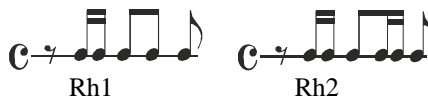


## WTC I/22 in B $\flat$ minor – Prelude

This prelude is determined by its gently swinging pulse, which is conveyed by an overwhelmingly uniform rhythmic pattern. The entire piece builds upon only two rhythmic models. As the second is a close variation of the first, these can even be regarded as two versions of a single archetype. (The only two exceptions, featuring six consecutive 16th-notes, occur in cadential context, in mm. 19<sub>4</sub> and 23<sub>4</sub>). The effect of this rhythmic uniformity is a meditative atmosphere in which transitory emotional upheavals seem of subordinate importance.



The first harmonic progression concludes at m. 3<sub>1</sub>. Up to this point, the music develops over a tonic pedal, thus giving the impression that “the piece has not quite begun.” Moreover, the cadence supports the melodic motif presented in the upper voice. This harmonic close should therefore be interpreted as marking the end of a phrase rather than of a structural section. The second harmonic progression concludes, still in the tonic key, on the middle beat of m. 7. Both the way in which this cadence is prepared and the subsequent development designate this closure as a structurally relevant caesura.

There are altogether four sections in this prelude. Two of them show harmonic subdivisions.

- |     |  |   |
|-----|--|---|
| I   | mm. 1-7 <sub>3</sub>   | tonic                                   |
|     | (mm. 1-3 <sub>1</sub> , 3-7 <sub>3</sub> )   |   |
| II  | mm. 7 <sub>3</sub> -13 <sub>2</sub>  | tonic – dominant                        |
| III | mm. 13 <sub>2</sub> -20 <sub>1</sub>   | dominant – dominant relative – dominant |
|     | (mm. 13 <sub>2</sub> -15 <sub>2</sub> , 15 <sub>2</sub> -20 <sub>1</sub> , ending in an imperfect cadence) |   |
| IV  | mm. 20 <sub>1</sub> -24  | dominant – tonic                        |

The only analogy within this structural pattern is obvious as it suggests a “recapitulation”: mm. 20-21 take up mm. 1-2, transposed to the dominant key and with slight variations in the middle voices.

The prelude’s basic character is rather calm. The pitch pattern consists to a very large extent of seconds. Another striking feature that influences the character appears in the frequent pedal notes (mm. 1-3<sub>1</sub>: B $\flat$ , mm. 6-7<sub>1</sub>: F, m. 7: B $\flat$ , mm. 9<sub>3</sub>-10<sub>1</sub>/11-12<sub>1</sub>: B $\flat$ , mm. 20-22<sub>1</sub>: F, and mm. 23<sub>3</sub>-24: B $\flat$ ).

The tempo in which this character can best be expressed is fairly slow. The quarter-notes of the time signature can be imagined as a solemnly swaying movement, and the eighth-notes perceived as the continuous pulse should be completely without haste. The articulation required in such a piece is a dense legato.<sup>1</sup> The score does not contain any ornaments.

The pulse in this metrically determined prelude is thus two-fold: the main swinging motion is in quarter-notes, whereas the consistent pounding is experienced in the eighth-notes. This ambivalence is established in m. 1 where the unremittingly throbbing pedal note contrasts not only with the rhythmic motif but also with the mid-texture chords—and these, in their iambic pattern, underpin the larger quarter-note pulse.

rhythmic model:

chordal background:

repeated pedal:

The musical notation consists of three staves. The top staff, labeled 'rhythmic model', shows a sequence of eighth-note chords in a treble clef. The middle staff, labeled 'chordal background', shows a sequence of quarter-note chords in a treble clef. The bottom staff, labeled 'repeated pedal', shows a single eighth-note repeated throughout the three measures in a bass clef.

As the example shows, the prelude's initial phrase displays a constantly changing number of voices (from four to seven, though mostly five). Thereafter, the texture from m. 3 up to the downbeat of m. 20 is in consistent four-part writing. The "recapitulation" of the initial phrase then resumes the five-part texture, with extra voice splitting only in m. 22, where beat 2 features seven and beat 3, nine voices.

While the initial phrase might easily pass for the introductory line of a homophonic composition, there are several passages that may be described as—modestly yet very consistently—contrapuntal. A plausible interpretation of these confusing data is the following: the prelude can be regarded as a work in four-part writing whose opening phrase and its recapitulation

<sup>1</sup>As this prelude contains such a large number of repeated notes, the help of the damper pedal will probably be inevitable to produce the desired smooth result. This needs careful pondering. Using the pedal only where there are repeated notes would create an uneven tone color. Thus regular pedaling throughout is the only alternative to not using the pedal at all. The "cleanest" solution is to depress the pedal after the last 16th-note fraction of each eighth-note beat, and to release it with the onset of the following eighth-note. The nature of this meditative piece, however, admits also a slightly less transparent execution in which the pedal is simply changed on each eighth-note, thus giving the second 16th-note in each rhythmic figure a somewhat murky coloring. Eighth-notes, however, must be clear.

are enriched with a “bass 2” as well as with a few irregular voice splittings.<sup>2</sup> Such an interpretation contributes to a better understanding both in listening and performing.

A more detailed analysis of the development of melodic figures and changing textures is nonetheless worthwhile. Supported by the alto in double thirds, the soprano motif establishes the first rhythmic pattern (Rh1) in mm. 1-3<sub>1</sub>; it will here be referred to as M1. In its varied imitation by the bass in mm. 3-5<sub>1</sub>, the motif is accompanied by a figure in the highest voice that retains Rh1 for half a measure and then modifies it to Rh2. The middle voices lengthen their earlier iambic pattern by an extra weak beat. In m. 4, alto and soprano launch a complementary pattern that soon pervades all four voices: A+T move in double thirds, like the two melodic voices in mm. 1-2, while S+B are joined in rhythm but not in pitch outline, like the two melodic voices in mm. 3-4. These two pairs alternate in such a way as to produce Rh2. In mm. 6-7 one of the voices abandons the surface activity and retreats into a treble pedal while the others continue with Rh2 in free style. As will be shown, these materials—the melodic figure M1, the rhythmic patterns Rh1 and Rh2, the homophonic texture with weak/strong figures in the accompanying chords, and the modestly polyphonic texture in complementary-rhythm pattern—are the building blocks from which the entire prelude is constructed.

The second section begins with M1 in a varied and extended version (S: m. 7<sub>3</sub>-10<sub>1</sub>). The bass, while moving in the same rhythmic pattern, creates an independent pitch line, and the middle voices take up the lengthened weak/strong/weak pattern. With the bass descent from B $\flat$  to B $\flat$ , the harmonic development seems to remain in the tonic sphere. But the final chord of this phrase is an inverted V/V and represents an imperfect cadence in the key of the dominant. The section's second phrase begins by combining the idea of the complementary pattern in double notes with a hint of imitation (A+B: mm. 10-11, freely imitated by S+T). There follows a cadential close conceived as a free adaptation of the rhythmic pattern. The final measure of this section features a fifth voice, this time composed as “soprano 2,” which contributes a traditional do-si-do figure.

The third section plays with the complementary pattern in double notes. Its first phrase presents this pattern in simple imitation, without stretto overlapping (S/B, A/T: mm. 13-15) while the second phrase places it in the denser texture introduced in mm. 10-11, this time with soprano and bass as

<sup>2</sup>In m. 22, bass 2 splits first to the third C/E $\flat$ , then to the triad A/C/E $\flat$ , only to resume its former single-voiced sounding with the low F on the fourth eighth-note of m. 23.

the two leading voices (mm. 15-17). The section tail, which like those of the other sections is freer in style, sets out in m. 18 with a joint four-part realization of Rh2 and ends by combining features from the first and second sections (compare the sustained soprano and the descending bass in the first half of m. 19 with m. 6, and the bass repetitions leading into an imperfect cadence in mm. 19-20 with mm. 9-10). In the fourth section, the varied recapitulation of the initial phrase accompanies the leading soprano motif with parallels first in the tenor, then in the alto, and finally in both. It gives up Rh1 for Rh2 at the end of m. 21 and ends in a many-voiced fermata on a vii<sup>7</sup> chord. The ensuing cadential formula once again alternates the two rhythmic patterns while returning, both in the sustained soprano and in the repeated bass 2, to the tonic pedal and to the double-third texture.

The dynamic rise and fall in such a meditative prelude should be much smoother than in other pieces. It develops as a secondary feature and must never lure listeners away from the all-pervading pulse. A rendering that is both natural and unobtrusive follows the course of the ascents and descents of pitch—both those in the overall design and in sudden leaps—with very gentle increases and decreases. As a result, the first section undergoes a gradual tension increase (approximately from *p* to *mp*) up to m. 5, followed by a short release, while the second section presents a gradual release (approximately from *p*<sup>+</sup> to *p*<sup>-</sup>), followed by a mild rebuild of the original piano color in the cadential formula. The third section begins with very delicate touch in the sparse texture of its first phrase, but in its second phrase engenders the strongest and steepest build-up of tension in this piece. This leads to the first overall climax (preferably no stronger than *mf*) on m. 16<sub>2</sub>, from which the remainder of the section descends in gradual diminuendo. The fourth section contains the second overall climax. Despite its compact chord, it should sound introverted and intense rather than extraverted and loud. The prelude closes on a soft note, giving the impression that it returns to the level of the beginning.

### **WTC I/22 in B<sub>b</sub> minor – Fugue**

The question where the subject of the B<sub>b</sub> minor fugue ends permits two answers. The subject's trunk, which contains all the relevant harmonic steps, ends at m. 3<sub>1</sub>. The four quarter-notes that follow could be regarded as an extension were they not used with such consistency throughout the fugue. It is therefore appropriate to speak of a shorter and a longer version of the phrase. Following a terminology used originally for distinguishing

metric endings in Greek poetry, these different shapes of the same trunk are often referred to as “male” and “female.” The “male” version appears condensed, concluding with the last essential harmonic step without any softening addition. The “female” ending adds, in poetry, an unaccented syllable after the final accent. In music, it extends the tonic reached in the perfect cadence with notes passively remaining in the same harmony.

This regular extension is conceived as a smooth continuation, both in rhythm and pitch pattern, of the second half of the main body: mm. 2 and 3 of the subject contain exclusively quarter-notes in stepwise motion. This gentle curve appears in sharp contrast to the subject’s beginning where two half-notes followed by a downbeat rest create rhythmic tension. At the same time, the falling perfect fourth, in itself a relaxed interval, is followed (across the rest) by a minor ninth. This interval, rarely used for horizontal progressions in Bach’s time, expresses an emotional gesture of the highest intensity. The question thus arises whether or not this exceptional melodic jump is really meant to be perceived—and played—as an interval, i.e., whether the consecutive notes belong to a single structural unit.

Thus not only the ending but also the phrase structure of this subject can be interpreted in two ways. In the first option the rest, together with the unusually large distance between the two notes enveloping it, is regarded as an indication of structural interruption, comparable to a comma in verbal language. As a result, the subject consists of two subphrases that differ considerably in all features: the first subphrase begins on a strong beat and contains only two long note values in a falling fourth, while the second subphrase sets out on a weak beat and features only shorter note values in stepwise motion. In the second option, the rest is interpreted as tension-sustaining, as a silent continuation of the melodic flow, and the interesting interval is thus fully exploited. This minor ninth, whose tension is enhanced by the fact that it spans across a suspended downbeat, then becomes the subject’s primary melodic focus.

The subject’s harmonic background can be depicted as shown in the example. Modifications are frequent. In several cases, the male ending is raised a semitone and harmonized not as a tonic but as a major



chord with seventh on the tonic root. This chord is heard as a dominant-seventh and resolves correspondingly to the subdominant. The melodic line supports this modulation by lowering the entire female ending one whole-tone step, thus leading to the root of the target harmony. The fairly frequent occurrence of this harmonization in the fugue provides additional

proof that the extension of the subject, initially appearing as harmonically redundant, is actually an intrinsic part of the whole: in these modulating statements, the male ending does not provide the harmonic resolution but needs the extra measure to convey a satisfactory sense of closure.

The subject's climax falls on G $\flat$  in m. 2. Even disregarding the melodic power the preceding interval might exert, the G $\flat$  combines many tension-enhancing features. It is highest in pitch, harmonized as a subdominant, and placed on the minor sixth of the scale, one of the natural leading-notes. While this climax is followed, in whichever interpretation of the rest preceding it, by a gradual diminuendo (with a steep decrease up to the male ending and a gentler further release in the female ending), the shaping of the notes preceding the G $\flat$  depends on the notion of the phrase structure. Performers assuming two subphrases will conceive the F in the middle of m. 1 as a conclusion of the first structural unit, thus playing it relaxed and soft. The ensuing G $\flat$  will then appear as a suddenly powerful new beginning. In this reading, the subject comprises two diminuendos: one, launched by the initial note, short and steep; the other, beginning on the powerful second climax, in gently lessening intensity. Conversely, performers reading the subject as a single, indivisible phrase will take the initial descending fourth to fulfill a different task: as the anchor of the high-tension interval it will be regarded as geared forward and incorporating a much higher degree of intensity than the initial B $\flat$ . In this interpretation, the subject thus consists of a powerful dynamic build-up from B $\flat$  through F and the rest to the high G $\flat$ , followed by the gradual release in the quarter-notes.

The fugue features 22 subject statements, presented in five voices; "v1" to "v5" refer to "voice 1" to "voice 5" respectively, counted from top to bottom. Entries containing the above-mentioned variation of the female ending and thus effecting a modulation are marked with an asterisk, while statements omitting the female ending altogether appear with a minus ("-").

1. mm. 1-4	v1	8. mm. 29-32	v4*	15. mm. 53- 56	v4
2. mm. 3-6	v2	9. mm. 32-35	v5*	16. mm. 55- 58	v2
3. mm. 10-13	v3	10. mm. 37-40	v2*	17. mm. 55- 58	v3
4. mm. 12-15	v4*	11. mm. 46-48	v3-	18. mm. 67- 70	v1
5. mm. 15-18	v5*	12. mm. 48-50	v5-	19. mm. 68- 71	v2
6. mm. 25-28	v1	13. mm. 50-52	v1-	20. mm. 68 <sub>2</sub> -71	v3
7. mm. 27-29	v2-	14. mm. 50 <sub>2</sub> -52	v2-	21. mm. 69- 72	v4
				22. mm. 69 <sub>2</sub> -72	v5



The subject appears both in stretto and in parallel. The stretto settings involve two essentially different cases of premature succession. There are entries in which only the female ending of the leading statement overlaps with the subsequent beginning (see mm. 3, 12, 27, 55). In other cases, the distance is as close as possible, i.e., the second subject note in one voice becomes the initial note in the ensuing statement (see once in m. 50, twice in m. 68 and twice in m. 69). In the light of the latter, the parallel entry in mm. 55-58 might appear as an even closer stretto.

In addition to the modifications caused by modulation, the subject undergoes changes of melodic shape in connection with its tonal answer, where the original falling fourth is augmented to a fifth and the ensuing large interval spans a minor tenth (see, e.g., mm. 3-6). While this tonally determined lowering of the subject's second note remains without effect on the close on the tonic, some cross-combinations of these intervals occur that do in fact alter the harmonic background of the statement. In mm. 25-28, the combination of an initial falling fourth with an ascending minor tenth places the subject's tail one note up and causes a modulation from D $\flat$  major to E $\flat$  major; conversely, in mm. 53-56 the falling fifth is combined with the ascending minor ninth, thus engineering a modulation from B $\flat$  to E $\flat$ . A last-minute tonal adjustment can also happen by way of a variation in the female ending (see the final ascent to E $\flat$  in mm. 12-13).

The B $\flat$ -minor fugue features no counter-subject. This may be partly due to the unusual female ending frequently serving as a contrapuntal accompaniment to the beginning of the second or later subject entries in a group.

The fugue comprises six subject-free passages.

E1 mm. 6-9	E4 mm. 40-46
E2 mm. 18-24	E5 mm. 58-67
E3 mm. 35-36	E6 mm. 72-75

Two of the episodes, E2 and E5, develop from the preceding statement by sequencing the subject's second and third measures (see v5: mm. 18-20 and, in a more modified version, v2/v3: mm. 58-60). E1 and E4 contain a motif that consists of an inverted-mordent figure ascending to a dotted half-note on the downbeat. A genuine episode motif, M1 is sequenced and imitated. It not only fills the entire subject-free passage but even extends into the beginning of the next statement (see v1/v2: mm. 11; v5/v2: mm. 42-47; note that v2 is the uppermost of the three voices involved in these measures). The two remaining episodes, E3 and E6, are essentially nothing but extended cadential closes. E3 features a short cadential-bass pattern and a longer do-si-do formula in v1, while in E6 these figures are of opposite length (see v5 in whole-notes: mm. 73-75, v1 in half-notes mm. 74-75).

Moreover, the same combination of cadential traits can also be found at the end of E2 (mm. 23-25). The structurally analogous E5 does not show this cadential close. Instead, this close appears in the context of a full-fledged subject statement, in mm. 53-55, where it is easily overlooked.

As these details reveal, the episodes in this fugue are arranged in a symmetrical pattern of structural correspondence: E1 relates to E4, E2 to E5, and E3 to E6. With regard to the dynamic outline in each, E1 and E4 with their ascending sequences of M1 describe an increase in tension and thus lead from the preceding subject statement onward into the subsequent one. E3 and E6, on the other hand, conclude a structural section. In the two intermediate episodes the overall pitch tendency is very pronounced. In E2, the initial sequence from the subject tail begins lower—and therefore probably softer—than the end of the preceding entry. At the same time, the first voice completes a descending line begun immediately after the disappearance of M1 and continued through two entire entries, in ever larger note values (v1, mm. 11-20: C-B<sub>b</sub>-A<sub>b</sub>-G<sub>b</sub>-F-E<sub>b</sub>, D<sub>b</sub>-C-B<sub>b</sub>, A<sub>b</sub>). This long descent is countered by sudden ascents in all five voices (see particularly mm. 20, 21) that discontinue their build-up only near the cadential formula at the end of the episode. In the structurally corresponding E5, these lines seem reversed. The initial sequences from the subject tail begin in an elevated position (mm. 58-59) but are then followed by descending lines. The most prominent of these is the one in the uppermost voice which, as in E2, concludes in whole-notes (v1 mm. 62-67: G<sub>b</sub>-F-E<sub>b</sub>-D<sub>b</sub>-C-B<sub>b</sub>-A<sub>b</sub>-G<sub>b</sub>-F). This episode thus places its climax at the beginning and subsequently conveys an almost complete release, so extended that the anticipation for the events to come is heightened all the more.

The basic character of this fugue is rather calm, not only because of the complex rhythmic pattern with its many syncopations and tied notes, but even more so because of the combination of stepwise motion with high melodic tension. Yet the tempo should not be slow since Bach's time signature indicates a pace in half-note beats. The appropriate articulation demands legato in all note values, with the exception of the cadential-bass steps mentioned above. There is one detail, however, that depends once again on the interpretation of the subject's phrase structure. For performers who conceive the subject as consisting of two subphrases, the falling fourth is the only larger interval; it may therefore be played legato, particularly since it comes in strongly ebbing dynamics. By contrast, performers who regard the subject as indivisible are faced with two consecutive large leaps both of which express an active increase in tension. These should then be detached—the first by articulation, the second by the written rest.



Owing to the fugue's *alla breve* indication, the relative tempo of the prelude to the fugue is most convincing if rendered in the complex proportion of 3:2, where an assumed eighth-note triplet in the prelude corresponds with a quarter-note in the fugue. (Approximate metronome settings: prelude beats = 40, fugue beats = 60.) The fugue contains only one ornament, the trill in bar 49. It begins on the upper neighbor note, shakes in three pairs of sixteenth-notes and ends with a two-sixteenth-note suffix leading into its resolution on the ensuing downbeat.

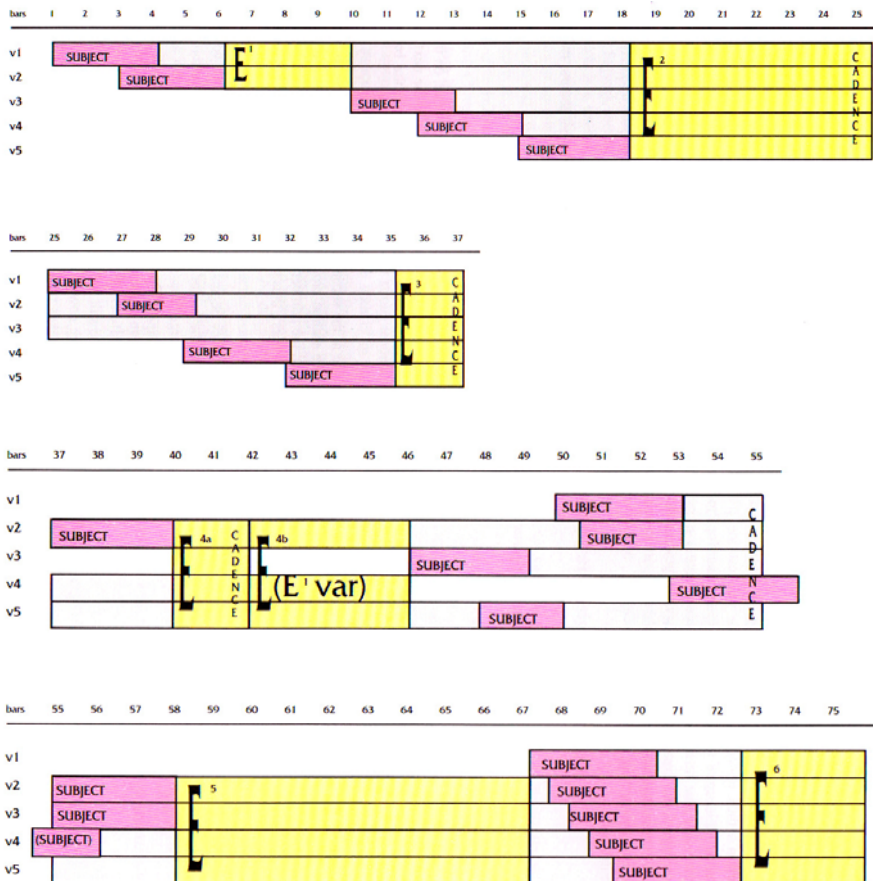
Many of the observations made above in the discussion of the episodes encourage an exploration of a possible structural symmetry in the fugue. This symmetry does in fact exist; it is complex but striking. Here are the relevant details:

first half (mm. 1-36)	second half (mm. 37-75)
S in v1, v2	S in v2
E1 with ascending M1	E4 with ascending M1
S in v3, v4, v5	S in v3, v5, v1/v2, v4
E2 with gradual ascent ending in cadential close	last entry with cadential close S in v2+v3
S in v1, v2, v4, v5	E5 with gradual descent S in v1/v2/v3/v4/v5
E3 with cadential close	E6 with cadential close

Within each of the two structurally corresponding halves, the entering order of the voices, together with the sense of closure conveyed by some of the episodes, allows two sections to be distinguished. In the first half, the layout is straightforward: section I comprises five subject statements linked by a bridging episode (E1) and rounded off by the cadential formula at the end of E2. Section II consists of four entries and the short E3 with its cadential close. As to the structural boundaries in the second half of the fugue, two interpretations are conceivable.

- In the first concept (which accords with the rules derived from other Bach fugues), section III, like section I, contains five subject statements, one of which is a stretto. They are linked by a bridging episode (E4) and closed by the cadential formula accompanying the last entry. Section IV then consists of a parallel statement, an episode (E5), the impressive five-part stretto and a short final episode (E6) with cadential close. The textural density supports these findings: sections II and III both begin with only three of the five voices taking part (see mm. 25-28: v4 and v5 resting; mm. 37-45: v1 and v3 resting), and at the beginning of section IV, after a full five-part cadential close in mm. 53-55, v1 pauses for twelve measures.

- The second concept builds on the admittedly strong tendency of relaxation in E5, on the structural analogy of this episode with E2 in the fugue's first half (which serves as the final segment of the first section). Moreover, the fact that the v4 statement in mm. 53-56 overlaps, in its female ending, with the ensuing parallel entry makes it more difficult for both performer and listener to perceive a section ending and new beginning here. In terms of the dynamic development, this concept is much easier to realize. In structural terms, however, it not only leaves the fourth section with a single group entry as opposed to two (one parallel, one stretto), but also results in a somewhat unbalanced overall picture.



Concept I:	sections	I	II	III	IV
	mm.	1-24	25-36	37-54	55-75
	no. of bars	24	12	18	21
Concept II:	sections	I	II	III	IV
	mm.	1-24	25-36	37-67	67-75
	no. of bars:	24	12	32.5	8.5

The harmonic outline of this fugue underpins the structure with its four sections in two halves, and with the third and fourth sections as indicated above in “concept I.” The initial five subject entries all relate to the home key *B $\flat$  minor*, in the usual alternation of tonic and (minor) dominant. The second section establishes the subdominant region in its first and last entry; the intermittent statements in *B $\flat$*  therefore function not as a return to the tonic but as the dominant of the subdominant. The third section introduces the major-mode version of the subject in its initial statement but soon returns to the subdominant and its dominant. Finally, the fourth section returns to the home key, with the parallel entry in the minor dominant and the five-part stretto in the tonic. (The five subject entrances in the stretto pick up the five initial entries in the fugue.)

Within the first section, the tension grows steadily. This is due, on the one hand, to the increasing number of voices from one subject statement to the next, and, on the other hand, to the above-mentioned rising pitch outlines in both the bridging E1 and the concluding E2. Similarly, the texture in the second section expands from three to five voices, adding lower registers as the section progresses. The process, however, is more restricted as regards the growth in the number of voices (3 to 5 vs. 1 to 5) and much shorter in duration (12 vs. 24 measures). Thus the impression of increase is not quite as powerful as in the initial section.

The third section not only begins, as the previous one, with two voices resting, but is also transposed to the major mode. The resulting expression is much gentler, particularly since the large leap appears now as a major tenth—an interval with no exceptional tension. The bridging episode, the two single statements and the subsequent stretto build up new intensity. But the structural climax in the stretto is offset by the still incomplete texture in these measures, and the final statement (v4: mm. 53-56), although now in five-part texture, is not a convincing climax either, both because of its weaker position as a single entry and because of the relaxing tendency in the accompanying closing formula. Spanning across the confines of this section, this statement is easily heard as conveying the anticipation of something significant yet to arise. It is therefore important

to notice that Bach postponed the full five-part texture in this section until this entry, and that, by contrast, the subsequent parallel statement sounds in four-part setting only, as does the long E5, with the upper voice resting. (This gives rise to a very sensitive question for performers: how does one convey the absence of the highest voice when one is in fact playing high pitches?)

The fourth section is thus, under several aspects, the weakest one. It comprises only two (group) entries, its build-up of texture is smallest (only from four to five voices), and its episode is the only one in the entire fugue to constitute a protracted decrease of tension. In this regard, the fourth section continues the gradual decline of dynamic power from one section to the other. When the final five-part stretto counter-balances this overall decline by erecting a powerful “super-climax,” this should come as a true surprise to listeners.