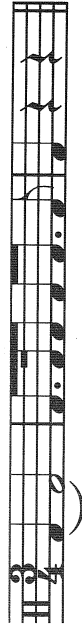


7. In B major, name the dominant, mediant, leading tone, subdominant.
In F major, name the supertonic, subdominant, tonic, submediant.
In d harmonic minor, name the dominant, leading tone, mediant, submediant.
In D major, name the dominant, leading tone, mediant, submediant.

8. What is the meaning of each time signature? $\frac{3}{4}$, $\frac{6}{4}$, $\frac{5}{2}$, $\frac{2}{2}$, $\frac{8}{8}$
9. For each example below, correct the rhythmic notation to match the indicated time signature.

1 

2 

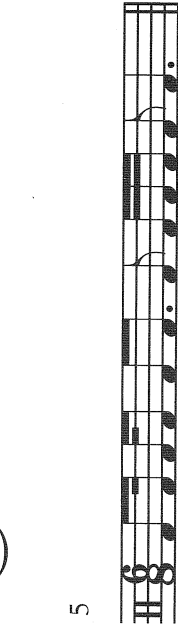
10. What is the difference between $\frac{3}{4}$ time and $\frac{8}{8}$ time?
How are the eighth notes grouped in $\frac{8}{8}$ time? in $\frac{12}{8}$ time?
11. For each example below, correct the rhythmic notation to match the indicated time signature. Add bar lines.

1 

2 

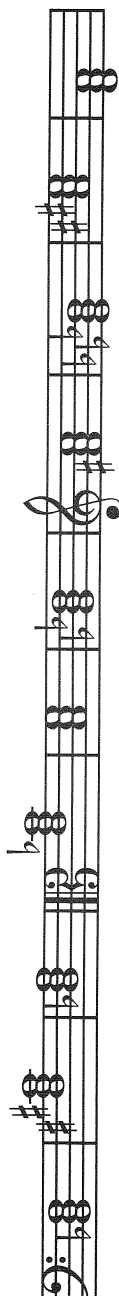
3 

4 

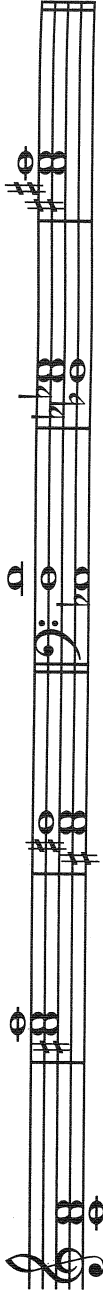
5 

(pages 14–15)

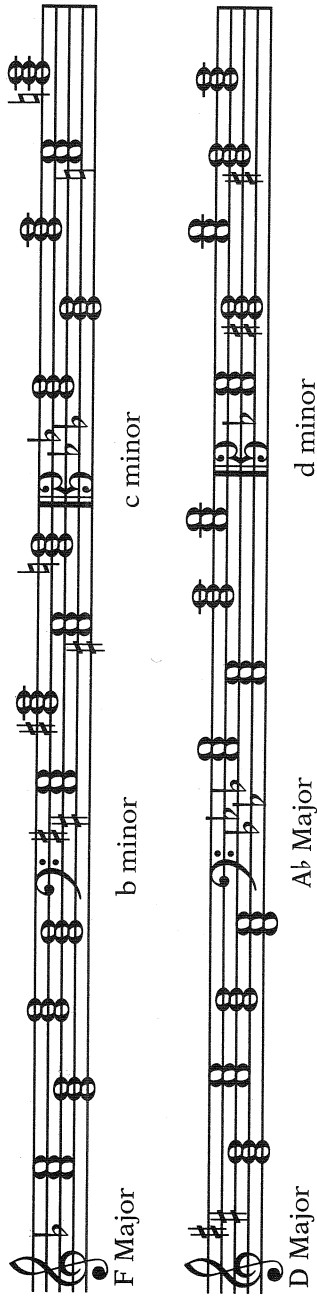
1. Write the triads indicated. Do not use a key signature; supply all needed accidentals. E $\flat$ major, g $\sharp$ minor, A major, b diminished, f minor, b $\flat$ minor, c $\sharp$ diminished, D $\flat$ major, E major, C augmented.
2. Identify the chord quality of each triad. Use abbreviations: M = major, m = minor, d = diminished, + = augmented.



3. Put each triad into root position, then identify the name and quality of each triad.



4. Write out all the triads of B $\flat$ major. Label each triad with a Roman numeral, using large and small Roman numerals and o and + signs to indicate chord quality. Then do the same exercise in b $\flat$ minor. Do not use key signatures—check all accidentals.
5. In the exercise above, which triads are the same in both major and minor modes?
6. Write triads in the keys and clefs indicated. Do not use key signatures; supply all necessary accidentals.
Treble clef: A major, I, IV, ii; e minor, III, ii $^\circ$, V, VI; D $\flat$ major, ii, V, iii, vii $^\circ$; c minor, mediant, dominant.
Alto clef: B major, I, V, vi; D major, submediant, supertonic; F major, subdominant, submediant, leading tone.
Bass clef: f minor, III, ii $^\circ$, V, VI; E major, mediant, dominant; c $\sharp$ minor, subdominant, leading tone, submediant.
7. Identify the chord quality of each triad. In major keys: tonic, dominant, supertonic, leading tone, subdominant, mediant, submediant. In minor keys: tonic, mediant, subdominant, leading tone, supertonic, submediant, dominant.
8. Identify each triad with a Roman numeral. Use upper and lower case, and o and + signs for chord quality.

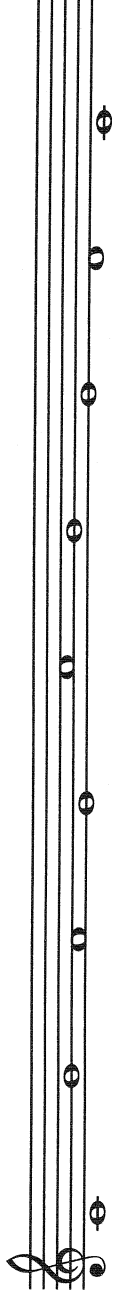


EXERCISES FOR PART 2

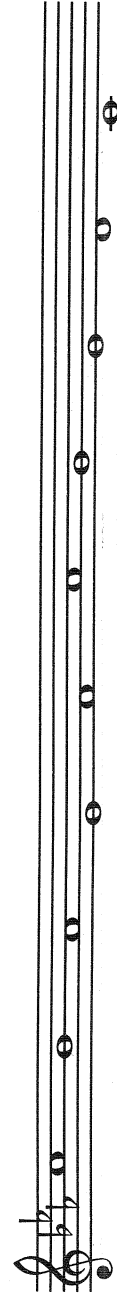
1. Write melodies in whole notes, following the principles outlined under first species. Each of these can be used as a *cantus firmus* for counterpoint.
2. Write exercises in each of the five species, practicing both above and below a cantus firmus (CF). For all exercises, sing your line as you play the CF on the piano, or sing both parts in class. Always try to make your lines smooth and coherent. Each of the following CFs

both begins and ends on the tonic. Each can therefore be used as an upper or lower part for exercises in any of the five species.

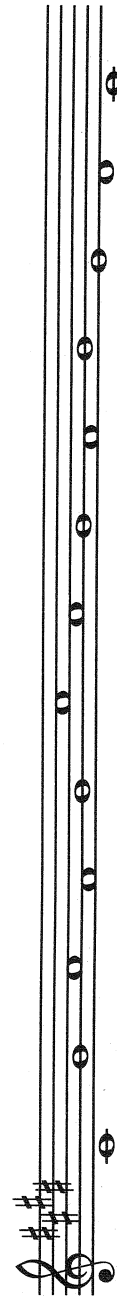
1.



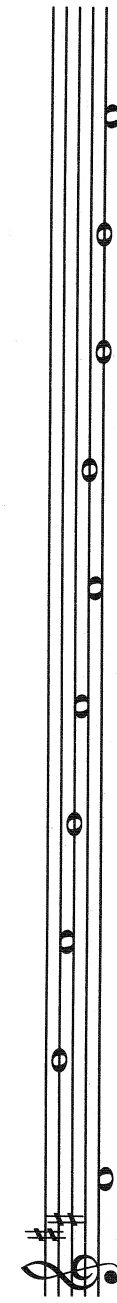
2.



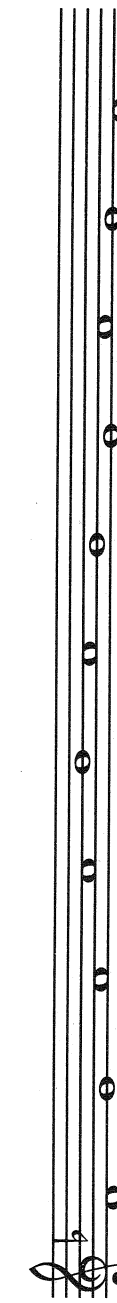
3.



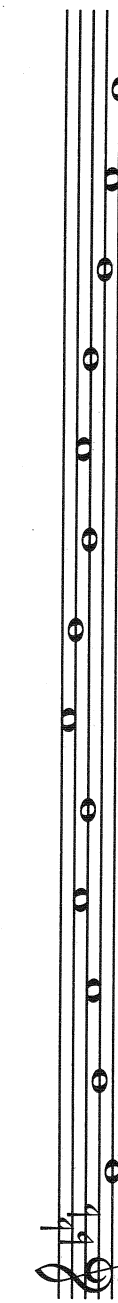
4.



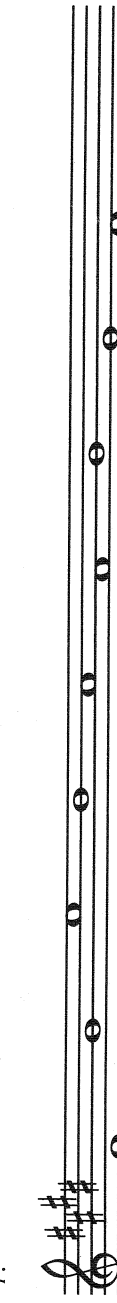
5.



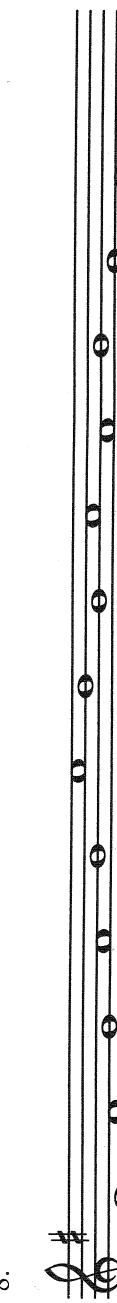
6.



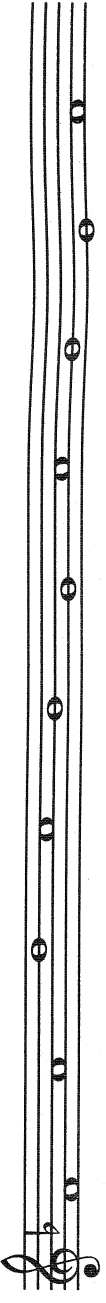
7.



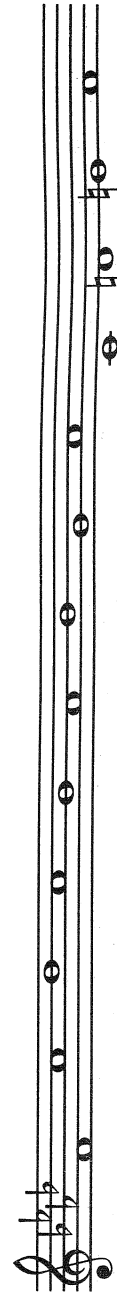
8.



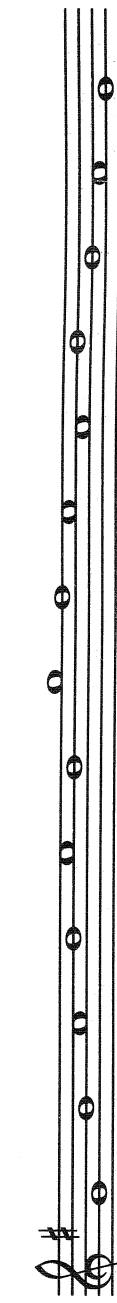
9.



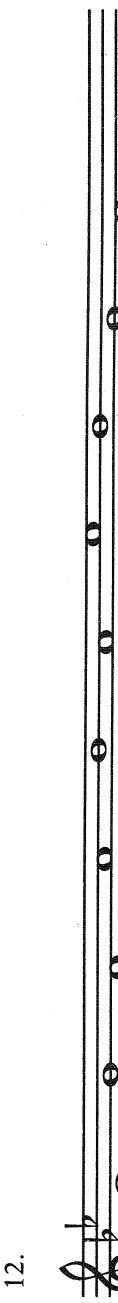
10.



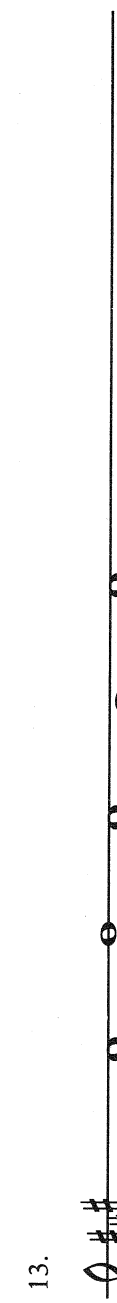
11.



12.



13.



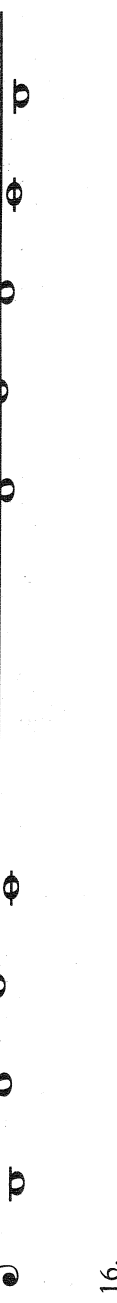
14.



15.



16.



3. Take any of the two-voice motets by Roland de Lassus, play or sing the piece, and look for the following points: Within each voice, find the phrasing. The phrasing usually coincides with phrasing in the text. How is each phrase shaped in terms of its beginning, middle, and end? Is there a climax in the phrase? How does the rhythm tend to work within each phrase? What musical means are used to create cadences?

Look for imitation between the two voices. If there is imitation, is it exact? How long does it go on? At what interval does one voice imitate the other? Is this intervalic distance maintained, or does it change at some point to a different interval? At what distance in time does the second voice imitate the first? What happens to the imitation as the cadence is approached.

These questions will not have exactly the same answers in each motet. Therefore it is especially helpful to look at several different pieces for comparison.

4. Students who have mastered the species may wish to try a two-voice free counterpoint in the style of the Lassus motets. Use the following start to begin such a piece. This can be worked in imitation at the octave or fifth, and brought to a final or intermediate cadence. More phrases can be added. A familiar Latin text can be part of this project: *Dona nobis pacem, et in terra pax hominibus.*

etc.

Do - - na - no -

The musical notation is on a single staff with a treble clef and a key signature of two flats (B-flat and E-flat). The melody consists of the following notes: a half note D4, a half note D4, a half note E4, a half note F4, a half note G4, a half note A4, a half note B-flat4, a half note A4, a half note G4, a half note F4, a half note E4, a half note D4. The notes are connected by a slur, indicating a continuous melodic line.

EXERCISES FOR PART 3

(pages 33–38)

1. Write the key signature indicated, then write each progression in four voices, keeping common tones where possible: D major: I - V - I. a minor: i - V - i. E major: I - IV - V - I. c minor: i - iv - V - i.
2. Label each chord with a Roman numeral. Play these progressions on the piano.

The first system of the musical score for 'The Rose Tree' consists of two staves. The left staff is a treble clef with a key signature of one flat (B-flat) and a 4/4 time signature. It contains a melody of eighth and quarter notes. The right staff is an alto clef with a key signature of one flat and a 4/4 time signature. It contains a melody of quarter and half notes. A brace at the bottom connects the two staves.

key?

The first system of musical notation consists of two staves. The top staff is a soprano line with a treble clef, a key signature of one sharp (F#), and a common time signature (C). It contains a half note G4, a half note A4, and a whole note B4. The bottom staff is an alto line with a C-clef, a key signature of one sharp (F#), and a common time signature (C). It contains a half note D4, a half note E4, and a whole note F#4. A brace is positioned below the bottom staff.

key?

3. Write each progression, keeping common tones. Make sure to include a correct key signature for each:
 e minor: i - iv - V - i. F major: I - vi - IV - V. A♭ major: ii - V - I.
 b minor: i - V - i. g minor: i - iv - V - i. A major: I - vi - IV - ii - V.
4. Write these progressions, keeping common tones. Check accidentals and key signatures, watch for deceptive cadences and other exceptional situations. For each progression, label its *cadence type*: E♭ major: I - V - vi. d minor: i - VI - V - i.
 c minor: ii° - V - i - iv - i. F♯ minor: i - iv - V - VI. G major: I - V - vi - iii - IV - ii - V - I. B♭ major: I - vi - IV - V.
5. Use the bass lines to identify these root position progressions. Label with Roman numerals and add the upper parts.

[illegible]

१३:

The first system of the musical score for 'The Song of the Lark' is shown. It consists of a single staff with a treble clef. The key signature has one sharp (F#), and the time signature is 4/4. The melody begins with a quarter rest, followed by a quarter note G4, a quarter note A4, and a quarter note B4. The system ends with a double bar line.

a:

*remember to use a *major* V chord

- 6.** Label each chord with a Roman numeral, and mark any passing tones (pt) or suspensions (sus) that you notice.

A musical score for the song "The Rose Tree". The score is written for a four-part vocal ensemble (Soprano, Alto, Tenor, Bass) and a piano accompaniment. The key signature is one sharp (F#), and the time signature is 4/4. The music is in common time. The vocal parts are arranged in four staves, and the piano accompaniment is in a grand staff (treble and bass clef). The score includes a key signature change from one sharp to two sharps (F# and C#) in the final measure. The lyrics "The Rose Tree" are written below the vocal staves.

key:

- 7.** Invent a progression in two mini-phrases. The first ends with a half cadence, the second ends with a full cadence. Use about 10 or 12 chords, all in root position. You may add some passing tones if your progression allows.

PART 2

Species Counterpoint

Counterpoint is music in which two or more melodic lines sound simultaneously. Contrapuntal textures occur in many musical styles, from medieval music to jazz. In this book, two types of counterpoint are introduced: first, in this section, species counterpoint, and tonal counterpoint in Part 4.

Species counterpoint is a system for gaining contrapuntal technique that was developed out of the style of Palestrina and other sixteenth-century composers. As a tool for learning counterpoint, it supplies a very controlled and gradual introduction to melodic formation and the treatment of dissonance. It should be understood, however, that there is no musical literature in species counterpoint—it is for study only.

Systematic training in counterpoint has been a traditional part of musical study for at least 250 years. Bach, Handel, Haydn, Mozart, Beethoven, Schubert, and Brahms (to name only a few) studied species counterpoint, and the principles of melodic coherence contained in the species form a foundation for the structure of all tonal music. Since species counterpoint is a technical study as opposed to a stylistic one, its specific rules vary somewhat from author to author and from teacher to teacher, according to the specific goals of the course and the level of the students. The technique is introduced here for the purpose of providing experience with melodic line as a whole, with intervals, with principles of consonance and dissonance, and with the concepts of beginning, middle, and end. The more historical aspects of sixteenth-century counterpoint, particularly the use of the church modes, lie outside the scope of this presentation. Students seeking a more thorough course in species counterpoint will find some helpful references listed at the end of Part 2.

The study of species consists of exercises in writing counterpoint against a given line, called the *cantus firmus* (or CF). Each of the species has a particular rhythmic identity in relation to the cantus, and particular issues of dissonance treatment. The five species are note against note, two notes against one, four against one, offbeat two against one (suspensions), and florid, which is a combination of the other four. To practice species counterpoint, exercises should be written both above and below a cantus firmus.

The following outline of species counterpoint contains a large number of rules, which may seem overly restrictive to students eager to express themselves musically. Remember that the purpose of the rules is not to stifle creativity, but to *focus* it. The goal in species counterpoint is to create melodies that are beautiful, flowing, and coherent.

FIRST SPECIES

In **first species**, a melodic line in whole notes is written against a given line (cantus firmus—CF) in whole notes. Note that all examples in this book are in major and minor keys, as opposed to church modes.

Melodic Line

The following rules and guidelines serve the purpose of keeping the melodic line flowing and unbroken. The “forbidden” intervals are those that tend to break up the line. These rules apply to the melodic line itself (upper or lower part). The counterpoint, that is, the relationship of the line to the CF, is discussed below.

Intervals in a Melodic Line

Permitted: all major and minor intervals up to and including the major 6th; octaves.

Forbidden: all augmented and diminished intervals; all sevenths; all skips greater than an octave. No chromaticism is allowed. The only accidentals that may appear are those that raise or lower the sixth and seventh scale degrees in minor keys.

C major

d5

A4

chromatic

no

C minor

7th

no

A4

yes

A2

no

yes

no

9th

no

8ve

yes

7th

no

6th

yes

Skips in the Melodic Line

Two consecutive skips in the same direction should not equal more than an octave and should not outline a seventh. These rules also apply to situations in which there are more than two consecutive skips in the same direction.

Skips imply a change of direction to follow. The leap of an octave must be preceded and followed by a change of direction (see 1 & 2 below). The large interval or pair of skips totalling a large interval is an unusual event. The large skip is followed by a filling-in with smaller intervals, mostly steps (see 3 & 4 below).

1.

yes

2.

no

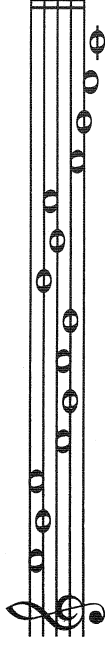
3.

big skip filled in mostly by steps.

4.

big skip filled in mostly by steps.

When skips are not filled in, one hears the line divided into several voices because of the separation of registers.



This line seems to have two voices, an upper voice answered by a lower voice. This effect should be avoided. Large skips should be filled in so that all registers sound connected, like a single voice.

Melodic Line: Beginning, Middle, and End

A coherent line has a clear sense of beginning, middle, and end. The following rules and conventions are aimed at achieving this coherence.

Beginning

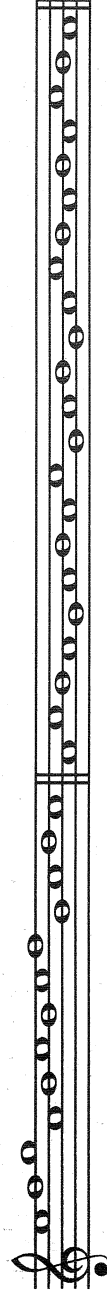
The upper part should begin on the first, third, or fifth scale degree; the lower part begins on the tonic note.

Middle

The middle should show direction, moving from the first note toward a **climax** (high point), and from the climax toward the cadence. The high point should only appear once, and should never be the last note. It may, on rare occasion, be the first note. The high point *should not* be the leading tone, since this tone needs to resolve upward. Occasionally a low point may substitute.

Repeated patterns and sequences tend to divide the line into smaller units, destroying the sense of unbroken continuity from beginning to end. Repeated patterns and sequences should therefore be avoided (see below). Going over the same notes again and again should also be avoided, as this deprives the line of its direction and purpose (see the second example, below).

Repeated notes are occasionally possible. Use no more than one repeated note in each part.



avoid sequences, repeating patterns don't go over and over the same notes

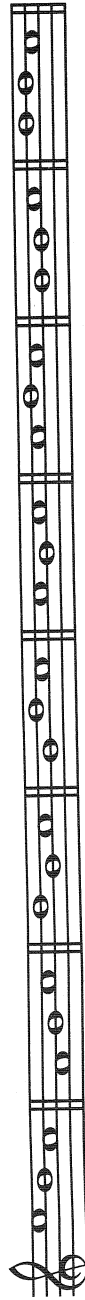
End

The end of a phrase, an exercise, or a whole piece is called the **cadence**.

The upper part may end on the tonic, or on the third or fifth scale step.

The lower part should cadence on the tonic note.

The approach to the last note should be as smooth as possible, promoting a sense of rest and completion. The following melodic cadence formulas help to achieve this goal. *Only these formulas* should be used for the last three notes of both upper and lower parts (they may be transposed to different scale degrees in the upper part). Observe that in all these patterns, all three notes are connected by step.



C major

Here are some examples of cadence patterns that might be acceptable in other contexts, but *should not* be used for the last three notes of an exercise in species counterpoint.



etc.

Counterpoint—Two Lines Together

Intervals

In first species, with both parts in whole notes, one note of the CF sounds against one note of the counterpoint. The interval between the upper voice and the lower voice must be consonant at all times.

Consonant Intervals

Unison, octave, major and minor 3rds and 6ths, perfect 5ths, and any of these plus an octave.

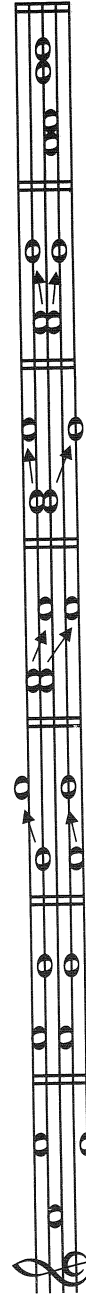
Dissonant Intervals

All augmented and diminished intervals, major and minor 2nds and 7ths, perfect 4ths.

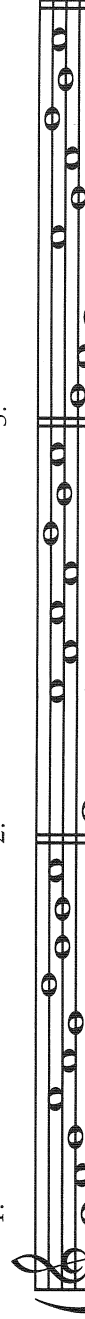
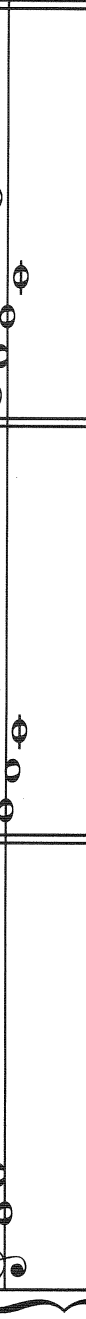
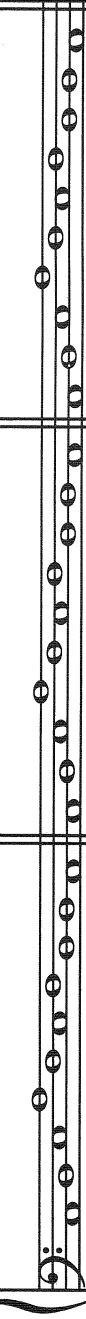
Independence of Voices: Parallel Motion, Octaves, and Fifths

The independence of the parts is a prime objective of counterpoint. Therefore *parallel octaves and fifths are forbidden*. *Direct octaves and fifths are also forbidden*. A direct octave or fifth is an octave or fifth that is approached from the same direction by both the upper and lower voice. Octaves and fifths must be approached in contrary motion. Parallel unisons are forbidden.

	parallel 8ve	parallel 5th	direct 8ve	direct 5th	8ve-contrary motion	5th-contrary motion	parallel motion
no	no	no	no	no	yes	yes	no



Parallel thirds and sixths are fine, but too many of them in succession destroy the independence of the parts. This is even more of a problem when a change of direction is involved (see 1 below). The independence of the voices is also weakened if both parts skip in the same direction at the same time (see 2 on the following page).

1.	2.	3.
		

C major

voices not independent

Better, but big skip in same direction at the same time in both voices is weak.

This is better, voices are more independent.

General Observations

The greatest independence of the voices is attained when they move in contrary motion, but contrary motion at all times is not necessary, possible, or even desirable. For greater independence, avoid making the high point at the same moment in both voices. Voice crossings are allowed. Remember that the general object is to write two smooth, coherent, and independent parts.

It is extremely important to connect contrapuntal rules to actual sounds: *Play or sing all examples and exercises!*

SECOND SPECIES

In **second species**, a melodic line in **half notes** is written against the whole notes of the CF.

Melodic Line

First species rules (intervals, skips, etc.) apply to second species melodies also.

Counterpoint Rhythm

Each whole note of the CF constitutes one measure. Each measure is divided into a strong beat (first half note) and a weak beat (second half note). The counterpoint may begin with a half rest, but no other rests are allowed. In second species there should be no repeated notes. The last measure will be a whole note, and the next-to-last measure may be either a whole note or two half notes.

rest to begin counterpoint	repeated note	rest other than first bar	whole note in next-to-last bar
yes	no	no	yes



C major

Consonance and Dissonance

On the *strong beat*, the interval between the CF and the *counterpoint must be consonant* (therefore octave, unison, m3, M3, P5, m6, M6, or any of these plus an octave).

On the *weak beat*, the interval between the CF and the counterpoint *may be dissonant* if the dissonance is treated as a *passing tone*. A **passing tone** is a dissonant note that is approached by step and left by step in the same direction. The passing tone (P.T.) serves to connect two consonant notes of the counterpoint that are a third apart.

Note that a weak beat may be a consonance, in which case no special rules apply to it; all skips in second species involve consonances. If the weak beat is a dissonance, it must be a passing tone. Remember that a *P.T. must pass by step between two consonances*, and must continue the line in the same direction (see example below).

diss. not repeated
 approached note;
 by step (diss. on
 on wrong beat) wrong beat

diss. not
 approached
 by step (diss.
 on wrong beat) wrong beat

diss. not
 approached
 and left in
 same direction

diss. not
 left
 by step

P5 M3 A4 P8 M7 M10 M9 P5 M6 m7 m6 x P8 M6 P8

C Major

Parallel 5th, consecutive weak beats

no

Parallel 8ve, consecutive beats

no

Parallel 5th, consecutive strong beats

no

Parallel 8ve, consecutive strong beats

no

5ths, consecutive weak beats

yes

Direct 5th, consecutive beats

no

5th, but not a direct 5th (no consecutive beats)

yes

Beginning, Middle, and End

The rules and conventions remain the same in second species as in first. Remember that the lower part must begin and end on the tonic.

The high point may be on either a weak or a strong beat.

The cadence pattern (in terms of pitch, not rhythm) should be one of those given for first species.

THIRD SPECIES

In **third species**, four quarter notes are written against each whole note of the CF. There should be no repeated notes. In this metric context, the first beat of the measure is the strongest, and the third beat is also relatively strong. Beats 2 and 4 are metrically weak.

Consonance and Dissonance

Within the melodic line, and between the two voices, classification of consonant and dissonant intervals is the same as has already been defined for first and second species.

Every downbeat must be consonant. *Beats 2, 3, and 4 may be consonant or dissonant.* Three types of dissonance are permitted in third species.

These are:

- 1. *Passing tone*—The **passing tone** is a stepwise connection between two consonances that are a third apart. The passing tone must be approached and left in the same direction, up or down. Passing tones may be unaccented (beats 2 and 4) or accented (beat 3). Do not use a dissonant passing tone on beat 1.
- 2. *Neighbor tone*—The **neighbor tone** is a step above or below a consonant note. In the music of the sixteenth century, from which the species are derived, the lower neighbor is much more commonly used than the upper neighbor. The neighbor tone is approached by step from a consonant note, and returns to that same note. Neighbor tones may occur on beats 2 or 4.
- 3. *Cambiata*—The **cambiata** is a five-note figure starting on a downbeat. The succession of intervals within the five-note figure is fixed: From the consonant downbeat, the line moves down by step, down by third, up by step, up by step into next downbeat (see example below). The first, third, and fourth beats, and the downbeat of the next measure, are all consonant. *The second beat is dissonant, and is left by skip.* The example shows how the second and third beats embellish a falling third between the first beat and the fourth beat.

C major

Note the unusual features of the cambiata figure:

The dissonance on the second beat is *left by skip*.

The third beat is consonant.

Both second and third beats have a stepwise relationship to the consonant fourth beat.

Remember that the fourth beat, although consonant, must move by step up to the next downbeat.

It should be noted that different teachers may wish to put more or fewer restrictions on the use of the cambiata figure, since both its application in various periods and its definition by various theorists have been somewhat changeable.

Fifths and Octaves

Parallel fifths and octaves are to be avoided between these beats:

- beat 1 and beat 1 of the next measure
- beat 3 and beat 1 of the next measure
- beat 4 and beat 1 of the next measure

Direct fifths and octaves are to be avoided between beat 4 and beat 1 of the next measure. Direct fifths and octaves between beats 1, 2, or 3 and the next downbeat may also be objectionable. These cases must be considered individually.

Beginning, Middle, and End

Lower parts must begin and end on the tonic. Upper parts may begin on any note in the tonic triad. Any beat is acceptable for the first note of the counterpoint.

Rules about the *high point* are unchanged from first and second species. The high point should occur on a strong beat. With the great quantity of notes available in third species, it is particularly important to organize the line around the high point and the cadence. This can be done, for example, by establishing preliminary high points as the line gradually ascends to its climax, or by moving to temporary goals on the way to the cadence.

The primary form of motion should be stepwise, but skips can be used to good advantage in pointing the direction of the line. Skips of a fourth or more should generally be introduced and left with a change of direction, and large skips should be filled in as the line continues. Avoid long cascades of notes in one direction or the other, and use arpeggiated triads very sparingly.

Approaching the Cadence

The last measure is a whole note in both parts. The next-to-last measure in the counterpoint may be either four quarters or two quarters followed by a half note. The approach to the cadence should be by step. In the next-to-last measure, the dissonance treatment may be relaxed to allow a *double neighbor* figure as an ornamentation of a clear cadence. The dissonant second and third beats of double neighbor figure are also often called **changing tones**.

E and G are neighbors to F

C and A are neighbors to B

Here is an example of third species. Analyze the intervals as consonant, or as specific dissonances. Note the gradual ascent to the high point, the gradual descent to the cadence, and the prevailing stepwise motion.

G major

FOURTH SPECIES

In **fourth species**, *syncopated half notes* are written against the CF. There should be no repeated notes. The first half note of the measure is the “strong” half, the second is the “weak” half.

Consonance and Dissonance

Within the melodic line and between the two parts, definitions of consonance and dissonance are the same as for first, second, and third species.

Every weak half must be consonant. The *strong half*, which is tied over from the previous measure, *may be either consonant or dissonant*. If it is dissonant, the strong half must be treated as a **suspension**. A suspension dissonance is handled in three steps:

1. the **preparation** is a consonance occurring on a weak beat, which is tied over (a *suspension*) to the following strong beat. The CF moves during the tied note, creating a dissonance on the strong beat;
3. the **resolution** occurs as the dissonance steps down to a consonance on the next weak beat.

Upper Part Counterpoint

When the upper part is the counterpoint, the possible suspensions are:

1. the interval of a seventh resolving to a sixth (7-6)
2. the interval of a fourth resolving to a third (4-3)
3. more rarely, the interval of a ninth resolving to an octave (9-8, see example below)

F major

The *augmented 4th*, whose upper voice may possess a strong tendency to resolve upward, presents a special problem in a 4-3 suspension. It may be used only in the midst of an already established stepwise descending line in the counterpoint.

yes

no

The 9-8 *suspension* is occasionally possible for the upper part counterpoint. However, the effect of the strong dissonance resolving to the most static of consonances will disrupt the flow and tension between the two lines unless it is handled with care. Use the 9-8 suspension (upper part only) *only if both voices approach it by step, in contrary motion*.

9-8 suspension: both voices approach by step in contrary motion

It isn't necessary to continue the stepwise contrary motion after the 9-8 suspension is resolved to the octave.

These are examples of incorrect 9-8 suspensions. They are wrong because the approach is wrong, and the octave is overemphasized.

Lower Part Counterpoint

The only permissible dissonant suspension in the lower part is the 2-3 suspension. The lower part relies heavily on consonant syncopations.

Octaves and Fifths

In fourth species, the weak beats are emphasized, because they receive the accent of resolution. Octaves and fifths on consecutive weak beats sound parallel and are therefore forbidden. It may help to think of the syncopated counterpoint as a first species line lagging behind the CF. See examples of parallel fifths and octaves below. Since the strong beats are heard as relatively unstable in fourth species, it is possible to write fifths or octaves on consecutive strong beats.

parallel 5ths and 8ves

strong beat 8ves—
correct (but not ideal
as counterpoint)

Fifths on consecutive strong beats are perfectly acceptable in fourth species. There is another set of strong beat fifths in the example in the middle of page 28.

Beginning, Middle, and End

The counterpoint may begin on either beat. The upper part must begin and end on a note in the tonic triad; the lower part must begin and end on the tonic note. Make sure to include a high point. The last note is a whole note, not tied over. Approach the cadence by step, using a dissonant suspension coming into the next-to-last bar, if possible.

For example:

Once in an exercise, you may break out of the suspension pattern. In this situation, the rules of second species apply. The purpose of this break is to improve the line, often by breaking up a long stepwise chain of suspensions.

FIFTH SPECIES

Fifth species is a combination of all the previous species. The characteristic rhythms of second, third, and fourth species are freely mixed to form a flowing counterpoint to the whole notes of the CF.

The example shows the way in which each note of the counterpoint can be understood as belonging to a particular species. Each group of notes must follow the rules for the species to which it belongs. This is especially important for the treatment of dissonance. Therefore, you should adhere to the rules of each species exactly as you have already learned them, except for the following changes and comments.

First species: The exercise will always end with a whole note in each part. Whole notes elsewhere in the counterpoint disrupt the flow of the line, and should be avoided.

Second species: There are no changes in the rules for second species; the strong half note must be a consonance, and the weak half may be consonant also. If the weak half is dissonant, it must be a passing tone. The dotted half note is a combination of second and third species (♩ = ♩♩). Fifth species tends to be heard in half note beats, with the second and fourth quarters in each measure heard as weak beats or upbeat. The rhythm ♩♩ supports this metric arrangement. On the other hand, the rhythms ♩♩ and ♩♩ undermine the strength of the half note by stressing the weak second beat. These syncopations are not allowed in fifth species.

Third species: Third species rules are unchanged. Remember that passing tones must pass to consonances by step, and that a neighbor tone steps away from a consonance and steps back to that same consonance. Cambiata and double neighbor figures may be used in fifth species.

Fourth species: The rules for fourth species are basically unchanged. In order to avoid weak quarter syncopation, the fourth beat cannot be tied over the bar line. *Remember that in fourth species, the weak half must be consonant.* The available dissonant suspensions are the same as you have already learned, 7–6, 4–3, and sometimes 9–8 in the upper part; use only 2–3 suspensions (and consonant syncopations) if the lower voice is the counterpoint. *Suspensions in fifth species always resolve on the third beat* (the second half note of the measure), as you

have learned. However, this resolution may be embellished by a quarter note on the second beat. This embellishing quarter note should either be a consonance or a neighbor to the note of resolution.

For example, this fourth species line could become:

Beginning, Middle, and End

The counterpoint may begin on any beat. As usual, the lower part must begin on the tonic, and the upper part must begin on a note in the tonic triad.

Compose your line around an ascent to the high point, and a descent to the cadence. To maintain the rhythmic flow, do not start a series of quarter notes on the downbeat. The one exception is two quarters followed by a tied half note. Suspensions help to keep the rhythm flowing. Avoid sequences, including purely rhythmic ones.

If possible, use a suspension on the downbeat of the bar preceding the cadence. A cadence introduced in this way is often called a **suspension cadence**. In a suspension cadence, the resolution may be embellished with eighth notes (see example below). The addition of eighth notes to the texture creates a special quality of rhythmic saturation, the tension of which is released in the cadential bar. Eighth notes may be used only in the next-to-last measure.

SUGGESTIONS FOR ANALYSIS AND FURTHER READING

Analysis

Since species counterpoint was developed initially as a technique builder for counterpoint in the style of Palestrina, it is helpful to look at music in this style when studying species. Especially useful for two-part writing are the *Cantiones Duarum Vocum* (two-voice motets) by Roland de Lassus. Masses and motets of Palestrina and of other sixteenth-century composers, such as William Byrd and Tomás Luis de Victoria, are also excellent works for study.

Further reading

Students who wish to consult the original source for species counterpoint should look for Johann Joseph Fux, *Gradus ad Parnassum*, translated from the Latin by Alfred Mann (W. W. Norton). The more modern classic text on this subject is Knud Jeppesen's *Counterpoint*, translated by Glen Haydon (Prentice-Hall). A good recent text on sixteenth-century counterpoint (though not specifically species) is *The Craft of Modal Counterpoint* by Thomas Benjamin (Schirmer Books–Macmillan).

PART 3

Harmony and Voice Leading

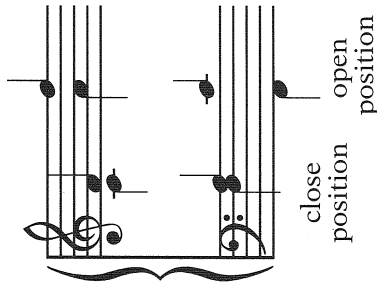
This outline of harmony summarizes the general mechanics of chord formation, progression, and voice leading in the **common practice period** (roughly 1700–1900). It is not intended as a guide for composing, but rather as an aid in gaining technique in a familiar style. The “rules” cited here are not necessarily laws which the composers of the Baroque, Classical, and Romantic periods consciously followed, but rather a generalized summary of their harmonic practice, as gathered from the enormous body of their works.

Formal studies undertaken by composers from these periods usually emphasized counterpoint. Harmonic progression was likely to be viewed as the working out of interwoven voices over the beginning, middle, and end of a phrase, not as a succession of isolated verticalities. Although this outline allows for a chord-to-chord approach, it is very desirable to think in terms of melodic continuity of individual voices, particularly the outer voices, within each phrase you write or analyze. It is also important to develop your recognition of larger groups and patterns of chords within the span of a phrase. This aspect of technique can be greatly enhanced by practicing cadential progressions and other common fragments as exercises in keyboard harmony. Many common patterns are given for practice at the back of the book.

In four-part harmony, four separate voices moving together make up chords. The four voices are **soprano** (stem up in treble clef), **alto** (stem down in treble clef), **tenor** (stem up in bass clef), and **bass** (stem down in bass clef).

We can begin by setting up a four-voice chord in root position: The root is in the bass, and another root (this is called **doubling**) is in one of the upper voices. The notes may be spaced closely together (if they are as close as possible, they are said to be in **close position**) or they may be more spread out (**open position**). There should not be more than an octave between soprano and alto, or between alto and tenor. There may be more than an octave between tenor and bass. In general, triadic harmony seems to be more sonorous if there is less space between the three upper voices, and more between tenor and bass.

The movement of each voice from one chord to the next is called **voice leading**. There are many subtleties in the study of voice leading, but a guiding principle is this: Four-part writing should preserve the independence of the four voices.



Lines moving in *parallel octaves*, *parallel fifths*, and *parallel unisons* tend to be perceived as doublings rather than independent voices. For this reason, *parallel octaves*, *fifths*, and *unisons* are *not allowed between any two voices as one chord moves to the next*. Parallel thirds, fourths, and sixths are fine, but too much parallelism at any interval will eventually weaken the sense of a full four-part texture.

Direct octaves and fifths are octaves or fifths approached by two voices from the same direction. While these are usually avoided in two-part textures, *they are perfectly acceptable in four-part writing if the upper voice moves to the octave or fifth by step, while the lower voice moves by skip*.

To maintain the integrity of each of the four parts, *augmented and diminished intervals are avoided melodically*, though they may occasionally be used in the bass voice. In general, conjunct (i.e., stepwise) motion and small skips are normal for the three upper parts; the bass line is more likely to have larger skips than are the upper voices, but the bass also often moves by step. The soprano voice is more prominent melodically than either the alto or the tenor. At the beginning of the study of harmony, there is very little melodic flexibility in the soprano or any other part. As technique in harmony increases, added flexibility in voice leading will allow for the construction of a good soprano line (or harmonization of an existing tune) to become the major goal.

melodic tritone

direct fifth and octave

parallel fifths and octave

F: I IV V vi I

compare

F: I IV V vi I

ROOT POSITION, COMMON TONE VOICE LEADING

To move from chord to chord in root position, follow the rules of **common tone voice leading**:

1. Double the root (except as noted below).
2. Keep all common tones (CT) in the voices in which they originate; move other voices to the closest note in the new chord. Between two chords, there will be one common tone if root movement is by fourth or fifth; two if root movement is by third (or sixth).
3. There are no common tones if root movement is by step. In this case all three upper voices move in contrary motion to the bass, each upper voice moving to the closest note in the new chord.

F: I vi IV V I

Three Exceptions to Common Tone Rules in Root Position:

1. *Deceptive cadence (V-vi)*. There are no common tones between V and vi, therefore we expect all three upper voices to move *down* in contrary motion to the bass. An exception occurs when the leading tone in V follows its melodic tendency to resolve *up* to the tonic note in the vi chord. The resulting vi chord has a doubled third instead of the usual doubled root. Note that the progression works the same way in minor mode. V-vi is not always treated as a deceptive cadence. See example 1 below.
2. *VI-V in minor keys*. The normal voice leading and doublings produce an *augmented second* from the doubled root of VI to the leading tone of V (see example 2 below). This problem is solved by doubling the third of VI instead of the root. One of the doubled thirds steps down to the leading tone; the other two upper voices step up as usual.
3. *ii-V*. Although there is one common tone in this progression, it is frequently treated as though there were none; in this case the three upper voices all descend to the closest note in the V chord. In major keys you may use either the common tone voice leading, or the all-descending pattern. In minor mode, the diminished ii chord rarely appears in root position. If it does, you must bring all three upper voices down when moving to V. This procedure avoids the *augmented second* that occurs if the common tone is kept (see example 3 below).

1.

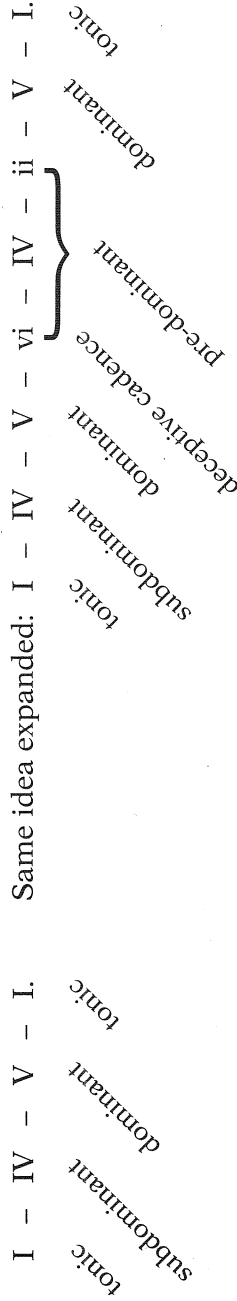
G: I IV V i iv V VI

vi—in major and minor, belongs ultimately to the pre-dominant group, but can substitute (temporarily) for I in a cadence formula, creating a deceptive cadence.

vii°—a weaker version of the dominant function, vii° seeks resolution to I.

Note that the pre-dominant chords ii and IV tend to move on to V, but V goes to I, not to ii or IV.

With the idea of harmonic function in mind, it is possible to appreciate coherence in chord progressions:



CADENCES

Harmonic progressions are goal-oriented, and the goal of the progression is the cadence—the end. In species counterpoint only a few cadence formulas were allowed, but in harmony, many different cadence types are possible. In terms of chord progression, we can consider four basic cadence types:

Full or authentic cadence: V – I (called **perfect authentic cadence** if the tonic note is in the soprano of the I chord; called **imperfect authentic cadence** if $\hat{3}$ or $\hat{5}$ is in the soprano of the I chord). Perfect authentic is the most final of cadences.

Half cadence: a cadence on V. Not heard as final, a half cadence creates the need for an answering full cadence.

Deceptive cadence: V – vi. Not a final cadence, prolongs the tension in a progression toward a full cadence.

Plagal cadence: IV – I. Can be a final cadence, coming after a V–I full cadence (the “amen” ending).

There is a more detailed description of cadence types at the beginning of Part 5, page 87.

What makes a succession of chords a cadence? We wouldn’t call every V–I succession a cadence, and some full cadences sound much more final than others. Factors that influence our perception of cadence include *melody* (the top voice): Does it sound complete? Does it end on the tonic, as opposed to the third or fifth?; *the bass line*: Does its line sound complete? Is the cadence in root position?; *rhythm*: Is the cadence on a weak or strong beat?; *phrase context*: Does this cadence resemble others in the same piece? Does the phrase length balance others in context? Does the phrase have a clear beginning, middle, and end? As knowledge of harmony increases, sensitivity to these other factors must also increase. Through listening and analysis it will become clear that the different combinations of phrase

2. VI-V

VI V VI V

3. ii°-V

ii° V ii° V

HARMONIC PROGRESSION

The language of tonal music depends on the idea of **harmonic progression**. Progression means directed motion, or movement toward a goal, and harmonic progression therefore implies harmonic movement that is goal-directed. While any series of chords may be played in succession with more or less pleasing results, a *progression* of chords is moving toward a goal, and each harmony in the progression can be understood in terms of its place in that motion.

In order to understand the notion of harmonic progression, we must return to the idea that phrases have a beginning, middle, and end. This was discussed in species counterpoint in terms of melodic considerations: Certain pitches were appropriate for beginning a line, certain cadence patterns were possible for ending, and the nature of the middle had to do with building to a high point and then connecting smoothly to the cadence. In building coherent harmonic progressions, two new considerations must be added: One concerns the specific functions of individual harmonies within a key; the other expands the definition of cadence.

Function in harmony can be divided into three main types: **tonic function** provides central context and identity for beginning, as well as rest and repose, the ultimate end goal of harmonic motion. **Dominant function** means a lack of repose; the dominant specifically seeks the tonic for resolution. **Subdominant or pre-dominant function** is less dynamic than dominant; it seeks the tonic also, but more often than not moves to the dominant before arriving on the tonic.

The main harmonic functions can be summarized as I, IV, and V. These are sometimes called the **primary chords** in a key. The other harmonies fit in as follows:

- ii—in major and minor, generally plays a pre-dominant role.
- iii—in major, having two notes in common with both tonic and dominant triads, lacks a strong function; sometimes used in circle of fifths progressions to go to vi; in minor, III is the tonic of the relative major. It functions as an alternative to the minor tonic and is an important pole of harmonic activity.

shapes and cadences make pieces unique, while the underlying logic of function and cadence type makes pieces coherent.

SOME NOTES ON DOUBLING

Almost all tonal music uses root position triads with root doublings, *at times*. But the musical literature shows clearly that chords are often not in root position, and that doublings other than root doubling are common. The study of inversions (chords not in root position) is taken up at length below. The new material contains many rules and suggestions for doublings.

Alternative doublings introduce a new flexibility into voice leading. In general, whether in root position or inversion, doubling decisions (other than always-double-the-root) tend to reinforce the **tonal degrees** of the scale. The tonal degrees are $\hat{1}$, $\hat{2}$, $\hat{4}$, and $\hat{5}$. These, especially $\hat{1}$, $\hat{4}$, and $\hat{5}$, are roots of the most key-defining harmonies, and are also the scale steps that are the same in both major and minor modes of a given key. Doubling the tonal degrees means that, as an alternative to root doubling, one would tend to double the fifth of the I chord (as opposed to the third), the third of the ii chord (as opposed to the fifth), and so on. Less commonly, the so-called **modal degrees**, $\hat{3}$ and $\hat{6}$, may be doubled, especially if doing so creates a good soprano line. The **leading tone** should never be doubled in V or vii.

On the next pages are discussions of inverted chords, seventh chords, and various kinds of chromaticism. These all play important roles in shaping the beginnings, middles, and ends of phrases. The new materials are presented in relation to the primary (I, IV, V) functions, and often in the context of cadential formulas. It is especially important to play the examples, and to learn to hear each new pattern so that you will recognize it in actual pieces.

CHORDS IN INVERSION

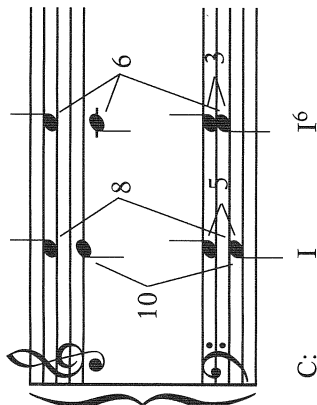
An inverted triad is one in which the third or fifth is in the bass voice, rather than the root. If the third is in the bass, this is called **first inversion**; if the fifth is in the bass, this is called **second inversion**.

Triads in first inversion are used to vary the sonority of chords, to give melodic direction and flexibility to the bass line, and to lighten the functional weight of some triads. There are very few rules to govern the use of first inversion chords, since their substitution for root position and their doublings are often matters of taste or convenience in a particular context. Some suggestions are given later.

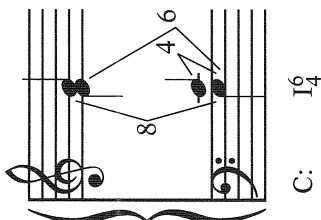
Second inversion chords are used much less freely than first inversion. In second inversion, the perfect 4th between the bass note (fifth of the chord) and the root is considered a dissonance, and requires special treatment. Therefore, *chords in second inversion can't simply substitute for root position or first inversion* as a means of providing variety. The proper use of second inversion chords is taken up as a separate topic below.

Compare the first inversion triad to root position. In root position, the intervals above the bass note are octave, third (tenth), and fifth. In

first inversion, the intervals present are sixth and third (the bass could also be doubled at the octave). The interval of the sixth is characteristic of first inversion, and for this reason, Roman numerals indicating first inversion include a “6” in superscript: I⁶, ii⁶, etc.



Looking at a second inversion triad, one sees intervals of octave, fourth, and sixth above the bass. Both the fourth and the sixth are characteristic of second inversion as opposed to root position. The Roman numeral shorthand for second inversion is $\hat{4}$, $\hat{4}$, IV $\hat{4}$, etc.



FIRST INVERSION

Inverted chords add melodic flexibility to the bass line and allow the primary functions (I, IV, and V) to be weakened while still remaining recognizable. There is no definite rule that can be applied to the use and doubling of every first inversion chord. The greater complexity requires more awareness of possible pitfalls (fifths, octaves, augmented and diminished intervals) as well as greater sensitivity in the creation of individual lines, particularly the soprano line.

Some General Observations

- I⁶ is more likely to double the root or fifth, less likely to double the third (bass), especially in major mode, unless there is good melodic reason. I⁶ is a lighter version of tonic function and has many uses, but is not a final cadential goal. For full cadences, use root position.
- ii⁶ generally doubles the third (bass) when going to V. In this very common pattern, all three upper voices descend to the closest note in the V chord—don't keep the common tone. In other contexts (not moving to V), ii⁶ may double the root or third.
- iii⁶ is an unstable chord in major because of its similarity to V; doubling should promote general smoothness. In minor, III⁶ is a more strongly functional chord and any doubling is possible.
- IV⁶ in major tends to pass between V and V⁶. All doublings are possible. In minor, fifth or root doubling is usual. A common progression in minor is iv⁶–V. Called a **phrygian cadence** because of its half step motion in the bass, this progression requires a doubled root or fifth in the iv⁶ chord (a doubled third would move by an augmented second when iv⁶ moved to V). The second example below ends with a phrygian cadence.

- V⁶ doubles the root or fifth, chord moves to I. Don't double the third of V, as this is the leading tone.
- vi⁶ unstable in major and minor because of its similarity to tonic triad; its doubling should promote smooth voice leading in its surrounding context.
- vii°6 tends to pass between I and I⁶. Double the third or fifth, depending on the melodic context. Avoid doubling the leading tone.

A few examples:

C: I V⁶ IV⁶ V vi ii⁶ V C: i vii°⁶ i⁶ iv i⁶ iv⁶ V

USE AND DOUBLING OF ii⁶ CHORD (CADENTIAL)

ii⁶ is the functional equivalent of IV in cadential patterns, and is probably the most commonly used pre-dominant chord. It leads smoothly into full, deceptive, and half cadences:

ii⁶-V-I or (full cadence); ii⁶-V-VI (deceptive cadence); ii⁶-V (half cadence).

Cadential ii⁶ is very common in both major and minor contexts.

In cadential situations, *ii⁶ normally doubles the third* (the bass), which is the subdominant note of the scale. This doubling emphasizes the pre-dominant function of ii⁶.

In the progression ii⁶-V, the bass of ii⁶ steps up to the root of V. *All three upper voices of ii⁶ descend* to the closest note in the V chord. Compare the following progressions. Only one note changes when ii⁶ replaces IV. Play these in major and minor keys.

C: I IV V I I ii⁶ V I I ii⁶ V vi I ii⁶ V vi I ii⁶ V vi

- V⁶ doubles the root or fifth, chord moves to I. Don't double the third of V, as this is the leading tone.
- vi⁶ unstable in major and minor because of its similarity to tonic triad; its doubling should promote smooth voice leading in its surrounding context.
- vii°6 tends to pass between I and I⁶. Double the third or fifth, depending on the melodic context. Avoid doubling the leading tone.

A few examples:

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C: I IV V I I ii⁶ V I I ii⁶ V vi I ii⁶ V vi I ii⁶ V vi

Note on voice leading: The ii⁶ chord often leads to the dominant, but it can move to other harmonies as well. The progression I-ii⁶ has the potential to create parallel fifths if the soprano of the tonic chord is the fifth. In the melodic succession 5-6, IV would normally be used instead of ii⁶. For another potential voice leading problem involving ii⁶, see Second Inversion (cadential I4), below.

G: I ii⁶ I IV

avoid parallel 5ths

NONHARMONIC TONES

Any note that is not a member of the triadic harmony on any given beat is a **nonharmonic tone**. Such a note is also called a **dissonance**. Most of the dissonances listed below have already been introduced in Part 2 of this book, but they can easily be learned by students who have not studied species counterpoint.

The several types of nonharmonic tones can be divided into two general categories: those which usually occur on weak beats, and those which always occur on strong beats. In categorizing them further, it is necessary to see how each type relates melodically to the surrounding notes. The various weak beat and strong beat nonharmonic tones have specific patterns of approach and resolution which are defining characteristics and are, for the most part, strictly followed throughout the common practice period. While most of the examples below show nonharmonic tones in the top voice, *they can occur in any voice of a musical texture, including the bass*.

Weak Beat Nonharmonic Tones

Name	Abbreviation	Approached by	Left by	Direction of Resolution	Example
passing tone	PT	step	step	same as approach	A
neighbor tone (upper or lower)	UN, LN	step	step	opposite of approach (back where it came from)	B
anticipation	ANT	step	repeats same tone	repeated note becomes chord tone	C

Strong Beat Nonharmonic Tones

Name	Abbreviation	Approached by	Left by	Direction of Resolution	Example
accented passing tone	APT	step	step	same as approach	D
suspension	SUS	same note tied or repeated	step	usually down	E
appoggiatura	AP	leap—or may begin a phrase	step	can step up or down	F

Combination Nonharmonic Tones

Name	Abbreviation	Description
échappée or escape tone	ECH	An <i>échappée</i> , or escape tone , is a weak beat nonharmonic tone that may occur between two consonances that are a step apart. The <i>échappée</i> steps away from a consonance and skips by a third into its resolution. This is sometimes referred to as an incomplete neighbor tone.

cambiata

CAMB

A **cambiata** is a rhythmically weak figure connecting two consonances that are a third apart (see third species counterpoint). The classic cambiata steps down into a dissonance, then skips down by a third before stepping back into its resolution. The direction of the entire figure can also be reversed. Some theorists call any weak beat neighbor tone that is approached by skip and resolved by step a cambiata.

double neighbor or changing tones

DN

A **double neighbor** is a combination of two neighbor tones, upper and lower, around the same pitch. This figure steps away from a chord tone, forming a neighbor, then leaps by a third to the other side of the starting tone before returning to it by step. This configuration is also called **changing tones**. Because the first dissonant tone is left by a leap of a third, and the resolution is by step, some theorists consider the double neighbor a type of cambiata.

SECOND INVERSION

Cadential I6

Triads in second inversion are heard as unstable. They require special attention and should not appear randomly in a chorale-style context. By far the most important second inversion chord is the cadential I6. This chord has

no true tonic function—that is, it doesn't provide any of the sense of rest or repose that an arrival on the tonic normally brings. The cadential I_4^6 is actually part of the dominant function: The bass is the dominant note, and the intervals of the sixth and the fourth above the bass are heard as accented dissonances (appoggiaturas—see under Nonharmonic Tones), resolving to the fifth and the third of the V chord. Cadential I_4^6 therefore directly precedes V, and the sixth and fourth of the I_4^6 must resolve down by step into the fifth and third of V. Since I_4^6 –V together have a dominant function, and since I_4^6 has no independent function, but is only a dissonance leading to V, many teachers prefer to label the progression V ($\hat{6}-\hat{5}$), with the Arabic numerals showing the voice leading.

Because the sixth and fourth of I_4^6 are accented dissonances, the I_4^6 chord is *accented in relation to V*. Therefore, *cadential I_4^6 must fall on a strong beat*, resolving to V on a weak beat. The sixth and fourth of cadential I_4^6 , as dissonances calling for specific resolution, cannot be doubled: double the bass (the dominant).

Note a common voice leading problem in the progression ii^6 – I_4^6 . If the 5th of ii^6 is in the *soprano*, and normal doublings are used, there will be a parallel fifth in this progression. This problem is avoided by using a different voicing of ii^6 , with the root or third in the soprano. When harmonizing a melody that calls for pre-dominant, then I_4^6 under scale steps $\hat{6}$ – $\hat{5}$, use IV instead of ii^6 .

Other Uses of $\frac{6}{4}$ Inversion

Passing $\frac{6}{4}$

A passing tone in the bass is harmonized in such a way that a $\frac{6}{4}$ chord is created. Doubling should promote smoothness; passing $\frac{6}{4}$ is more likely to appear on a weak beat. Remember: *the bass must be a passing tone*—it must get to the $\frac{6}{4}$ inversion by step and must leave it by step in the same direction.

Neighbor $\frac{6}{4}$ or Pedal $\frac{6}{4}$

Start with a root position triad. With the bass holding, the voices containing the fifth and third of the triad step up (forming a $\frac{6}{4}$ inversion), then step back. This $\frac{6}{4}$ chord is not an independent harmony, but rather it simply provides a way of prolonging the original chord. The $\frac{6}{4}$ is sometimes called “neighbor” because of the movement of the upper voices, and sometimes called “pedal” because the bass holds throughout the pattern.

Arpeggiated $\frac{6}{4}$

These may occur on weak beats as part of a textural pattern in which root position or first inversion of the same harmony is on the preceding strong beat. An arpeggiated tonic $\frac{6}{4}$ may also come about in a V–I cadence if the upper parts resolve to I while the bass delays. Note that arpeggiated $\frac{6}{4}$ chords have no functional independence, and usually receive no Roman numeral label in analysis.

C: I V⁷ I

The image shows a musical staff with two systems. The first system shows a C major triad (C-E-G) in both treble and bass clefs. The second system shows a C7 chord (C-E-G-Bb) in both clefs, with the Bb note in the bass clef. The notes are connected by lines to show voice leading.

SEVENTH CHORDS

In addition to the root, third, and fifth of a triad, a chord may be extended by adding thirds above the fifth. These are called sevenths, ninths, elevenths, and thirteenths.

C: V V⁷ ii ii⁷

The diagram shows a musical staff with four groups of notes. The first group is a triad (C-E-G). The second group is a seventh chord (C-E-G-Bb). The third group is a ninth chord (C-E-G-Bb-A). The fourth group is an eleventh chord (C-E-G-Bb-A-F). The notes are labeled with lines pointing to them: triad, seventh, ninth, eleventh, and thirteenth.

It is easy to see sevenths as added notes, and easy to imagine families of seventh chords as four-note entities, separate from simple triads. But such a view presents an inaccurate picture of sevenths in harmony. In the common practice period, most sevenths in chords come about not as simply added notes, but as nonharmonic tones of one or the other of two specific types. *Most sevenths act as either passing or neighbor tones, or suspensions.* Sevenths almost always *resolve down by step* as the harmony moves.

Dominant Seventh

The **dominant seventh** is a V chord with an added seventh. The seventh typically comes about as a **passing tone**, falling from the doubled root of the V chord, and resolving to the third of the tonic chord. Although the passing motion is typical, the seventh may also arise as a neighbor tone, or may sometimes be an appoggiatura. V⁷ is extremely common, and is used in all possible inversions. A closer look at the formation and resolution of each V⁷ chord will be found below. Related to the dominant seventh is the vii^{°7}, the full or half diminished seventh chord built on the vii[°] triad. These are discussed later below.

C: I V - 7 I V⁷ I

The image shows a musical staff with two systems. The first system shows a C major triad (C-E-G) in both treble and bass clefs. The second system shows a C7 chord (C-E-G-Bb) in both clefs, with the Bb note in the bass clef. The notes are connected by lines to show voice leading.

Nondominant Seventh

Seventh chords other than those built on V and vii[°] are called nondominant seventh chords. The sevenths in these chords almost always come about as suspensions. The most commonly used nondominant sevenths are ii⁷ and IV⁷, but any triad may include an added seventh as a result of a suspension. See the discussion of ii^{°5} below for a more complete presentation of preparation and resolution of nondominant sevenths.

G: I vi ii⁷ V - 7 I

The image shows a musical staff with two systems. The first system shows a G major triad (G-B-D) in both treble and bass clefs. The second system shows a G7 chord (G-B-D-F) in both clefs, with the F note in the bass clef. The notes are connected by lines to show voice leading.

Labeling Seventh Chords in Root Position and in Inversion

Root position chords containing sevenths are labeled with their normal Roman numeral function, followed by a superscript ⁷: ii⁷, V⁷, etc. *First inversion* seventh chords contain the intervals of 6, 5, and 3 over the bass. These are labeled with Roman numeral functions, and the superscript ⁶/₃, or simply ⁶/₃: ii⁶/₃, V⁶/₃. *Second inversion* seventh chords have the intervals of 6, 4, and 3 over the bass. These are labeled as Roman numeral functions with the superscript ⁶/₄, or simply ⁶/₄: V⁶/₄, vii^{°6}/₄. *Third inversion* is a possibility that only arises in chords with four different notes, like seventh chords. In third inversion, the seventh is in the bass, and the intervals over the bass are 6, 4, and 2. These chords are labeled as Roman numeral functions with the superscripts ⁶/₄/₂, or simply 2. For the purposes of labeling, V⁶/₄/₂ = V⁴/₂ = V₂.

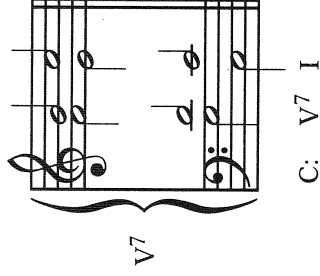
The Dominant Seventh Chord and Its Inversions

Voice leading in resolutions to I given here apply to both major and minor modes.

V⁷

Root is in the bass; chord goes to I.

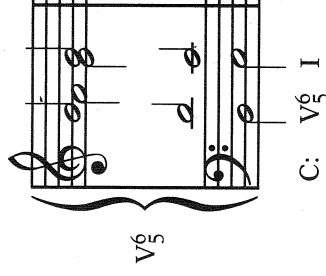
Leading tone resolves to tonic, seventh of chord steps down, fifth also steps down: Resulting I chord has three roots, one third, and no fifth.



V⁶₅

Leading tone is in the bass, chord goes to I.

Leading tone resolves to tonic, seventh steps down; keep the common tone. Double the root of the I chord.



V⁴₃

Fifth of the chord (supertonic of the key) is in bass. Chord goes to I or I⁶.

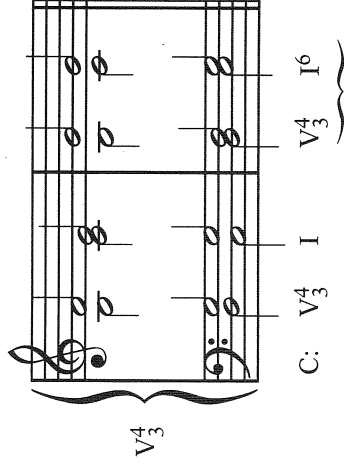
V⁴₃-I

Leading tone resolves to tonic, seventh steps down; keep the common tone; root of I is doubled.

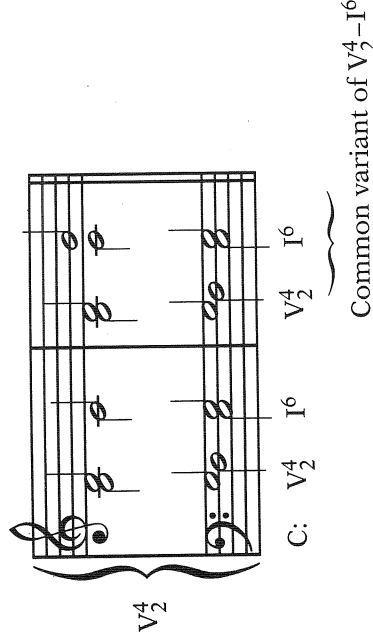
V⁴₃-I⁶

Leading tone resolves to tonic, *seventh of chord steps up* (usually), keep common tone. Resulting I chord has a doubled fifth.

If the seventh of V⁴₃ descends, as it does in all other resolutions of V⁷, the I⁶ chord will have a doubled third. This is not impossible, but is much less usual than the doubled fifth resolution.



Note exception: the seventh steps *up*



V⁴₂

Seventh of chord is in the bass, chord resolves to I⁶. Leading tone resolves to tonic, seventh of chord steps down; keep the common tone. I⁶ with doubled root results.

A common variant resolves to I⁶ with doubled fifth.

FIGURED BASS

Figured bass notation, common in the Baroque period, consists of Arabic numerals (figures) under a conventionally notated bass line. The figures refer to intervals over the bass notes. They provide a shorthand for spelling out harmonies, which the performer interprets and plays.

Triads

In figured bass, 5 or $\frac{5}{3}$ means that the interval of a fifth, or a fifth plus a third, occurs over the given bass note. Since a fifth or fifth-plus-third is characteristic of root position triads, this figure tells us that the chord over the bass note is in root position. If the 5 is standing alone, $\frac{5}{3}$ is understood. If a bass note has no figures below it, root position is usually assumed.

In the same way that 5 or $\frac{5}{3}$ indicates root position, 6 or $\frac{6}{3}$ means first inversion. A 6 standing alone indicates first inversion and $\frac{6}{3}$ is understood. One might think that a 6 standing alone could also suggest $\frac{6}{4}$ or second inversion. But the interval of a fourth is essential to second inversion, and the number 4 is therefore always included in figures indicating $\frac{6}{4}$ inversion. Therefore, $\frac{6}{4}$ = second inversion.

Seventh chords

Using the Arabic numerals to identify intervals above the given bass note, it will be seen that:

$\frac{7}{3}$ means root position seventh chord—can also be shortened to just 7.

$\frac{6}{3}$ means seventh chord in first inversion—can be shortened to $\frac{6}{3}$.

$\frac{6}{4}$ means seventh chord in second inversion—can be shortened to $\frac{6}{4}$.

$\frac{6}{2}$ means seventh chord in third inversion—can be shortened to $\frac{6}{2}$.

Realize also that a major triad takes on a new identity when a minor 7th is added to it. For this reason, the chord in example 2, below, is labeled V^7/IV —not I^7 .

1.

G: ii ii° V/V iii III V/vi vi VI V/ii vii° VII V/iii

built on second scale step third scale step sixth scale step seventh scale step

2.

The musical notation for Exercise 2 consists of two staves. The top staff is in treble clef and contains four measures of chords: a triad of C4, E4, G4; a dyad of E4, G4; a triad of G4, B4, D5; and a triad of B4, D5, F#5. The bottom staff is in bass clef and contains four measures: a triad of C3, E3, G3; a dyad of E3, G3; a triad of G3, B3, D4; and a triad of B3, D4, F#4. A brace connects the two staves at the beginning. The key signature has one sharp (F#) and the time signature is 4/4.

F: I V I V⁷/IV IV V⁷ I

TONICIZATION

The term **tonicization** implies the potential for a new tonic. In a tonicization, a secondary dominant and its resolution form the *cadence* of a phrase. The scale degree of this cadence is said to be “tonicized”: It has the potential of becoming a new tonic. If a new tonic is confirmed in the next phrase, that is, if the music has actually changed key, this is a *modulation*. A discussion of modulation begins on page 63.

Very often, after a tonicization, the music's continuation does not confirm a move to a new tonic. Instead, the next phrase continues on in the old tonic. This is a typical situation in Bach chorales. There the cadences, if not full, half, or deceptive, are usually tonicizations. True modulations are rare in chorales. Notice in the example below that chromatic passing tones smooth the way for the tonicizations of V in measures 2 and 4. Note also that V/V in measure 2 is preceded by its own ii⁶ chord.

Wie schön leuchtet der Morgenstern

J. S. Bach

[illegible]

Tonicizations often include more than just a secondary dominant and resolution at a cadence point. Frequently several chords preceding the cadence are best understood as belonging to the tonicized key (although after the cadence the music still returns to the original key). In these situations, labeling Roman numerals using a bracket to indicate the secondary key makes the analysis clear. Note that while tonicizations are usually full cadences, they can also be half cadences (i.e., cadences on *V* of some key other than that of the prevailing tonic).

DIMINISHED SEVENTH CHORDS

The $\text{vii}^{\circ 7}$ chord is built up from the leading tone in ascending minor thirds. Although its pitches are drawn from the minor mode, $\text{vii}^{\circ 7}$ is used freely in major as well as minor contexts. $\text{vii}^{\circ 7}$ is an unstable sonority that requires resolution to the tonic. Its function is comparable to that of a dominant, but weaker than a dominant for two reasons: 1) $\text{vii}^{\circ 7}$ is built on the diminished triad, lacks a stabilizing perfect fifth, and is symmetrical; its sonority is the same whether in root position or any inversion; and 2) all the notes of $\text{vii}^{\circ 7}$ act as neighbors to notes in the tonic chord, so that there is no distinctive bass pattern comparable to that of a V–I progression.

a: $\text{vii}^{\circ 7}$ d: $\text{vii}^{\circ 7}$ e: $\text{vii}^{\circ 7}$ etc.

In resolving $\text{vii}^{\circ 7}$ to I, it is helpful to think of $\text{vii}^{\circ 7}$ as two pairs of tritones. In the example below G#–D and B–F are the tritone pairs. In general you should follow this rule in resolving $\text{vii}^{\circ 7}$ to I:

A diminished 5th resolves *in* to a third.

An augmented 4th resolves *out* to a sixth.

Note in the example that different voicings of $\text{vii}^{\circ 7}$ produce different intervals (d5 or A4) and therefore different voicings of the resolving i chord.

a: $\text{vii}^{\circ 7}$ i $\text{vii}^{\circ 7}$ i $\text{vii}^{\circ 7}$ i

Another way to think of the normal resolution—if $\text{vii}^{\circ 7}$ is spelled in order from the bottom, normally the lower two notes step up while the upper two step down.

alternative resolution $\text{vii}^{\circ 7}$ i

Note: 1) all voices of $\text{vii}^{\circ 7}$ move *by step* into i; 2) the resulting i chord has a *doubled third*; and 3) a frequently seen variation involves moving the third of $\text{vii}^{\circ 7}$ down to the tonic to give a doubled root to the i chord (see example in bracket above).

Inversions of $\text{vii}^{\circ 7}$

$\text{vii}^{\circ 6}_5$ = first inversion of $\text{vii}^{\circ 7}$. $\text{vii}^{\circ 4}_3$ = second inversion. $\text{vii}^{\circ 2}_1$ = third inversion. Because $\text{vii}^{\circ 7}$ consists of four minor thirds (which evenly divide the octave), there is no difference *in sonority* between root position and inversions. In order to correctly analyze a $\text{vii}^{\circ 7}$ or its inversion, you must 1) check the spelling and 2) check the chord of resolution.

In the following example there are three $\text{vii}^{\circ 7}$ chords with different spellings. Each of these chords sounds exactly like the other two. Their key orientation can only be *heard* when they resolve. The spelling of each $\text{vii}^{\circ 7}$ chord uses the appropriate accidentals for the key of resolution. In each case the voice leading follows the rule already stated:

Diminished 5ths resolve *in* to thirds. Augmented 4ths resolve *out* to sixths.

C: $\text{vii}^{\circ 7}$ i a: $\text{vii}^{\circ 6}_5$ $\text{i}^{\circ 6}$ f#: $\text{vii}^{\circ 4}_3$ $\text{i}^{\circ 6}$

Here are some examples of $\text{vii}^{\circ 7}$ and inversions with normal resolutions. Tritones are resolved according to the rule stated above except in the case of $\text{vii}^{\circ 6}_5$ -i. The usual movement of the tritones would require $\text{vii}^{\circ 6}_5$ to resolve to $\text{i}^{\circ 6}$. Quite frequently, however, $\text{vii}^{\circ 6}_5$ resolves to i (root position) instead. In this case, the bass note and its tritone (diminished 5th) move in parallel motion to a perfect 5th instead of converging to a third. This diminished to perfect 5th is best avoided in outer voices, but is not considered a parallel 5th.

d: $\text{vii}^{\circ 7}$ i $\text{vii}^{\circ 6}_5$ $\text{i}^{\circ 6}$ $\text{vii}^{\circ 4}_3$ i $\text{vii}^{\circ 6}_5$ i $\text{vii}^{\circ 2}_1$ $\text{i}^{\circ 4}$

$\text{vii}^{\circ 7}$ resolves to i or I just as V resolves to i or I. In the context of a progression we often see secondary dominants, and in the same way, we can now recognize *secondary diminished-7th chords*. When a chord other than the tonic is preceded by its own $\text{vii}^{\circ 7}$, this is a secondary $\text{vii}^{\circ 7}$. Secondary

vii^{o7} chords (and inversions) are spelled according to the key to which they belong. They generally resolve with completely normal voice leading and resolution of tritones. A common exception to normal voice leading is vii^{o7}/V-V. In this case the doubled third, which is normal in the resolution of vii^{o7}, is avoided so as not to double the leading tone in V.

c: i VI vii^{o7}/V V i

Half-Diminished Seventh

The half-diminished 7th (vii^{o7}) is a variant of vii^{o7} (full-diminished). It is derived from the major scale and consists of a diminished triad built on the leading tone, plus a *minor seventh over the root*; (the full-diminished seventh consists of a diminished leading tone triad, plus a *diminished seventh over the root*). In Roman numeral labeling, a circle superscript with a line through it indicates half-diminished. Like full vii^{o7}, the half-diminished vii^{o7} is a neighbor chord to the tonic. All voices should move by step to the resolution. The tritone should resolve as described above. Take care that the other two voices do not move in parallel 5ths.

G: vii^{o7} I vii^{o7} I
 right wrong

BORROWED CHORDS OR MODAL INTERCHANGE

The chart on page 53 shows all the triads that belong to the key of C, both major and minor modes. It is helpful to conceive of keys as embracing all the triads of both modes, because composers throughout the common practice period have often made use of harmonies “borrowed” from one mode or the other. This use of borrowed chords is called mode mixture or modal

interchange. A familiar example is the Picardy third, in which a major I chord provides tonic function at the cadence for a phrase (or a whole piece) that has been in minor mode. Other than the Picardy third, instances of mode mixture are more likely to involve chords borrowed from the minor mode that are used in a prevaillingly major mode context.

When analyzing triads, use the Roman numeral symbol that is appropriate for the function and chord quality of every triad. Accidentals always have some analytical explanation: They are part of the minor mode; they create borrowed chords; they belong to secondary dominants; or they are chromatic nonharmonic tones. Accidentals may also signal a change of key. This topic is taken up below.

A few examples of borrowed chords:

ii^{o6} borrowed from minor

Picardy third

iv and ii^{o6} borrowed from minor

Deceptive cadence to VI borrowed from minor mode—this VI is often called “flat six,” and labeled ♭VI

G: I IV V - 7 ♭VI

NEAPOLITAN TRIAD AND NEAPOLITAN SIXTH

A chromatically altered ii chord, the Neapolitan triad is a major triad built on the chromatically lowered second scale degree. For example, in the key of C, Neapolitan = D $\flat$ -F-A $\flat$; in B $\flat$, Neapolitan = C $\flat$ -E $\flat$ -G $\flat$; in F $\sharp$, Neapolitan = G-B-D, etc.

The Neapolitan triad in a given key has more in common with the minor mode than with the major, and it is seen somewhat more frequently in minor contexts. In can be used with either mode, however, and the notes contained in the Neapolitan triad are the same whether the prevailing mode is major or minor.

The Neapolitan triad is almost always presented in first inversion, and is therefore usually called Neapolitan sixth, abbreviated N 6 or $\flat$ II 6 . N 6 functions as a pre-dominant: it moves to V (or i $\hat{4}$ -V). In terms of doubling and voice leading, it is identical to ii 6 moving to V: The bass note is doubled. As the bass steps up to V, the three upper parts all move down to the closest note in the V chord. Note the interval of a diminished third that occurs in one voice as N 6 moves to V. This is accepted as a normal part of this progression. When N 6 moves to i $\hat{4}$, all three upper voices step down against the rising bass.

Examples:

avoid parallel 5ths as $\flat$ II 6 moves to I $\hat{4}$; don't put the fifth of $\flat$ II 6 in the top voice.

note diminished 3rd in soprano

g: ii $^{\circ}6$ V i $\flat$ II 6 V i f: i VI $\flat$ II 6 i $\hat{4}$ V -7 i f: $\flat$ II 6 i $\hat{4}$ wrong

AUGMENTED SIXTH CHORDS

This is a group of three chords with pre-dominant function, all of which are derived from iv 6 . The progression augmented 6th-V is a chromatically intensified iv 6 -V (Phrygian cadence) progression. In the example, compare the pitches of iv 6 to the three basic pitches of all three augmented 6th chords: iv 6 contains the minor sixth scale

augmented sixth

C: iv 6

degree in the bass, the tonic note, and the fourth scale step; all augmented 6th chords contain the minor sixth scale degree (virtually always as the bass), the tonic note, and the *chromatically raised fourth scale degree*. The chromatically raised fourth creates the interval of an augmented sixth over the bass, giving the chord its name. The raised fourth functions as a leading tone to the dominant.

In addition to the minor sixth scale step in the bass, tonic note, and raised fourth scale step, one more note is needed. The specific identity of this last note determines the specific name of each of the three augmented 6th chords:

Italian 6th: (label It+6)

minor sixth scale step in bass, tonic, raised 4th + doubling of tonic note

French 6th: (label Fr+6)

minor sixth scale step in bass, tonic, raised 4th + second scale degree

German 6th: (label Gr+6)

minor sixth scale step in bass, tonic, raised 4th + minor third scale step

C: It+6 Fr+6 Gr+6

Augmented 6th chords resolve to V in root position. The minor sixth scale step in the bass has a very strong tendency to settle down on the dominant. The raised fourth scale degree resolves up to the dominant. Voice leading keeps any common tones, with all other voices moving by step. All three augmented 6th chords may go to i $\hat{4}$ and then V. This pattern is especially common for the German 6th, since going through i $\hat{4}$ eliminates the parallel 5ths that result if the German 6th moves directly to V. It should be noted that these parallel 5ths are not considered incorrect—they are often seen in music literature.

Augmented 6th chords have more in common with minor than with major mode, but they can be used in either major or minor context. In either mode, ALWAYS CHECK ACCIDENTALS CAREFULLY WHEN WRITING OR ANALYZING AUGMENTED SIXTH CHORDS!!

Examples:

d: i iv 6 V i It+6 V i Fr+6 i $\hat{4}$ V i

OTHER DIMINISHED SEVENTH CHORDS— #ii°7 AND #vi°7

There are two frequently seen diminished 7th chords that are not built on a leading tone and don't have the dominant-related function that vii°7 chords do. There is no clear agreement on a name for these chords; some names that teachers use for these are **common tone diminished chords**, **appoggiatura diminished chords**, and **neighbor diminished chords**.

These chords come from the major mode, although they occasionally appear in minor mode contexts. They are built on the second scale step, chromatically raised, and on the sixth scale step (from major), also chromatically raised. In C major, these chords are built on d# and a#. In F major they are built on g# and d#. In A-flat major they are built on b and on f#. Like all diminished 7th chords, these consist entirely of stacked minor thirds. There is no clear consensus on the Roman numeral labeling of these chords, since they relate only to the chord of resolution they directly precede, and yet are not secondary diminished 7th (i.e., leading tone) chords. Because of their spelling, we will call them #ii°7 (“raised two diminished”), and #vi°7 (raised six diminished). In a key where the second or sixth scale step is flat, these chords will be labeled #ii°7 and #vi°7. Here are some examples.

C: #ii°7 #vi°7 F: #ii°7 #vi°7 Ab: #ii°7 #vi°7

The image shows a musical staff in C major with two measures. The first measure contains a #ii°7 chord (D#-F-A-C) and the second measure contains a #vi°7 chord (G#-B-D-F). The notes are written in a way that shows their chromatic relationship to the diatonic chords.

Resolution

#ii°7 resolves to I⁶, as shown below. #vi°7 resolves to V⁶₅. Note that the resolutions keep the common tone while the other voices move by step. Both chords can be inverted, still resolving with a common tone and the other voices moving by step. In analysis, watch for misspellings of these chords!

C: #ii°7 I⁶ F: #vi°7 V⁶₅ Ab: #iii⁴₂ I #vi°6 V⁴₃

The image shows a musical staff in C major with two measures. The first measure contains a #ii°7 chord (D#-F-A-C) and the second measure contains an I⁶ chord (F-A-C). The notes are written in a way that shows their chromatic relationship to the diatonic chords.

Try these progressions:

C: I vi #vi°7 V⁶₅ I C: I #ii°4 I IV I

The image shows a musical staff in C major with two measures. The first measure contains a progression of I (C), vi (B), #vi°7 (D#-F-A-C), and V⁶₅ (G-B-D-F). The second measure contains a progression of I (C), #ii°4 (D#-F-A-C), I (C), IV (F), and I (C).

MODULATION

Modulation means a change of key. In a modulation, all the functional relationships of the original scale are changed: one hears a new tonic, a new dominant functioning toward that tonic, and so on. A modulation begins with a tonicization of some sort. That is, the potential of a new key is suggested at a cadence point. The difference between a tonicization and a modulation lies in what happens after this cadence. In a tonicization, the music begins the next phrase in the original key. In a modulation, the next phrase confirms the move to a new key. A modulation is therefore a stronger move away from the tonic than a tonicization. A modulation can be quite long and elaborate, and can require a series of additional key changes to come back to the original key.

In order for a modulation to sound smooth in the ongoing continuity of tonal harmony, it must come about through the use of something shared between the old key and the new one. Whatever is shared constitutes the **pivot** of a modulation.

Pivot Chord

The shared element in a modulation may be a single note or a melodic fragment, but most often there is some shared harmony between the old key and the new. A shared chord or chord progression can be analyzed in either key. It constitutes a “gray area” between the two keys which allows the modulation to seem gradual and smooth.

The pivot chord is a shared chord between two keys in a modulation. It is never the dominant of the new key, because that chord belongs entirely to the new key. Therefore, the pivot chord comes before the new dominant in a modulation. Frequently there are several potential pivot chords (a “gray area”) in a modulating passage, and one might correctly say that they all create the effect of pivoting from one key to the other. In general, the pivot chord or chords are labeled as in the example below. Make sure that they precede the new dominant, and that Roman numerals (not note names) are used to label them. In this way the analysis shows exactly what is heard: a stable initial key; an ambiguous chord or progression that can be heard as having specific function in the first key, but can also be interpreted as functional in the new key; a new key established that has a specific relationship to the old one.

F: I V⁴₃ I⁶ I ii⁶₅ V I I⁶ I vi C: ii⁶₅ V-⁴₂ I⁶ I V V⁴₂ I⁶ V⁶₅ I ii⁶₅ V-⁷ I

clearly in F

"gray area," including pivot chord

new dominant clearly in C (key of V)

While there are modulations that do not have pivot chords (they may have pivotal pitches, may involve melodic bridges, or may be purposely abrupt), there is no standard way of labeling these. The vast majority of modulations use some sort of pivot chords. Note that secondary dominants, secondary diminished 7ths, modal interchange, and enharmonic relationships can be used to expand the possibilities of pivot chords.

Large-Scale Harmonic Structure

A modulation can link any two keys. What makes a composer choose one key over another? There are many answers to this question, including some relatively subjective factors such as individual taste and expressive intent. But there are also more objective criteria, including large-scale structure and the degree of relationship between keys.

The large-scale harmonic motion of works in the common practice period tends to reflect the familiar small-scale patterns of the tonal language. Thus the simplest and most common tonal relationship, I - V - I, is, on the largest scale, the harmonic outline of the vast majority of tonal pieces in major keys. These pieces begin in the tonic, modulate to the dominant, and then come back to the tonic at the end. A similar outline is seen in minor mode pieces. Here, the first move tends to be to the relative major, then to the dominant, then home to the tonic (i - III; V - i).

The fact that so many pieces share basic structures is part of the coherence of the tonal language, but it does not tell us anything about each piece's unique characteristics. For this, a more detailed analysis is needed. On the structural level, a longer piece may go through many keys, especially coming back from a modulation to the dominant. It is always helpful to make a structural diagram of the key areas of longer pieces, showing their succession as a Roman numeral progression. It may take some practice to *hear* on this large scale, but the effort will pay dividends in the understanding of form.

Closely Related Keys

The notion of keys as more closely or more distantly related is helpful in understanding harmonic structure. Think for a moment of a key as represented by its scale. The process of modulation can be understood as the

introduction of accidentals. When we modulate from C major to G major, we introduce an f-sharp and eliminate the f-natural. This is a relatively easy modulation to make smoothly, because the change involves only one note. It is much more difficult to modulate to F-sharp major, which has only one note in common with C major.

Keys are related according to the number of notes they have in common. Keys are considered closely related to other keys one accidental away on the circle of fifths. Thus a key with two sharps is considered closely related to keys with one sharp and to keys with three sharps, as well as to its own relative, which shares its two-sharp key signature. In other words, D major is closely related to e minor, G major, f-sharp minor, A major and b minor. Look at these keys and compare them to the triads of the key of D major:

DM em f#m GM AM bm

I ii iii iv V vi

As you can see, all the major and minor triads of the key of D major are the tonic triads of the closely related keys.

Compare b minor and its closely related keys: Once again, observe that all the major and minor triads of the key are the tonic triads of the closely related keys.

bm DM em f#m GM AM

i III iv v VI VII

Tonal pieces tend to modulate to closely related keys. However, more remote modulations are also possible and seen increasingly from the middle of the nineteenth century into the twentieth.

SUGGESTIONS FOR ANALYSIS AND FURTHER READING

Analysis

Any common practice period music can be studied for harmonic analysis, and the utility and pleasure of studying scores go hand in hand as skill develops. A good anthology is especially helpful for students and there are several available. Particularly recommended is the *Anthology for Musical Analysis* (5th ed.) by Charles Burkhardt (Holt, Rinehart and Winston, 1994). Students (and teachers) sometimes mistakenly believe that Bach chorales are the best elementary pieces for harmonic analysis, because of their clear four-part format. Chorales make fine pieces for study, but they can be quirky and difficult both because of the modal origins of many of the tunes, and because of the complexity of the part writing. Works from the classic period are often more straightforward harmonically.

Further Reading

There are a great many texts that cover harmony, and many of these are valuable. One of the best known and most widely used twentieth-century texts is *Harmony* by Walter Piston, now updated and expanded by Mark DeVoto (W. W. Norton). Those looking for a more contrapuntal approach might try *Harmony and Voice Leading* by Edward Aldwell and Carl Schachter (Harcourt Brace Jovanovich). In addition to Piston, a number of other significant twentieth-century composers have written textbooks on common practice period theory, including Paul Hindemith, Arnold Schoenberg, and Roger Sessions.

PART 4

Tonal Counterpoint

Tonal counterpoint, also called eighteenth-century counterpoint or Baroque-style counterpoint, is related to species counterpoint (see Part 2), but with several important differences. First of all, a study of tonal counterpoint must be based on actual music from the eighteenth and nineteenth centuries; tonal counterpoint was not developed as a teaching tool, and it does not have any basic text that lays out its rules and procedures, as Fux’s *Gradus ad Parnassum* does for species counterpoint. On the contrary, the “rules” of tonal counterpoint, like those of harmony, are derived from a huge body of musical literature. Secondly, techniques of tonal counterpoint are related to those learned in species in terms of consonance and dissonance, but with one crucial addition—in tonal counterpoint the underlying frame of reference at all times (playing a role similar to that of the cantus firmus in species counterpoint) is harmonic progression. Thus the study of tonal counterpoint combines the harmonic materials presented in the previous unit with the kind of linear considerations first introduced in Part 2.

We tend to associate the idea of tonal counterpoint with formal types from the Baroque period, such as inventions, fugues, chorale preludes, etc. Some of these involve special techniques, such as imitation, and some have particular tonal patterns. These special techniques and patterns will be discussed below. Canons, rounds, and fugues are discussed in some detail in this section, because the techniques involved come up often in analysis. Other common contrapuntal forms are discussed briefly in the section on form.

The study of counterpoint cannot be restricted to contrapuntal forms. While these forms feature counterpoint throughout, contrapuntal textures appear at some point in most works of the common practice period. Moreover, the movement of individual voices, even in homophonic music, creates a form of counterpoint. Therefore the general techniques of tonal counterpoint are essentially inseparable from the study of tonal music.

The following discussion of tonal counterpoint is not a complete study of this subject. Its purpose is to provide an overview of the topic with enough information to be of practical use for writing and analysis within the context of general theory studies.

MELODIC LINE

Melodic Line: Intervals

There are no special rules that govern intervals in the melodic line. In species counterpoint augmented and diminished intervals are specifically avoided because they tend to split the line into different registers. In tonal counterpoint these intervals are frequently used precisely to take advantage