D Minor in the bottom part in measure 7, with part of the CM in the top part (expressed as an FICM). Preparation for a big cadence in D Minor in measure 8 contains fragments of the CM above and sequential fragments of M below, while measure 9 is largely free counterpoint with a suggestion of a sequence below.

Measure 10 brings in an FM above, with an FM below, and quickly cadencing in F Major (similar to the short entry into B Flat Major earlier). A sequence in the top part of measure 6 over an FM below introduce C Minor, another principal modulation. The full M is given in the top part of measures 13-14 over the full CM. (This is double counterpoint at the octave of measures 3 and 4.) More confirmation of C Minor in measures 15-16 as M appears in the low part in measure 15 against an FCM above. The full PAC is reached on beat 3 of measure 16. Bach has to come home soon to G Minor, but he hints at E Flat Major from beat 3 of measure 16 to beat 3 of measure 17 using an FM below—a model for a sequence—and a figure above borrowed from measure 12. The sequence leads through C Minor nicely to G Minor on beat 3 of measure 18, where the full M starts, accompanied by the ICM (measure 19 - 20.5 is identical to measure 1.5 - 2). Observe also the double counterpoint between measures 19.5 through 21.5 and measures 7.5 through 9!

For the first time in this work, Bach uses a fragment of M in contrary motion (IFM) in measures 21.5 below, and measure 22 (twice) above. One last FCM appears below in measure 22, and the piece closes with a free PAC in G Minor in measure 23.

This composition merits your close attention, as it will give you clues as to how to treat longer motives. Take a close look at all 15 of the Two-Part Inventions. With this kind of analysis, you will come to develop an appreciation for Bach's economical yet extremely effective use of his basic materials. Become familiar with the various devices available in contrapuntal writing to assure a satisfactory integration of your musical ideas into a coherent whole. And by all means try your hand at writing inventions, with both short and long motives, above and beyond the exercises for this chapter.