Twenty Questions: An Introduction to Counterpoint, Linear Analysis, and Dissonance Treatment

Daniel B. Stevens (stevens@udel.edu)

This document contains the answer keys and commentaries for Assignment Nos. 1–4 in "Twenty Questions," a resource in *Music Theory Pedagogy Online*. The assignments are as follows:

- Assignment No. 1: J.S. Bach Chorale "Mach's mit mir, Gott, nach deiner Güt'"
- Assignment No. 2: Beethoven Sonata in C♯ Minor, Op. 27, no. 2, i, mm. 7–28 (NB: this assignment is a continuation of sample analysis no. 2)
- Assignment No. 3: J.S. Bach Prelude in C Major (*WTC,* book I)
- Assignment No. 4: F. Schubert "Heidenröslein," Op. 3, no. 3, mm. 1–16

The answer keys and commentaries to each assignment can be most easily accessed using the bookmarks provided with this PDF.

Twenty Questions: An Introduction to Counterpoint, Linear Analysis, and Dissonance Treatment

Assignment No. 1: J.S. Bach Chorale "Mach's mit mir, Gott, nach deiner Güt'"

Name: Answer Key

Instructions:

(1) Write the key of the chorale in the box provided. Then, follow the step-by-step guide to linear analysis provided at the end of the "Twenty Questions" document to analyze this chorale.

(2) As you identify leading tones, keep in mind that the tonal center shifts to A in the second phrase. The tonal center returns to D in the third phrase, where it remains until the end.

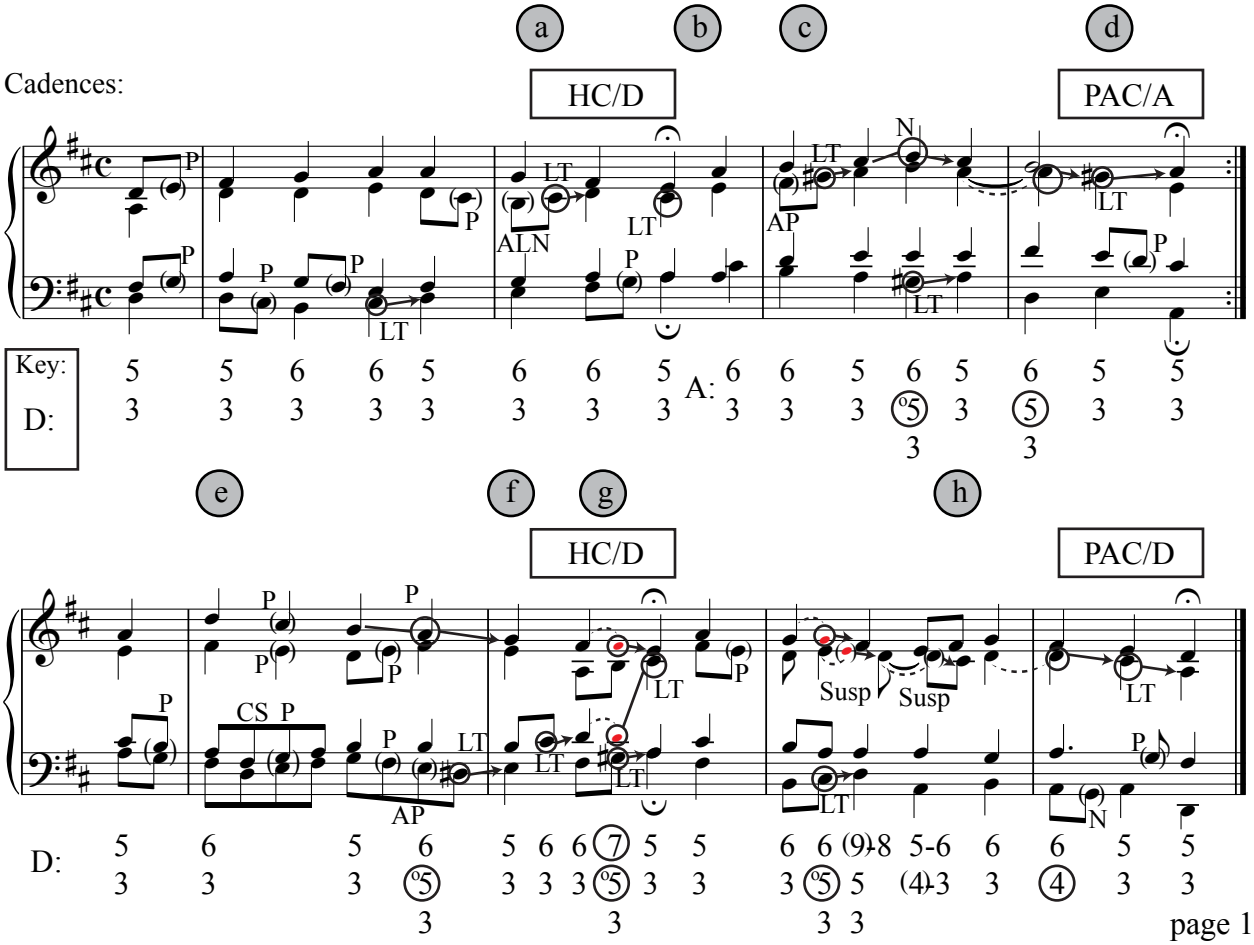
(3) Label the type and key of every cadence (e.g. "PAC/D").

(4) As you study the counterpoint, be aware that some unique harmonies are articulated only on off-beats (*e.g.* see m. 6, beat 2, and m. 7, beat 1). The dissonant intervals found above the bass note of these harmonies should be considered essential.

(5) At two places in this chorale (m. 2, beat 1, and m. 3, beat 1), there are several possible ways to interpret the tones as either essential intervals or as consonant ornaments. At these places, use harmonic analysis and your knowledge of harmonic syntax and expansions to choose an interpretation that makes good harmonic sense.

(6) When determining the figured bass symbols at m. 2, beat 4, measure the intervals above the bass note C♯4. Though this note appears above the tenor on the score, in performance, it will sound an octave lower. Keep this fact in mind when measuring the interval between bass and tenor.

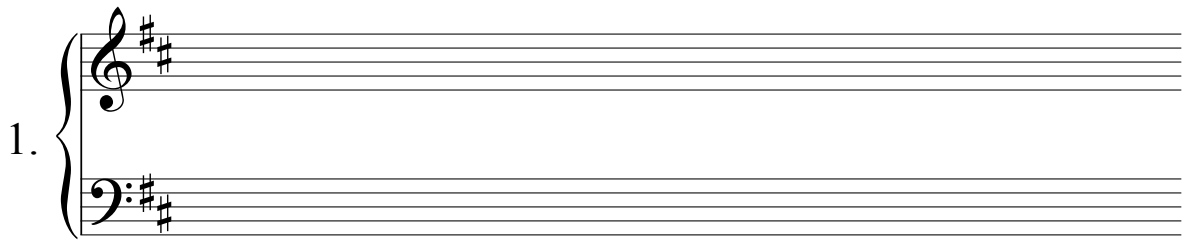
(7) Using the space and staves on the second page, sketch out at least two plausible harmonic reductions to m. 5 based on the different ways of interpreting the tones in this measure as essential or ornamental. Below the reductions, explain which reduction seems most convincing, and why. Your analysis of the score below should reflect the interpretation that you find most convincing.



Assignment No. 1: J.S. Bach Chorale "Mach's mit mir, Gott, nach deiner Güt'"

Harmonic Reductions of m. 5:
Notate these reductions in four voices using quarter-note or half-note chords. In your comments, refer to the reductions using their designated number (1 or 2).

1.



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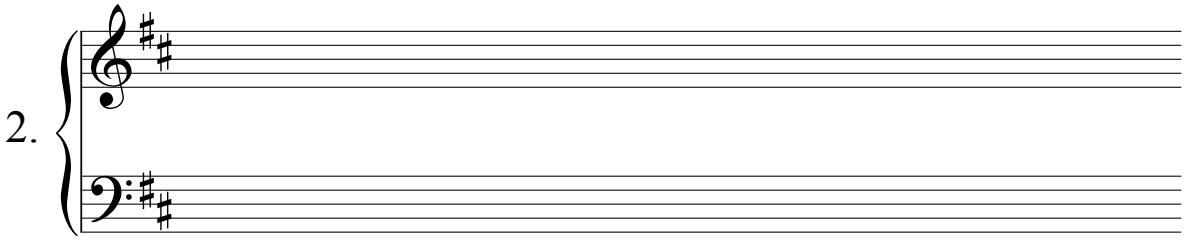


See comments for plausible reductions and explanations.

Comments about reductions:

See comments for plausible reductions and explanations.

Assignment No. 1: J.S. Bach Chorale "Mach's mit mir, Gott, nach deiner Güt'"

Comments:

a The first beat of m. 2 can be interpreted in two different ways. The first way (not shown) treats the downbeat as a supertonic harmony (ii) and the offbeat as a leading tone chord (vii^{o}6). The second option involves interpreting the B3 as an accented lower neighbor to the C♯4 and reading the entire first beat as a first-inversion leading tone chord (vii^{o}6). The analysis gives the second option for two reasons: (1) it uses fewer Roman numerals, thus striking a better balance between harmony and voice leading, and (2) it clarifies the underlying tonic expansion via the passing vii^{o}6.

b Leading tones at half cadences often do not resolve. These leading tones refer back to the tonic, rather than point forward to a chord of resolution. Here, the second phrase begins in A major, so the C♯ at the half cadence quickly loses its identity as the leading tone and cannot be heard as resolving.

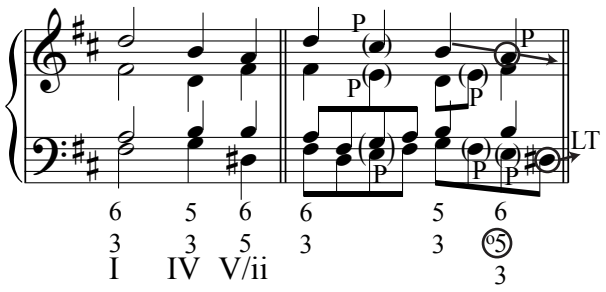
c The first beat of m. 3 can be interpreted in the same two ways as the first beat of the previous measure (see comment (a) above). The second phrase is most easily interpreted in A Major, with the first chord serving as a pivot from the tonic to the dominant tonal area. Now in the dominant, the vii^{o}6 on beat 1 of m. 3 serves to expand the tonic, which moves from first inversion to root position.

d Both here and at the cadence in m. 8, it is acceptable to express the passing 7 above the bass in the figures with "8-7." Although passing tones need not be shown in the figures, the passing 7 that ornaments cadential dominants is a common exception. To be consistent and to emphasize the status of the dominant chord as a triad, the "8-7" has been left out of the figures in this analysis.

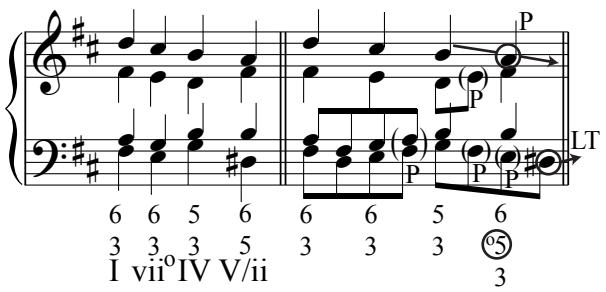
e M. 5 is the most challenging measure in the chorale, and students should be encouraged not to reach conclusions in their contrapuntal analyses too quickly and without consideration of multiple possible harmonic interpretations. This measure provides a good opportunity to use harmonic analysis to clarify the contrapuntal structure. Instruction #7 leads students to explore plural valid interpretations arising from different analyses of dissonance treatment, harmonic identity, and harmonic syntax in order to discover the often fluid boundary between harmonic identity and linear

e [cont.] motion found in contrapuntal music. In this measure, relatively straight-forward linear motion in the lower- and upper-voice pairs creates the unique challenge of determining which tones (both consonant and dissonant) are ornamental and which are essential. Below are some possible harmonic reductions, corresponding linear analyses, and comments, all of which represent different angles students may take in answering instruction #7.

Option 1: Beats 1–2 as tonic triad. In this option, the notes on beat 2 are heard as passing tones. The passing gesture in the bass invites the ear to hear the slower upper voices as passing. The passage sounds like a partial passing 6/3 progression, which also supports this optional reading as well as option 2 below.



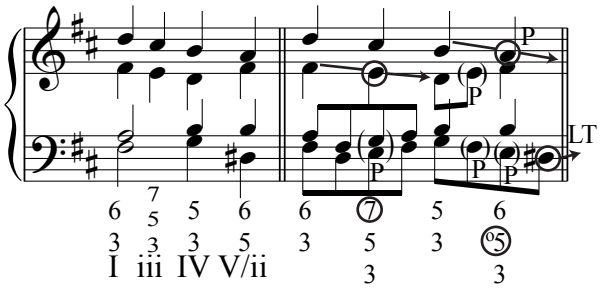
Option 2: Beat 2 as vii^{o}6. In this option, the consonant triad of notes found on beat 2 is read as a new harmony, a vii^{o}6: one that suggests a partial passing 6/3 progression.



Assignment No. 1: J.S. Bach Chorale "Mach's mit mir, Gott, nach deiner Güt'"

Comments, cont.:

e [cont.] Option 3: Beat 2 as iii7. In this option, the F♯m7 chord found on beat 2 is heard as a new harmony, a iii7. This harmonic interpretation is more straight-forward, though the progression itself is weak:



A fourth possible interpretation is a hybrid of options 2 and 3. In this hearing, beat 2 contains a vii°6 followed by a iii7. Since this reading is the least viable in terms of harmonic syntax, no analysis is shown below. (The analysis would be similar to option 3 above, but with the parentheses on beat 2 removed and the essentially dissonant E4 adjusted so as to occur on beat 2's offbeat where it is being sustained.) NB: this reading, because it does not take counterpoint into account, results in the least compelling harmonic interpretation of beat 2.

In each of the above options, the F♯ and A found in the lower voices on beat 1 are prolonged by consonant, chordal skips, indicated by "CS" on the full analysis.

f Unlike the first beats of mm. 2 and 3, the chord on the first beat of m. 6 is tonicized by an applied dominant at the end of m. 5. Thus, the first beat of m. 6 projects two unique harmonies, rather than a single embellished harmony as in mm. 2 and 3. Students might consider how beat 4 of m. 5 could have been written with a simple tonic D Major chord. Had Bach harmonized this beat in such a manner, m. 6 could well have analyzed like mm. 2 and 3. The fact that Bach changes his approach to this voice-leading figuration at its third occurence suggests that Bach is sensitive to the subtle interplay between voice leading and harmonic identity.

g In beat 2 of m. 6, Bach again takes a new approach to melodic material similar to that found in m. 2. In m. 6, Bach passes through the raised subdominant in the bass, harmonizing this tone with an applied leading tone seventh chord. As a result, this moment features two new dissonances, one of which resolves via a transferred resolution (see Q17 in "Twenty Questions"). This unusual resolution allows Bach to avoid parallel perfect 5ths between the soprano and alto moving into the final chord.

The red noteheads indicate that the note sustained from beat 2 becomes dissonant when the counterpoint changes on the offbeat.

h Beat 3 of m. 7 combines a 4-3 suspension with a 5-6 expansion. It is also acceptable to interpret the F♯4 as a passing tone and to leave the "6" that corresponds to this tone out of the figures.

Abbreviations:

LT	Leading Tone
P	Passing Tone
AP	Accented Passing Tone
N	Neighbor Tone
ALN	Accented Lower Neighbor
CS	Consonant/Chordal Skip

Twenty Questions: An Introduction to Counterpoint, Linear Analysis, and Dissonance Treatment

Assignment No. 2: Beethoven Piano Sonata in C♯ Minor, Op. 27/2, i, mm. 7–28

Answer Key

Name: _____

Instructions and Questions:

(1) Take some time to review the sample analysis of the first seven measures of this sonata movement provided at the end of the "Twenty Questions" document and to listen to the entire movement while following the score. (A public-domain score to this sonata can be downloaded from imslp.org or accessed here: http://tinyurl.com/BeethovenMoonlight.)

(2) Follow the step-by-step guide to linear analysis provided at the end of "Twenty Questions" to analyze the continuation of the movement given in this excerpt.

(3) The tonal center of the opening of this excerpt is provided at its beginning. As you study the piece, be sure to mark where the tonal center changes so that you can correctly identify leading tones.

(4) Label the type and key of every cadence (e.g. "PAC/E") in the boxes provided above the staff.

(5) In mm. 16 and 18, treat the B1 as the functional bass throughout the entire measure. The ways the dissonances above this bass note resolve will provide important clues regarding their status as essential or ornamental.

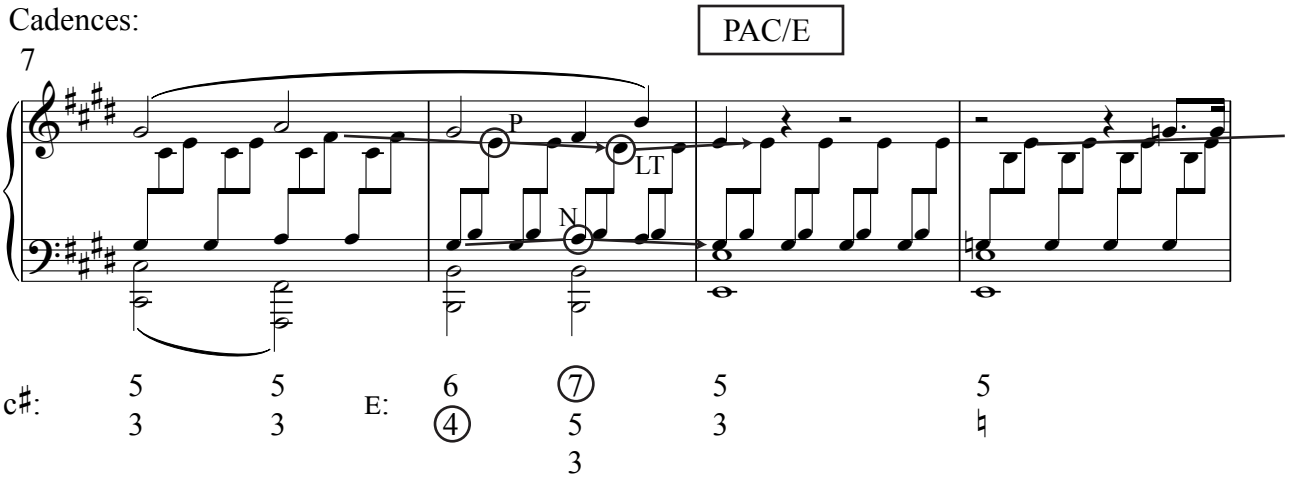
(6) The excerpt ends on the dominant harmony of C♯ minor with the leading tone in the upper voice. Where and in what register does this leading tone finally resolve? When the leading tone does resolve, is its resolution satisfying? Based on your study of this passage, would you consider m. 28 to be a half cadence? Provide a short answer to all three questions in the space below. (You will need to download the score of this movement using the link above and study the counterpoint to answer this question.)

Answer to (5):

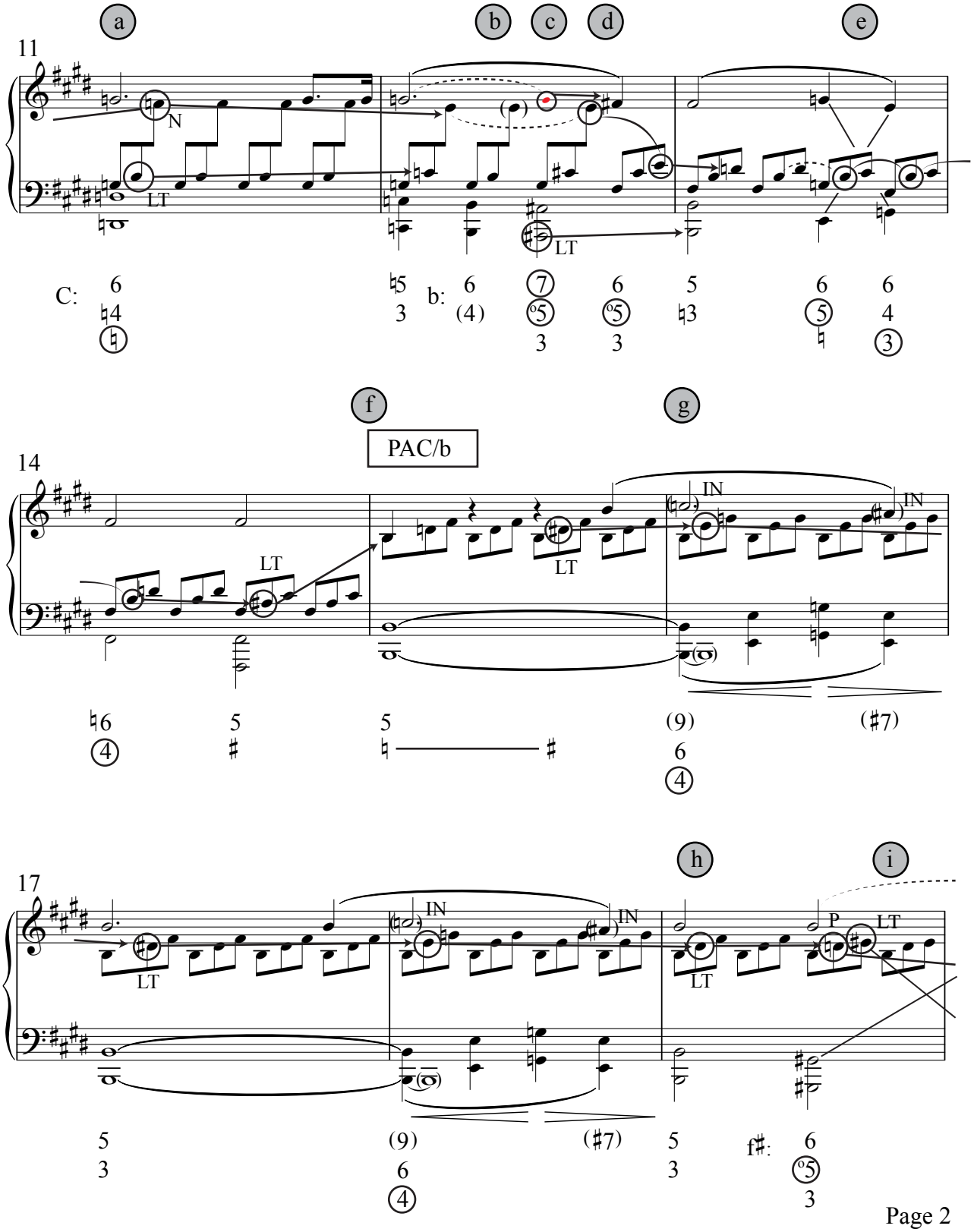
The leading tone resolves to the submediant harmony in m. 40. However, since the submediant evades cadential closure, the resolution in m. 40 is not satisfying. Further, the submediant occurs only briefly and prepares the dissonant C♯4 in m. 41, where the note is the seventh of a supertonic seventh chord. The resolution of the cadential dominant, reattained in m. 41, to the cadential tonic in m. 42 finally satisfies the tension built through this long dominant prolongation. Because the dominant harmony resolves to tonic, m. 28 would not be considered a half cadence.

Comments:

Cadences:



Assignment No. 2: Beethoven Piano Sonata in C♯ Minor, Op. 27/2, i, mm. 7–28



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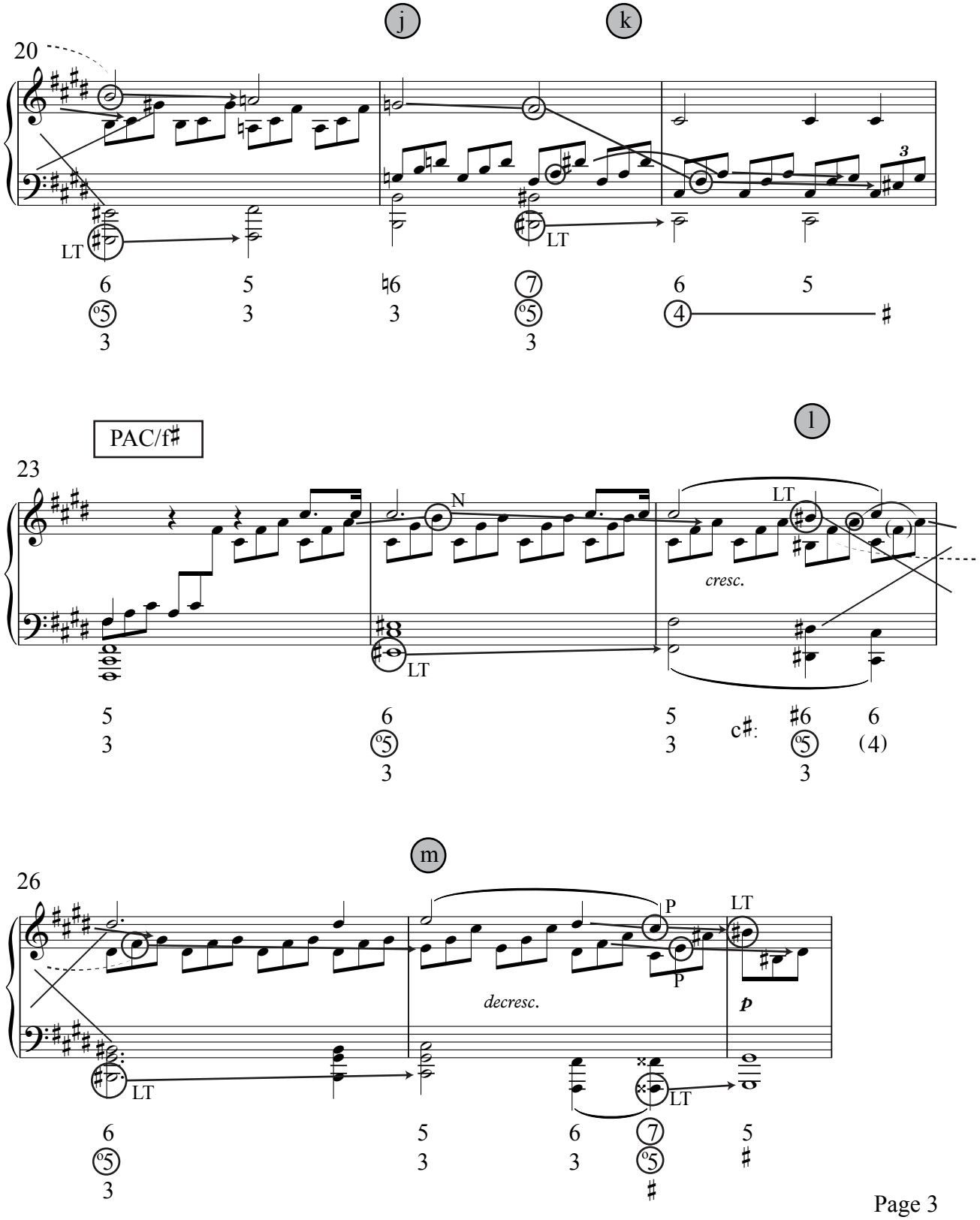


Twenty Questions: An Introduction to Counterpoint, Linear Analysis, and Dissonance Treatment

Assignment No. 2: Beethoven Piano Sonata in C♯ Minor, Op. 27/2, i, mm. 7–28

Comments:

a M. 11 and the first beat of m. 12 could also be analyzed in E minor as a tonicization of the submediant, so long as the dominant function of the harmony in m. 11 and the leading tone of C major are recognized.

b The analytical markings in m. 12 require careful attention. On beat 2, the E4 is considered ornamental due to the passing quality of the bass; in other words, the E may be heard as sustained over the movement of the bass. The resulting 2:1 relationship is typical of ornamental dissonances. Because the E does finally resolve down by step in m. 13, students may reasonably call this note an essential dissonance (despite the fact that dissonance P4's rarely occur on weak beats in quadruple meters). Such students should be encouraged to listen to whether or not the note seems to need resolution; this is one case where listening can be the best means to distinguish between ornamental and essential dissonances.

The 6/4 chord at this point is an important clue that the tonal center is shifting. Retrospectively, once B minor is established, the C major chord on beat 1 is understood as a root position Neapolitan chord, the second occurrence of this harmony (the first being in m. 3).

c The red notehead on beat 3 indicates that the G4 sustained from beat 1 has become a dissonance, as has the prolonged E4. Although E4 is found in the previous chord on beat 2, that E4 can not serve as the note of preparation because of its dissonant status. Rather, the E4 on beat 1 serves as the note of preparation, one that is sustained as an ornamental dissonance on beat 2. The poignancy of this measure stems, in part, from the transition of sustained tones from consonant to dissonant status.

d The dissonant E4 on beat 3 is prolonged through the new harmony on beat 4 before finally resolving to D4 on beat 1 of m. 13. This prolongation is shown by the solid curved line.

e The B3 is prolonged by the supertonic expansion, which is created by the voice exchange on beats 3 and 4 of m. 13. The B3 resolves on beat 3 of m. 14.

f M. 15 marks the first critical juncture in the movement; at this point, the melody shifts from the lower register (B3) to the higher one (B4), a move prepared by the rise of the figuration on beat 1. On beat 1, the resolution of the leading tone is transferred to the lowest voice of the figuration.

g Several interesting things happen simultaneously in m. 16 that together may obscure its contrapuntal structure. Most significantly, the bass voice arpeggiates the 6/4 structure found in the triplet figuration. The E3 and G3 in the bass are chordal skips that prolong the underlying B1, which remains the functional bass note throughout the measure against which intervals above the bass are measured.

Above the B1 are three dissonances, only one of which--the P4--is essential. The 6/4 chords in mm. 16 and 18 are most easily understood as neighboring 6/4's that prolong the tonic harmony. The B4 in the upper voice is itself prolonged through a chromatic double-neighbor figuration involving the ornamental dissonances C♮ and A♯. In the key of B minor, the C♮ and its move by diminished third to A♯ recalls the use of the Neapolitan, which occurs throughout the movement.

h The resolution of the leading tone to E4 is elided, with the leading tone moving down by chromatic half step to D♮ on beat 3.

i Also on beat 3, the leading tone to F♯ minor is introduced in the figuration and is transferred by voice exchange to the bass in m. 20. Throughout this process, the dissonant B4 in m. 20 is prepared as a consonance, first as the tonic in B minor and then, on beat 3, as the subdominant of F♯ minor.

j The third appearance of the Neapolitan harmony occurs in m. 21. So far, the move from the Neapolitan to the dominant occurs differently each time this chromatic predominant harmony has appeared.

k The F♯4 is transferred to F♯3 in an inner voice in m. 22, where it resolves to the E♯3 on beat 3. This transfer, similar to the one that occurred in m. 4, intensifies the sinking feeling of this passage. The low register attained in m. 23 is thrown into even greater relief by the melody's entrance at C♯5 in m. 23.

Assignment No. 2: Beethoven Piano Sonata in C♯ Minor, Op. 27/2, i, mm. 7–28

Comments, cont.:

l The B♯4 introduced on beat 3 of m. 25 brings the music back to C♯ minor. This note is then transferred through a voice exchange to the bass in m. 26 before resolving to tonic.

m The achievement of E5 in m. 27 marks an important turning point in this movement. Aside from being the highest point reached thus far, the E5 also completes a large scale melodic arpeggiation of the tonic triad first heard in the figuration in m. 1. The notes that comprise this arpeggio are as follows: G♯4 in m. 5, C♯5 in m. 23, and finally E5 in m. 27. The registeral placement of each of these notes makes them particularly memorable, and the achievement of E5 effectively concludes the large scale process begun in m. 5, allowing the music to move to the dominant in m. 28. This dominant is prolonged until m. 40 and does not reach a cadential tonic until m. 42, when the primary theme returns in the home key of C♯ minor.

Assignment No. 3: J.S. Bach Prelude in C Major (from *WTC*, book I)

Answer Key

Name: _____

Instructions and Questions:

(1) Provide the key of the Prelude in the box provided. Then, follow the step-by-step guide to linear analysis provided at the end of the "Twenty Questions" document to perform a linear and dissonance-treatment analysis of the Prelude.

(2) This Prelude has five voices, and each voice occupies the same metrical position in the figuration. Most dissonances resolve in the voice in which they occur, but there are some important exceptions that require careful attention and study.

(3) Write in the key at the beginning of the piece. The tonal center of the Prelude shifts in m. 6 and again in m. 12. Please study these measures carefully and keep these changes in mind when identifying leading tones. Leading tones also occur in dominant-functioning triads and seventh chords. Dominant-functioning chords can be identified in the following three ways:

a. Quality--all dominant seventh and fully-diminished seventh chords are dominant functioning
b. Accidentals--chromatic tones (and the accidentals that indicate them) often signal applied dominants
c. Resolution--Altered chords that resolve down by fifth or up by a diatonic second may be dominant functioning

(4) Label the type and key of every cadence (e.g. "IAC/C") in the boxes provided above the staff.

(5) One note in m. 23 is an ornamental embellishment and should be ignored in the figures. However, there are two notes that could be interpreted as ornaments, and whichever one is chosen, the other must be considered essential and non-ornamental. The note you choose as ornamental will likely influence (or be influenced by) how you understand the harmonic root and function of this measure.

(6) How are most chordal sevenths in this Prelude approached? Are most chordal sevenths prepared or unprepared? (See Q8 in "Twenty Questions.") List some places where chordal sevenths are not prepared. Consider the approach to F4 in m. 30 in light of your responses to the first two questions and dissonance treatment in this Prelude as a whole. What do you think is its significance? (Part 2 of Q19 in "Twenty Questions" is relevant to this question.)

Most chordal sevenths are approached by static motion, and are thus prepared. Chordal sevenths are not prepared in mm. 12, 14, 20, 22, 30, and 32. Of these, four (mm. 12, 14, 22, and 32) are approached by a chromatic step, and one (m. 32) is involved in an elision. All other chordal sevenths are prepared. The approach to F4 in m. 30 is significant because it is one of the few dissonant chordal sevenths approached by passing motion. This passing motion is significant because chordal sevenths suggest a note of origin, which is not heard in the Prelude until the passing figuration in mm. 29–30.

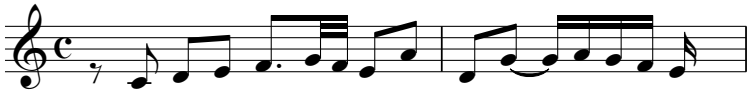
(7) Where, and in what register, does the dissonant F3 in m. 24 finally resolve? There are at least four possible answers, and your response should consider more than one possibility. Explain which possibility you prefer, in light of the discussion of dissonance treatment in "Twenty Questions" (especially Q17–19).

Possible responses include:

1) m. 25 (not viable, see comment (k))
2) m. 32 (possible, given the elision of the tonic triad here; see comment (n))
3) m. 35 (this is a strong answer, since it takes into account the contrapuntal considerations of comments (n) and (p).
4) never fully resolves (this response is also excellent, for the reasons described in comment (p).

Assignment No. 3: J.S. Bach Prelude in C Major (from *WTC*, book I)

(8) Consider the subject (provided below) that begins the C Major Fugue, for which the piece analyzed in this assignment serves as a Prelude. How might the Fugue subject be pertinent to the compositional issues discussed in (7) and (8)?



The voice leading connection that the Prelude labored so hard to achieve (a passing approach from G to F and a resolution of F to E) is just tossed off in the subject of the C Major Fugue. The 32nd-note detail in the subject provides a meaningful point of contact between the Fugue and the musical problems worked out in the Prelude.

(9) What is unusual about the resolutions at mm. 20–21 and 31–32? How might you explain or justify this voice leading? (See Q19 in "Twenty Questions.")

The resolutions of the leading tones in mm. 20 and 31 are elided. The tones themselves move down by a chromatic half step.

In an elision, the tendency tone is understood to resolve correctly to a note implied by the context. In m. 21, the E4 on the score is understood as proceeding from an implied F4, the note of resolution of the leading tone E4 in the previous measure. Similarly, the B3 in m. 31 is understood to resolve to C4, which has been removed from the texture by an elision.

(10) Given your responses to questions (7) through (10) above, describe how dissonance treatment and counterpoint are used to create, build, and release tension and to reach closure over the course of the Prelude as a whole.

Responses may vary. The most compelling responses will cite details discussed in the commentary below.

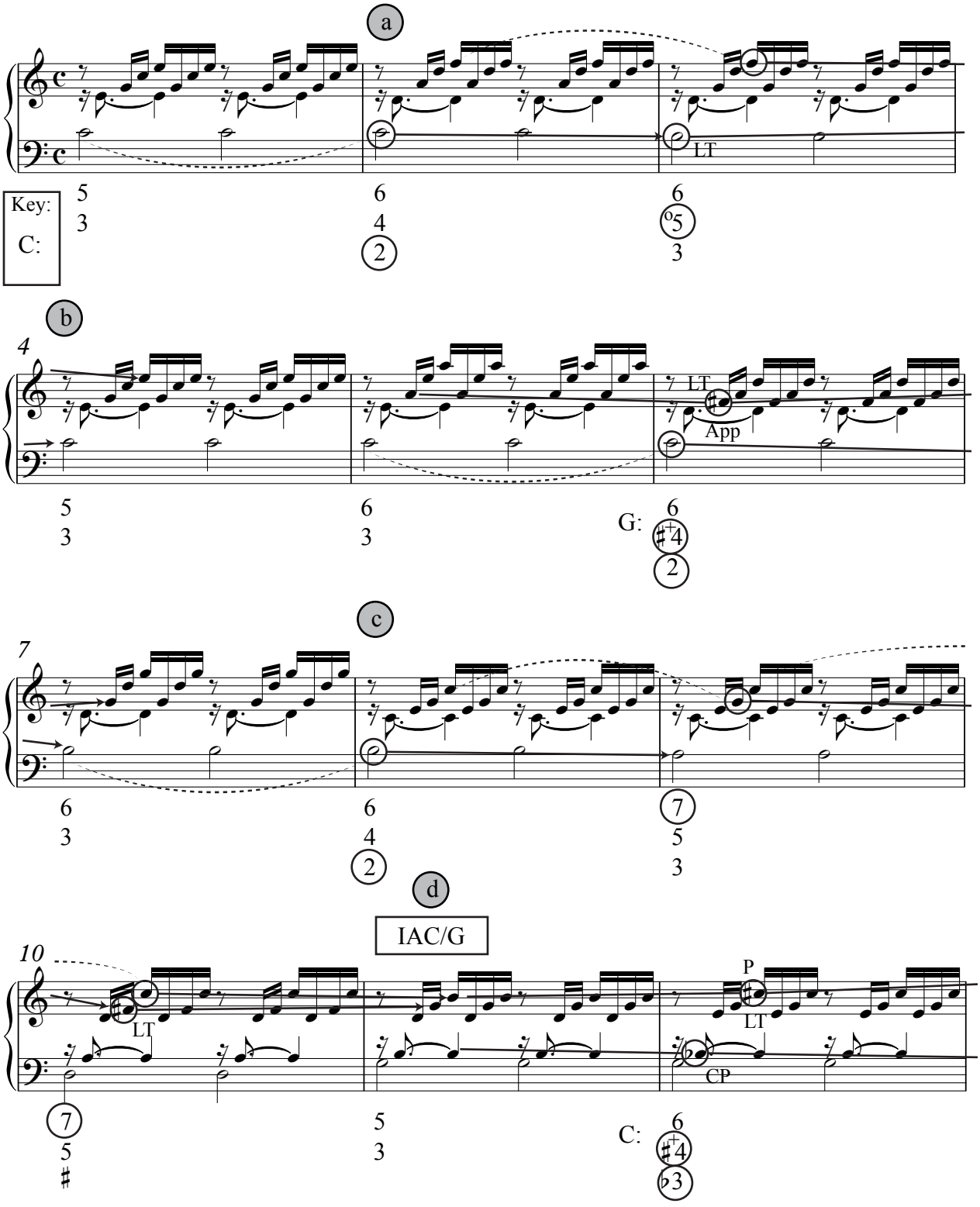
(11) Is there a satisfying, conclusive authentic cadence (AC) at the end of the Prelude? What location(s) near the end of the piece could be an AC? At each possible location, what element(s) suggest an authentic cadence, and what element(s) resist it being heard as such?

Mm. 32 and 35 are the only viable places that a student may attempt to identify an AC.

M. 35 resists being heard as an AC because there is no change of bass (and hence no clear root position V to I).

M. 32 provides the required bass motion and root motion to support a V to I authentic cadence, but the root position tonic triad normative to AC's has been elided from the piece, though it is there by implication. m. 32 is therefore the best location to identify the Prelude's final AC.

Assignment No. 3: J.S. Bach Prelude in C Major (from *WTC*, book I)



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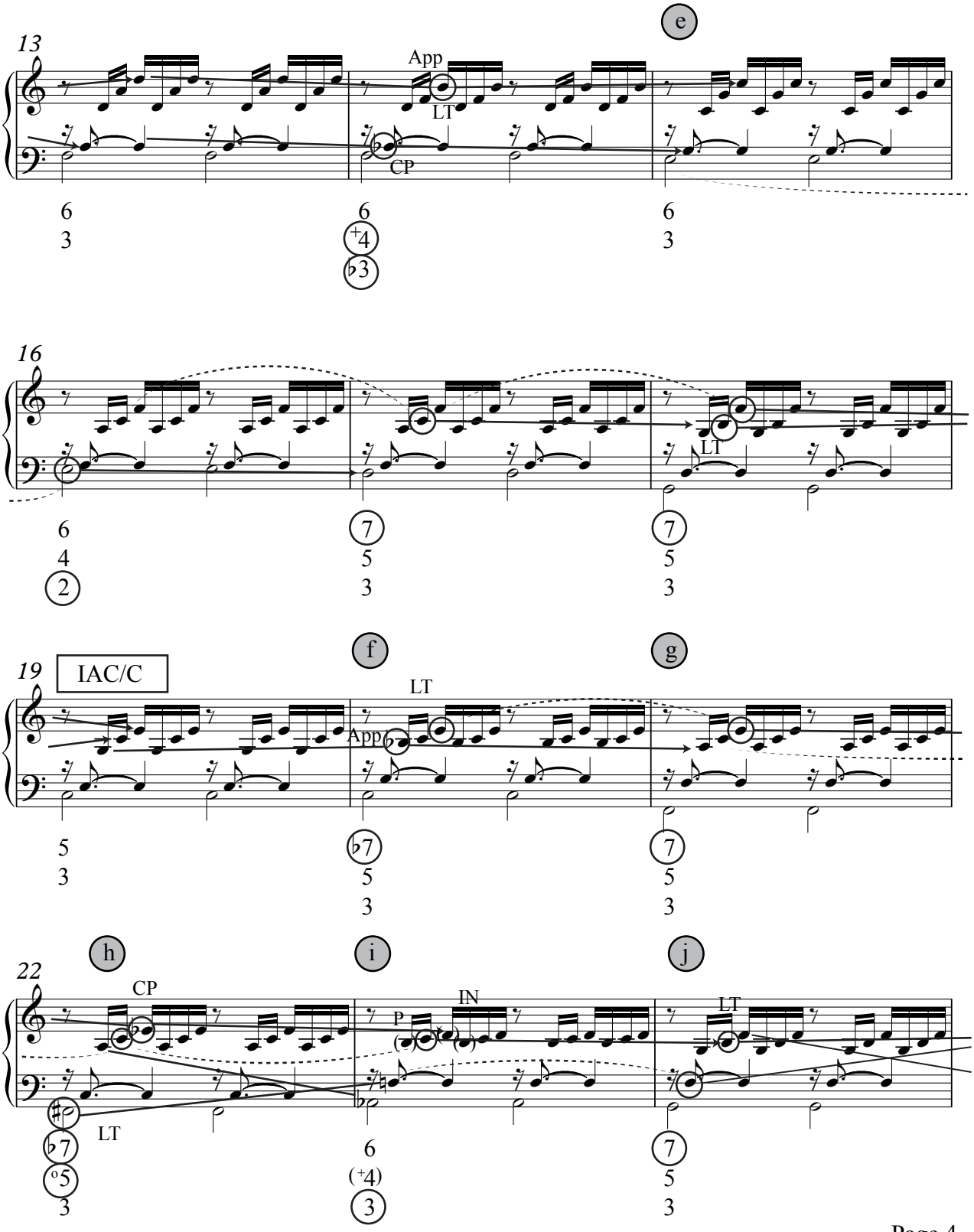

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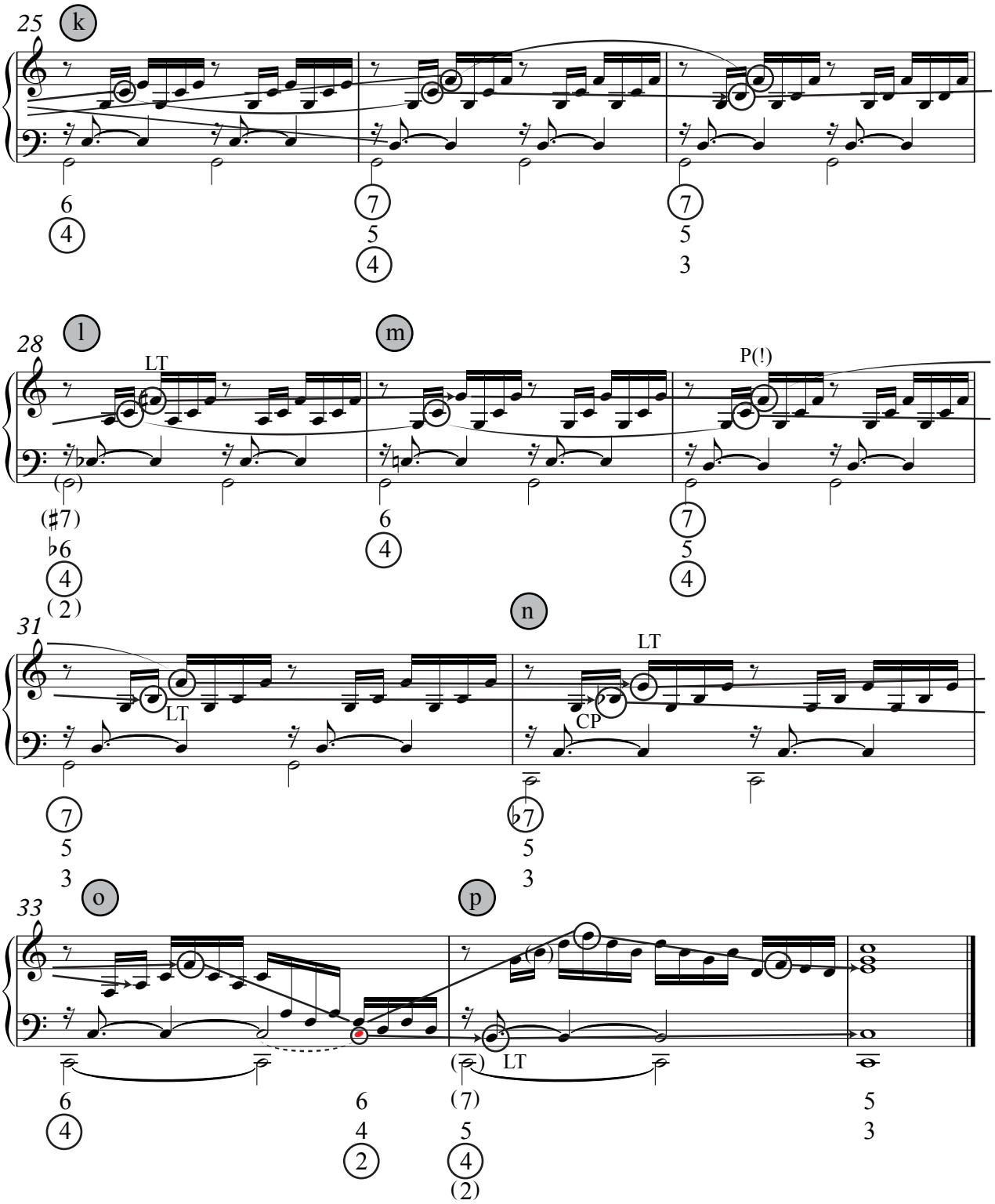


Assignment No. 3: J.S. Bach Prelude in C Major (from *WTC*, book I)

Comments:

Note to instructors: Given the complexity of the figuration and the five-voice texture, instructors may wish to distribute the version of this assignment in which the first several measures of figures and analytical markings have been provided.

(a) Like many of the chordal dissonances (*i.e.* those resulting from seventh chords in root position or inversion) in this Prelude, those in mm. 1 and 2 are prepared, as indicated by the curved dotted lines. (See Q9 in "Twenty Questions.") Students will discover through their linear analysis of this Prelude that its approach to dissonances is one of the primary means by which it achieves its musical and expressive effects and ultimately reaches closure.

An important concept related to prepared dissonances (especially chordal sevenths) is the idea of dissonances as traces (see Q19, part (2) in "Twenty Questions"). Because most chordal sevenths in this Prelude are prepared, Bach seems to deliberately avoid articulating the note of origin.

This avoidance, strangely enough, is disregarded in Gounod's famous setting of "Ave Maria" over the C Major Prelude, which allows the melody to reach the note G5 in m. 3--the F5's note of origin that Bach so carefully avoids. This G5 is satisfying, but only in a premature sense. The Prelude itself, as these comments will show, works hard to finally achieve a G from which the dissonant F can pass.

(b) M. 4 is the last measure of a contrapuntal expansion of the tonic harmony. Thus, this measure can not properly be thought of as a cadence, even if the dominant to tonic harmonic motion provides some relative sense of rest. Strictly speaking, authentic cadences require the movement from a root position dominant (V) to root position tonic. The inverted V7 chord of m. 3 is further evidence that this harmony does not serve as a cadential dominant.

(c) Beginning in m. 8, a series of three dissonant chordal sevenths unfolds over three of the five voices in the texture.

(d) The first half of the C Major Prelude is a descending progression from the higher register at the opening to the register at m. 19. This progression is divided into two parts by the cadential arrival in the dominant in m. 11.

The B3 in m. 11 serves as the first note of a beautiful inner-voice chromatic descent.

(e) Similar to mm. 7–9, the series of dissonant 7ths in mm. 15–17 prepares the arrival of the authentic cadence in C major in m. 19.

(f) M. 20 is the first measure of the Prelude's second section and begins a four-measure movement to the structural dominant, which arrives at m. 24.

The harmony at m. 20 is an applied dominant seventh of the subdominant. Within this contrapuntal framework, the stable E3 from m. 19 becomes the active leading tone pointing forward to F4, its tone of resolution (see the concept of dissonances as signs in Q19, part (1) in "Twenty Questions," a concept that also applies to leading tones). Likewise, the B♭3 calls to mind the A3, to which listeners anticipate it will resolve.

The connection of this applied dominant to the cadential tonic chord that immediately precedes it anticipates the harmonic elision that occurs in m. 32, where the same applied dominant harmony returns as a tonic substitute.

(g) The resolution of the leading tone E4 in m. 20 is elided in m. 21. This first elision in the Prelude is significant because it intensifies the desire to hear F4, the note of origin of the dissonant 7th (E4) in m. 21. Not only is this F4 anticipated by the applied dominant harmony in the previous measure (see comment (f) above), but it is the implied note of origin of the chordal seventh to follow. The F4 is conspicuous by its absence. Further still, the elision causes a sudden shift in the tendency of E4, which strains to resolve up in m. 20 and down in m. 21. At this point, the contrapuntal structure of the Prelude begins to show signs of instability. The events at m. 21 may also influence listener expectations at m. 32.

Assignment No. 3: J.S. Bach Prelude in C Major (from *WTC*, book I)

Comments, cont.:

h Based on its approach and resolution, the E♭4 is a chromatic passing tone that serves to delay the resolution of the dissonant E4 in m. 21. The E♭4 is one of the only chordal sevenths in this Prelude that is not prepared. Nevertheless, the E♭4 seems to prolong the E4 from m. 21 via chromatic inflection.

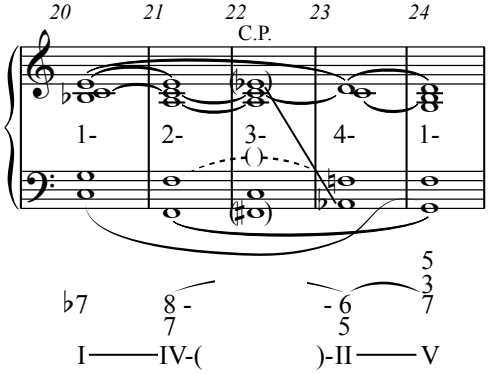
The fully-diminished quality of the harmony in m. 22 indicates that it serves as an applied leading tone seventh chord of the dominant harmony. Above the leading tone F♯2 in the bass are two dissonances: the diminished 5th (C4) and the 7th (E♭4). Together, these three tendency tones suggest a dominant arrival on m. 23.

i In a rather jarring surprise, the expected dominant chord mentioned in comment (h) does not arrive at m. 23. In its place, Bach introduces one of the most perplexing harmonies of the Prelude, one that admits to a variety of plausible interpretations, as explained below. These mutually incompatible interpretations illustrate the musical tension Bach has arrived at by m. 23--a tension that has seemingly brought the Prelude to a breaking point.

The interpretations offered below hinge on a few specific questions regarding the harmony at m. 23: (1) Is B4 or C4 the embellishing, non-harmonic tone? (2) Is m. 23 a predominant half-diminished supertonic harmony, or is it a B half-dimished seventh chord that anticipates the dominant arrival on the stronger hypermetrical downbeat of m. 24? (3) Does the harmony at m. 22 simply pass between those at m. 21 and 23, serving as a harmonic support for the chromatic passing tone E♭4? Or, does m. 22 vie in context to be heard as preparing the dominant, only to be interrupted by the ambigious chord of m. 23? (4) And finally, how might we understand the linear relationships that occur between mm. 21–23?

The answer key above presents the most widely accepted interpretation of m. 23, in which the harmony is a half-diminished supertonic (ii$^{\varnothing}$) and the B3 is a non-harmonic tone. The strongest arguments for this interpretation are (1) that it

i [Cont.] allows the harmony in m. 23 to be heard as a predominant, preparing the onset of the dominant harmony in m. 24, a clear hypermetrical downbeat (see the hypermeasure numbers in the analysis below); and (2) m. 23 can be read (as Schenker does in his magisterial analysis of this Prelude in Five Graphic Analyses) in continuity with the harmony in m. 21, such that the dissonant seventh resolves down to D4 in m. 23 while the chromatic bass note A♭2 provides consonant support for the E♭4 passing tone. Here is Schenker's analysis of this passage (C.P. means chromatic passing tone/chord):



In this analysis, the F♯2 in the bass is also interpreted as a chromatic passing tone between F2 and the G2 in m. 24. However, this F♯, if not the passing chord as a whole, counteracts the prolongation of F3 between mm. 21 and 23, and also the preparation of the chordal seventh in m. 24, a note that will receive more attention later. In sum, Schenker's analysis presents m. 22 as a passing chord that resolves into the dominant at m. 24 while giving precedence to the harmony in m. 23 based on its connection with the chord in m. 21. In this reading, the harmony in m. 22 is the ornamental chord.*

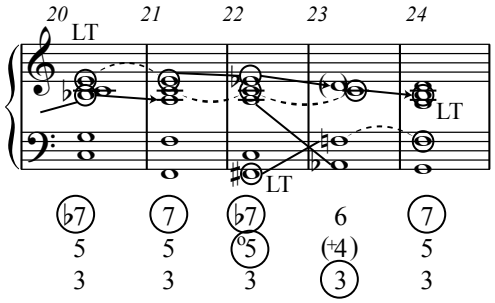
In this first interpretation, the dissonant 7th of m. 22 resolves down by step in m. 23, and the dissonant diminished 5th in m. 22 is prolonged through m. 23 before resolving down to the leading tone in m. 24.

*The reader may wish to compare Schenker's analysis above with his reading of Beethoven's String Quartet in F major, Op. 59, no. 1, i, mm. 85–93 in Fig. 65/1 of *Free Composition*.

Assignment No. 3: J.S. Bach Prelude in C Major (from *WTC*, book I)

Comments, cont.:

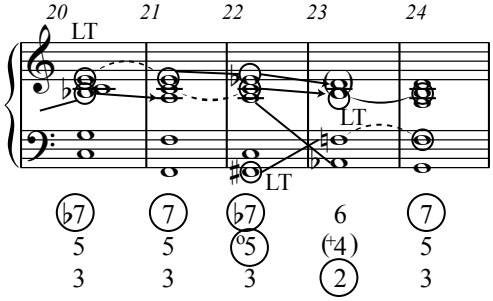
i [Cont.] An alternative analysis interprets the F♯2 in the bass of m. 22 as participating in a double chromatic voice exchange (F♯2 to F3 and A3 to A♭2), as shown by the crossing lines on the answer key in this measure. This reading allows for the double predominant approach to the dominant (through both the applied leading tone and supertonic seventh chords) as suggested by Schenker's analysis without bracketing the role played by either chord in the linear structure. The analysis in the answer key is presented as a rhythmic reduction below:



Unlike Schenker's analysis, which focuses on harmonic prolongation in mm. 21–23, this analysis is strictly concerned with dissonance treatment. As such, it does not present all the slurs indicating prolongation that are found in Schenker's analysis. This analysis, however, corresponds more closely to a phenomenological hearing, *i.e.* a hearing that captures how a listener might perceive the music in real time (including the expectations developed by the listener) while listening. As mentioned above, the harmony in m. 22 is a passing chord that we expect to resolve directly to the dominant. In this analysis, the double chromatic voice exchange draws attention to the tonal and linear discontinuity between the harmonies in mm. 22 and 23. Further, this analysis takes the dissonances above the bass in m. 22 into account, showing that the diminished 5th between F♯ and C does not immediately resolve as expected in the following measure. Rather, the dissonant C is prolonged through the supertonic in m. 23, and the F♯ becomes the inner-voice F natural through the chromatic voice exchange.

i [Cont.] The irregular resolution of the leading tone seventh chord in m. 22 is significant in another important respect that is not readily apparent in Schenker's analysis. In the C Major Prelude, F♯ occurs in three places. The pitch is first used in m. 6 (and is later repeated in m. 10) as part of the modulation to the dominant. At its second occurrence, in m. 22, we expect the F♯ to function similarly as an applied leading tone to the dominant. The expectation to hear the F♯ resolve to G is founded not only on the normal voice leading tendency of the leading tone to resolve to tonic, but also on the fact that this is precisely how earlier F♯'s have resolved. When the F♯ fails to resolve as expected, this moment becomes marked and draws attention to the F natural, a tone whose resolution becomes the central musical problem of the remainder of the Prelude. That this problem is introduced through the problematic resolution of the leading tone seventh and the surprising chromatic voice exchanges cannot be coincidence. Rather this pivotal moment must be kept in mind when we consider the third instance of F♯, which will be discussed in comment (l).

Schenker's analysis and the alternative analysis presented above both interpret m. 23 as a supertonic seventh chord. However, m. 23 may also be interpreted as a fully-diminished leading tone seventh chord by (1) interpreting the dissonant C4 in m. 22 as resolving to the B3 in m. 23 and (2) treating the C4 in m. 23 as an embellishing tone. Although this reading, given below, has its problems (*e.g.* it is quite unusual to anticipate a strong dominant arrival with an inverted leading tone seventh chord, and the resolution of the dissonant C4 does not align with the dominant arrival, weakening the effect of the dissonance), it is not entirely without merit.



Assignment No. 3: J.S. Bach Prelude in C Major (from *WTC*, book I)

Comments, cont.:

[Cont.] The principal motivation for reading m. 23 as a leading tone seventh chord is the expectation for the dissonant C4 in m. 22 to resolve down by step. Students who analyze this Prelude without giving great attention to issues of harmonic syntax and prolongation may be inclined to resolve the C4 in this way. Further, some listeners may find that the expectation for this dissonance to resolve overwhelms other prolongational considerations.

A second argument for this interpretation is based on the way the figuration itself interacts with the chordal and linear structures and with our expectations about how the chord in m. 23 unfolds. Regarding chordal and linear structure, if three voices in a texture compress into the space of a minor third, as occurs between the upper three voices in m. 23, a reasonable interpretation would be to treat the lowest and highest voices as chord tones and the inner voice as a passing tone between them. Before this point in the Prelude, every tone has been a member of the chordal structure; it is only through a process of compression--one that increases the overall musical tension of this passage--that these three voices are squeezed together as they are in m. 23. So, as the chord in m. 23 unfolds, we may expect that each tone, as we hear it, is part of the chordal structure, an expectation that holds until the C4 arrives. Given this expectation, some listeners may not be able to readjust their hearing in the moment to perceive the C4 is an essential chord tone and the B3 as ornamental.

Reading the C4 as ornamental is also supported by how it feels to perform these three notes. At the keyboard, the hand naturally moves through the C4 as it plays the gesture spanning B3 to D4. Keyboardists who play B3 with their thumb may give this note a slightly stronger emphasis and then play the C4 on the rebound that follows the beginning of the gesture, making the C4 feel in the hand like a passing tone. Granted, this feeling in the hand is conditioned by countless other gestures performed in different musical contexts, and some musicians might hold that it is the job of performers to mold their gestures to fit the musical structure of the music. However, when the musical structure is precisely what is in question, the way a

[Cont.] passage feels to performers can influence how they interpret its musical structure.

Despite the prolongational emphasis placed on m. 23 in Schenker's analysis, m. 22 is more essential to the musical meaning of the Prelude than m. 23. Unlike m. 23, m. 22 could not be removed from the piece without damaging the network of connections that hinge on F♯ and its resolution to G that is central to this Prelude (for more on this, see comment (l)). While either m. 22 or 23 could be removed without compromising the contrapuntal structure (*i.e.* if either measure were removed, the voice leading would still work), only m. 22 is essential to the Prelude as a whole. Taking emphasis off m. 23 and hearing it as a parenthetical addition gives us less reason to hear it strictly as a predominant to the dominant arrival in m. 24.

This shift in harmonic emphasis has implications for interpreting hypermeter. The expectation that mm. 22 will lead directly into the structural dominant suggests that m. 22 is the third bar of a three-bar hypermetrical group. When m. 23 provides not the expected dominant but the harmonically-ambiguous diminished harmony, both the hypermeter and this measure's place within it are called into question. To be sure, m. 23 could be heard as the fourth bar of a four-bar hypermetrical group, as Schenker does. However, m. 23 could also be heard as an extension of the third hypermetrical bar: a parenthetical reptition or re-experience of m. 22 and its hypermetrical position. Or, m. 23 could be heard as a quasi-downbeat, one that anticipates the fuller downbeat arrival of the dominant in the next measure.

The hypermetrical grouping of this passage is as open to interpretation as the harmonic identity and function of m. 23. Just like m. 23 could be heard either as a parenthetical pre-dominant dominant substitute -- a supertonic or leading tone seventh -- this measure also puts stress upon the hypermetrical integrity of the Prelude. Taken together, the observations made in this comment show that by m. 23, the Prelude has reached its contrapuntal, linear, harmonic, and hypermetric breaking point. The stable musical construct of the opening measures is now at the point of collapse.

Assignment No. 3: J.S. Bach Prelude in C Major (from *WTC*, book I)

Comments, cont.:

(j) The structural dominant of the Prelude arrives at m. 24. The resolutions of the dissonant 7th and leading tone are two of the most important musical issues for the remainder of the Prelude. As Schenker's analysis demonstrates, another significant issue is register. Will the Prelude eventually recover the register found at its opening? If so, how?

(k) Neither the leading tone nor the dissonant 7th in m. 24 resolve to stable tones of resolution in m. 25. The analytical principles relevant to this passage are found in Q17 and Q18 of "Twenty Questions." The voice leading construct found in mm. 25–27 of the Prelude is specifically addressed in Part (2) of Q17. In short, C4 in m. 25 cannot serve as a tone of resolution because it is a dissonant 4th and therefore a sign of the note to which it will resolve: B3. The voice exchange that occurs between the top and inner voice in mm. 24–26 renders m. 25 as a passing harmony that transfers the dissonant F3 in m. 24 to F4 in m. 26. Hence, even though the E3 in m. 25 is consonant, the context determines that this note is not a stable tone of resolution and that the dissonant 7th remains active and unresolved throughout mm. 24–27.

(l) The dissonances in m. 28 must be understood in relation to the pedal tone G2 in the bass. The C4 does not serve as a stable tone of resolution of the leading tone in m. 27 for the same reason mentioned in comment (k). More importantly, this measure evades resolution of the chordal seventh (F4) by a chromatic ascent through F♯4 to G4 in m. 29. The harmonization of the F♯ as a leading tone seventh applied to the dominant evokes m. 22, where the F♯ did not resolve directly to the G. The resolution of F♯4 to G4 in m. 29 addresses this problem, satisfying the need it created to hear the fully diminished seventh chord resolve to the dominant. NB: by m. 28, neither the leading tone nor the chordal seventh of m. 24 have resolved.

(m) M. 29 is one of the most deeply satisfying measures of the entire Prelude. [*To fully appreciate m. 29, students should first carefully review the concept of dissonance as traces, found in Q19 of "Twenty Questions." The explanation of m. 29 that follows presumes an understanding of this concept.*] Comment (l) showed how this measure addresses the fissure of mm. 22–23.

(m) [Cont.] Moreover, m. 29 finally provides the note of origin implied by the dissonant 7th (F), and by extension every chordal seventh in the Prelude, so that this dissonant, chordal seventh can be approached by a passing figuration (see the indicator in m. 30). With only two exceptions (the B♭3 in m. 20 and the chromatic passing tones in mm. 12, 14, and 22), every chordal seventh from the beginning of the Prelude onward is approached by static motion. At each of these moments, this note of origin is studiously avoided, so that its absence only increases the sense of longing for it (however unconscious a listener may be of this longing). In mm. 20–21, Bach seems to both acknowledge and increase this desire to hear a chordal seventh approached by passing motion when he sets up a resolution to a potential note of origin for a chordal seventh (the F4 in m. 21) only to elide this note from the texture, leaving another static approach (see comment (g)). Finally breaking this pattern of static approaches and establishing the G4 in m. 29 so that the chordal seventh of m. 30 can be approached by passing figuration is all the more satisfying for having been delayed and allows the Prelude to move toward its conclusion. NB: by m. 31, neither the leading tone nor the chordal seventh of m. 24 have resolved.

(n) Had both the leading tone and chordal seventh from m. 24 both finally resolved as expected to a root position C Major harmony in m. 32, then this measure would represent the point of resolution for both tendency tones. M. 32 is the first reasonable point of resolution of the dissonant F4 that students may choose. Such a reading is supported by interpreting m. 32 as an elision of the tonic triad, which, though absent, still provides the stable context for the resolution of the dissonant 7th sustained since m. 24. An elision would also imply that the leading tone has resolved, but that its tone of resolution (C4) has been removed and replaced by another chordal seventh (B♭3).

However, a normal resolution does not occur at m. 32, and the elision has consequences for interpreting the resolution of tendency tones. The dissonant B♭3 in m. 32 is a chromatic passing tone that connects the B3 in m. 31 to the A3 in m. 33.

Assignment No. 3: J.S. Bach Prelude in C Major (from *WTC*, book I)

Comments, cont.:

n [Cont.] The elision of C4 in m. 32 is similar to the first elision in the Prelude, found in mm. 20–21, in which the tone of resolution was strategically avoided. Similarly, the elision in m. 32, which works in a nearly identical manner, invites us to hear the resolution of the B♭3 not merely as elided, but also as intentionally avoided. As a result of the elision, the B♭3 adds to the list of chordal sevenths that do not proceed from their diatonic tone of origin (in this case, C4). So, while it is reasonable to interpret the B3 as resolving to an elided C4 in m. 32, the musical processes at work in the Prelude as a whole suggest that the B3 resolves not at m. 32 but rather in m. 35, at least in a strict contrapuntal sense.

By changing the quality of m. 32 into that of a dominant seventh chord, he B♭3 holds consequences for the resolution of the chordal seventh (F4) as well. Keeping in mind that tendency tones serve as signs of the notes to which they resolve (as explained in Q19 of "Twenty Questions"), the E4 at m. 32 is a leading tone that calls to mind F4. Even though E4 is a consonant interval above the bass, and is thus qualified to serve as the tone of resolution of the chordal seventh from m. 24, Bach is quite clearly frustrating the resolution of these dissonant tones, a process he takes even further through the elision at m. 32. Like the leading tone, the chordal seventh also fails to resolve satisfactorily at m. 32. The comments that follow interpret both of these tendency tones as not having found their resolution by m. 32.

Although m. 32 does not provide stable resolution to the outstanding tendency tones, it nevertheless should be understood as the final authentic cadence of the Prelude. (The lack of a change of bass in m. 34 precludes this measure from serving as an authentic cadence.) The post-cadential tonic expansion in mm. 32–35 deals with the two remaining musical problems: the resolution of the tendency tones and the recovery of the Prelude's initial register.

o In m. 33, the dissonant F prolonged since m. 24 is restated and transferred by arpeggiation through the neighboring 6/4 chord from F4 to F3. On beat 4, with the addition of the dissonant 2nd above the

o [Cont.] bass, the F3 temporarily becomes a consonant interval. Here, the Prelude recalls the opening tonic-expanding progression of mm. 1–4, providing a fitting sense of return and completion and highlighting the change of register between the Prelude's open and close.

In m. 33, the B♭3 finds its expected resolution in A3, which (according to Schenker's analysis) ultimately passes to an implied G3 which is later picked up one register higher.

p The dissonances in m. 34 should be understood in relation to the pedal tone C2 in the bass. Only the dissonant F, now transferred to the highest register of the Prelude (F5), is prolonged as an essential dissonance still in need of resolution. The B2 is circled because it is a leading tone. By moving to the higher register, the Prelude's top voices find their conclusion in the register in which the Prelude began, solving the second problem listed at the end of comment (n).

The only remaining problem involves the resolution of the dissonant F first established in m. 24. After climbing into the highest register, the F5 is transferred to an inner voice F4 that resolves at last to E4 in the final measure.

NB: the E4 in the middle of beat 4 of m. 34 is not a plausible tone of resolution of the F4, due to its awkward contrapuntal implications if it were to be treated as an essential interval above the bass and because it is a non-chord tone (one of only a few in the entire Prelude).

Although the dissonant F4 finds contrapuntal resolution in its final measure, the Prelude leaves open the possibility of interpreting the dissonance as not fully resolved, even by the double bar. By placing the dissonance in the highest register in m. 34 and not resolving it in that same register, our ears are left desiring a resolution in that register--a resolution that is not ultimately provided, at least within the Prelude. Instruction #8 invites students to consider how the Fugue addresses this remaining compositional problem.

Twenty Questions: An Introduction to Counterpoint, Linear Analysis, and Dissonance Treatment

Assignment No. 4: Schubert, "Heidenröslein," Op. 3, no. 3, mm. 1–16

Answer Key

Name: _____

Instructions and Questions:

(1) Provide the key of the song in the box provided. Then, follow the step-by-step guide to linear analysis provided at the end of the "Twenty Questions" document to perform a linear and dissonance-treatment analysis of the first strophe of the song.

(2) For this assignment, limit your analysis of dissonance treatment to the piano part. However, identify ornamental tones in both voice and piano as normal, enclosing them in parentheses and labeling their type (see Q11 in "Twenty Questions"). In the piano part, label the figuration type created by the approach and resolution pattern of each essential dissonance (see Q8 in "Twenty Questions").

(3) This song is homophonic: its texture consists of melody plus the four-voice chordal figuration in the piano. Most dissonances resolve as expected in the voice (*i.e.* the musical line, not the voice part) in which they occur. However, there are several exceptional dissonance approaches and resolutions that do not resolve according to the guidelines. Please refer to Q8 and Q17 as you study dissonance treatment in this song.

(4) The tonal center of "Heidenröslein" shifts in m. 6 and again on the second beat of m. 11. Please study these measures carefully, write in the new tonal centers where they occur, and keep these changes in mind when identifying subsequent leading tones.

(5) Label the type and key of every cadence (e.g. "PAC/G") in the boxes provided above the staff.

(6) The closing phrase in the voice (mm. 13–14) is repeated in the piano's postlude (mm. 15–16). What are some of the similarities and differences between these measures?

See comments (k) and (l).

(7) The cadential status of m. 4 and m. 12 is one of the more complex questions in this piece. What musical features support hearing these moments as cadences, and what elements weigh against such a hearing?

See comment (c).

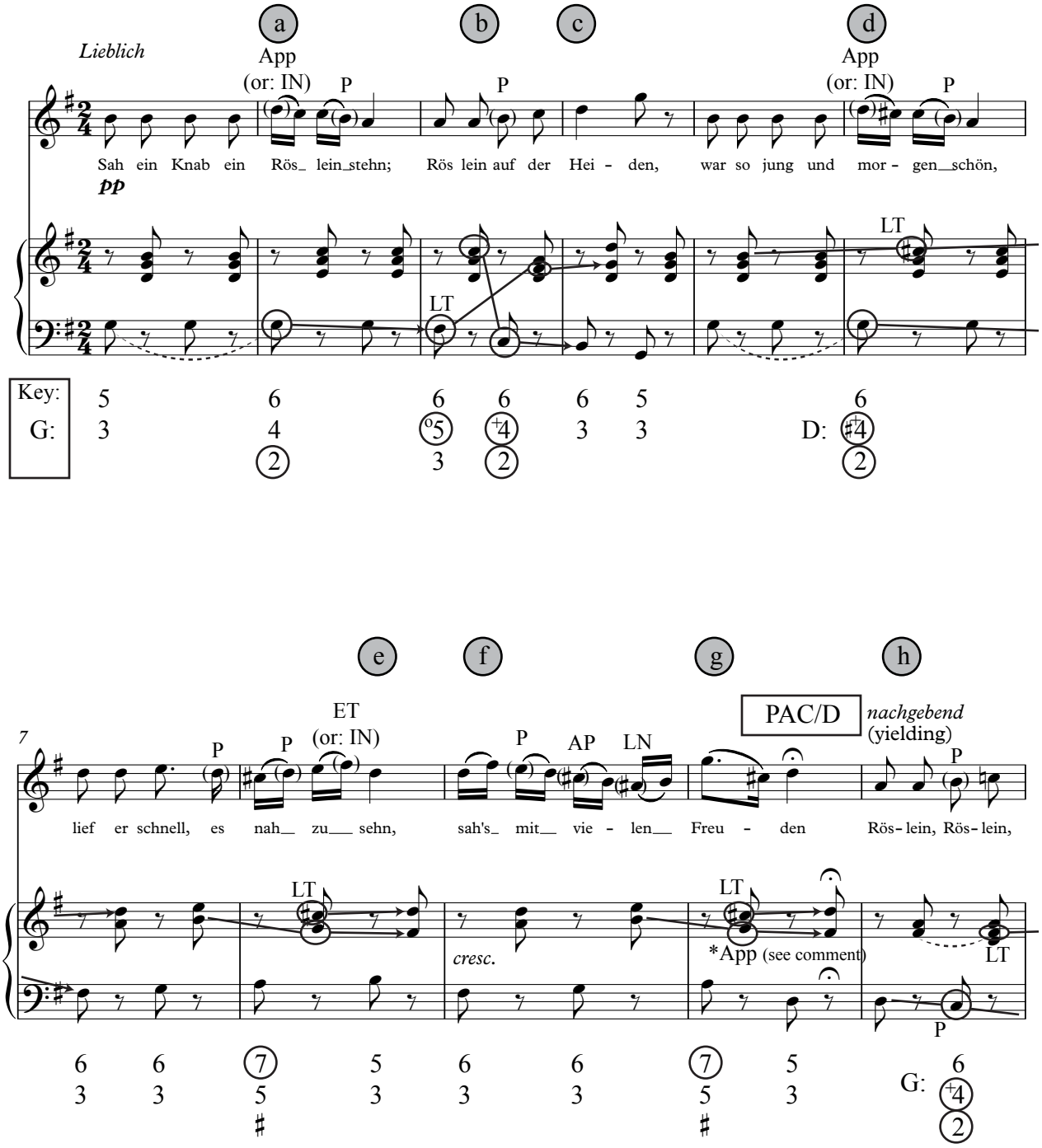
(8) The lilting melody in the voice includes a number of tendency tones (*i.e.* passing tones and dissonances), some of which do not resolve strictly according to expectation. Find and list some tendency tones in the voice that resolve normally, and also list some that do not resolve as expected. Discuss the dissonances you list that have unusual resolutions. What role does the piano play in resolving dissonances? How do unusual resolutions provide character to the voice part? (Continue your response on the back page if necessary.)

See comments (b), (g), (i), and (l) for examples of dissonances that do not resolve as expected.

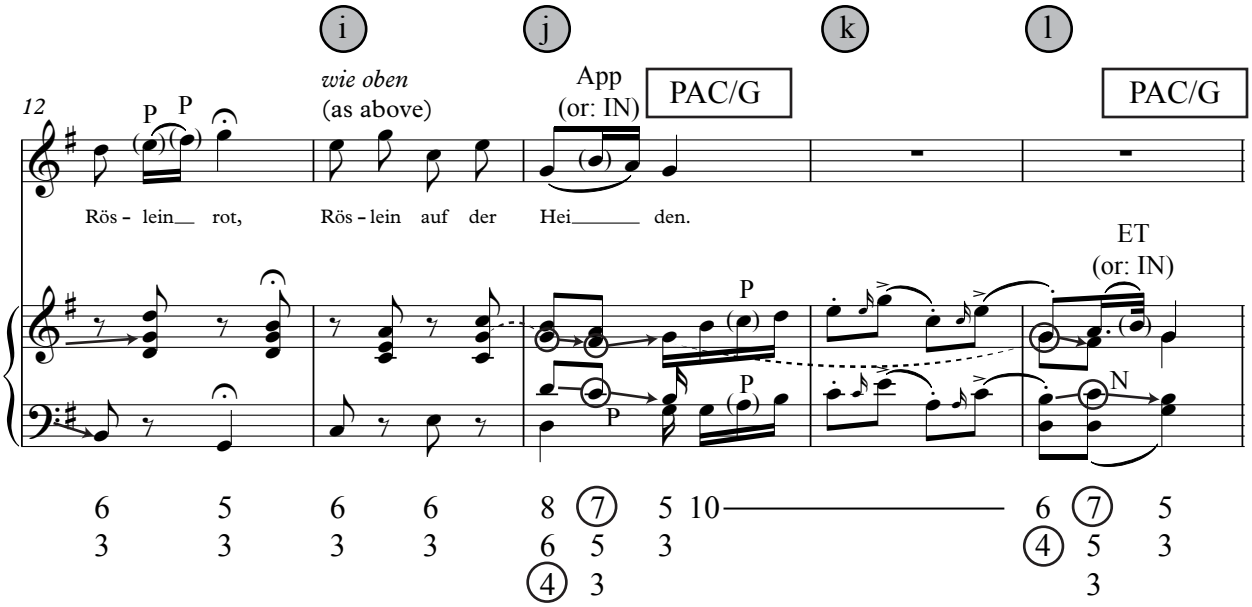
(9) After you have completed your musical analysis, study Goethe's poem (including its formal structure, poetic personae, poetic images, and their hidden meanings) and write on the back page three observations about how music and text relate. The best responses will consider both holistic features (like musical and poetic tone and structure) and the coordination of specific music-textual details (like punctuation and cadences, register, modulation, poetic and musical repetition, and changes in poetic persona).

Responses will vary.

Assignment No. 4: Schubert, "Heidenröslein," Op. 3, no. 3, mm. 1–16



Assignment No. 4: Schubert, "Heidenröslein," Op. 3, no. 3, mm. 1–16



Text and Translation

Schubert's setting of Goethe's "Heidenröslein" is strophic in form: each of the three poetic stanzas below are set to identical music. The first strophe of the song is represented in the musical excerpt above. The translation below is freely adapted from Philip L. Miller, *The Ring of Words: An Anthology of Song Texts* (New York: Norton, 1963).

Sah ein Knab' ein Röslein stehn,
Röslein auf der Heiden,
War so jung und morgenschön,
Lief er schnell es nah zu sehn,
Sah's mit vielen Freuden.
Röslein, Röslein, Röslein rot,
Röslein auf der Heiden.

A boy saw a rosebud,
rosebud on the heath;
'twas so young and morning-fair,
fast he ran to see it near;
he gazed at it with great delight.
Rosebud, rosebud, rosebud red,
rosebud on the heath.

Knabe sprach: "Ich breche dich,
Röslein auf der Heiden."
Röslein sprach: "Ich steche dich,
Dass du ewig denkst an mich,
Und ich will's nicht leiden."
Röslein, Röslein, Röslein rot,
Röslein auf der Heiden.

The boy said: "I'll pick you,
rosebud on the heath."
The rosebud said: "I'll prick you,
so that you will always think of me,
and suffer it I will not."
Rosebud, rosebud, rosebud red,
rosebud on the heath.

Und der wilde Knabe brach
's Röslein auf der Heiden;
Röslein wehrte sich und stach,
Half ihm doch kein Weh und Ach,
Musst' es eben leiden.
Röslein, Röslein, Röslein rot,
Röslein auf der Heiden.

And the unruly boy picked
the rosebud on the heath;
the rosebud defended itself and pricked,
yet no grief and cries helped her,
she simply had to suffer.
Rosebud, rosebud, rosebud red,
rosebud on the heath.

Twenty Questions: An Introduction to Counterpoint, Linear Analysis, and Dissonance Treatment

Assignment No. 4: Schubert, "Heidenröslein," Op. 3, no. 3, mm. 1–16

Comments:

The charming character of this well known song is due in part to its deceptively simple musical materials and the *double entrendre* of its text. The song's lilting melody and chordal accompaniment are full of subtle intricacy, while the seemingly innocent poetic images of picked rosebud and pricked boy thinly veil a sexual encounter marked by desire, dominance, and distress. The interplay of tensions within text and music and between them make this song a delight to study, interpret, and perform.

(a) The harmony in m. 2 is clearly a 6/4/2 chord. The first two chords "Heidenröslein" suggest that the song will open with the same contrapuntal tonic expansion that began Bach's Prelude in C Major, studied in Assignment No. 3. Unlike Bach's Prelude, however, the opening of "Heidenröslein" veers melodically and harmonically from the expansion's typical continuation (V65 back to I). See comment (b) for further discussion of this point.

There are several ways to interpret the D5 and C5 sung by the voice on beat 1. This subtle ambiguity is caused by the figuration in the piano, which sets the bass note off from the remainder of the chord by one eighth note. As a result, for a brief moment on the first eighth note of the beat, the D5 would seem to be consonant and the C5 dissonant. A listener hearing this piece for the first time might think for a brief moment that the 5/3 chord from the first measure will continue into the second , making the D5 a chord tone and the C5 is an ornamental tone.

But does such a listener exist? Do listeners of any training hear music from one brief moment to the next? No, so students must remember to interpret music as they experience it, not (only) as it may appear on the score. From a listener's perspective, the D5 is going to be heard relative to the music that occurs around it. Listeners familiar with harmonic rhythm in the classical style will expect a harmonic change in m. 2, and those who know the song well will know that a harmonic change is already present from the downbeat of m. 2.

A hybrid of the above two interpretations may also be possible. Sophisticated listeners and performers may at once understand that the D5 is an ornamental tone yet choose to enjoy hearing and singing the D5 as a consonance that playfully interacts with the

(a) [Cont.] figuration in the piano--one that, through a quick mental reinterpretation, is understood after the fact to be an ornamental tone.

Even simple interpretive questions like the status of the D5 depend on and thus illustrate the contigency of analysis on assumptions about how listeners hear (or might hear) a passage of music. Far more important than getting the analysis "right" is being able to articulate why a particular analytical decision was made in the first place, and what assumptions are built into that decision.

Depending on the labeling system being used, the D5 may be interpreted as an incomplete neighbor or appoggiatura.

(b) The harmonic expansion I - ii4/2 - V6/5 - I is common enough that the deviation from this pattern in m. 3 is noteworthy. The inversion of the dominant chord from 6/5/3 to 6/4/2 accomodates the voice's ascending gesture. Instead of outlining a common upper-voice structure to the harmonic expansion above (*e.g.* B - A - C - B in mm. 1–4), the melody breaks out and climbs to G5. As a result, the chordally dissonant C5 in the voice resolves up by step, resisting the downward tendency of this note and giving the voice (and the poetic persona behind it) a sense of assertive independence.

In contrast, the piano part and bass line seem to submit to the free movement of the voice, supporting its ascent by inverting the dominant chord so that C3 is in the bass on beat 2. (Notice how a voice exchange--A4 to C5--between the voice and the piano's upper line occurs simultaneously with a transfer of the C5 to the bass and the leading tone F♯3 to an inner part.) With C3 in the bass, the chordal dissonance receives proper resolution down by step and the C5 in the melody becomes a consonant perfect 8ve above the bass, lessening its tendency to resolve down. Had the bass line stayed

Assignment No. 4: Schubert, "Heidenröslein," Op. 3, no. 3, mm. 1–16

Comments, cont.:

b [Cont.] on F♯3 in beat 2 and resolved up to G3 in m. 4, a move from C5 to D5 in the voice would have created a contrapuntally unsatisfying resolution (diminished 5th to perfect 5th).

The construction of the melody in mm. 1–4 also suggests that its ascent to G5 in m. 4 breaks expectation. The melody in mm. 1–4 begins simply: B | DCBA | ABC. Its mostly symmetrical quality suggests a return in m. 4 to B (perhaps with a conclusion on G4), an ending that would not have required inverting the dominant harmony and deviating from the harmonic pattern. The deviation from this somewhat banal melodic trajectory and achievement of G5 at the end of the melodic line marks this note and its register as melodically and structrually important.

Finally the ascent of the line in mm. 3–4 is mirrored by the bass, which moves in contrary motion down to G2. This outer-voice expansion pushes strongly against the ambitus set in place at the song's opening. At m. 5, the piece snaps back to its opening range, throwing the wider ambitus of m. 4 into greater relief.

c The cadential status of the ending of the melodic line in m. 4 is an open question. On the one hand, the bass does not support a clear root-position dominant to tonic harmonic motion as occurs in m. 10 (see comment (g)), and the melody's climb to G5 is counter-normative, suggesting openness rather than closure. On the other hand, the repetition in m. 5 of the music heard in m. 1 indicates that a new phrase has begun, suggesting that some relative degree of closure has been previously achieved. In addition, the first four measures do close with a dominant-tonic gesture, albeit in inversion, and the melodic rhythm provides additional respite. The contrapuntal tension in m. 3 also finds resolution in m. 4. Despite the fact that m. 4 lacks a normative cadential bass and harmonic structure, the other elements mentioned above suggest some degree of closure. This moment might best be described as a "contrapuntal cadence," a cadence type in which strong contrapuntal closure takes the place of harmonic closure.

c [Cont.] The cadential status of m. 4 will receive further attention in comment (g), where the phrase type of mm. 1–10 is discussed.

To summarize, underneath the light texture of mm. 1–4 are found a set of oppositions, including those between melody and counterpoint, melodic structure and spontaneity, registeral normativity and expansion, and cadential closure and openness. The interplay between these musical tensions and the meanings we might derive from them are manifold and dynamic: as the poetic narrative progresses and the antagonism between poetic personae increases, the musical tensions may be reinterpreted in light of the text with each progressive strophe.

d Except for the raised subdominant tone, m. 6 is parallel to m. 2 in every respect. The C♯ in m. 6 causes a shift in tonal center to D major. It also causes the 4th above the bass to be an augmented dissonant interval, whereas the 4th was a perfect consonance in m. 2. Because the C♯ is both dissonant and a leading tone, this measure is less stable and more active than the 6/4/2 chord in m. 2.

e In m. 8, the voice achieves melodic closure by reaching the tonic, but the bass avoids phrase closure by moving to the submediant, creating a type of evaded cadence often labeled a deceptive cadence. Notably, for the first time in the song, the piano part resists the direction of the voice.

f As the phrase in mm. 9-10 doubles back for a second attempt at a cadence, the voice circles around a complex of pitches heard from the song's beginning: B4, D5, and G5. Embellishing these tones is an accented passing tone and chromatic lower neighbor on beat 2.

g Unusually, the dissonant G4 in the piano is approached by descending leap. The ascending leap in the voice likely renders this leap to a dissonance inaudible. The approach to the G4 in the piano is labeled as an appoggiatura figuration because of the approach to this note in the voice. Alternatively, it could be labeled as a passing figuration, based on an implied note of origin (A4) from which the G4 passes. The label of this tone is not of great significance. Far more important is the reappearance of G5 in the voice.

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Comments, cont.:

g [Cont.] As mentioned in comment (c), the G5 is already a marked tone in this song, given the manner in which it breaks out of the melodic trajectory of the opening melody. The leap to G5 following emphasis on D5 and B4 in mm. 9–10 recalls the similar upward flight in m. 4. However, in m. 10, the dissonant G5 is left hanging: it is not immediately resolved in its register (though the piano resolves G4 to F♯3 in an inner voice). In m. 10, the voice seems caught between the impulse to reach for G5 and the desire to reach melodic closure. These two goals could be met in m. 4, where the tonal center was G. In m. 10, the new tonal center, D major, and stronger cadential gesture in the piano set these two goals at odds, and the phrase ends with a dissonant G5 still hanging in the air and lingering in the listener's memory.

At m. 10, the first well-defined cadence occurs, a PAC in D major. Taking m. 4 to be the end of a phrase, the first two phrases can be interpreted as a parallel period, with mm. 1–4 as the antecedent and mm. 5–10 as consequent. The consequent is extended due to the deceptive cadence in m. 8.

The modulation of the consequent phrase to D major corresponds with a shift in the poetry to the perspective of the young rosebud, who is beheld by the boy in the first stanza and who pricks him and surrenders to him in the second and third. The tension between melody and counterpoint at play in the music captures the struggle between poetic personae during these lines of text.

h The connection between m. 4 and m. 10 is confirmed by the phrase that begins in m. 11, which starts with the contrasting idea of the antecedent phrase found in mm. 3–4. This phrase shifts the music back to G major, once again reaches G5, and places this note in a stable contrapuntal context. The phrase ends with a contrapuntal cadence.similar to m. 4.

i During its final appearance in the predominant arpeggiation in the voice that brings the phrase to its final cadence, the G5 is again a dissonant member of the supertonic on beat 1. If this G5 was to be interpreted in the linear analysis

i [Cont.] as a contrapuntal dissonance, it could be circled and shown to transfer to the piano part, where it is resolved in an inner voice in m. 14. However, because E5 and C5 seem to be the essential contrapuntal tones in the voice and participate in a voice exchange with the bass, it is also acceptable to treat the G5 as an ornamental dissonance, one that arpeggiates in the voice the subdominant harmony that is heard on beat 2. At moments like this, when it is difficult to determine the contrapuntal status of a note, it can be useful to simply listen and ask if a note seems to require resolution as all contrapuntal dissonances do. The analysis provided here suggests that this G5 is not a contrapuntal dissonance, though it would be understandable for others to think differently.

j The voice's descending arpeggiation in m. 13 allows it to cadence in the register of the song's opening; the melody arrives at G4 in m. 14, beat 2, strengthening the sense of closure acheived through the PAC in G major. The descending 6th leap to G4 in the voice balances the ascending 6th gestures (from B4 to G5) that occurred earlier in the song.

k The closing gesture in the voice is repeated in the piano's postlude, though with minor changes. In m. 15, the piano reverses the harmonic pattern in m. 13, moving from a subdominant to supertonic harmony and eliminating the voice exchange. The parallel tenths carry the postlude swiftly and lightly to its final cadence, prolonging the final tonic G to the final bar.

l Another subtle change found in the postlude's cadence is a reversal of the cadential gesture itself. In m. 16, the piano retrogrades the gesture heard in the voice in m. 14: G - B - A - G becomes G - A - B - G, with the B's functioning as an appoggiatura in m. 14 and an escape tone in m. 16. Also notice the doubled dissonant 4ths in m. 14 and 16 and the unusual upward resolutions that occur at each place. The harmonic and melodic reversals in the postlude provide the song a playful end that befits its charming character.