Additional Information

1.1 What features in your piece help you determine the prelude type?

Music is often defined as a sequence of sounds arranged chiefly on three levels: the horizontal, the up and down in a tune, called pitch pattern; the vertical, where several pitches coincide thus forming harmonies; and the temporal, with longer or shorter, regular or irregular time spans from the beginning of one tone to that of the next, called rhythm.

Each of these levels is usually carefully organized. The horizontal level contains melodic units, phrases, and sections; this is what we are after when analyzing structure. The vertical level distinguishes the ways in which simultaneous tones relate to one another, defining harmony and texture. Finally, on the level of time, the multitude of rhythmic values is packed into measures of usually equal length in an orderly way, with a definite hierarchy between their beats; this is called metric organization.

Although any piece of music will feature most if not all of these components, composers usually seek particular expression of their artistic idea by molding these components so that a certain design is recognizable. For such a design there is one basic choice to make: does he want to compose along the lines of a standard model that can be recognized as such, or does he prefer his piece to sound more like a spontaneous improvisation?

In the case of established structural models there are certain rules by which composers must abide: dances are defined by certain metric and rhythmic features, canons by a specific texture, sonata form by a particular sequence of material, etc. In the case of a composition put together more like an improvisation, they may choose one or two of the six components mentioned above and shape their piece primarily according to these. In a prelude, i.e., in a composition carrying a title that does not reveal anything about the content of the piece, discovering this determining force is therefore of vital importance for both listeners and interpreters.

a) Preludes determined mainly by harmonic processes

Whenever melody and rhythm are negligible or neutral, harmony is the ruling factor. This rule of the thumb sounds simple enough. But are melody and rhythm not always present?

Of course that is true. Yet, while rhythm is never actually "absent," it can be described as neutral if all rhythmic values are of the same length, or if different note values in different voices are arranged in such a way that their combined pattern amounts to completely regular motion. (This is called "complementary rhythm.")

Similarly, pitch will of course never be absent, but it does not necessarily form melodies. A broken-chord pattern, whether created by a single line or jointly by complementary voices, is not primarily a melodic feature. (It could turn out to be melodic—as it often does in themes of the Viennese Classical style—if it gives way soon enough to a more lyrical continuation. However, if the same broken-chord pattern continues for many measures, these will be judged as lacking genuine melodic features.)

b) Preludes determined mainly by motif or figure development

Motif is the term for a small melodic unit that is individual enough to be immediately recognizable when it recurs. (By common consent, such a unit is only called a motif if it does appear more than just once.)

Figure is the term preferred whenever such a unit is "unsingable," i.e., with a rhythm so fast or a pitch pattern so unmelodious that, while we might recognize it as a whole, we may not necessarily become aware of each single detail contained in it.

We speak of development whenever such a unit is taken up repeatedly and under varying circumstances, prompting it to adjust some of its features. A composition should be described as "determined mainly by motivic development" if its material relies predominantly on a (usually small) number of motifs, i.e., if, in a major portion of a piece, there is always at least one voice that derives from those melodic units.

c) Preludes adhering to the principles of "invention" or "fugue"

Both invention and fugue are standard structural models that commonly appear bearing the corresponding headings. Yet a prelude, whose title leaves it undeterminable in form and texture, can be composed in such a way that it abides by the rules of either of these models.

How can we distinguish between "motivic development" and these established forms?

- Whenever a prelude is conceived as a strictly contrapuntal composition (i.e., in a texture of two or three voices all of which are independent from each other and all of which are continued consistently throughout the piece); and whenever it relies mainly on one melodic idea, then it is probably either an invention or a fugue.

- If we wish to investigate further, how can we distinguish between the two models? In both cases, the "main idea" may occur accompanied by a companion or "counter" idea; in both forms, the "main idea" may retreat for a while and then return. We are therefore looking for other features that might aid distinction.
- If the "main idea" enters in all voices successively, and if these imitations begin alternately from the tonic and the dominant, we can speak of a fugue. This is particularly the case whenever there are counter-subjects that, like the subject, wander through all voices. (Where a "prelude in the style of a fugue" usually differs from a real fugue is at the beginning: instead of setting out with an unaccompanied subject statement it will introduce its main idea surrounded by a few harmonizing notes or chords.)
- If none of the above-stated conditions is given, we can speak of an invention. This is particularly the case whenever the "main idea" appears not only in imitation but also in sequence.

d) Preludes determined mainly by rhythmic patterns

There are preludes that seem determined by a few small units of a particular kind. These units retain their rhythm but constantly change pitch, so that one may define the composition as being based on rhythmic patterns. Consequently, it is this little repertoire of rhythmic models which should find its way into the listener's memory.

e) Preludes determined mainly by metric organization

Whenever a piece appears determined mainly by its metric features, we can be sure that it is meant to convey a certain undefinable atmosphere rather than the impression of an intricate play with structures or material development. In such a piece there will be a regular pulse (or any very simple, fairly monotonous variation on this pulse) dominating everything else.

Such music was traditionally used (and is still being used in this way in many non-Western cultures) to instill in the audience a meditative mood, if not to create a mesmerizing effect in the listener's mind. In the context of western music, such a meditative piece often precedes a composition that its author regards as too profound to be grasped by an unprepared mind. The metrically-determined prelude thus serves to relax listeners and empty their minds of too much activity.

1.2 What factors determine the overall design of a prelude?

Every piece of classical music is horizontally structured, i.e., it consists of several sections, each of them determined by a completed harmonic progression. Simple forms, like some dances and songs, are often made up of two halves that are more or less analogous ("binary"). Others feature a kind of frame around a contrasting center: A B A ("ternary"). Such pieces characteristically show repeat marks indicating the boundary between A and what follows. Conversely, preludes are more typically designed as a chain of phrases. Their length tends to be more irregular than in simple forms where patterns with an even number of measures are preferred.

a) Where does the first section end?

When trying to determine the first structurally relevant cadential close, one is looking for a dominant (V) leading into a tonic (I). This combination should be preceded somewhere by a chord on either IV or II. While the dominant may sound with various additions to its triad (e.g., with a seventh or a ninth) and may even sometimes appear without its root (vii^7), the tonic is less volatile: it never lacks its basis and is not normally spiced with additional notes.

Whether the first cadence closes a separate structural section or serves only as an introduction to a larger portion depends on the melodic design up to this point. This can be easily determined by considering the following:

- If the first cadential progression supports a single melodic unit that is complemented by an "answer" in the following measures, a more encompassing structural portion must be assumed.
- If melodic design is either absent or arbitrary, the first cadence qualifies for the closure of an independent structural section. (Exception: In cases where one of the main voices—the top line or the bass—fails to take part in this initial phrase, either by pausing or by sounding a pedal note, and thus suspends the real beginning, a larger context is also implied.)

b) The second cadential progression

The second cadential progression in a piece usually departs from the work's home key toward a new tonal center that will again be confirmed by a perfect cadence. This modulating passage is nearly always more prolonged than the initial harmonic progression. Its end usually marks the conclusion of a structural section, irrespective of the function of the previous cadence.

c) The sections

The number of structural sections in a prelude is theoretically not restricted, although it is rare to find more than six. Their boundaries are always delineated as described above: a conclusion in the harmonic progression coinciding with a conclusion in the melodic line if there is one.

d) What exactly constitutes a "structural analogy"?

Structural analogies recall the simpler binary and ternary designs and are therefore a very popular building principle in preludes. Analogies may consist of as little as two or three measures but may extend to the length of a complete section that is in some way recapitulated.

The simplest, but also least frequent, manner of creating an analogy is by literally repeating several measures. More ingenious and more widely used are variation, transposition, and correspondence.

- In variations, several measures recur with modified features. Various details may be altered: One or several of the voices may be written in a more elaborate pitch and/or rhythmic pattern, the leading line may be given to another voice, or an accompanying voice may change its pattern. The features that will always remain the same in literal variations are the key, the overall harmonic progression, and the length of the segments.
- Transpositions in their simplest form keep all the original details intact but merely transfer them to a new tonal environment. If there are, in addition, more than arbitrary changes in the details, we would speak of a varied transposition.
- In correspondences, the structure recurs in principle rather than literally. The surface changes may be so considerable as to make it difficult to spot the analogy at first sight. For a good understanding of the structure, however, correspondences are just as important as other analogies, not least because they are much more frequent.

Imagine the following structural pattern in an early section: "two-bar model with sequence + modulation to a new key + cadential close with two-bar closing formula." Let us assume that the segment recurs analogously at a later stage of the piece, initiated by a different two-bar model with its sequence, that the modulation takes an extra measure to get to where it is heading, and that the closing formula, although of equal length, features a different melodic design in the treble. This is a subtle way of creating correspondence—and very rewarding to detect. Understandably, such analogies only make sense if the surface design—pitch pattern, rhythm, and texture—is neutral enough to draw sufficient attention to structural processes.

1.3 How do you express the character of the prelude?

a) What features help in determining the prelude's basic character?

The character of a composition (often called the "basic character") is conveyed through its material. Determining this basic character may at first seem a difficult task since Bach's scores contain almost no indications of dynamics, touch, articulation, or tempo. There are few exceptions in the *Well-Tempered Clavier*. Single wedges and slurs occur occasionally (see e.g., the subject of the D-minor fugue in vol. 1), and tempo is indicated three times (both the B-minor fugue in vol. 1 and the G-minor prelude in vol. II are marked *Largo*, while the B-minor prelude in vol. II is *Allegro*.)

In the absence of verbal hints we must assume that musicians of Bach's era were capable of deducing the character from information contained in the music itself—i.e., from rhythmic patterns and pitch design. If we try to put ourselves in their shoes, we must therefore ask: what kind of rhythmic and intervallic structure distinguishes a rather calm character from a rather lively one? The answer is simple enough and worth remembering: In pitch, a predominance of steps or leaps distinguishes the contrasting characters: leaps are regarded as more energetic, stepwise motion as more emotional. In rhythm, the distinction is between simple and complex features: a complex rhythm requires time to unfold whereas a simple rhythm invites virtuosity and might even sound less interesting if played too calmly. The rule of thumb is therefore:

*A predominance of stepwise motion and a complex rhythm indicate a **rather calm** basic character.*

*Frequent leaps and a fairly simple rhythmic pattern indicate a **rather lively** basic character.*

Once you have established the basic character, you need to translate this fairly abstract concept into practical performance features. Here are some hints for conclusions to be drawn regarding tempo and articulation:

- Whenever the material of a composition represents the rather calm basic character, the tempo can be anywhere between moderate and very slow. The general articulation is legato. Exception: cadential-bass patterns and consecutive leaps (i.e., more than one leap in a row) require non legato.
- Whenever the material of a composition represents the rather lively basic character, the tempo can be anywhere between moderately flowing and very fast. The appropriate articulation is a crisp legato (also called quasi legato) for the shorter note values and non legato

for the longer values. The main exception in the longer values: an appoggiatura is always inseparably linked to its resolution, and the keynote / leading note / keynote (do–si–do) formula is always legato.

Longer notes in a rather lively piece need further specification whenever we are dealing with notes prolonged by a dot or tie. While these are certainly "longer," they are detached only where the prolongation itself (i.e., the value of the dot or tie) is of "longer" duration. If the time value of the prolongation equals one of the "shorter" notes in this composition, the note will be linked to the following one in quasi legato. Thus in a composition where non legato quarter-notes and quasi legato eighth-notes are a rule, a half-note prolonged by a dot or tied into a quarter-note would be detached from the following note; but a note of any value prolonged by an eighth-note tie would not be detached.

b) How do you make decisions regarding ornament realization?

Ornaments in polyphonic compositions of the Baroque era are, more often than not, decisive features in the material they embellish. Their convincing execution depends on a smooth beginning, a speed that relates to the rest of the piece, and an appropriate ending.

The most common ornament in Bach's fugues is the long trill, indicated by one of several symbols: the abbreviations *tr* or *t*, the mordent symbol, or one of the signs for compound trills. Here is how the long trill is played: In keeping with the basic rule for ornaments in this epoch, it begins on the upper neighboring note. However, there is a very frequent exception: Whenever the trilled note is approached stepwise, i.e., whenever the main note is preceded by the interval of a second from above or below, the trill begins on the main note. Another exception, albeit much less frequent, applies whenever an ornament decorates the first note of a phrase (see e.g., the initial note of the G-minor prelude from vol. I). In this case, too, the ornament begins on the main note. The speed of the shakes is related to the general motion in the composition in such a way that the value of each ornamental note is preferably twice as fast as that of the fastest note values that do not qualify as written-out suffixes.

While trills beginning on the upper neighboring note enjoy regular motion throughout, those launched from the main note and therefore comprising an uneven number of notes hold the first trill note for the duration of each of the following two-note shakes, in such a way that all further upper auxiliaries fall on the stronger pulses within the trill, thus evoking the effect of a long appoggiatura.

Whenever the note following the trill is its harmonic resolution and falls on a strong beat, the end of the trill should be prepared ("announced") with a suffix, i.e., a turn to the lower neighboring note and back to the main note. Conversely, no suffix is desirable if the resolution appears too late, too early, or not at all. The first case happens if the trill is prolonged with a tie; in this case the shakes must stop short on the last main note before the bar line, so that the tie can be fully appreciated. The second case occurs in dotted note patterns; here the shake ceases preferably shortly before the dot. Finally, if the trill is succeeded by a rest or a leap not providing harmonic resolution, the shake should continue up to the very end of the ornamented note value, ending again on the last main note.

Any ornament appearing in the subject or one of the counter-subjects must be regarded as integral to this component of the thematic material. Regardless of whether or not the composer repeats the ornament symbol in each recurrence of this component, the performer should retain such a trill throughout the work (provided the subject or counter-subject does not appear in drastically modified shape).

1.4a   How do you deal with preludes determined mainly by harmonic processes?

Harmonic progressions and the development of dynamic tension

When trying to find a valid interpretive concept in pieces determined primarily by harmonic processes, the basic facts to be considered are the tension generated by each of the chords and the dynamic process in consecutive chords. There is a simple rule for defining such relations:

- The tension increases with every active step, i.e., with every step moving away from the relevant tonic.
- The tension decreases with every passive step, i.e., with every step moving toward a resolution.

Thus, in the simple harmonic progression with a perfect cadence, the subdominant chord (or its substitute) as the active step represents the highest harmonic tension, the dominant chord with its clearly determined tendency to resolve follows with less tension, and the tonic is most relaxed. This natural design is enhanced whenever a function appears as a seventh or ninth chord: a IV^7 carries even more tension than the simple IV; a V^7 tends even more strongly toward its resolution. Last but not least, the degree by which the harmonic tension (and with it, the dynamic level that depicts this tension) increases is related to the harmonic step's "audacity."

Secondary features

Beyond these basic considerations of chordal relationships there are two secondary features that must be given special attention since they will regularly repeal the rule mentioned above: the sequence and the pedal note.

The term sequence describes the process by which a model—this can be a melodic unit or, in the case of a harmonically-determined work, a group of chords—is repeated once or several times on different pitch levels. In such a case, the primary dynamic process is always established in the model. The sequential groups must follow the same pattern, or else the relationship would not be comprehensible. The model thus sets an example that will be observed in each sequence, regardless of the actual harmonic relationships there.

The pedal note also creates a law of its own. In the majority of cases, it comes as a bass note, usually entering on the dominant of the home key, which is sustained (or, more common on instruments other than the organ, reiterated) for several measures while the harmonies made up by the other voices sound reluctant to surrender to the truth that the piece is soon to come to an end. Pedal notes have their roots in Baroque organ music. Yet while a sustained or reiterated note on the organ will objectively maintain a constant dynamic level, subjectively or psychologically it will work its way ever deeper into the listeners' consciousness. This is the reason why a basically simple event—that of a sustained or reiterated note—insinuates a gradual, smooth but persistent increase of tension.

Finally, any truly melodic event overrules the processes of chordal tension in pieces determined by harmonic relationships. If a melodic unit, however small, has enough character of its own, it may create motions that are momentarily independent from the underlying harmonic process.

1.4b How do you deal with preludes determined mainly by motivic elements?

The relevant motifs, their character and dynamic design

Finding the motifs on which a piece is built would seem fairly easy. However, their scope should be determined carefully to guarantee a correct idea of structure and phrasing.

Remember that the beginning of a motif may occasionally be varied in subsequent entries. The ending may also include some pitfalls: on the one hand, the final note may feature various versions that all belong, as a rhythmically necessary element, to the motif; on the other hand, notes

repeatedly succeeding the motif may be no more than an extension—and thus not generate anything of their own. They may not belong to the motif at all, and should then be clearly distinguished in color and/or phrasing.

The basic character of a motif results from the same characteristics as in all other polyphonic compositions in this style: A predominance of stepwise motion (interrupted, if at all, only by a "high tension interval") evokes a rather calm basic character; so does a complex rhythmic structure with a variety of note values, including syncopations and/or dotted and tied notes. Conversely, frequent leaps of a fourth or more and broken chords as part of the motif indicate a rather lively basic character; so does a simple rhythmic structure. Spelled-out ornaments are another indicator for "lively" basic character.

Within each motif or figure, any of the following details can trigger a rise in tension: an active harmonic step, an appoggiatura, a leading-note, a high-tension interval, and a syncopation or other outstanding rhythmic feature.

As far as the development of motifs or figures is concerned, the most frequent processes are
  • the sequence (a unit is repeated on a different step of the scale, usually with some of its intervals adjusted),
  • the imitation (a unit is repeated in another voice),
  • the inversion (a unit sounds upside down), and
  • the partial sequence, varied sequence, or extended sequence (the original idea or a recognizable fragment of it recurs, changed in shape and/or length).

The overall expressive value created by each of these processes can be described by another rule of the thumb: Rising sequences usually cause an increase of tension while falling sequences cause a decrease. Imitations, variations and inversions have in themselves no influence on the increase or decrease of intensity. Stretto formations and parallels represent heightened emotional intensity. Abridged and extended sequences tend to represent a loosening of the grip of tightly organized material, thus a relaxation.

The development of tension

For the overall dynamic design, you would consider similar factors as in a fugue. The development of tension is determined above all by the density of prominent material. This density can be achieved horizontally or vertically. (For more details refer to the discussion under point 2.7 below.) Another factor is the change of mode or, rarely, the change of character owing to inversion.

1.4c How do you deal with preludes
that follow the outlines of an invention or a fugue?

If you find that your prelude shows the determining features of a fugue, please refer to the information provided below (paragraphs 2.1-2.7). Most of the information found there also applies if your prelude is an invention. However, the following differences between the two standard models exist, in terminology and in design.

The "main idea" of an invention is commonly not called "subject" but "motif"—although any term will of course serve its purpose in furthering your understanding. The rules concerning an expected order and grouping of entries in a fugue do not apply to an invention. After the initial motif has been stated at the outset of the composition (with or without any accompaniment), there will be a number of sequences and imitations. The motif may subsequently be shortened to a less individual figure or modified to engender new combinations of its two halves. It may or may not give way to secondary motifs. In the course of this neutralizing process, it will modulate to either its dominant or, if the home key is in the minor mode, to its relative major key, and come to a transitory halt in a perfect cadence. The second section of a "prelude in the style of an invention" will begin in this new key, often re-exposing the material in a way similar to that heard at the opening of the piece, but frequently by inverting the voices. After this, almost any continuation seems acceptable in terms of structure if we take Bach's own two- and three-part inventions as a guide. With regard to the material accompanying the main motif, too, everything is possible—from notes or chords representing nothing but a harmonic pattern through simple quasi-independent yet not very individual lines and up to counter-motifs with all the characteristics of what would be the counter-subject in a fugue. Even stretto imitations, although infrequent, may occur.

1.4d How do you deal with preludes
determined mainly by rhythmic patterns?

Rhythmic patterns can be thematic in a way similar to motifs: whenever a particular sequence of note values is significant enough to be easily recognized, independent from other sequences, and repeatedly taken up, we speak of a rhythmic pattern. It should usually come in varying pitch arrangements or we might just as well identify it as a "motif." Furthermore, the sequence of note values combined to a rhythmic pattern is typically

determined by two factors: by its metric position (i.e., it may begin on a downbeat or be conceived as from a weak to a strong beat), and by its length. If both the metric position and the length of two patterns within a composition are identical, we call them interrelated.

The means of development that composers may use when playing with these patterns are basically the same as those used for melodically determined motifs: variation of detail, inversion, abbreviation and extension, augmentation and diminution, stretto and parallel. Tension build-ups and relaxations are initiated mostly by either the pitch level of such sequences (rising sequences increase tension, falling sequences diminish it) or by the density of the texture. Moreover, dynamic climaxes can also be created by features beyond the main rhythmic patterns, especially by an unusual harmonic step.

1.4e   How do you deal with preludes determined mainly by metric organization?

Compositions perceived as determined by their metric organization feature a dominant pulse. The dominant pulse can be any note value other than the fastest one appearing in the piece. You can usually find it by checking whether any of the other rhythmic values is omnipresent or at least strikingly constant in one of the secondary voices, or whether it is given additional emphasis by double stems. (Thus if the first note in each group of four sixteenth-notes is stemmed in two directions indicating the participation in a second voice, the pulse of the piece is most likely one of quarter-notes.)

The secondary features beyond this pulse include, above all, melodic lines, harmonic progressions, and texture. These are also the only elements that can bring about tension buildups. Climaxes, however, tend to be fewer and more gradually prepared than in other pieces, which it not surprising in view of the meditative mood these compositions generally seek to convey. Particularly in pieces with a quarter-note beyond 16th-note structure, as described above, the ornamental nature often allows the piece to flow without too many ups and downs in intensity.

2.1 What exactly is a "subject"?

"Subject" is the term used for the leading idea of a fugue. This idea is always introduced at the very beginning of the piece. At this opening, it regularly appears unaccompanied, i.e., there are rests in the other voices so that the listener can gain a distinct understanding of this most important component of the thematic material. Throughout a fugue, the subject sounds many times. These appearances are called "statements," "subject entries," or "entrances."

a) How long is the subject?

If we compare the musical language with the verbal idiom, as we do when we talk about "statements," the structure of a musical phrase would have to meet a corresponding set of requirements as does a verbal phrase. In any complete sentence, we expect a certain number of components without which the message would appear incomplete. And while there are many ways in which a clause may begin, we usually expect it to end with a full stop. Corresponding processes determine a musical phrase—here: the subject. A subject can begin at any point in a measure. When interpreting a fugue it is worth establishing whether the beginning falls on a weak or strong beat (or between beats) because this will influence the character of the entire piece. While the melodic details in a subject abide by no rule (just as the choice of words in a sentence is not prescribed), the functions these melodic steps represent in terms of the harmonic progression follow a certain order (as would the grammatical components of a clause). The equivalent in music to a full stop in language is the perfect cadence. The conclusion of a complete musical phrase—such as the subject in a fugue— is therefore represented by the harmonic resolution from dominant to tonic (from V to I). In addition, the metric position may play a certain role. While the conclusion of a phrase could theoretically fall on any beat, subject endings on a strong beat are strikingly more frequent than extensions into weak beats.

If you have always determined the end of a subject by comparing its first entry to two or three later ones ("how many notes remain the same?"), you should know that this method is not entirely safe. The final note may be varied in later entries, as happens frequently when an original ending on the third degree is eventually replaced by a conclusion on the keynote. Another pitfall: the notes immediately following the end of the subject without actually belonging to it may appear similarly after some of the later statements and thus mislead you.

b) What is a phrase, and what are sub-phrases?

Continuing our comparison of a phrase in music with a clause in verbal language, we can state: Just as a sentence may consist of a single clause or contain sub-clauses of different order, so can a musical statement be of simple or more complex structure.

The existence of sub-phrases can most often be detected by looking for one of the following three features: sequences, changes in pitch level, and changes in rhythmic pattern. It also helps to think of singers or wind players. If they would breathe somewhere during the course of the subject, then this is most likely the point of "phrasing."

Whenever a subject consists of a single indivisible phrase, the musical tension unfolds in a single, unbroken rise and fall. Whenever a subject contains sub-phrases, its message is only correctly conveyed if the musical line is structured.

Generally speaking, a fugal subject is always conceived as a unity: a oneness. Thus even if it does consist of several subsidiary units, these should not appear as equal in importance or as rivaling segments. Instead, a subject will always have one predominant center: the focusing point or climax. In a structured subject, this climax may either be reached in several consecutive sweeps each of which brings about higher dynamic tension, or the resolution of tension after the climax may occur in several gradually descending curves. In other cases, a "main clause" is preceded or followed by a "prefacing thought" or an "afterthought."

c) When you report the subject's pitch outline, what are you looking for?

The pitch outline in Baroque polyphonic pieces usually fits in one of two categories. There may be a predominance of small intervals combined with only an occasional, single "high tension" leap. High-tension intervals include the minor sixth, the minor seventh, the tritone (augmented fourth / diminished fifth), and the diminished fourth. Alternatively, the pitch contour may feature a variety of intervals including several larger leaps and occasional broken-chord patterns. In this context, groups of shorter note values often represent written-out ornamental figures, particularly mordents, turns, and inverted mordents.

d) When you analyze the rhythmic pattern, what are you looking for?

The rhythm of polyphonic compositions can be roughly grouped into two categories: Its pattern may be simple, featuring two predominant note values in the relevant material, or it may be more complex, including a variety of note values, dotted and tied notes, and syncopations.

e) What is most important in a harmonic progression?

When asked to examine a subject's harmonic background you can proceed in two ways: you can either limit yourself to the essential details you know to be relevant to the buildup and decline of dynamic tension, or you can thoroughly analyze each harmonic step underlying the phrase. As the second option is fairly complicated and needs some experience, let us begin with the first. There are actually only two "essential details" in a harmonic progression. Ask yourself: Where is the active harmonic step— that is the step from the tonic chord to the subdominant or its substitute, i.e., I–IV or I–ii? Look out for any conspicuous fourth or sixth degrees of the scale. (In C major, e.g., you would try to find any F or A falling on a strong beat or on a syncopation.) Ask yourself further: Is this active step followed directly by the passive step V–I (dominant–tonic), or is there a modulation to another key? In the case of a modulating subject, you will find a raising accidental suddenly cropping up, most often before the fourth scale degree. If the initial, unaccompanied statement of your fugue's subject shows a sharpening accidental (i.e., an additional sharp in any key signature with sharps, or a natural neutralizing the final flat in any key with flats) then this is where the shift is taking place. In this situation, when determining the end of the subject you are not looking for your original tonic chord but for the tonic in the new key. (This is almost always the dominant.)

In case you choose the second option and decide to undertake a more detailed analysis, here is some help: Most subjects are built on the steps of a simple progression, i.e., on tonic / subdominant / dominant / tonic in the setting I IV (I) V I or I ii (I) V I; you would therefore do best to take note of those chords first. (In C major, these would be: C-E-G, F-A-C or D-F-A, G-B-D, C-E-G.) Now identify in your subject all those notes that fall directly on a beat and determine their harmonic background. You will realize that, apart from the first and fifth degrees of the scale (i.e., C and G in C major), all notes can be clearly attributed to one of the harmonic steps.

The following peculiarities should be noted: The dominant often appears as a seventh chord (e.g., G B D F). The basic progression may appear harmonically ornamented; in this case, a function builds something like a "harmonic inverted mordent" with the chord normally preceding it, e.g.: [I-V-I]-IV-V-I or [I-IV-I]-IV-V-I. And in a minor key cadence, the tonic and the subdominant (i + iv) are in the minor mode. The dominant, however, uses the notes of the harmonic minor scale, particularly the leading note. It is thus regularly a major chord and will therefore feature an accidental (e.g., in C minor: C-E♭-G, F-A♭-C, G-B♮-D, C-E♭-G).

f) Which are the features likely to increase tension within a phrase?

Several features in the three areas of harmony, melody, and rhythm may contribute to heightened tension.

- Active harmonic steps: these are above all the steps from the tonic to the subdominant (I-IV) and from the tonic to the supertonic or the relative minor of the subdominant (I-II or I-ii).
- Appoggiaturas: these are notes that "withhold" or "delay" the melodic resolution into the main harmonic step. Whenever the unaccompanied subject seems to imply a change of harmony on a weak beat, it is wise to double check the harmonic background compared with that in later subject statements. You will probably find that the harmonic change occurs on the strong beat, but that a melodic note is purposefully lagging behind, thus creating extra tension.
- Leading-notes, particularly artificial ones: A natural leading-note is a degree of the scale that is a semitone neighbor to a tonic-chord note; it thus has a tendency to "lead" into it. (In a major scale the leading-notes are: the seventh degree, leading up to the octave, and the fourth degree, leading down to the third, e.g., B-C and F-E. In a minor scale they are: the harmonically raised seventh, leading up to the octave and the sixth degree leading down to the fifth, e.g., B♮-C and A♭-G.) Artificial leading notes are semitones created with the help of an accidental (e.g., in C major: F♯-G).
- High-tension intervals: these include above all the minor sixth, minor seventh, tritone, and diminished fourth.
- Syncopations or other rhythmic prolongations: these are deliberate distortions of the metric order in which a weak beat is prolonged (by a dot, a longer note value, or a tie) in such a way that it ingests the following stronger beat and with it, its accent.)

2.2 What is the importance of the subject in the fugue?

It has often been observed that it seems wrong to say a fugue "has a subject"; one should rather state that "there is a subject that has generated a fugue." The perfect little musical entity we call subject is in fact at the origin of the fugue. Its "companions" are dependent on it to the largest imaginable extent: were the subject any different, they too would not be what they are. The subject is responsible for the feelings of density and relaxation in the fugue, and it is the main force in creating structure. Whenever it rests for a while, its absence is distinctly felt.

Although this basic truth is valid in all fugues, the degree of impact exercised by the subject on its surroundings may vary slightly in each case. Some of the common constellations are: the subject can be spread regularly across the fugue and always be accompanied by other prominent musical ideas. Thus, although leading, it will appear as "one in a group." As the subject retreats momentarily, other characteristic motifs may develop. Thus, the subject may appear as the leader of one "team" that is contrasted with another (admittedly less important) "team" representing a different color. Last but not least, the subject may not have the same importance at all times but, e.g., demand more and more attention as the fugue develops. It may do so by presenting its statements in more powerful variations, or by appearing in several voices almost at once.

a) When you discuss the subject statements, what are you looking for?

A fugue may contain any number of subject statements. The twenty-four entries in the opening fugue of the *Well-Tempered Clavier* represent by no means the largest number. These statements are usually named after the voice in which they sound. The following conventions are practical:
- In a 4-part fugue, the established names for the voices are those of the vocal ensemble: soprano, alto, tenor, bass (abbreviated S A T B).
- In a 3-part fugue, using a selection from this 4-part combination would seem arbitrary. A good solution is to refer to the voices as upper voice, middle voice, and lower voice (abbreviated U M L).
- In the few 5-part fugues, the least problematic solution is to count them from v1 to v5 (i.e., from first or uppermost voice to the fifth or lowest voice. The attempt made by some analysts to retain the vocal terms by introducing alto I and alto II or tenor I and tenor II has led to lengthy arguments among scholars. Such a quarrel seems somehow quite beside the point, and the v1-to-v5 option may prevent further disputes.

b) What kind of changes can you expect to occur in the subject?

In the course of the fugue, the subject may appear in various guises. This is important to remember when trying to locate all the statements.
- One of its intervals may be modified to adjust to a different harmonic background. In many fugues, this is the case in the second and fourth entries, i.e., in the answer, the entries beginning on the dominant. An entry with such an interval adjustment is called a "tonal answer"—as opposed to the "real answer" in which all intervals remain unchanged.

- The end or the beginning of the subject (or both) may feature variations in pitch and rhythm. The most frequent modifications are prolonged or shortened first notes and delayed final resolutions.
- The subject may appear partly or entirely in rhythmic variation (e.g., showing dotted-note figures where the original was in regular motion) or in metric variation (e.g., beginning on a weak instead of a strong beat—or vice versa—and continuing slightly "off beat").
- The subject may appear upside down. This is called an "inversion."
- Finally, the speed may appear changed in such a way that all note values are doubled and the subject is twice as long. This modification is called the "augmentation." Also possible, although less frequent, are entries in "diminution" where the time value of all notes is decreased, usually by 50%, and the subject therefore takes only half the time it did originally.

c) What are "stretto" and "parallel"?

There are certain rules dictating the way in which subject statements follow one another. These are stricter at the beginning of the piece, perhaps to guarantee the opportunity for the listener to distinguish all aspects of the material. Thus in the first section of a fugue each voice is expected to wait for the conclusion of the previous statement. Only then is it allowed to launch a new entry. Later in the fugue, however, it may occur that a voice becomes "impatient" and embarks on a subject statement while another is still in the middle of it. This is called a "stretto"; it always indicates heightened tension. Strettos may occur between two or more voices, and between the original and varied statements of the subject.

As polyphonic compositions stress the independence of all voices, a "parallel" where the subject sounds simultaneously in two voices is a very special feature. If it does occur, a parallel statement indicates a very high state of exaltation. Like the stretto, it can also involve different versions of the subject.

Talking of grouped entries, a final means of intensification is the "repeated entry" in which one voice, after having stated the subject, does not give way to another voice but immediately launches the subject all over again. It usually does so either on a different harmonic step or by using any of the above-mentioned variations—as if to add a new side or aspect to its argument.

2.3 What exactly are counter-subjects?

A counter-subject is a more or less consistent companion to the subject. It may enhance the character of its leader or rival it. But, like a faithful companion, it is bound to the subject in such a way that it will not usually appear in its entirety while the subject is resting. Note that there are fugues in which a prominent musical idea is introduced only after one or more sections have passed, but will then sound both against the subject and on its own. In this case we are dealing with a "second subject." Occasionally you may even find a "third subject." Fugues featuring more than one subject are accordingly described as "double fugue" or "triple fugue."

In a regularly built fugue with only one subject, the first counter-subject will be introduced in the voice that launched the piece, accompanying the subsequent subject entry. Similarly, the second counter-subject (if the fugue features such an additional companion) can be expected to enter for the first time against the third subject entry. One possible beginning of a four-part fugue is therefore (S = subject, CS = counter-subject):

soprano:	–	–	–	S
alto:	–	–	S	CS1
tenor:	–	S	CS1	CS2
bass:	S	CS1	CS2	CS3

There are some, though not many, fugues with no counter-subject at all. This happens if the subject is so dominant that it does not accommodate any rivaling ideas. In other cases, a counter-subject may accompany only a few subject statements and then disappear, never to be heard again.

When trying to find out whether a line qualifies as a counter-subject, you should ask yourself the following questions:
- Does it recur? – A melodic detail that only sounds once will not be given a formal name.
- Is it independent? – A line that duplicates part of the subject in either rhythm or pitch pattern is not regarded as independent.
- Is it melodic? – A neutral scale segment or a melodically meaningless group of notes would not be recognized even if it recurs.

a) How can you determine the length of a counter-subject?

The length of a counter-subject will always roughly correspond to that of the subject. Where exactly it begins and ends can best be decided when comparing it with later appearances.

b) What phrase structure can you expect to find?

   The phrase structure of a counter-subject can vary considerably. We might find anything from an indivisible unit to multiple segments with sequences or other combinations of sub-phrases. Note particularly that the phrase structure of a counter-subject will often not coincide with that of the subject in answer to the demand for independence.

c) When determining dynamic tension, what features are you looking for?

   The development of tension represented in a particular counter-subject can be initially determined along the same lines as that in the subject. However, one important aspect to be kept in mind is that, given the request for independence, the climax of one will, in most cases, not coincide with that of the other. For performers, this is very important to remember. It is vital to play each element with dynamic independence, despite the seeming difficulty of the task. Parallel dynamic movements, although easier to perform, often make it hard if not impossible for listeners to distinguish the components in a polyphonic texture. This is a pity since "helping the audience understand" is the essential task of an interpreter.

d) What should a sketch featuring the phrase structure and the dynamic tension in the primary material of the fugue show?

   Sketches, though certainly rather tedious to draw, are an invaluable help for two reasons: designing them makes things clearer in your head, and the visual image is a much better guide during the performance than some intellectual concept.

- Write out the subject juxtaposed with all its counter-subjects, using a separate staff for each.
- If any part of the material does not consist of a single unit, add a little hook or tick after the last note of each sub-phrase.
- Now draw underneath each staff the opening and closing "hairpins" that in music represent the increase and decrease of tension.

2.4   How do you find the episodes in a fugue?

   The measures in a fugue where the subject is temporarily resting are called "subject-free passages" or "episodes." A good way of marking them is by numbering them throughout the fugue (E1, E2, etc.). Where their range is to be remembered on paper, "mm. 5-7" may sometimes be clear enough, whereas in other cases you may wish to specify "mm. 5_3-7_1."

a) How many episodes can you expect?

The number of episodes in a fugue is not restricted. Theoretically, there could be an episode after each subject entry, although this is not often the case. Also, there are quite a few episodes that, as can be gleaned from their material, consist of two or more distinct segments. In such cases composers will often use episode patterns that have been established earlier in the fugue. Whenever this occurs, special attention should be given to these episodes as such subdivisions are frequently important in the structural design of the piece.

b) When ascertaining the material of an episode, what are you looking for?

There are basically three types of episodes. The first type is directly related to the subject in terms of the material on which it draws. It uses the "head," the "tail," or another fragment of the subject, playing with it in patterns of sequence (same voice, different pitch) or imitation (different voice, any pitch). Such episodes are often closely linked to the preceding or following subject entry.

The second episode type is characterized by one or more unique motifs that set it distinctly apart from the main material. Such an episode motif is usually a short melodic figure that recurs several times and is characteristic enough to be easily recognizable. As with all material in a polyphonic composition, it can move through all the voices and may even be varied or inverted. The character of an episode motif is determined by the same features as that of the subject and its counter-subjects: by its pitch contour and rhythmic features. Motifs that are distinct in themselves and independent of the fugue's primary thematic material should sound in a coloring as different as possible from the main portions of the fugue.

The third episode type fulfills a different function. In some instances, the stretch of music between the end of one subject entry and the beginning of the next merely extends the subject's cadential close or adds one in another key. This type is often recognizable either by a typical cadential-bass pattern or a closing formula. Typical patterns for such formulas are:

c) In what way can one episode be related to another?

Episodes in analogous sections are often closely related. An episode may take up the material of an earlier episode literally, varied, transposed, or with inverted voices. It may add a voice to a thin texture, extend or shorten the material of an earlier episode, or develop it freely.

d) What are the possible roles of an episode in the development of tension?

An episode can establish three crucial relationships to its surroundings: it can link two subject statements by leading from one toward the next, it can be conclusive by resolving tension that was built up during a preceding subject statement, or it can represent a different register and serve as a color contrast. The contrasting type may contain independent episode motifs or motifs related to one of the counter-subjects.

2.5 Performance practice in Baroque polyphonic style

a) The basic character

The basic character of a fugue, just like that of a prelude, is conveyed through its material and follows the same rule of thumb: a predominance of stepwise motion and a complex rhythmic pattern indicate a rather calm basic character, while frequent leaps and/or broken-chord patterns, possibly combined with ornamental figures in the faster note values, and a fairly simple rhythmic pattern indicate a rather lively basic character. (You have already collected all the information needed under 2.1c and 2.1 d above.)

Let us assume that your performance already portrays most aspects of structure. How do you express abstract aspects like character, mood, and intensity in a way that every listener will be able to grasp? The predominant means by which a performer conveys character are: tempo, touch, and articulation. All three work together in shaping and shading the character. They may do so in different combinations but should obviously not set out to contradict each other. While touch may enhance slightly different nuances in each composition, tempo and articulation are directly connected with the basic character of a piece and can thus be determined more objectively.

b), d) Tempo, articulation, and ornament realization

For details regarding the adequate choice of articulation and the execution of ornaments, please refer back to the information on these aspects given in paragraph 1.3 on pp. 26-27 above.

c) How do you decide what relation to choose between the tempo of the prelude and that of the fugue?

All through the Baroque and Classical era, pieces of music that jointly form a larger work (i.e., the movements of a sonata or suite, or prelude and fugue, prelude and toccata, etc.) were conceived as being related with regard to their pulse. This concept is comparable to the much more familiar demand of a "rhythmic relationship" in architecture. Imagine a group of buildings constructed in the same style but to the order of different patrons and therefore with unrelated measures (height and width, angle of roof, pattern of windows and doors, etc.). Such buildings will appeal to the eye as individual houses, each of them a unit in its own right. A complex of related buildings, however—a castle, a temple district, or a similarly structured ensemble—will display a subtle yet very definite relationship between all its measurements.

As music unfolds in time, which is measured in pulsations, the equivalent factor of a "rhythmic relationship" is created by proportions of the pulses. For this purpose, any of the metric values in a piece of music can be used as a point of reference: the actual metric value indicated in the time signature, the larger unit of a half or whole measure, or the smallest note value appearing in the piece.

A tempo proportion is then created in such a way that one note value of the first piece relates to any value of the subsequent piece by being either equally, half, or twice as fast (1:1 /1:2 / 2:1), or three times as fast or slow. Even an implied but not actually sounding value, like the triplet fraction in a piece not featuring triplets, can be related to a pulse in another movement. This kind of pulse translation may be preferable particularly in the case of successive pieces of the same time signature and rhythmic organization, which might otherwise present too little distinction. To give a few examples (out of many possible ones):

The quarter-note beat of a fugue may equal
- a quarter-note in the prelude
- an eighth-note in the prelude
- a half-note in the prelude, etc.
- an entire measure in the prelude
- three eighth-notes / three quarter-notes / three sixteenth-notes in the prelude
- a virtual (imagined, not materializing) triplet eighth-note or triplet quarter-note in the prelude.

2.6   What determines the design of a fugue?

As you will have already found out, the subject statements of a fugue can appear immediately one after another, or they can be separated by episodes. Whatever the pattern, obviously these elements do not simply pass by as a shapeless, disorganized chain of events. On the contrary, Bach's fugues are all constructed with carefully balanced "sections." Since this design or structural layout is slightly different in each fugue and of vital importance for an understanding of the composition, it is useful to develop some secure method of analysis.

a) Which of the structural features are basic traits of a fugue?
   Which help to determine the particular design?
      Remember the nursery explanation of the structure of a fugue?
            It's like a conversation:
            • One speaker brings up a topic.
            • Friends pick it up one after another.
            • The "first round" ends once each person has added his or her
              view. At most, one of them may add a "summary remark."
              (In a fugue, this is called a "redundant entry.")
            • After a relaxation, with or without some contrasting talk,
              the discussion of the main topic resumes.
            In each consecutive round, these are the rules:
            • The minimum number of speakers is two. (A monologue is
              no conversation!)
            • Nobody should speak twice unless summing up a round or
              supporting another person's statement. (In intensifications,
              an additional voice may reinforce another without making a
              statement of its own. Thus "stretto," "parallel," or "repeated
              statement" are counted as one "group entry.")
            • The maximum number of speakers is again "all plus one"
              (e.g., with four friends it is $4 + 1 = 5$, one person being
              allowed to comment twice).
   This rule of thumb will almost always help to determine the length of the first section (or "exposition"). It often even enlightens the entire plan of the composition, with all its consecutive rounds. Concerning the number of "rounds," you can expect at least two. As for the maximum, there is no established rule. (There was a time when people, influenced by theories of the late nineteenth century, tried to detect a three-section structure in every fugue. Despite the fact that this has long since been unmasked as a misconception originating in sonata and ternary forms, these theories still seem to linger in some minds.)

As soon as each voice in your fugue has entered with the subject, the full ensemble is reached. However, while the "musical debate" relaxes (as in an episode) or embarks on a fresh start (as at the beginning of a new section), one of the voices often takes a rest. A subject statement that sounds accompanied by less than the full ensemble may therefore indicate the beginning of a new section.

Analogies in a fugue are not necessarily obvious at first sight, although some are. What is required is that a sequence of events (like a number of subject entries, accompanied by certain material, perhaps including an episode) recurs later in the piece in the same or a very similar order. This similarity does not refer to the position of the material in the ensemble; so the order may be the same with different voices being used to present the material—which is why some analogies are at first hard to find.

b) What do the harmonic features tell us about the design?

While a larger part of the piece will always appear closely related to the main key, there are usually passages that show a harmonic digression to either a different tonal area and/or to the opposite mode (to the minor-mode area in a major-mode fugue or vice versa).

To determine the harmonic background of a subject entry, it is best to look at both its beginning (i.e., the first two or three notes, to avoid misinterpretations in tonal answers) and its end. Subject entries within one section often appear in tonic / dominant / tonic / dominant progression. A change in this pattern is worth noting. Significant cadences are usually those that appear as obvious formulas or cadential-bass patterns outside the main material of the fugue.

c) How can you sketch the design of a fugue?

Such a design is usually sketched using a horizontal column for the measure numbers, corresponding horizontal lines showing the material sounded in each of the voices, and vertical columns for the juxtapositions. In the colored graphs included in this book, "bricks" of different shade and intensity represent subject and counter-subject entries, roughly like this:

mm.	1	2	3	4	5	6	7	8	9	10
S							S		epi-	
A					S		CS1		sode	
T			S		CS1		CS2			
B	S		CS1		CS2		CS3		(rest)	etc.

2.7   Which factors determine the development of tension?

The development of tension is the way in which the intensity, density, and dramatic vigor develop, between the first and the last note of the composition. Some fugues begin by presenting their material in a very condensed manner. Later, however, the subject takes frequent rests, appears in a weaker mode or in weaker surroundings (e.g., with the other voices resting or sounding neutral lines, instead of counter-subjects). In the initial sections of other fugues, the material is introduced in more of a matter-of-fact way. It is only after the exposition that more and more intensity starts building up. Yet other fugues are conceived along symmetrical lines, etc.

a) What do you take into consideration when trying to decide whether or not (and how much) the tension rises within a section?

The development of tension within any segment of the fugue is determined above all by the density of prominent material. This density can be achieved horizontally or vertically. Horizontally, a group of subject statements in which the entries follow each other without delay will create more urgency than scattered statements interrupted by episodes. Even more so, both the rare but very effective "repeated entry" and the subject "augmentation" invite special attention since the statement is doubled in length. Vertically, a subject entry that comes accompanied by characteristic counter-subjects in several voices creates more intensity than one that has only one serious contestant, or one that is surrounded merely by neutral lines. Particularly effective in the buildup of tension are strettos and parallel entries; they create an effect of breathlessness or of forces joined in battle.

b) When discussing how the sections of your fugue relate to each other in terms of tension, what are the relevant factors?

The way in which the sections within the whole composition relate to each other depends above all on the factors mentioned above: the density of prominent material and the harmonic progression. Note, however, that the minor mode does not always soften the character of the material, just as the major mode does not necessarily convert an introverted atmosphere into one more extroverted.