



# Definitions



# Definitions

- Joseph Kerman: "A fugue is a polyphonic composition for a fixed number of instrumental lines or voices -- usually three or four -- built on a single principal theme. This theme, called the fugue *subject*, appears again and again in each of the instrumental or vocal lines."

# Fugue as Form

- Two pieces of music called fugues may have little or no common form.

# Fugue as Form

- While some fugues may have certain elements in common, to think of fugue as a *form* in the same sense as ritornello, rondo, etc., is bound to result in difficulties.

# Fugue as Procedure

- ❧ A worthwhile classification is fugue as a *procedure* -- i.e., a way of treating musical material, but not implying any particular order of events.

# Fugue Subject

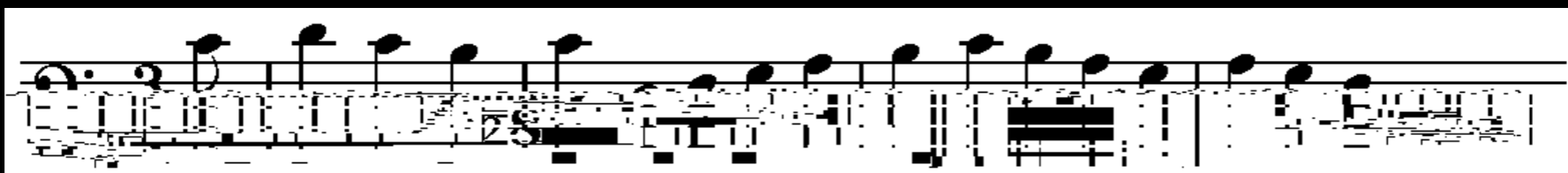
- The *subject* is the melody (or melodic pattern) which is developed polyphonically throughout the fugue.
- Typically it is the very first thing heard in a fugue.

# Fugue Subject

- ❧ Fugue subjects may stay in an original tonic, or they may modulate.
- ❧ This one distinction can have a significant impact on the working out of the fugue.



# Fugue Subject



# Fugue Subject

• Modulating

• WTC I: Fugue No. 7 in E-flat Major



# Answer

- The *answer* is the first entry of the second voice, at a pitch (or key) other than the original, usually the dominant.

# Answer

- The answer may be:
  - *Real*: this is an answer that is an exact transposition of the original subject.
  - *Tonal*: this is an answer which is different from the original subject by at least one note.

# Answer

- The creation of the answer is the first step in the construction of a fugue, and therefore is extremely important in the working out of a fugue.
- This also means that understanding the construction of the answer is critical to any intelligent analysis of a fugue.



- WTC I: 5. This answer is also a perfect fifth higher than the subject.
- Notice that this subject also ends on  $\hat{3}$ , just like WTC I: 1.

Subject



Answer







- WTC I: 9. The answer may overlap the subject by a few notes; it is not required that the subject completely finish before the answer begins.



# Codetta

- Extension of the fugue subject by a short linking passage. Whether this passage is a codetta, or just the end of the subject, requires studying the *entire* fugue before coming to any conclusions.

# Codetta

- WTC II: 10. The codetta frequently appears along with the subject and therefore could be mistaken as being an actual part of the subject. However, it *does not always appear as part of the subject*, which makes it a codetta, and not a part of the subject. Note also that the subject is harmonically complete without the codetta—it is clearly an extension tacked on after the subject has come to a satisfactory close.

The image displays a musical score for the first movement of the second book of the Well-Tempered Clavier (WTC II: 10). The score is presented in two systems. The top system shows the first staff with a treble clef, a key signature of one sharp (F#), and a common time signature (C). The music begins with a triplet of eighth notes (F#, G, A) followed by a series of eighth and sixteenth notes. The bottom system shows the continuation of the piece, featuring a prominent triplet of eighth notes (F#, G, A) and a long, sustained note (F#) that spans across the system. The score is rendered in black ink on a white background.



# Tonal Answer

- The primary reason for a tonal answer is to avoid modulation “death spirals” in which the fugue is trapped into nonstop sequential modulation.
- Tonal answers may be used when a transposition of the subject is otherwise awkward or musically unsatisfactory.

# Tonal Answer

- 1. Subject begins on the dominant; answer usually begins on the tonic and the rest of the answer is normally a real one.
  - WTC I: 11

# Tonal Answer

- 2. Dominant occurs among the first few notes of the subject; this one note is generally answered by the tonic.

d#: 1 5 6 5



a#: 1 4 6 5



# Tonal Answer

- Exceptions to the previous (a real answer is used instead)
  - a. The dominant occurs among the first few notes, but without emphasis (I:9):





# Tonal Answer

- Exceptions to the previous (a real answer is used instead)
  - b. The dominant occurs some distance from the beginning -- this is a matter of personal judgement (1:5):



# Tonal Answer

- ❧ Exceptions to the previous (a real answer is used instead)
  - ❧ c. A tonal answer would destroy the shape of the subject. This is typical of subjects containing a sequential pattern.

# Answering a Modulating Subject



The image displays a musical score with two staves. The top staff is a single melodic line in treble clef, starting with a key signature of two flats (B-flat and E-flat) and a common time signature (C). The first half of the staff is labeled "Subject" and the second half is labeled "Answer". The subject consists of a series of eighth and sixteenth notes, ending with a quarter rest. The answer begins with a key signature change to one flat (F major), indicated by a natural sign over the B-flat, and continues with a similar rhythmic pattern. The bottom staff shows a piano accompaniment with chords and bass notes, corresponding to the melodic line above.

Needless to say, this isn't likely to come up for you when you're analyzing a fugue -- at least we hope not!

# Answering a Modulating Subject

- The usual technique is to ensure that the answer returns to the tonic key.

Subject

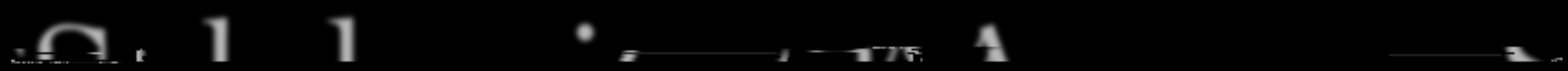
Musical notation for the Subject in G minor. The melody is written on a treble clef staff in common time. It begins with a half note G4, followed by eighth notes A4, Bb4, C5, D5, E5, F5, G5. A blue double-headed arrow above the staff spans from the G5 to the D5, labeled "Modulates to V". A blue bracket below the staff spans from the G5 to the F5, labeled "m2". The melody concludes with a half note G5 marked with a trill (*tr*).

Answer

Musical notation for the Answer in G minor. The melody is written on a treble clef staff in common time. It begins with a half note G4, followed by eighth notes A4, Bb4, C5, D5, E5, F5, G5. A red double-headed arrow above the staff spans from the G5 to the Bb4, labeled "Returns to I". A red bracket below the staff spans from the G5 to the E5, labeled "m3". The melody concludes with a half note G5 marked with a trill (*tr*).

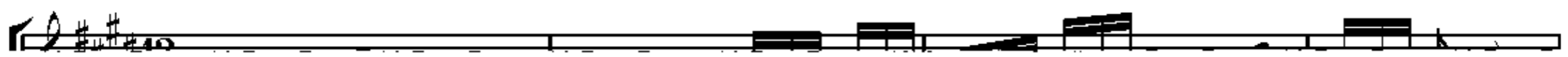


- ❧ It's possible for the answer to be in the subdominant instead of the dominant.
- ❧ Usually this occurs when a fugue introduces another subject into the middle section of a fugue; that subject will have a subdominant answer.

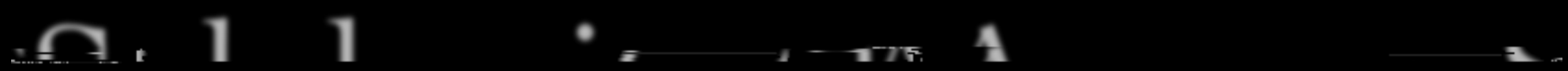


- II.4: Second subject enters at measure 36 and is answered in the subdominant.

Subject 1: Real answer at the dominant



- Subdominant answers of the *first* subject aren't found in the Well-Tempered Clavier (except *possibly* II.3, depending upon the definition of the length of the subject.)



- The Bach organ fugues contain a number of examples of subdominant answers.
- BWV 531 in C Major: the fugue subject descends downwards from the dominant, and thus an answer on the subdominant helps to avoid endless-fifths problems.
  - *In this recording, the organ is tuned slightly more than a half step high to modern pitch (common for the era).*



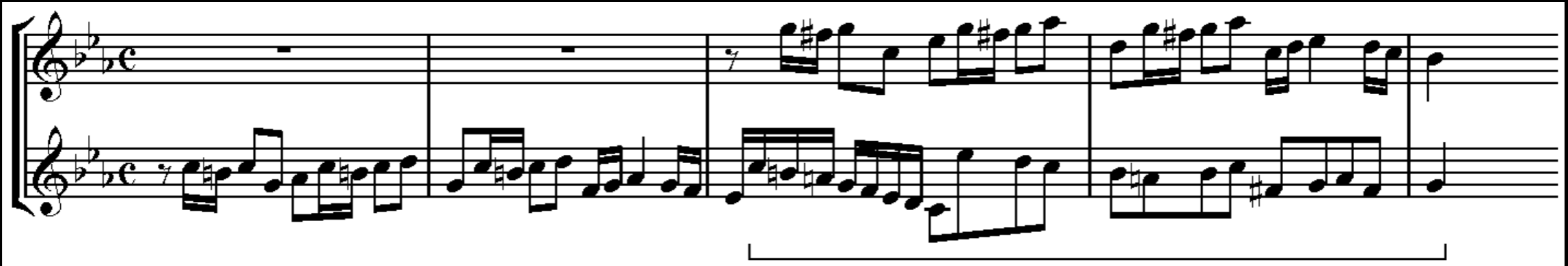
# Trivia: Pitch

# Countersubject

- Definition: the opening voice, having finished the subject, goes on to accompany the answer in the second voice with some form of counterpoint.  
*When this counterpoint recurs with other entries, it is regarded as a countersubject.*

# Countersubject

- Countersubject introduced in the exposition, and recurring after it.



# Countersubject

- Countersubject occurring in the exposition only.

# Countersubject

- ❧ Introduced after the exposition
  - ❧ a. In addition to the original countersubject
  - ❧ b. With no countersubject in the exposition
  - ❧ c. Replacing the original countersubject

# Countersubject

- Two countersubjects in the exposition
  - The “second countersubject” is only such if it recurs with later entries.

The image displays a musical score for three staves, illustrating two countersubjects (CS 1 and CS 2) in an exposition. The key signature is three sharps (F#, C#, G#). The first staff, labeled 'CS 1', begins with a treble clef and a key signature of three sharps, followed by a series of notes and rests. The second staff, labeled 'CS 2', begins with a treble clef and a key signature of three sharps, followed by a series of notes and rests. The third staff begins with a bass clef and a key signature of three sharps, followed by a series of notes and rests. The notation includes various rhythmic values and rests, with some notes marked with dollar signs (\$). The score is presented in a simplified, schematic style.

# Countersubject

- ❧ Fugues without a countersubject
  - ❧ Stretto: when a subject is designed specifically for stretto, so that this is the most important element in the fugue, then a countersubject could be a distracting element: I.1
  - ❧ The main subject is later combined with one or two subsidiary subjects: a countersubject in the exposition might prove to be a distracting element: I.4
  - ❧ Sometimes there are no countersubjects in the exposition, but they may begin to appear after the exposition.

# Countersubject

- ❧ A countersubject is written to fit the answer on its first appearance. If answer and subject are identical in shape, then there is no obvious need to alter the countersubject when it is used along with a subject entry.
- ❧ Even if the above condition is met, sometimes Bach will modify the countersubject anyway, to a greater or lesser degree, out of musical concerns.



# Countersubject

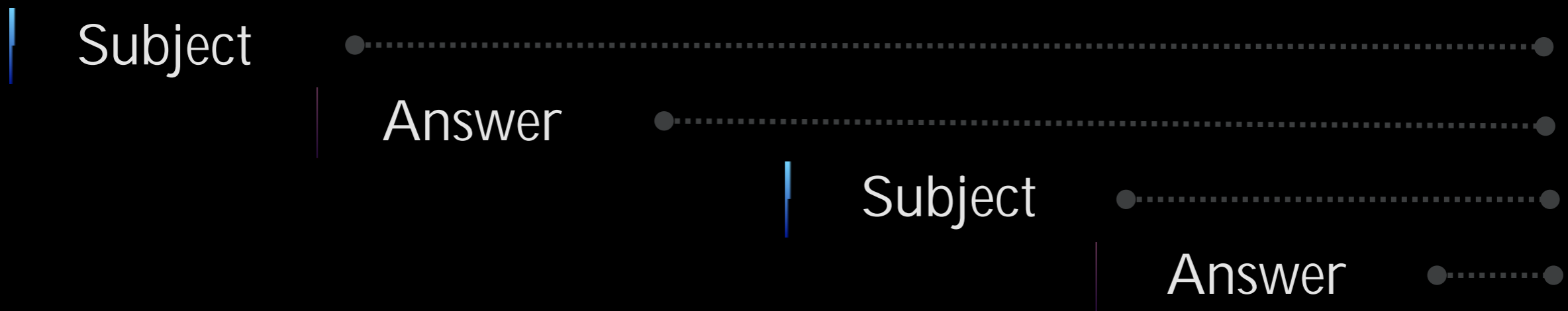
# Fugal Exposition

- Begins the fugue
- All the voices present the subject in an orderly, standardized way.



# Fugal Exposition

- Bach: Contrapunctus 4 from *The Art of Fugue*, subject entries only.



# Fugal Exposition

Subject

Episode

# Fugal Devices

- “Fugal devices” are techniques of varying the fugue subject.

# Fugal Devices

- Subject from *The Art of the Fugue*



# Fugal Devices

- Augmentation
  - The note values are lengthened (so the subject slows down.)

# Fugal Devices

- Diminution
  - The note values are shortened (so the subject speeds up.)

# Fugal Devices

- Inversion
  - Intervals reverse their direction: ascending becomes descending, and vice-versa.

# Fugal Devices

- Retrograde
  - The subject is played right-to-left, rather than left-to-right.

# Fugal Devices

- ❧ Retrograde Inversion
  - ❧ Combination of retrograde and inversion.
  - ❧ Sometimes called *cancrizans*.

# Fugal Devices

## • Stretto

- A statement of the subject in one voice begins before a previous statement has finished in another voice.

# Fugal Devices

- For fun, a treatment of the subject by subjecting it to stretto, retrograde, and inversion, all at the same time, in three voices.

# Fugal Devices

- ❧ Some of the devices originate in Renaissance counterpoint. In particular, *augmentation* and *diminution* were commonly used in the writing of canons.
- ❧ Canons in which one of the voices moves at different speeds from another is often called a *mensuration* canon.
  - ❧ The term comes from *mensural notation*, which was a predecessor of modern rhythmic notation.



# Fugal Devices

- The point in using fugal devices is to make the various statements work together contrapuntally -- i.e., to sound well together.
- If no care is taken to make sure that the various permutations of the subject fit together musically, then the use of the devices is pointless.

# Fugal Devices

- ❧ Schoenberg's *Pierrot lunaire* contains an extremely cerebral "in-joke" about the use of canonic and fugal devices.

# Fugal Devices

- ❧ The insane Pierrot is standing in the moonlight, wearing his immaculate black tuxedo.
- ❧ He notices that the moonlight is creating little flecks of light on said tuxedo.
- ❧ In a frenzy, he spends the entire night trying to brush the flecks off his tuxedo.

# Fugal Devices

- The ensemble plays canonic and fugal music -- all of it written in a mad conglomeration of devices: stretti, augmentations, diminutions, retrogrades.
- However, there is absolutely no attention paid to how any of these might fit together vertically.
- Thus the futility of the ensemble's wild counterpoint is analogous the futility of Pierrot's attempt to clean his tuxedo.



# Afterword

- ❧ *Nobody* ever gets this “in-joke” unless it is pointed out to them.

# Fugue Structures

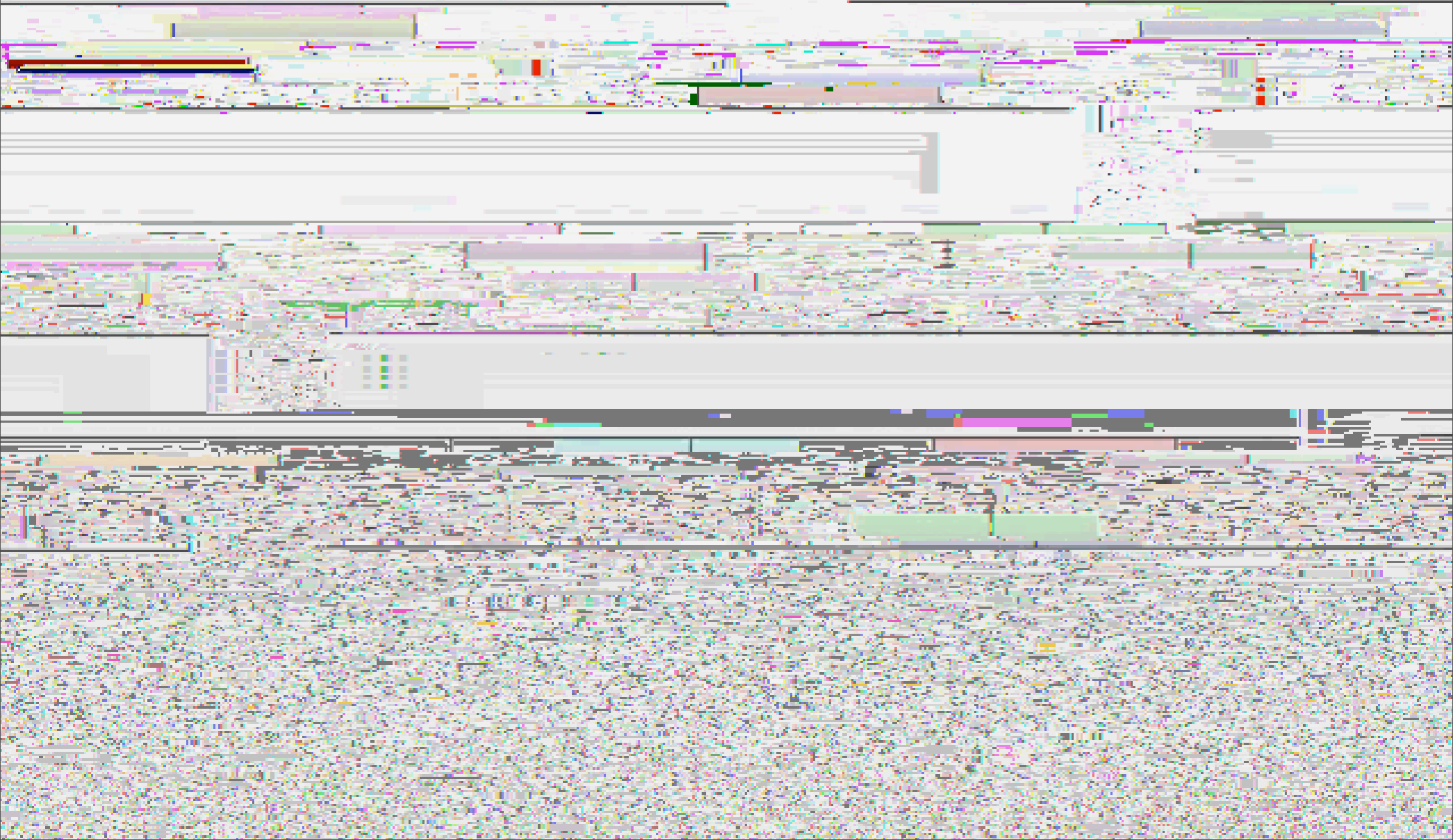
- Sectional (Ritornello)
  - After the exposition, subject entries alternate with episodes.
  - Ritornello-type structure in which subject entries are in various keys.

# Bach: Fugue in C Minor, 1:2

The image displays a musical score for the first two systems of the Fugue in C Minor by J.S. Bach. The score is presented in a dark theme with white staves and red highlights. The first system consists of two staves, with the top staff containing a red highlight in the second measure and the bottom staff containing a red highlight in the first measure. The second system also consists of two staves, with the top staff containing red highlights in the second and fourth measures, and the bottom staff containing a red highlight in the third measure. The score is divided into measures by vertical bar lines, and the staves are separated by horizontal lines.



# Bach: Fugue in C Minor, 1:2



# Fugue Structures

- ❧ Almost all fugues demonstrate a ritornello-like structure.
- ❧ Some fugues may also demonstrate a larger, section structure which can be likened to the classical song forms.

# Fugue Structures



# Fugue Structures

- Two-Part Song form
  - Part II is often individualized to some extent, and may contain elements such as inversions of the subject.
  - A coda may be added.

# Fugue Structures

- Two-Part Song Form
  - WTC I:14 (F# Minor)
    - Part I closes in measure 20 with a strong cadence in v.
    - Part II opens with an inversion of the subject.
    - At measure 28 there is another cadence in v, dividing Part II into two sections.

# Fuga XIV.

a 4 Voci.

Andante maestoso. (C. 255)

*Allegretto con moto*

# Fugue Structures

- Three-Part Song Form
  - Part I is the same as in the 2PSF
  - Part II is characterized in some manner
    - Almost always leads to some kind of emphatic dominant chord -- often over a pedal point.

# Fugue Structures

- Three-Part Song Form
  - Part III must be some kind of “return to the beginning”.
  - May contain only a few measures of Part I
  - Subsequent contents may well be entirely independant, and will probably be even more complex and interesting than Part I.



# Fugue Structures

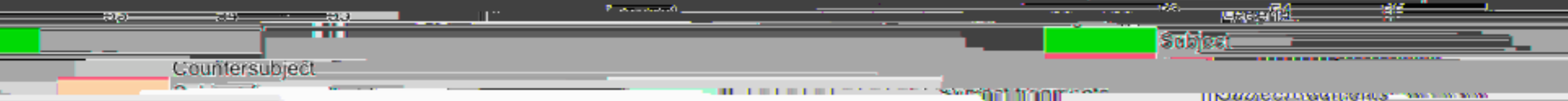
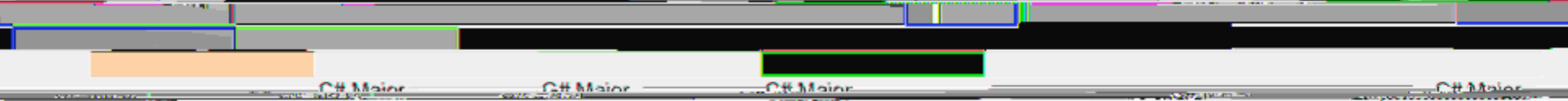
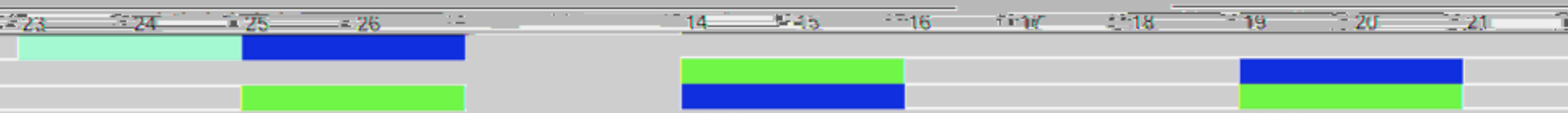
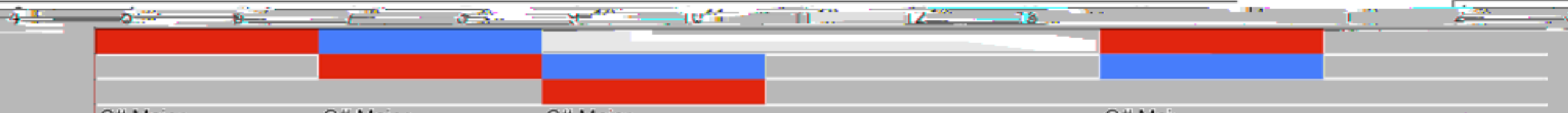
- Three-Part Song Form
  - WTC, I:16 in G Minor
    - Part II begins at measure 12 with a clear cadence in the relative major.
    - Part III begins at measure 28
      - Moves immediately into a rich *stretto* passage.

Fuga 16. â 4.



# Graphing a Fugue

- A fugal graph serves the same purpose to a fugue as a LaRue chart does for a sonata-form movement.
- It is a “quick-glance” chart which shows where the fundamental events take place -- subjects, countersubject, and the like.
- The graph is used as an adjunct to a full analysis.



Countersubject

Subject

Subject

Subject

# Technique

- A spreadsheet (such as Microsoft Excel) is a great tool for creating a fugue graph.



# Questions for Analysis

- ❧ The following slides give some questions you might ask when carrying out an extensive fugal analysis.
- ❧ They don't have to be answered systematically -- they are offered to help guide your thinking.

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# Questions for Analysis

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# Questions for Analysis



# Questions for Analysis



# Questions for Analysis



# Questions for Analysis



# Questions for Analysis

