Fux to Bach: Bridging the Gap

Robert Gauldin

Although most freshman-sophomore theory sequences tend to concentrate on tonal harmony and voice leading, some append the topics of form and counterpoint. In the latter case an introduction to traditional two-voice species technique in the first year¹ is customarily followed with a consideration of late Baroque polyphony (or "Bach counterpoint") in the sophomore year. I have frequently observed in such situations that students experience difficulty in making the *transition* between the two approaches. Upon reflection this is not surprising, for while Fux's original methodology is devoted to the simulation of modal contrapuntal procedures in the Late Renaissance,² Bach's language is tonal. However, the root of the problem transcends this general observation, since the reorientation of a number of specific stylistic idioms is required of the student. I have listed eleven such

¹Curiously enough, there are very few undergraduate theory texts that emphasize species counterpoint. Leo Kraft's *Gradus: An Integrated Approach to Harmony, Counterpoint, and Analysis* (New York: Norton, 1976) and Peter Westergaard's *An Introduction to Tonal Theory* (New York: Norton, 1975) are two exceptions. The second edition of *Gradus* (1987-1990), however, largely abandons the strict systematic species approach.

²The master Aloysius in *Gradus* is a pseudonym for Palestrina.

features to demonstrate the chasm that sometimes separates the polyphonic practice of the two periods.³ Let me hasten to add that despite the apparent conflicts enumerated below, reductions of the surface voice leading frequently result in diatonic two-voice paradigms that are remarkably similar.

Renaissance

- 1. white notation (*tactus* = o)
- 2. same or adjacent voices: crossing permitted
- 3. predominantly vocal style: prevalence of conjunct motion and balanced leaps
- 4. individual "microrhythm" of separate voices, usually influenced by agogic text setting
- 5. the harmonic interval as a self-sufficient entity
- 6. modal structure, determined by voice range, *finalis*, and first tones; preferred cadences; little sense of harmonic function
- 7. *clausula vera* (stepwise to unison or octave)

Baroque

- 1. black notation (beat normally ↓ or ↓.)
- 2. soprano-bass "duet": crossing rare
- 3. instrumental style: more disjunct/arpeggios at surface level but *underlying* conjunct voice leading
- 4. highly metrical, with occasional rhythmic/metric ''dissonance''
- 5. harmonic intervals imply chords (*thorough bass*)
- 6. tonal structure with underlying sense of harmonic function; closely-related key system with episodic modulations
- 7. tendency toward fifthrelated cadences: authentic or half

46

³Also see Irving Godt's "Style Periods of Music History Considered Analytically," *College Music Society Symposium* 24/1 (Spring 1984): 33-48.

Gauldin, Fux to Bach

- 8. rigorous stepwise and metric control of melodic dissonance
- 9. design often determined by (phrases of) text: motet
- 10. with exception of "motto" re-entries, little motivic development
- 11. real imitation (fuga)

- 8. freer use of accented melodic dissonance (appoggiaturas); seventh treatment derived from PT, NT, Sus. technique
- 9. free-standing instances of formal stereotypes: two-reprise and da capo aria
- 10. frequent motivic development via sequence
- 11. frequent use of tonal imitation

One can scarcely deny the value of species counterpoint as a systematic means for focussing on melodic characteristics and handling of dissonance within regimented rhythmic settings. In fact, some teachers dispense altogether with the goal of simulating historical styles and view the species approach as a more abstract foundation for subsequent reductive analysis, adhering to the Schenkerian concept of "strict counterpoint."⁴ In this case, the term counterpoint takes on a more global connotation that involves the linear interaction of the (outer) voices, regardless of whether the prevailing texture is essentially polyphonic or homophonic.⁵

If, however, our objective centers more on the task of actual compositional/stylistic simulation together with the acquisition of adequate analytical tools to understand the design and structure of typical Baroque genre, then the initial problem persists. Despite the advantages of the systematic methodology that Fux affords, there are two features of species technique that students sometime question. First, they are often "turned off" by its more abstract format/notation and

⁴For instance, see Patrick McCreless, "Reading Schenker's Kontrapunkt," Intégral 3 (1989): 201-225.

⁵This tact is taken in Felix Salzer and Carl Schachter's *Counterpoint in Composition* (New York: McGraw-Hill, 1969).

frequently ask what "all this" has to do with actual musical literature. It is therefore obligatory that the instructor provide continual examples of "real music" that illustrate the correlation and practical application of the various species. Second, since Fux stresses stylistic features of the sixteenth century, the students' writing skills are founded on compositional norms of that era, many of which are modified to a greater or less degree in Bach counterpoint. Is it possible to preserve certain fundamental characteristics of the species approach within the bounds of a basically tonal environment, thereby avoiding "throwing the baby out with the bath water"? I personally believe it is, provided one is willing to permit the coexistence of both species and Baroque characteristics.⁶ The following discussion will attempt to demonstrate one possible manner of their mutual compatibility. Although each individual suggestion may not appear to represent a major concession to tonal practice, the end result will doubtless offend some who adhere to a more formalized traditional Fuxian format. However, such objections sometimes stem from an adherence to time-honored traditions-one encounters similar demur with applied teachers, some of whom insist that because they learned a fixed-solfege system, there is no other credible method for sight singing.

⁶For other literature pertaining to the use of species counterpoint in the undergraduate curriculum, see Jack Adrian, "Pedagogically Speaking: On Studying Species Counterpoint before Studying Harmony," *In Theory Only* 8/2 (1984): 15-19; Leo Kraft, "A New Approach to Species Counterpoint," *College Music Society Symposium* 21/1 (Spring 1981): 60-68; Donald Loach, "A Stylistic Approach to Species Counterpoint," *Journal of Music Theory* 1 (1957): 103-105; David Mancini, "Using Species Counterpoint in the Undergraduate Theory Curriculum," *Journal of Music Theory Pedagogy* 3/2 (1989): 205-22; and Bruce McKinney, "Relevance and Species Counterpoint; A Traditionalist Viewpoint," *Theory and Practice* 2/1 (May 1976): 1-8. Also certain texts on 18th-century counterpoint have incorporated aspects of species methodology with varying degrees of success: Robert Gauldin, *A Practical Approach to Eighteenth-Century Counterpoint* (Englewood Cliffs: Prentice Hall, 1986); Kent Kennan, *Counterpoint*, 3rd edition (Englewood Cliffs: Prentice Hall, 1987); Richard Parks, *Eighteenth-Century Counterpoint and Tonal Structure* (Englewood Cliffs: Prentice Hall, 1987); and Gilbert Trythall, *Eighteenth-Century Counterpoint* (Dubuque: Brown and Benchmark, 1993).

Modified Species Counterpoint

1. First Species

a. A switch from the "white" notation of the Renaissance (where the tactus of the cantus firmus is the \circ) to more conventional "black" notation, where the beat usually equals a quarter note () or dotted-quarter ().

b. A slight shortening of the cantus to correspond to the more usual 7- to 8-note length of chorale-tune phrases, the most common cantus source in the Baroque.⁷

c. The abolishment of modal practice (already suggested by Schenker) in favor of the major/minor system with various keys.⁸

d. Modifications of the initial harmonic interval (to allow the third or tenth) and the cadence formulae, expanded from the *clausula vera* of major sixth to octave (as in Example 1A) to include other normative tonal punctuations. These feature the standard "fifth-related" closes (authentic and half) with their typical 5-1 or 1-5 leaps in the bass and stepwise approach in the upper voice; consult Examples 1B and 1C. The Phrygian gesture (Example 1D) continues in the minor mode. Observe that these stereotypical formulae are often characterized by similar motion to an octave or fifth, a practice that Fux prohibits in first species.⁹

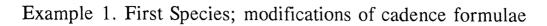
e. Perfect intervals will now tend to occur either at the opening or in the cadence, with preference given the imperfect consonances of thirds and sixths within the phrase; Kirnberger already points out this stylistic distinction.¹⁰ Passing octaves on weak beats that result from

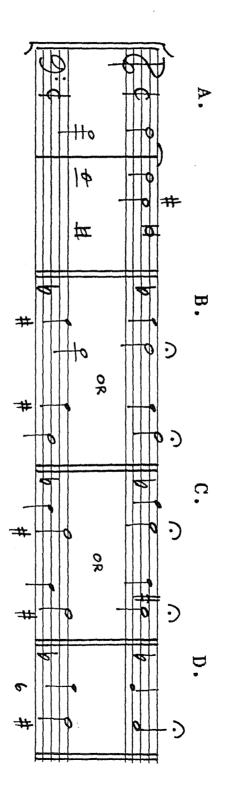
⁹However, Fux is not concerned with cadence gestures in this regard.

¹⁰See his *Gedanken über die verschieden Lehrarten* (1782) translated by Richard Nelson and Donald Boomgaarden, *Journal of Music Theory* 30/1 (Spring 1986): 71-94.

⁷However, for Schenker's views on employing such tunes as the cantus, see his *Kontrapunkt* Book 1, translated by John Rothgeb and Jürgen Thym (New York: Schirmer, 1987), 18 and 39-40.

⁸Ibid, 20-22, 31-34, and 39.





voice exchanges are allowable.

f. Each harmonic interval will be accompanied with a figured bass symbol(s), thereby denoting a specific *implied* triad.¹¹

g. Finally, the *progression* of these chordal implications will more often than not suggest a sense of harmonic function, admittedly a radical suggestion for some! Occasional instances of sequential patterns are even possible, again a "no-no" with Fux.

Now let us examine some examples of first-species writing that incorporate the above modifications (Example 2). The individual phrases are shown in graphic or reductive format in an attempt to highlight their tonal orientation.¹² Despite the preceding changes, we have nevertheless succeeded in retaining both the melodic restrictions of the voices and the use of the consonances that Fux recommends.

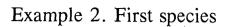
2. Second Species

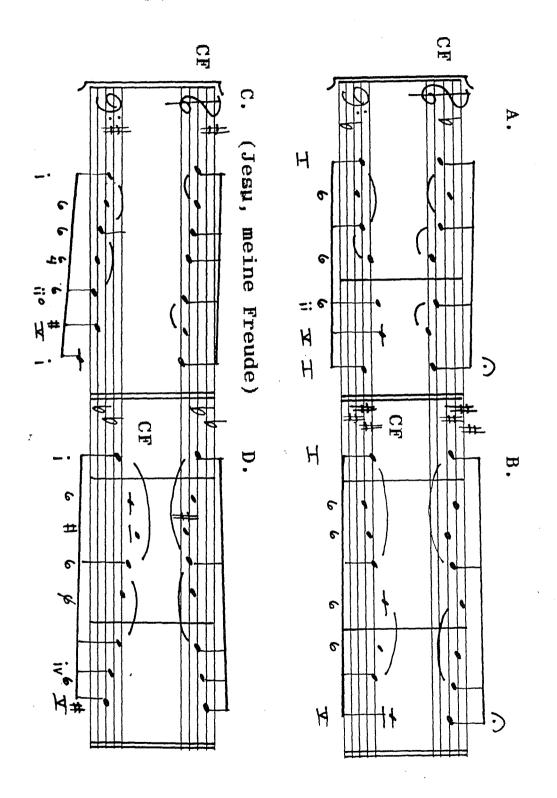
Second species introduces dissonant passing motion (on the offbeat) or consonant passing (or neighboring) motion in the form of the 5-6 or 6-5 within a 2:1 rhythmic setting; refer to Example 3A. As David Mancini has pointed out in his comments on the Attwood studies,¹³ Mozart tends to utilize the subsequent second and third species as a kind of progressive melodic elaboration (or *diminution*) in the counterpointing voice. Schenker likewise demonstrated that this technique represented a reciprocal form of his reductive analysis, in which layers of linear embellishment at the foreground are gradually stripped away to reveal the underlying note-against-note framework. In order for the student to fully appreciate the value of this diminution technique, I will restrict the examples of second and third species to only *one* of the previous phrases (Example 2A).

¹¹It remains a mystery to me how one can teach Baroque counterpoint without referring to thorough bass. I suspect Handel and Bach would agree, judging from the studies for Princess Anne and the figured bass manual respectively; in particular, note the fugal assignments in each that are worked out with figured bass.

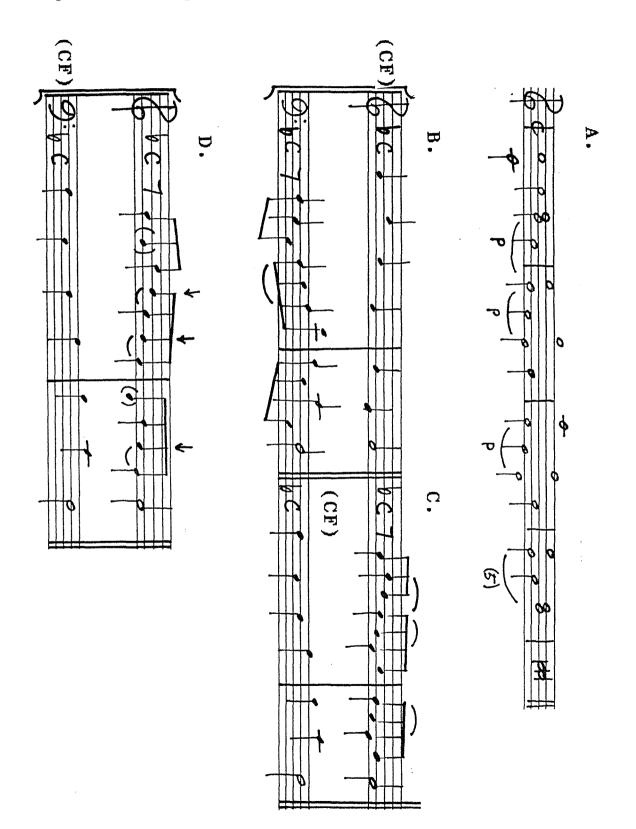
¹²A quasi-Schenkerian graphing is employed.

¹³See his article under footnote 6.





Example 3. Second species



In Example 3B we see that the lower voice operates as the 2:1 counterpoint using passing tones and consonant chordal associates. In our Baroque tonal context the cadence is given a stable and emphatic setting. With the authentic formula the bass unfolds a stereotypical $\hat{4}$ -($\hat{2}$)- $\hat{5}$ - $\hat{1}$ while the upper parts tend to move stepwise toward scale degree 1. Since our original note-against-note phrase is a self-sufficient two-voice phrase, we might even (heresy of heresies) elaborate the original cantus part (!) in a similar manner (Example 3C). Finally, Example 3D shows a more radical departure but one that is in keeping with Baroque practice: the use of appoggiaturas (or accented passing motion) in the upper voice!

3. Third Species

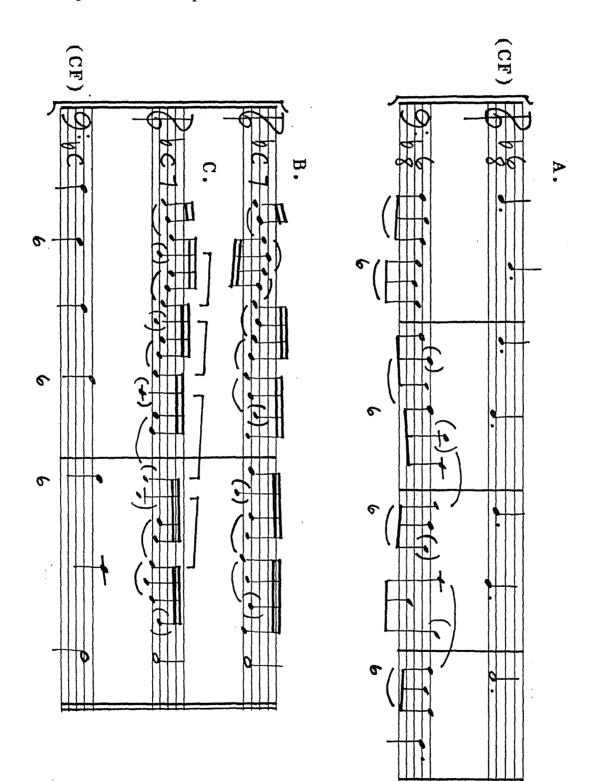
In third species settings Fux introduced the remaining (for him) melodic dissonances: neighbors, accented passing tones (on the third beat) and the cambiata (admittedly a rather archaic figure by Bach's time). Example 4A illustrates a 3:1 diminution in the bass of an original note-against-note example (Example 2A), incorporating passing and neighboring motion with consonant associates.¹⁴ A similar situation occurs in the first of the upper-voice settings (Example 2B). Since economy of means was one of the distinguishing attributes of the late Baroque, motivic development performs a significant role in this music. Example 4C demonstrates how a single (modified) motive may serve to "unify" the more diverse surface figures in the prior example.

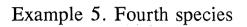
4. Fourth Species

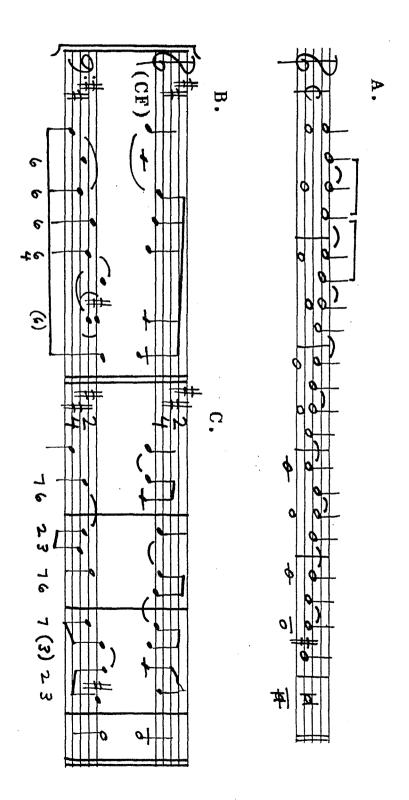
I personally feel that the introduction of suspensions represents the most problematic species of Fux's system. While the rhythmic settings of second and third species are admittedly artificial, at least they are occasionally encountered in actual literature. However, Fux permits only the *syncope* as the rhythmic basis for suspensions $(\rho \Gamma \rho)$, where the last three notes represent their preparation, suspension, and resolution respectively. While the suspensive *syncope*

¹⁴Although Fux does not include a triple format, it has been employed by later theorists. For instance, see Westergaard's *An Introduction to Tonal Theory*, 129-139.

Example 4. Third species







Gauldin, Fux to Bach

does characterize this dissonance in the Renaissance, one rarely encounters instances of more than three successive syncopes, and may occasionally note its omission altogether ($\circ \rho \rho$). In fact, in Baroque style the latter figuration is just as common (if not more so) as the syncope.

Since the suspension delays either the consonance of a third or a sixth (9-8s are foreign to two-voice writing), one can place only the 7-6 or 4-3 in the upper part, while the bass must get along with the solitary 2-3. For this reason I often prefer to work out a note-against-note setting first and then place appropriate suspensions in *both* voices. Not only does this approach alleviate the relentless parade of *syncopes* but also allows the use of all available suspension types. Contrast the typical Fuxian setting in Example 5A with the suggested method in Examples 5B and 5C; there is a change of bass and soprano in the suspension resolutions of the penultimate measure.

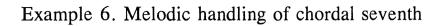
Before proceeding to the final species, a few comments on the handling of chordal dissonance (or seventh chords) in the Baroque may be appropriate.¹⁵ In the dominant seventh the tritone, previously excluded from first-species technique, frequently appears as a "quasi-consonant" interval, with scale degrees 4 and 7 implying either a $V6_5$ or $V4_2$. In each case, some type of dissonant melodic figuration is employed in treating the chordal seventh: as a neighbor (Example 6A), a passing tone (Example 6B), or suspension (Example 6C). The last model illustrates a non-dominant seventh via suspension figuration.

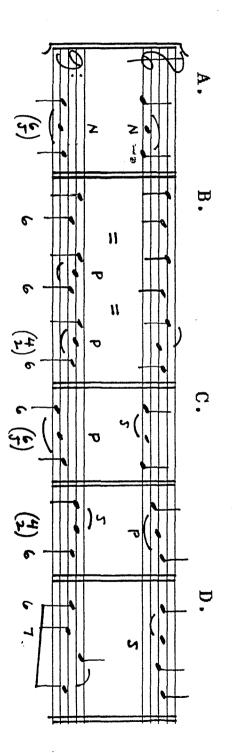
5. Fifth Species

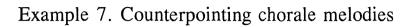
With fifth species all rhythmic restrictions are removed, provided the results correspond to stylistic practices of the period. At this point Fux appends the portamento and eighth notes.

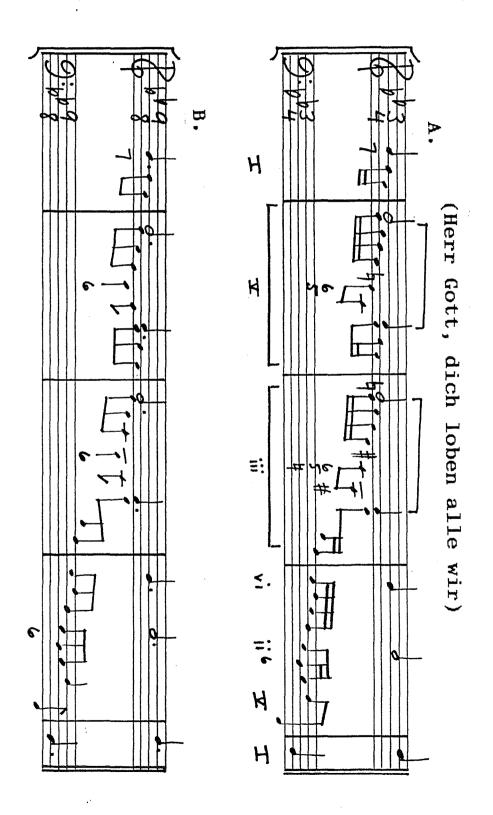
Since in the Baroque the use of cantus technique was largely limited to contrapuntal chorale settings, it seems only appropriate to employ actual contemporaneous hymn tunes in place of an artificially contrived cantus firmus. Although examples of two-part chorale

¹⁵Also see the chapter on chorale settings in Salzer and Schachter (245-273).









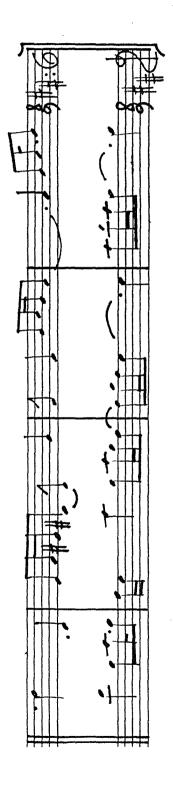
preludes are not especially plentiful in the period, sufficient works do exist as models. I emphasize this latter point, for by now the student should be attempting to simulate real musical situations rather than continuing to pursue a contrived syntax.

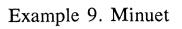
Several possibilities that are often overlooked by the student in the counterpointing of chorale melodies are the occurrence of sequential patterns and the possibility of momentary tonicizations (or even modulations at the cadence) that tend to relieve the prevailing diatonic context. Examine instances of both procedures in Examples 7A and 7B, which utilize the initial phrase of *Herr Gott, dich loben alle wir*.

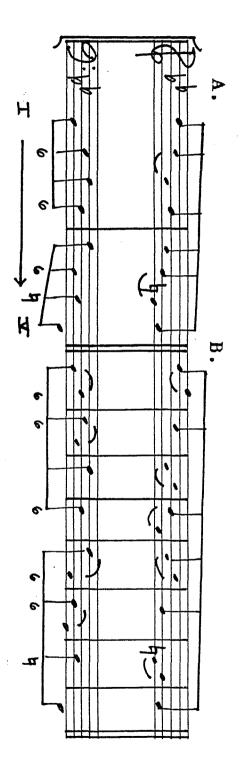
Free Counterpoint

Having established a foundation in the systematic handling of consonance and dissonance in various rhythmic settings, the student is now ready to embark on the simultaneous elaboration of *both* voices. Note the word "elaboration" – some students are deceived into thinking that the term *free* counterpoint suggests a relaxation of all previous restrictions! If so, then why bother with the diminution technique exemplified in the above discussion? Basic to all good counterpoint is the validity of the underlying (note-against-note) framework on which the successive diminution(s) is based. The example of dual elaboration in Example 8 is based on Example 5B.

One project that immediately suggests itself is the composition of a short minuet in typical two-reprise Baroque form. Obviously some preparation is necessary concerning the design and structure of such pieces. At this point the student is taken beyond the mere "exercise" nature of the previous species examples and is now confronted with real compositional decisions on a larger scale: the development of thematic material, the movement to different tonal areas within the tonal scheme and their confirmation at cadences, the proportioning and phrase grouping, etc. A note-against-note sketch for a hypothetical first reprise is worked out in Example 9A; the second four-note phrase is basically a sequential restatement at the dominant level. The framework is then successively elaborated (Example 9B), resulting in the possible solution Example 8. Dual elaboration

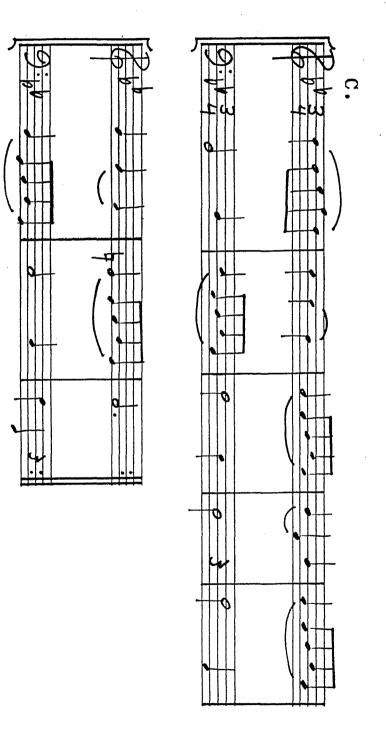






.

Example 9. (continued)



of Example 9C.

Sequential Models

There now remain three general topics that require discussion. All hinge on the issue of imitative process in the late Baroque. The compositional succession of works based on this device tends to adhere to the following pattern: an opening point of imitation (at the octave or fifth), an episode (or modulatory sequence to arrive at a new key through the insertion of appropriate accidentals), followed by a cadence and tonal affirmation, at which point the initial thematic idea is usually restated in the new key.¹⁶ This alternation of statement-episode-cadence continues to the conclusion of the piece. Granted the global nature of the generalization, this model holds up remarkably well for many such works in the period, including "inventions" and fugues.

Since sequential patterns play such a crucial role in episodic passages, the student should be familiar with some typical models. A few of the more common patterns are provided in Example 10, illustrating root movement by fifth, third, and second.¹⁷ Example 10B provides a typical elaboration of the descending-fifth motion in Example 10A. The motivic interplay between the voices produces a canon at the fifth; the modulation to the dominant area is confirmed by the typical cadential gesture. Similar such elaborations may be assigned.

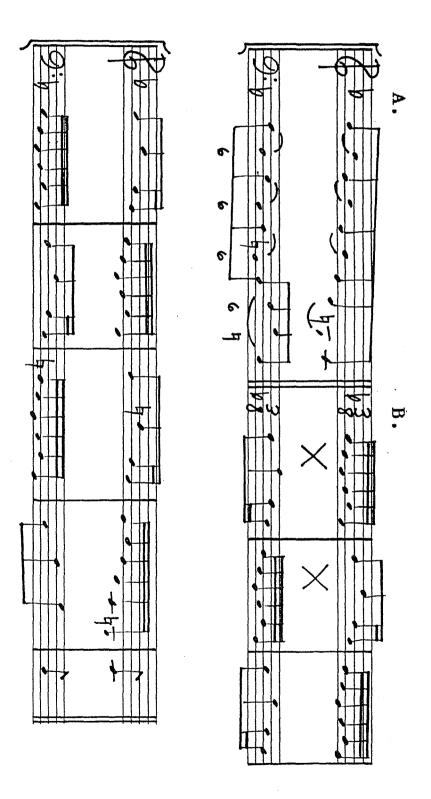
Double Counterpoint

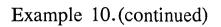
Most instructors employing Fux's methodology seldom venture past the five species. Although a complete translation is lacking,

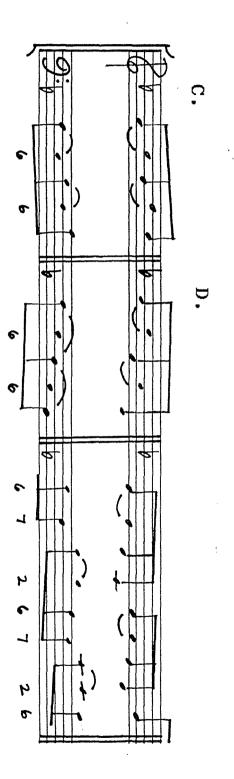
¹⁶See Marpurg's comments on the episode in Alfred Mann, *The Study of Fugue* (New York: Norton, 1965), 203.

¹⁷The reader may also wish to refer to the comprehensive list given in Forte and Gilbert, *Introduction to Schenkerian Analysis* (New York: Norton, 1982), 83-100.

Example 10. Sequential patterns







Gauldin, Fux to Bach

Gradus does contain additional information on invertible counterpoint and imitation.¹⁸ While these topics are still couched in modal style, one notes an increasing emphasis on Baroque practice as his treatise continues.

In the sixteenth century the counterpoint that accompanied the imitative "answer" seldom resurfaced in subsequent entries. However, of contrapuntal retention this the frequent associate (or "countersubject") in the late Baroque often necessitated a registral switching of voices: lower to higher and higher to lower. In two voices the resultant double counterpoint normally occurred at the octave or double-octave inversion (sometimes at a transposed level).¹⁹ While most inversional interval pairs maintain their consonant/dissonant relation (2 = 7, 3 = 6, etc.), the perfect fifth must be treated as a potential dissonance, inverting as it does into a fourth. A short basic framework (Example 10A) is elaborated in Example 11B using fourth-species technique together with its inversion at the octave (8 + 1); all of the diatonic simple intervals are present. While the 7-6 and 2-3 suspensions are interchangeable, in the second measure the consonant 5-6 becomes a 4-3. Bach's Eb major and A major Two-Part Inventions open with "double themes" that are consequently subjected to register inversion (usually at the double octave).²⁰

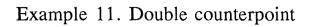
Imitation

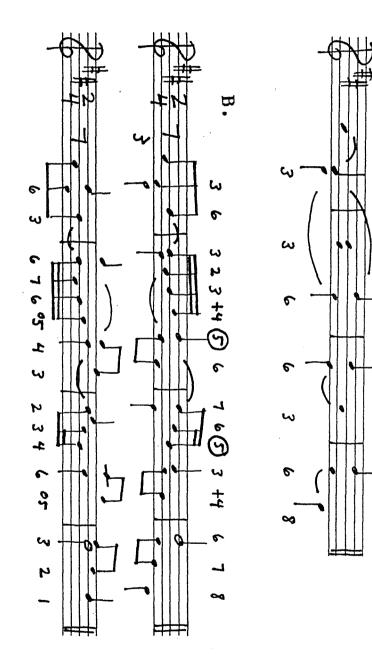
While initial points of imitation are a hallmark of both periods, the advent of tonality necessitated some basic modifications in their handling. The insistence that the imitating voice in the Renaissance should duplicate the original theme exactly—interval for interval (or ъ.

¹⁸See 78-138 in Mann's *The Study of Fugue*.

¹⁹Suffice to say, double counterpoint is frequently employed in the restatement(s) of episodic passages.

²⁰The topics of double counterpoint at the 10th and 12th, as well as triple counterpoint, could be reserved for later.





fuga) – demanded that the pitch relations between the parts be restricted to perfect intervals, invoking the hexachordal system. On the other hand, fugal expositions in the Baroque were largely limited to entries in the tonic and dominant *keys*. The nature of the individual subjects necessitated either *real* or *tonal* answers, the latter requiring some intervallic adjustment(s). Subjects are characteristically framed by scale degrees 1 or 5 (opening) and 1, 3, or less commonly 5 (at their conclusion). While motions to scale degrees 1 or 3 imply tonal closure, the use of scale degree 5 usually requires a movement to the dominant realm. Since imitation at the octave (as found in many two-part pieces) is not problematic, we will concentrate on answers at the fifth.²¹ The imitative models shown in Example 11 are basically note-against-note frameworks that may be elaborated in various rhythmic settings; the intervallic relations between answer and counterpoint are restricted to thirds and sixths, allowing the subsequent use of double counterpoint.²²

1. Real Answers-if the subject begins on scale degree 1 and closes on scale degree 1 or 3, the answer is real (interval for interval) in the dominant key; consult Example 12A.

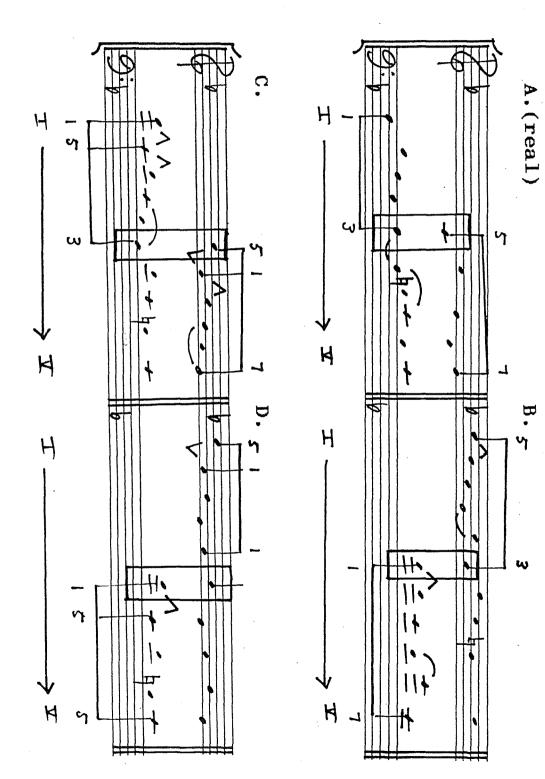
2. Tonal Answers-since tonal answers involve more varied formats, it is not surprising that students encounter greater difficulty in understanding both *why* and *how* to modify certain melodic intervals in the answer. In non-modulating subjects (ending on scale degree 1 or 3), a harmonic pivot is utilized at the entry of the answer (I = IV), which allows a smooth transition into the dominant tonicization. The intervallic modification in the answer normally occurs near this pivot.²³ Tonal answers are characterized by a systematic exchange of scale degrees in the subject and answer: $1 \rightarrow 5$ or $5 \rightarrow 1$ or $3 \rightarrow 7$. The framing degrees and pivot area is denoted in the models of Example 12; intervallic modifications are marked with a Λ .

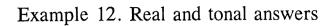
²¹This implies the use of the dominant key; subdominant answers are quite rare and usually require some justification for their employment.

²²See William Renwick's illuminating article "Structural Patterns in Fugue Subjects and Fugue Expositions," *Music Theory Spectrum* 13/2 (Fall 1991): 197-218.

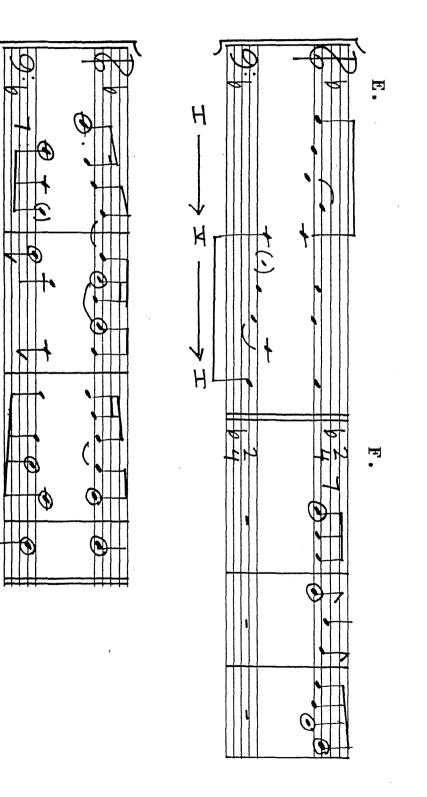
²³This is also typical of real answers.

B





Example 12.(continued)



A. If the subject begins on scale degree 5 and does *not* modulate (ending on scale degree 1 or 3), then the answer will begin on scale degree 1 and modulate to the dominant (ending on scale degree 5 or 7); consult Example 12B.

B. If the subject begins with the leap of $\hat{1} - \hat{5}$ or $\hat{5} - \hat{1}$ and does *not* modulate (ending on scale degree 1 or 3), then the answer will exchange the opening scale degrees $(\hat{5} - \hat{1} \text{ and } \hat{1} - \hat{5})$ and modulate to the dominant (ending on scale degree 5 or 7); consult Examples 12C and D.

C. If the subject begins with scale degree 1 and modulates to the dominant (ending on scale degree 5), then the answer will open on scale degree 5 and conclude on scale degree 1 back in the *tonic* key; consult Example 12E. A possible elaboration is given of the final model in Example 12F.

Somewhere along the way the instructor may wish to introduce the various contrapuntal "devices": stretto, melodic inversion, augmentation/diminution, and different types of canonic artifices.

While I cannot hope to do full justice to this topic within our restricted confines, I trust the above observations may stimulate some rethinking and adjustments that could lessen the transitional impact experienced by students in moving from Fuxian species technique to Bach counterpoint during their freshman-sophomore theory curriculum.