

WTC I/2 in C minor – Prelude

At first sight most remarkable in this prelude are the striking changes in tempo, texture, and material. These unusual features are a result of Bach's decision to "upgrade" a small C-minor prelude composed for his son Wilhelm Friedemann. The contrasting sections found in the *Well-Tempered Clavier* version represent the insertions the composer added later. In the original version, the dominant-seventh chord in m. 25 leads directly into two concluding measures above a tonic pedal.¹

In its attitude and expressive aims, the C-minor prelude resembles the preceding C-major prelude. Any attempt to render this piece as a display of virtuosity would be counterproductive to the musical idea. Similarly, an emphasis on the horizontal process in one or both of the voices would fail to convey the essence of this composition. The main body of this prelude represents the category of pieces determined by harmonic processes. Just as in the C-major prelude, each measure stands for a harmonic step whose relationship to the harmonic surroundings determines the "message" and the dynamic representation.

The first harmonic progression ends in m. 4, the steps being:

m. 1 = i, m. 2 = iv₄⁶, m. 3 = vii + C pedal, m. 4 = i.

Since structural breaks in this prelude are defined solely by harmonic processes, this cadential close must be regarded as indicating the end of a first (short) section. The next harmonic progression—and with it the next structural section—ends in m. 14 where Bach concludes a modulation to the relative key of E_b major. The final steps of the cadence in this new key are: m. 10 = V², m. 11 = I₄⁶, m. 12 = IV⁶, m. 13 = V₅⁶, m. 14 = I.

There are altogether four such structural sections in this prelude:

I	mm. 1-4	complete progression in C minor
II	mm. 5-14	modulation to E _b major
III	mm. 15-18	modulation back to C minor
IV	mm. 18-38	complex, extended cadence in C

¹A comparison of the shorter original version of this prelude with the C-major prelude reveals many parallels: As in the C-major prelude, the first 24 measures of the C-minor prelude all show a half-measure model followed by its repetition. The extension of the first section, the chain of descending sequences in the modulating second section, and a protracted dominant pedal in the final section are all identical in both pieces.

As in the preceding prelude, this harmonically-determined piece does not allow for any melodic articulation or single-voice phrasing since it is not the melodic element that counts here: all notes are to be sustained for the exact length of their written value. Phrasing between the structural sections, i.e., between one closed harmonic progression and the next, should be conveyed through tension curves. For performers on the modern piano this is attained through dynamic modifications that correspond with the harmonic development.

The dynamic relationship between consecutive notes may pose a problem for many performers. The result one should be aiming for is to convey a chordal progression behind the single 16th-notes. Thus the notes forming each chord must sound as equal as possible, and greatest care should be taken to avoid emphasis of the uppermost pitches.

Choosing the tempo is a complex matter because of the indications Bach gave for the portions he added to the smaller piece composed for his son. For the harmonically determined portion alone, the same holds true as for the C-major prelude: the tempo should be chosen so as to best convey the idea of harmonic processes. Too fast a performance easily diverts the listeners' attention by what appears as a display of virtuosity; too slow a tempo makes it impossible to hear more than just one chord at a time.

Next, there is the question of a meaningful tempo balance between the four sections. A reasonable assumption (and the choice of most musicians) is to interpret the final *Allegro* as a return to the original tempo, thus giving the prelude a rounded form. For the two tempos in between, the following proportion works well:

$$\begin{array}{lll}
 \textit{Presto} & = 1 : 2 & \text{♩ in mm. 1-27} = \text{♩ in mm. 28-33} \\
 \textit{Adagio} & = 4 : 1 & \text{♩ in mm. 28-33} = \text{♩ in m. 34} \\
 \textit{Allegro} & = 1 : 2 & \text{♩ in m. 34} = \text{♩ in mm. 35-38.}
 \end{array}$$

This option results in a well-balanced overall structure within the portion of the prelude that abandons the initial two-part texture. This is what we will hear:

- six measures, on the dominant pedal and between pedals:
 - mm. 25-27 = 3 measures in the original tempo
 - + mm. 28-33 in *Presto* = 3 measures in the original tempo
- six measures, on the (actual or implied) tonic pedal:
 - m. 34 in *Adagio* = 2 measures in the original tempo
 - + mm. 35-38 in *Allegro* = 4 measures in the original tempo.

Another option assumes a 2:3 proportion between the outer sections on the one hand and the *Presto-Adagio* on the other hand. While this option does not maintain the balanced structure mentioned above, it allows for a simpler transition into the fugue. Approximate metronome settings for both options are as follows:

(a) beginning beat = 72, *Presto* = 144, *Adagio* = 36, *Allegro* = 72;

(b) beginning beat = 88, *Presto* = 132, *Adagio* = 66, *Allegro* = 88.

The tempo in the fugue is best chosen in complex proportion after a simple tempo proportion within the prelude or in simple proportion after a complex proportion within the prelude. This means: (a) 3:4, or prelude beat = 72, fugue beat = 96, (b) 1:1, or prelude and fugue beats = 88.

Ornamentation in this prelude includes two inverted mordents: one (contained in the autograph) in the middle of the *Adagio* measure; the other (derived from an early copy) on the final note. The former is played with E#, in keeping with the harmony of this measure, while the latter is a whole-tone ornament. In addition to these embellishments, the two arpeggios in the *Adagio* need careful consideration. Is the upper note primarily part of the (vertical) arpeggio, or is it above all part of a (horizontal) melodic line? If one plays the note as the score seems to indicate, without any sophisticated interpretation, then it would sound as the last note in a broken chord. In Baroque style, such a broken chord would begin *on* the beat, which would cause the uppermost note to fall *after* the beat. The question is therefore whether melodic continuity would not be destroyed by such a rendition. In the second arpeggio in particular, the rendition with F as an (after-beat) target note would interrupt the melodic flow quite awkwardly. In this case it is therefore preferable to interpret the melodic note as independent of the chord, i.e., to play the F together with the bass note C on the beat and then arpeggiate the remaining chord notes. Going back half a measure to the beginning of the *Adagio*, the upper note E can probably be perceived in two ways, either as a note in a chord or as a melodic component. A rendition similar to that of the second arpeggio is therefore possible (and perhaps beneficial to the symmetry in this measure) but not necessary for its understanding.²

²The practice described above was quite well-known in Baroque times. Performers were expected to understand, from their immediate grasp of the musical “sense,” whether or not an arpeggio included the upper note, and then play accordingly. The fact that there was obviously no need to specify this in writing may indicate that musicians usually did understand—or, perhaps just as often, that they were keyboard players studying with the composer and thus could be taught during the lesson.

On two occasions, the harmonic patterns that determine the “message” of this prelude are eclipsed by secondary processes: in one instance by sequences, in the other by a bass pedal. The development of tension in the entire prelude as created jointly by all these processes can be described as follows:

In the course of the first simple cadence, the subdominant commands the greatest tension; this tension subsequently finds a stepwise resolution through the dominant toward the tonic. The dynamic equivalent to this process is approximately $p - mp^+ - mp^- - p$.

The following section begins with a string of sequences. A first question is therefore: what kind of relationship exists between the two measures of the model. If, e.g., the step from the A_b -major chord in m. 5 toward the D^7 chord in m. 6 is taken as active, this model sets the pattern that the next two-bar combinations must follow—on a generally softer level because the sequence is descending. The section is rounded off with a cadential close in the relative key, E_b major. The dynamic outline may be expressed as $mf^- - mf^+ - mp^+ - mf^- - mp^- - mp^- - mp^- - p^+$.

After this extensive second section, the third section is surprisingly brief. No sequences delay the return to the initial C-minor key; instead, the harmonic progression moves directly into the steps of the simple cadence in the home key (mm. 15-18). The dynamic development of the four measures should therefore appear more like an appendix to the preceding section: $mp^- - mp^- - p^+ - p$.

The fourth section requires a more detailed description. In the WTC version, it begins in the middle of m. 18, thus making this measure the only one of those built on the same surface pattern that contains a change of harmony.³ The bass-note transition from C to B_b converts the tonic chord into an inverted V^7/iv (dominant-seventh of the subdominant) and thus triggers a new, active harmonic motion. This leads very soon (m. 21) to a dominant pedal.

The gradual tension increase inherent in any prolonged pedal note is enhanced here not only by the rising pitches of the chords (see mm. 21-24 and 25-28) but also by the sudden change, in the latter portion, to a more

³In this matter it seems difficult to decide which of the two versions reflects the composer’s true intention. The text of the initial *Little Prelude* shows m. 18 with two equal halves and a repeated bass note, while the version preferred in today’s *Urtext* editions of the Well-Tempered Clavier has a bass note B_b on the third beat of this measure. The latter version certainly sounds harmonically more convincing, but it does so at the expense of continuity: this measure diverges significantly from the pattern observed throughout the remainder of this part of the piece.

virtuoso, toccata-style texture. This new surface pattern prepares the intriguing inner expansion with which Bach enriched his original version of this prelude when including it in the *Well-Tempered Clavier*.

The ensuing passages constitute not only a change in tempo but also a surprise in the surface patterns. While the harmonic basis remains for a while on the dominant pedal, the one-track, broken-chord texture gives way to a virtuoso two-bar figure in *Presto*. This figure is imitated in stretto by the lower voice, after one measure and thus overlapping for exactly one measure. Both the model and its imitation are then sequenced, thus creating a polyphonic structure that appears suddenly quite dense. The leading upper voice adds a second, related but shorter figure (see mm. 32-33₁) that is also imitated by the lower voice in the following measure. Within these six measures with their two-part imitation, the harmonic change from the dominant to the tonic pedal is carried out in such a subtle way (somewhere between mm. 30 and 31, but with an absence of the actual bass note) that the urge to come to a close seems as if suspended.

When the tonic pedal finally appears (m. 34₁), it marks the beginning of yet another section, headed *Adagio* and featuring a recitative-style upper voice over scarce, arpeggiated chords. These surface features—the changes in tempo, texture, and character—are so intriguing that the tonic pedal once again stands little chance of claiming attention for the impending end of the piece. The third change reestablishes the texture that had determined the last measures before this adventurous expansion (compare mm. 35-38 with mm. 25-27). Thus the bracket is finally closed.

Regarding the dynamic design in this final and largest section of the C-minor prelude, our observations permit the following conclusions:

- The climax falls in the downbeat of m. 28: here, the last and longest ringing of the dominant pedal coincides with the beginning of the *Presto* and the change to the denser polyphonic texture. This climax has been prepared in the continuous buildup begun at the end of the last home-key cadence in m. 18.
- After the climax, the overall tension diminishes in a twofold downward sweep. A (much smaller) second peak falls on the downbeat of m. 34: here, the first appearance of the tonic pedal coincides with the beginning of the *Adagio* and the first arpeggiated chord. The overall decline of tension is then continued to the end of the piece.

This overall development of tension can be expressed in the following dynamic terms. (“*pf*” stands for *poco f*. The spacing of the measures—see mm. 28, 30, 32, 34a, 34b—depicts the actual time of the musical process in what might be the most desirable tempi.)

mm.	21	22	23	24	25	26	27	28	
	<i>mp</i> ⁺	<i>mf</i> ⁻	<i>mf</i>	<i>mf</i> ⁺	<i>pf</i>	<i>pf</i> ⁺	<i>f</i> ⁻	<i>f</i>	
mm.	28	30	32	34a	34b	35	36	37	38
	<i>f</i>	<i>pf</i>	<i>mf</i>	<i>pf</i>	<i>mf</i> ⁺	<i>mf</i> ⁻	<i>mp</i> ⁺	<i>mp</i> ⁻	<i>p</i>

The graph sums up the tension development throughout the entire prelude:



WTC I/2 in C minor – Fugue

Launched on the second eighth-note of a 4/4 measure, the subject of this fugue is two measures long. The initial notes are heard as an upbeat, not so much to the downbeat of the following measure but to the middle of m. 1. The E_b that falls on the first beat of m. 3 marks the end of the subject. This fact, evident from a comparison with all later subject statements, is supported by the harmonic background: the dominant in the form of a ninth chord (G B D F A_b) is reached in the middle of m. 3 and resolves onto the tonic on the following downbeat.

One of the remarkable melodic characteristics of this subject is that it contains three identical note groups: the initial three-note figure C-B-C, metrically placed as an upbeat, is repeated twice in metrically equivalent position. These identical groups must be regarded as structurally corresponding; i.e., each of them initiates a separate little subphrase.

The subject's rhythm shows a fairly regular combination of 16th-notes and eighth-notes, complemented by a single quarter-note shortly before the end, featured as a syncopation. The pitch pattern comprises a mixture of steps and leaps. Upon closer inspection, a much clearer picture emerges, since almost all stepwise motions in 16th-note rhythm can be unmasked as written-out ornaments: the figure C-B-C is a spelled-out inverted mordent and the ascent F-G-A \flat , a slide. Furthermore, none of the leaps is a high-tension interval. The subject's main body thus represents neither a primarily linear nor a highly emotional pitch progression. Were one to reduce the subject to its unornamented line, this is what would remain: C-G-A \flat , C-D-G, C-D-A \flat —GFE \flat , or C-G-A \flat , C-D-G, C-D-F—GFE \flat .

The harmonic background is that of a simple cadence. Bach's harmonizations in the course of this fugue feature only minor variations; see, e.g., the entry mm. 26-28 where iv is replaced by VI.

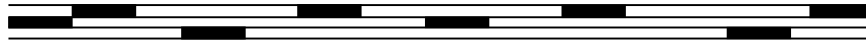


The sequential structure is a determining factor in the subject's dynamic outline. In the first subphrase (the head motif), the four initial notes remain in the range of the tonic while the fifth note moves on to the subdominant. This harmonic progression indicates an increase in tension within the first subphrase. In a sequential pattern, the shaping in the subsequent subphrases must follow the model, thus resulting in three similar dynamic increases. When attempting to organize the three increases into a more encompassing pattern, we find that there is more than one option for the overall development of tension.

- Performers choosing to stress the melodic aspect will emphasize the peak-note descent to the keynote (A \flat -G-F-E \flat) with a consistent diminuendo. Within this frame, the ascending three-note group in the middle of m. 2 will sound as an extension of the note F—which makes sense since there is no change of harmony at the emergence of the syncopation. The tension decrease throughout the subject is supported by the overall harmonic progression, which also climaxes on the first peak note's subdominant.
- Performers who prefer to focus on the rhythmic structure will draw attention to the syncopation, interpreting each subphrase as more intense than the preceding one, with the climaxes followed by a release of tension only in the last three notes.

There are altogether eight subject statements in this fugue:

1. mm. 1-3	M	5. mm. 15-17	M
2. mm. 3-5	U	6. mm. 20-22	U
3. mm. 7-9	L	7. mm. 26-28	L
4. mm. 11-13	U	8. mm. 29-31	U



Apart from the interval adjustment in the tonal answer, the subject appears unchanged throughout the fugue. Both the interval variation in the major-mode statements and the Picardy third at the end of the last entry are regular features. The fugue does not contain any strettos or parallel entries. It features two counter-subjects, only the first of which is truly independent.

CS1 makes its first appearance immediately after the initial subject statement; i.e., it stretches from the second 16th-note of m. 3 to the downbeat of m. 5. The conspicuous change in the rhythmic pattern (only 16th-notes in m. 3, only eighth-notes thereafter) and the pitch level (see the tenth interval C_1-E_2 in m. 3) reveal this counter-subject as structurally conceived with two contrasting subphrases. The first segment presents a descending scale that describes a decrease of tension. The longer second segment also moves essentially in falling direction, with its most likely interpretation being an even more distinct diminuendo. (Climaxes on either the lower C, the target of the descending scale, or the admittedly interesting $F\#$ are inadvisable. As both notes coincide with tension peaks in the subject, stressing them would counteract polyphonic clarity. The rhythmic evenness in the counter-subject's second half already weakens its impact in the context of simultaneous lines; an additional dynamic parallel would offset the requirement of independence.)

CS2 is introduced against the next subject entry. It starts belatedly but concludes together with the other components on m. 9₁. Rhythmically, CS2 is almost entirely attuned to CS1. Nor is its pitch pattern, which undergoes several changes in the course of the fugue, very significant. Thus the subject's second companion stages little contrast of its own. The overall impression in the fugue is of a dialogue between the subject and one counter-subject with a homophonic accompaniment.

The following sketch shows the phrase structure and dynamic design created in the combination of the subject and its two counter-subjects.

The image shows a musical score for a fugue in C minor. It consists of three staves: CS1 (Counter-Subject 1), CS2 (Counter-Subject 2), and S (Subject). The score is in 3/4 time and features six subject-free passages (E1-E6) marked with brackets and arrows. Below the staves, there are two alternative phrasing options for the subject, labeled 'or'.

There are six subject-free passages in this fugue:

E1	mm. 5-7	E4	mm. 17-20
E2	mm. 9-12	E5	mm. 22-26
E3	mm. 13-15	E6	mm. 28-29

The material of E1, E2, E4, and E5 is closely related to the subject; at least one voice constantly displays a variation of its head motif. In E2 and E5, this subject-derived motif is extended: what was originally the final eighth-note now sounds as a quarter-note, followed by an eighth-note rest and two chromatically ascending eighth-notes. This longer version of the head motif complements the dynamic design: the slight tension rise in the subphrase is now rounded off with a relaxation throughout the extension.⁴

The first episode motif (M1) is introduced in E1. It consists of an ascending scale that comes to a halt on a syncopated A \flat . The two features, the scalar motion and the syncopation, reveal M1 as related both to the first counter-subject (which begins with a scale, though a descending one) and to the subject (which contains the syncopation group F-G-A \flat). Interpretation of the character and dynamic design in this motif depends on which of these relationship one regards as more salient; M1 could be taken as a relaxed scale in diminuendo (like the beginning of CS1) or as an upbeat to a little climax (on F or on A \flat , whichever your choice was in the subject).

M2 is brought forth in the lower voice of E2. It is a figure of one-bar length made up of a descending one-octave scale that bends back for two notes and is then followed by another descent down to the lower fifth. This motif derives from the beginning of the first counter-subject and picks up its character and tension decrease. As E3 shows, this motif can appear not

⁴Note that in the stretto imitation used in these episodes, the [decreasing] chromatic ascent of this extension coincides with the [increasing] regular eighth-notes that open the head motif. This takes many performers unawares: they lose sight of which voice is leading and when.

only in descending but also in ascending direction. The most consistent (though not often heard) interpretive conclusion would be to retain both the character and the diminuendo. (The implications of this interpretation of E3 for the overall dynamic development are considerable and will be dealt with later.)

The double-note motif that appears in the two lower voices of E3 but is never again taken up in the fugue is least related to the primary material. It merely bears a slight resemblance to the first three notes of CS2 that, together with the same note-group in CS1, also forms descending parallels.

By far the shortest episode of this fugue is E6. Its harmonic progression and melodic features leave no doubt that it is a typical cadential close. The lower voice presents a cadential-bass pattern, the middle voice the characteristic closing formula with syncopation, and even the upper voice joins in by displaying one of the established closing features, the keynote anticipation.

The relationships between the episodes of this fugue are as follows:

- The first half of E4 (mm. 17-18) is a variation of E1: compare L in E4 with U in E1, M in E4 with M in E1. U in E4 is new but in part parallel to L.
- The second half of E4 is a varied repetition of the first half of E4: compare mm. 17-18₃ with mm. 18₃-20₁ (M + L in inverted voices).
- The first half of E5 (mm. 22-24) is a variation of E2: compare U/M in E5 with U/M in E2 (transposed) and L in E5 with L in E2 (metrically varied transposition).

Both E1 and the two halves of E4 are composed in ascending sequences. They prepare the following entry by building up tension toward it. In the case of E1, the tension is slightly abated at the very end of the episode.

By contrast, E2 and E5, both determined by falling sequences, create a diminuendo. This seems only logical in the case of E2, which follows the last of the three initial statements in this three-part fugue. With its decreasing tension it thus sets the so far uninterrupted tension rise apart from what follows. The symmetrically beginning E5 seems intended also to give the impression that the main statements in this round have already been made, and lures listeners into expecting a redundant subject entry. But Bach changes his mind; he extends this episode by adding an ascending, tension-increasing second half (mm. 25-26) that leads to a statement in the lower voice, thus completing the round. A similar process recurs in the final episode: the cadential measures 28-29 seem to close this section in a mood of relaxation, but Bach adds a further entry—redundant this time—in homophonic texture above a tonic pedal.

The interpretation of E3 requires careful pondering:

- If conceived as a crescendo, E3 appears as a link between the preceding and the ensuing subject statements. As a result it strings together—by means of its dynamic direction—entries that do not belong to the same group.
- If conceived as a diminuendo, E3 suggests an interpretation of the fugue as composed in two halves. This is corroborated by the fact that E3 is the only episode not at all related to the subject and occurs close to the middle of the composition.

The leaps in the pitch pattern and the prevalence of two rhythmic values—eighth-notes and 16th-notes—suggest a lively basic character for this composition. The ideal tempo is dictated by two essential details: the dance-like character, created above all by the unusually regular phrase structure in the subject, and the ornamental character of the initial figure C-B-C. The most appropriate pace would therefore be one in which the eighth-notes sound “gracefully bouncing” and the 16th-notes are swift enough to be perceived as single notes.

Articulation in the fugue is a light quasi legato for all 16th-notes and a not too heavy non legato for all eighth-notes and longer notes, with the exception of syncopations. The *Urtext* of the fugue in C minor does not contain any ornaments.

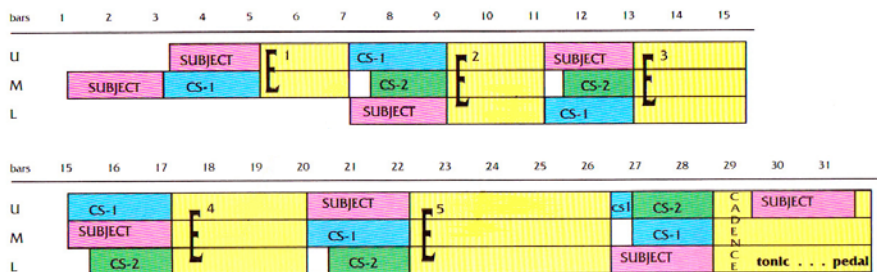
Design indicators are particularly eloquent in this fugue. The entering order of the voices shows an exact repetition: middle voice, upper voice, lower voice, and upper voice in both mm. 1-13 and 15-31. Moreover, there is a striking symmetry between the linking episodes in both halves of the fugue: E4 is a variation of E1, E5/1st half is a transposition of E2. This twofold symmetry overlaps artfully insofar as the corresponding episodes do not link corresponding voice entries. The result is a design that, on one of the two levels, relates the unaccompanied first subject statement to the homophonically accompanied last one—a truly ingenious plan.

subject in M		
subject in U	-----	subject in M
E1		E4
subject in L	-----	subject in U
E2		E5
subject in U	-----	subject in L
E3		E6
		subject in U

The harmonic progression in this fugue leads from C minor to the relative major key, E \flat major (in the fourth subject entry), but returns to the home key very soon thereafter and never leaves it again.

The last two-and-a-half measures appear as a coda: the final cadence has already taken place, the bass is limited to an extended tonic pedal note, and the middle voice does for once not take up the counter-subject or sound any other polyphonically independent line but accompanies the final statement in strict homophonic style. Moreover, these measures sound in voice splitting, i.e., they abandon the original three-part setting and split—into an octave (L pedal) and into chords or double notes (M).

Here is a sketch showing the design of the C-minor fugue:



The dynamic tension curve in the first section shows a gradual increase through the first three entries, caused by the buildup of the ensemble and the increasing gesture of the first episode. There follows a slight decline during the second episode and in the fourth entry, which is not only redundant but also sounds in the major mode, thus appearing more relaxed than the original minor-mode version. As this fugue is not dramatic but rather cheerful and dance-like, the rising and falling dynamic developments in this first section are not particularly strong. The second section repeats this dynamic pattern: the first three subject statements, including the episodes linking them, increase very smoothly. (The second of these episodes, E5, begins by decreasing tension before it “realizes” that this is premature and that there is one more entry to come in the buildup.) The cadential close after the second section’s third entry brings the tension release, so that the redundant entry, coinciding with the coda, sounds like a softer afterthought.

The relationship between the two sections is one of enhanced repetition. The second section sets out in a more involved way with its first subject statement accompanied by both counter-subjects. The episodes are longer, thus creating a higher degree of anticipation for the next subject entry. The final entry, in its detachment from the fugue’s polyphonic texture, may depict more of a retreat than the last entry of the first section, which appears lighter mainly because of its changed mode.