

WTC I/16 in G minor – Prelude

This prelude is determined by three rhythmic figures. They come with varying textures and pitch curves. The three figures jointly cover every measure of the piece, with only one short interruption (of one beat length) and two slight variations in one of the rhythmic patterns.

The first perfect cadence concludes at m. 3₁. This cadential close should not be regarded as structural since the bass has so far not taken part in the harmonic progression but remained on the tonic pedal. Also, Bach generates a distinctly felt continuity between the patterns in mm. 1-2 and 3-4. The modulation in the measures following this first cadential close reaches its goal, a perfect cadence in the dominant D major, on the middle beat of m. 4. The harmonic resolution is only a 16th-note long here, since the D-major chord is immediately topped by its seventh and progresses to new regions. This harmonic closure is thus again not the kind of caesura one is looking for when trying to determine the prelude's structural sections. The search finally leads to the third cadential close, reached at m. 7₁ after a second modulation to B_♭ major, the relative major key.

There are four sections in this prelude. Only the first is subdivided by means of several structurally less definite cadential closes, as has been shown above:

I	mm. 1-7 ₁	i-III	(G minor to B _♭ major)
II	mm. 7-11 ₁	III-iv	(B _♭ major to C minor)
III	mm. 11-18 ₁	iv-i	(C minor to G minor)
IV	mm. 18-19	i-i	(G minor confirmed)

No segment ever recurs, be it varied, transposed, or even in a freer understanding of structural analogies. Any seemingly recurring measures are just new manifestations of one of the motivic figures.

The rhythm is complex. In the melodically relevant segments of each voice, the prelude features three different note values: eighth-notes, 16th-notes, and 32nd-notes. Faster motion occurs in the four long trills. In second order there are occasional dotted eighth-notes and dotted quarter-notes, as well as syncopations in passages with complementary rhythm. The pitch pattern, too, is complex. A predominantly stepwise motion is regularly interrupted by sudden leaps. Closer inspection reveals that these are cases of hidden two-part structure, often with a pedal note in the secondary layer.

Furthermore there are instances where two voices complement each other to form one of the motivic figures, thus creating extra melodic intensity. In view of this complexity, the prelude's basic character should be interpreted as rather calm, and played in a tempo restrained enough to allow for full melodious substance in the 32nd-notes. The corresponding articulation requires that all notes except cadential-bass patterns and consecutive leaps be played legato. Cadential-bass patterns can be found in mm. 10-11, 17-18, and 18-19. Consecutive leaps that need to be detached occur in the lowest voice in mm. 5-6, whereas the seeming leaps in m. 14 form part of a hidden two-part structure. They require legato between the two layers so that each of the two "voices" sounds disconnected.

A tricky question arises in the area of articulation with regard to the figure introduced in the upper voice of m. 2. The Gs clearly do not belong to the main melodic line, but they do not form a secondary line of their own either. Thus they can be interpreted, and played, in two ways. One can regard them as a pedal background in a hidden two-part structure, in which case they are not separated from their surroundings by articulation, but only set apart by a different tone color. Or one can perceive them as "charm notes," the playful escape notes that were to become so common in the music of the later 18th century. In this case they are treated as integrated parts of the melodic line that sound just lighter and, because of their interval gaps at both sides, non legato.

There are five ornaments, all of them marked as trills and all of them appearing at a moment of harmonic affirmation (i.e., on the tonic chords of the keys reached by way of modulation in the course of the piece). None of these ornaments needs, or pretends to aim for, any kind of resolution. This is most obvious in connection with the trill on the final note, but equally true in the case of the four other ornaments, which all end in tie prolongation followed by the beginning of a new phrase. Having said this, it follows that none of the trills concludes with a suffix. As to the beginning, a launch from the main note is in order in the case of the trills that are approached stepwise, as in mm. 3, 7, and 19, or begin without any preparation, as in m. 1. And although the context of the trill in m. 11 would allow a different solution, it should probably match the corresponding ornaments and also begin on the main note. The speed of the trill motion (twice as fast as the shorter note values) is in 64th-notes, or four notes to each 16th-note. In the four trills of one measures duration, the shake comes to a halt on the last main note before the bar line, i.e., on the final 16th-note that is then tied over. The duration of the shake in m. 19 is not fixed in any way; it could be anything from an eighth-note upward.

The first of the three rhythmic figures that determine the piece is introduced in m. 1. Its texture consists of three parts, two of which, the upper and the lower, are unmoving pitches: a trill in the treble and a repeated pedal in the lower voice). The rhythmic pattern is even, with three different values sounding simultaneously (eighth-notes, 16th-notes and ornamental 64th-notes). This figure recurs three times. In m. 3, the key and the order of the voices are the same, with an octave transposition of the treble. The eighth-note pedal, however, has been abandoned. A complementary pattern of the middle and lower voices now provides both the eighth-note and the 16th-note pulses. In mm. 7 and 11, we find the figure transposed and in inverted voices; the pedal has been redeemed and now appears as an offbeat eighth-note pulse as part of the upper voice.

The second rhythmic figure defines the playful contour in the upper voice of m. 2 that has already been mentioned. It takes various accompaniments as it recurs, varied not only with regard to its pitches but also in its length and in details of its rhythmic design (see mm. 4-6, 8, and 15-16). The third rhythmic figure first appears in m. 9. Its basic element spans only a quarter-note. While it starts out in only two melodic guises, later recurrences (see mm. 12-15₄ and 16₃-19) show it varied not only in pitch but also in texture. Thus its only constant is its rhythm.

With regard to the prelude's layout one may state: Section I presents the first two figures and subjects them to a first development. Section II briefly takes them up in transposition before concentrating on the presentation of the third figure. Section III begins once again with the first figure but then develops the third, only once interrupted by a reminiscence of the second figure (mm. 15₄-16). In the vivid three-part texture of the concluding segment, which sounds above a newly added tonic pedal, the third figure reigns supreme.

The dynamic range within this rhythmically determined prelude is not large. Small-scale dynamics depend exclusively on the overall pitch direction defining each rhythmic figure. The melodically static first figure suggests only the slightest increase in tension, while the third figure seems always composed in superimposed descending pitch lines and thus appears determined by dynamic relaxation. Only the second rhythmic figure changes melodic orientation and, with it, dynamic direction, allowing for diminuendo (as in mm. 2, 5, and 15-16), crescendo (as in mm. 6 and 8) or a dynamic curve (as in m. 4).

With regard to the overall development of tension, the prelude describes a soft, largely spaced dynamic curve. The second section implies

more tension than the first but is surpassed by the third, while the coda returns to the level of the beginning. Two climaxes can be determined, falling on the downbeat of m. 9 and on the middle beat of m. 12. Both are motivically connected with the third rhythmic figure but derive their expressive power above all from their harmonic underpinning.

WTC I/16 in G minor – Fugue

The subject of this fugue spans $1\frac{1}{2}$ measures. It begins on the second eighth-note of the first measure and ends on m. 2.¹ With regard to the pitch position in the G-minor scale, it sets out on the fifth degree and resolves into the third. The beginning with the second eighth-note of a measure conveys an impression of upbeat. The downbeat of the second measure, however, is taken up by a rest, so that the possibly strongest beat is omitted in the melodic development. As a result, listeners are likely to perceive m. 1₃ as “strong” and the subject as consisting of three metric units. In the course of the fugue, the metric position of the subject changes constantly between a beginning after the downbeat and after the middle beat. This confirms that at least in this case, Bach regarded the two metric positions as equally strong. One can thus safely assume a hidden 2/4 time behind the given notation.

Phrasing in the subject allows for two possible interpretations. The rest in its middle can be taken for an interruption after which a new melodic unit is launched. Alternatively, the rest can also be perceived as tension-sustaining; in this case the notes in m. 2 continue the process immediately preceding the rest.

The pitch outline in the subject consists exclusively of seconds, with the minor-sixth leap between the second and the third subject notes as the only exception. This leap constitutes a high-tension interval. The rhythmic pattern features three different note values: quarter-notes, eighth-notes, and 16th-notes. This rhythmic substance is confirmed throughout the fugue. Harmonically the subject is very interesting. It does not begin on the tonic but launches the cadential progression from a point of heightened tension:

¹The G on m. 2₄ does not belong to the subject. Three reasons support this: Melodically, this note recurs only in one of the subsequent statements, in m. 6. Harmonically, the tonic is already reached with B \flat . Metrically, a subject that begins after a strong beat can usually be expected to conclude on a strong beat.

The climax within this subject falls on the fourth note (F# in the original key). All features join to support this event: Melodically, the F# is approached in steps of increasing tension. The initial



fifth scale degree represents a higher level of intensity than would be felt in the common first or third degrees. The ascending semitone reaches the secondary leading-note and thereby increases the tension. Harmonically, this note represents chord VI, the step that is most remote from the tonic. From there the line plunges through the high-tension interval of the minor sixth to the keynote and, continuing its direction, reaches F#, the primary leading note in G minor. Rhythmically, F# is the first longer note value, and metrically, as was explained earlier, it assume in the function of the only strong beat.

After this climax, two slightly different dynamic renditions are possible depending on one's choice for subphrasing. Performers who regard the subject as consisting of two subphrases follow it with an abrupt and strong decrease, letting the remainder of the phrase appear as an "afterthought," with a gentle increase toward a secondary climax on C and a final relaxation thereafter. Performers who regard the subject as an undivided entity will resolve the tension that was so powerfully built up toward the climax on F# gradually throughout the remainder of the subject. In this case, the C at m. 2₂ is integrated into the line and not accented in any way.²

The fugue comprises sixteen statements and one "false entry."

1. mm. 1-2	A	9. mm. 17-18	A
2. mm. 2-3	S	10. mm. 20-21	B
3. mm. 5-6	B	11. mm. 21-22	S
4. mm. 6-7	T	12. mm. 23-24	A
5. mm. 12-13	A	13. mm. 28-29	S
6. mm. 13-14	B	14. mm. 28-29	T
7. mm. 15-16	S	(15. m. 29	B)
8. mm. 17-18	B	16. mm. 31-32	A
		17. mm. 33-34	T



²Although many performers emotionally prefer "interrupting" rests, the harmonically more consistent rendition is the one that resolves the tension of the main climax in a single diminuendo. As the fugue progresses, more evidence arises to support the concept of an undivided entity.

In the course of the fugue, the subject suffers only minor modifications, most of them inconsequential. Its answer is tonal, with its first interval enlarged from a semitone to a minor third (e.g., m. 2: G-B \flat). The subject's beginning is varied in m. 23 where the initial eighth-note is replaced by two ascending 16th-notes. The final note, being the third scale degree, appears as a Picardy third in m. 34, a common feature in a minor-mode fugue. A modification that is more consequential can be observed when, in the major-mode section from m. 12 onward, the two initial intervals are changed: the semitone with its particular urging quality is substituted by a major second and the leap appears as a major sixth that, unlike its minor brother, is not a high-tension interval. These two changes have considerable influence on the buildup of tension.

In two instances does the subject appear in stretto: mm. 17-18 feature a combination of bass and alto statements at a distance of four eighth-notes, and mm. 28-29 present a corresponding group of two complete entries in soprano and tenor, fortified by a third entry at the same distance in the bass that deviates immediately after the climax.

The fugue features a single counter-subject. CS acts as the subject's faithful companion throughout the fugue and is only omitted in the final statement. It begins in a metrical position equivalent to that of the subject, but half a measure "late," after the subject's climax. (This belated beginning is the reason for the additional G on the fourth beat of mm. 2 and 6, a note that does not form part of any material but whose function is to support the beginning of the subject entry when all other voices are resting.) In pitch pattern and rhythm, the counter-subject is strikingly related to the subject, particularly to the its answer, which it almost seems to read upside down and with its halves exchanged.



The counter-subject presents an indivisible phrase. The climax on the sixth scale degree (B \flat) unites similar characteristics as did the subject's climax: it combines melodic tension on the secondary leading note of this entry's D-minor key with harmonic tension on the representative of the subdominant function and a metrical accent. Yet owing to its preparation in a somewhat relaxed rhythmic pattern and stepwise motion, this climax is considerably milder than that in the subject. The remaining four notes bring a gradual subsiding of the tension.

The G-minor fugue comprises six subject-free passages.

E1	mm. 4-5 ₁	E4	mm. 19-20 ₁
E2	mm. 8-12 ₁	E5	mm. 24 ₃ -28 ₁
E3	mm. 16 ₃ -17 ₁	E6	mm. 30-31 ₃

As the conclusion of the final subject statement marks the end of the piece, there is neither a coda nor even a concluding cadential formula. All episodes in this fugue are related to the subject; the only distinction here is the degree of relationship and the appearance or omission of independent (i.e., not subject-related) motifs.

It is generally true in all polyphonic compositions that the closest bond between an episode and the surrounding primary material is achieved either by way of a sequence or imitation of the preceding entry's ending, or by way of an anticipation of the subsequent entry's beginning. In this fugue, the former process is used frequently: E1, E2, and E3 are linked to the statements preceding them through sequences of the final figure while E4 and E6 pick up this figure in imitation. E5 alone shows a subtle variation of this pattern insofar as the figure is transformed, by a displacement of its final note, into a bass line where it no longer appears entirely melodic but conveys a hint of a cadential pattern (see mm. 24-27).

The only independent motif in this fugue, and the only component in the entire piece that is not in some way related to the subject, occurs also in E5. M1 consists of an ascending scalar section in 16th-note motion that is complemented, after a syncopated halt, by a descent returning in the same rhythmic pattern to the note of departure. In its original version (see A: mm. 24-25), the ascent uses the second tetrachord of the melodic G-minor scale, while the descent quotes the corresponding portion of the natural G-minor scale. The dynamic outline follows the curve described by the symmetrical design: a half-measure crescendo complemented by a matching diminuendo.³ In the course of E5, M1 is followed by two sequences (see M: mm. 25-26 and 26-27). Moreover, it is imitated, in inversion and

³M1 has a forerunner that, consisting only of its ascending portion, appears in E2 (see the soprano in mm. 8 and 9) and in E3 (see the tenor in m. 16-17).

slightly varied, in the upper voice. This imitation should retain the dynamic curve of the model.⁴

As can be seen from this overview, none of the episodes serves exclusively as a cadential close. Only one episode segment fulfills this purpose. In E2, the home key of the fugue is confirmed (motivically still in the context of the subject-related figure) with a perfect cadence in G minor on the middle beat of m. 10. The remaining 1½ measures are neither needed for the closure of the episode, nor do they present any (new or continued) episode material. Instead this extension functions as a modulation to the related major key.

There is no structural relationship between the episodes of this fugue. The role played by each episode in the development of the composition is determined by the direction in which the motif derived from the subject ending it sequenced. The following details can be observed: In E1 and E3, the subject's final half-measure is taken up in ascending sequence. Both episodes thus serve as bridges heightening the tension toward the ensuing subject statements. E2 begins similarly with an ascending sequence of this figure but continues thereafter in a generally descending direction (mm. 9-10: soprano B \flat -A-G, bass E-B \flat -D-G). This descent and the cadential close it encompasses represent a relaxation. In E4 and E6, the final half-measure of the subject is not sequenced but imitated. These imitations, though ascending in pitch direction, appear as a more indirect continuation than the sequences in the previous examples. Yet while they do not convey the feeling of anticipation, they succeed in slowing down the decay of tension. In both cases, however, the episode concludes with an inversion of the figure and with a plunging final interval that generates a strong decrease. Thus a gradual diminuendo ends in a steeper drop of tension.

The overall stepwise motion interrupted only for high-tension intervals suggests that the basic character is rather calm. The rhythmic pattern seems neutral. On the one hand, three different note values are regularly used and, in the episodes, supplemented by syncopations; on the other hand, the rhythmic structure does not seem complex enough to require real tranquility. The result is a placidly flowing tempo.

⁴The frequently heard mistake that renders the descent in the imitation in diminuendo and the ascents in crescendo actually cuts the motif in two, and each half will automatically cry for a new partner. The result is usually that middle and upper voice sound as if in a single track, so that even the original motif in the middle voice is then destroyed. A good way to avoid this pitfall is to play the leading voice (M) on a slightly higher level of intensity than the imitating upper voice.

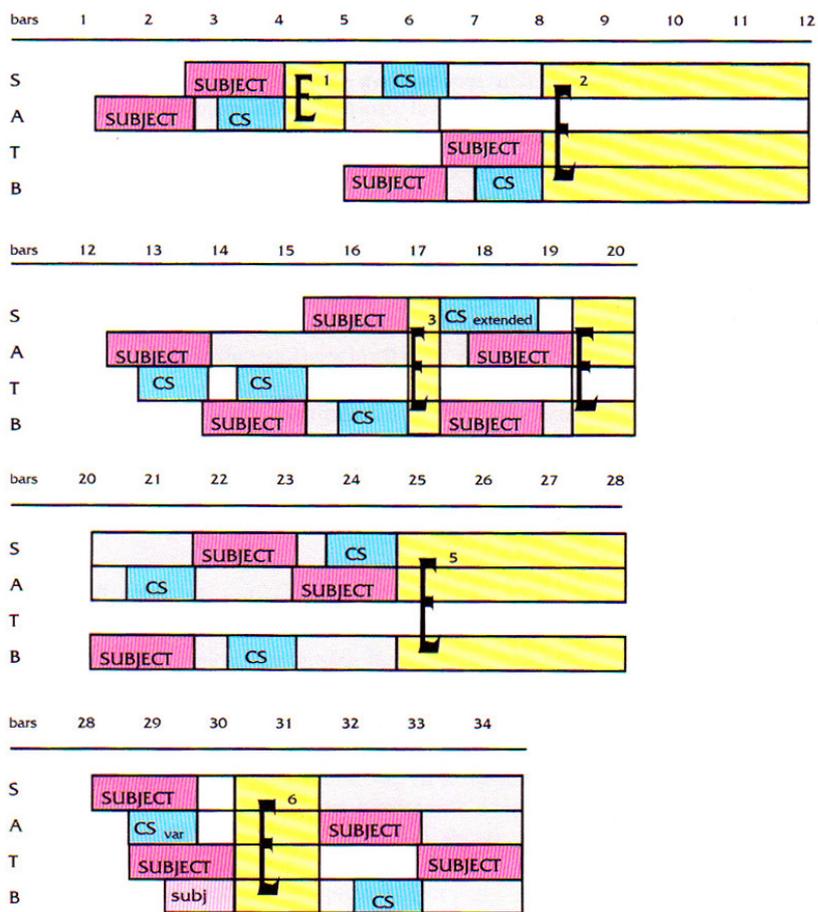
The corresponding articulation requires an overall legato suspended only in cadential-bass patterns and consecutive leaps—not, however, in the intervals of the subject's answer and the counter-subject, which derive from essentially tension-rich intervals. There are no ornaments.

The relative tempo of the prelude to the fugue had best be taken in complex proportion, both in order to avoid too much uniformity in the closely related rhythmic patterns of the two pieces, and to bring out the particular character of each. A good solution is one in which three rhythmic units of the prelude equal one in the fugue; i.e., three eighth-notes in the prelude correspond with half a measure in the fugue. (Approximate metronome settings: prelude beats = 44, fugue beats = 66.)

The most obvious indicator for the partitioning into sections is the number of voices surrounding the subject statements. In two instances, a subject entry is launched unaccompanied and thus announces without any room for doubt that a new section is beginning. On another occasion, three consecutive subject statements sound in reduced ensemble and are thus set apart from the four-part texture of the entries preceding and succeeding them. These observations reveal a design in four sections: mm. 1-12₁, 12-20₁, 20-28₁, and 28-34. This is supported by the cadential formula in mm. 11-12, the consistent use of the major mode in all statements between mm. 12 and 20, and the nature of E5, which expresses a concluding tendency in its pattern of descending sequences in all three voices.

The harmonic outline confirms this layout. The four statements in the first section alternate between the tonic and the minor dominant. The five statements in the second section sound in the major keys relative to tonic and dominant. The beginning of the third section is marked by two statements representing the subdominant, while the third returns to the tonic. Finally, all entries in the fourth section are built on the tonic.

Within section I, the tension increases through the first three statements; the fourth, however, brings a set-back, due not only to the drastic gap in the higher pitch range but also to the dropping out of the alto and the deceived expectation of four-part texture. Section II pursues its increase of tension consistently as the texture develops from two-part via three- and four-part setting to the stretto statement. Section III retains both its texture and mode unchanged and seems to feature nothing that would indicate a dynamic increase. Conversely, section IV sets out with a stretto combining, in the shortest possible span, the buildup from one to four voices and the overlapping imitation of a complete and an incomplete subject entry. After this dynamic outbreak, the remaining two statements can only fall back: one appears in three-part texture and the other without its counter-subject.



The relationship between the sections is complex. Owing to the modification of the interval structure in the major-mode subject, section II begins in reduced emotional vigor. Its concluding stretto may surpass the final entry of section I in loudness but probably does not reach its passionate quality. Section III, while returning to the melodic intensity of the minor mode, is dynamically static and thereby falls back even behind section II. After the additional color contrast in very soft shades brought about by the material change in E5, the beginning of section IV then presents the sudden climax. The fugue ends in considerable intensity.