Improvising Motives: Applications of Michael Wiedeburg's Pedagogy of Modular Diminutions

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Introduction

For the Baroque keyboardist, thoroughbass training not only facilitated continuo realization, but also paved a bass-driven path to composition and improvisation; it was, as Thomas Christensen has demonstrated, "recognized as an unimpeachable fundamentum compositionis."[1] Performers internalized voice-leading habits for progressions and cadences by realizing an assortment of given basses.[2] Figured-bass realization continues to play a significant role today in typical curricula on eighteenth-century counterpoint and even in undergraduate music theory, though more often on manuscript paper than at the keyboard. The payoff of such work is absent, however, when students do not realize how close it places them to producing more florid and musically satisfying textures with fluency and ease. The missing link is a simple, versatile, and powerful technique for adding diminutions to the contrapuntal scaffoldings provided by figured-bass training.

Historical pedagogies of diminution were diverse, ranging from very specific realizations of each schematic pattern to generic and flexible modules that could be used in almost any situation.[3] In some cases, keyboardists learned idiomatic variations specific to a

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[1] Christensen 2008, 38. See, also, Christensen 2010, 36-41.

[2] A great deal has been written about what these stock progressions were. See, for example, Berkowitz 2010 (especially pp. 27-38); Christensen 1992, 2008, and 2010; and Lester 1992 (especially pp. 65-82). The literature on Italian *partimenti* is also highly valuable in this regard; see, for instance, Gjerdingen 2007a, 2007b, and 2010.

[3] See Cohen 2002, 544-548, for a brief synopsis, as well as Trinkewitz 2009 (especially pp. 199-272), for a wide-reaching and pedagogically oriented exposition of diminution and ornamentation practice in several countries during the Baroque. Berkowitz (2010, 46-55) also comments in detail on the intersection of formulas and variation in improvisational learning.

progression or a bass pattern simultaneously with the pattern itself.[4] Other times, they memorized a repertoire of diminutions categorized by each ascending and descending melodic interval in the bass or in an upper voice, or by each bass signature.[5] The advantage of these two methods is that recognition of the pattern or of the structural interval would facilitate the recall of ready-made options for embellishing it. The disadvantage, though, is the volume of information—dozens of embellishments memorized and neatly categorized by situation—needed in order to apply diminutions fluently.

In my own courses on eighteenth-century counterpoint and keyboard improvisation, I have sought a different approach to diminution—a simpler one that can be learned very quickly because it demands almost no memorization, but that is also powerful enough to teach fluent improvisation (or, for counterpoint students, quick composition) of quite sophisticated textures. Are there easily acquired tools that can make students good at—and fast at—diminution in just a few weeks or months? The answer is to view diminution as a set of techniques rather than as a set of patterns, as Michael Wiedeburg does in the third volume of Der sich selbst informirende Clavierspieler.[6] Wiedeburg presents just three modular melodic shapes that can fit into most any contrapuntal situation. In this essay, I focus on the two reasons why the potential pedagogical benefit of his approach is significant. First, I demonstrate its user-friendliness by exploring how Wiedeburg's chameleon-like figures act in a variety of contrapuntal contexts. Second, I investigate the fruitfulness of such an

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[4] This is especially true of Italian pedagogy through *partimenti*, in which a schematic reckoning of the bass would suggest not only the outline of the upper voice(s), but indeed also the preferred realizations that had been internalized along with each schema. See Gjerdingen 2010, 58-59 and 2007a. Gjerdingen (2010, 43-54) also illustrates a different approach, typical of Italian pedagogy, in which a keyboardist would solve the puzzle of a particular *partimento* by using the florid sections of the bass as hints for how to elaborate the added upper voice(s) in imitation.

[5] See Christensen 2008, in which he thoroughly traces this approach through three centuries, beginning with Paumann and extending through Niedt, Heinichen, and C. P. E. Bach in the eighteenth century.

[6] Wiedeburg 1775.

economical technique, reporting on how it gives students access not only to simple exercises, but also to intricate and motivically coherent pieces. By engaging richly with musical repertoire and re-imagining its surface in other ways, they discover one particularly direct path between the foundational voice leading of thoroughbass and the composition of rather satisfying music.

Technique: The User-Friendliness of End-Oriented Figures

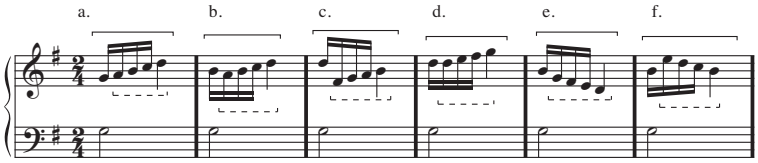
There are at least three different ways to parse the six melodic shapes shown in Fig. 1, and each reckoning has unique advantages. The first way, useful primarily as an analytical approach, is to view the figures as six different four- or five-note motives, each with a distinct intervallic pattern.[7] The second way is to understand the five-note patterns (solid brackets) as options for elaborating six different structural melodic intervals—in order, an ascending fifth, an ascending third, a descending third, an ascending fourth, a descending sixth, and a unison.[8] (One would learn each of them attached to its distinct melodic interval, and recall them separately based upon the unique context.) In chapter 10 of the third part of his treatise (1775), the organist Wiedeburg offers a third way as part of a discussion of improvised interludes between hymn phrases. He ignores the starting pitch and assesses the four-note figures

[7] It is the motivic nature of *figurae*, as devices of compositional sophistication and unity, that primarily interests Williams (2003). His discussions of J. S. Bach's organ music, particularly the chorale preludes, view figures analytically as self-contained motives more than as tools or techniques for improvising diminutions. He also discusses the implications of these *figurae* for performance articulation on keyboard (1983 and 1985).

[8] Several modern textbooks on eighteenth-century counterpoint teach diminution through figures in this way, presenting each figure as an embellishment of some skeletal interval (e.g., an ascending step). Benjamin's treatment (2003, 7-8) is based explicitly on the motivic "filling-in" of structural melodic intervals. Gauldin discusses *figurae* in the context of motivic chorale prelude technique (1988, 146-7), treating them as elaborations of skeletal intervals such as thirds or fourths. The treatment in Schubert and Neidhöfer (2006, 58-61) is the most thorough one, presenting ten common five-note motives that are each explicitly anchored to the melodic interval between their first and last pitches.

purely by the contour of their approach to the next stable pitch; thus, he would view all six examples in Fig. 1 as instances of exactly the same figure (*Schleifer*): a technique of approaching the last pitch by step beginning a fourth away (dashed brackets). While just slightly different from the second way in its orientation, this method simplifies the technique considerably.[9]

Figure 1. Schleifer in six intervallic contexts.



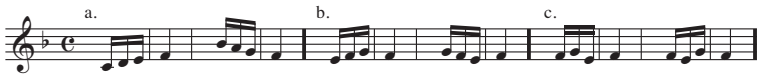
Wiedeburg's approach is not completely distinct from pedagogies that contextualize all figures within a structural, beat-to-beat melodic interval, but it provides the advantage of simplicity;[10] because his figures are just four notes in length and are based only upon where they end, they are versatile enough to fit almost anywhere, and their application requires little more than the ability to approach an upcoming pitch in some specified manner. Instead of accessing a set of internalized, situation-specific patterns (i.e., "Which structural interval do I need to fill in and which ways of doing that have I memorized?"), a composer or improviser needs only a single technique to generate the diminutions (i.e., "Which note do I need to approach?"). The benefit to a counterpoint student or to a fledgling keyboard improviser, for example, is significant. Wiedeburg's spare, but powerful pedagogy

[9] Many aspects of Wiedeburg's improvisational pedagogy are elucidated by Harrison (1995), but the diminution figures discussed presently are not treated in detail. Wiedeburg's treatise also appears in a recent reprint edited by Harald Vogel (2006/2007).

[10] As Vogel (2007) notes, other aspects of Wiedeburg's treatise, such as his pedagogy of adding a bass to a melody, are situated squarely within the *fundamenta* approach (i.e., organized by melodic interval, ascending and then descending from seconds through octaves). Of interest here, however, is that his pedagogy of upper-voice diminution is decidedly not in this tradition.

of diminution utilizes mainly three of these four-note, end-oriented figures to connect the end of one hymn phrase with the beginning of the next one. Each is defined by the intervallic pattern by which it approaches its metrically strongest fourth note: upward or downward via a stepwise tetrachord (*Schleifer*, Fig. 2a), a turn (*Doppelschlag*, Fig. 2b), or a double neighbor (*Schneller*, Fig. 2c).[11] While his chapter includes other rhythmic and melodic shapes beyond these three, I will deal with just the first two of them in detail, as test cases.

Figure 2. Ascending and descending Schleifer (a), Doppelschläge (b), and Schneller (c).



Because these figures are parsed beginning after a stable beat and ending with the next one, they approach the upcoming stable tone rather than embellishing the current one. The figures are used to generate diminutions from scratch and in any situation, rather than internalized and recalled as solutions to specific improvisational or compositional challenges (e.g., melodic intervals, schematic progressions). Moreover, as Harald Vogel points out, Wiedeburg's intent from the outset is to show, systematically and exhaustively, how these small modules can be concatenated into longer passages that often disguise the utter simplicity of their generation.[12] Accordingly, Wiedeburg's presentation focuses right away on the artful connection of these figures with themselves and with each other; in fact, he deals hardly at all with isolated one-beat

[11] I adopt Wiedeburg's nomenclature here, although similar *figurae* were named differently elsewhere in the *Figurenlehre* tradition. The *figura suspirans*, for example, also described a tetrachordal approach to the beat beginning after a rest (derived from the effect of a breath on that rest); that initial rest is not required here, since these end-oriented figures often dovetail with one another to form a continuous string of faster notes. As Wiedeburg acknowledges (1775, p. 527), he uses the names of three commonplace ornaments [*Manieren*] to describe rhythmic diminutions, in slower notes, that have the same intervallic contours.

[12] See Vogel (in Wiedeburg 2007), ix-x.

figures. He says: "Now we want to show how one can create all sorts of interludes [*Zwischen-Spiele*] of any length by making use of these short units."[13] Examples demonstrate ways of forming a wide variety of two-, three-, and four-beat shapes from these limited raw materials.

Figure 3 reproduces one of Wiedeburg's initial examples of two-unit combinations, all created in the same deceptively simple manner. The lowercase letters a, b, and c designate which two of the fifth, third, and octave above G are the two target pitches. The six numbered diminutions of each of these pairs of pitches demonstrate six corresponding techniques for approaching them, all without heed for the interval between the two structural pitches: (1) by rising *Schleifer*, (2) by falling *Schleifer*, (3) by rising *Doppelschläge*, (4) by falling *Doppelschläge*, (5) by rising *Schneller*, and (6) by falling *Schneller*.[14]

[13] p. 572: "Wir wollen jetzt zeigen, wie man nach Anleitung dieser kurzen Sätze allerhand Zwischen-Spiele von beliebiger Länge machen kan."

[14] Wiedeburg 1775, 575-6.

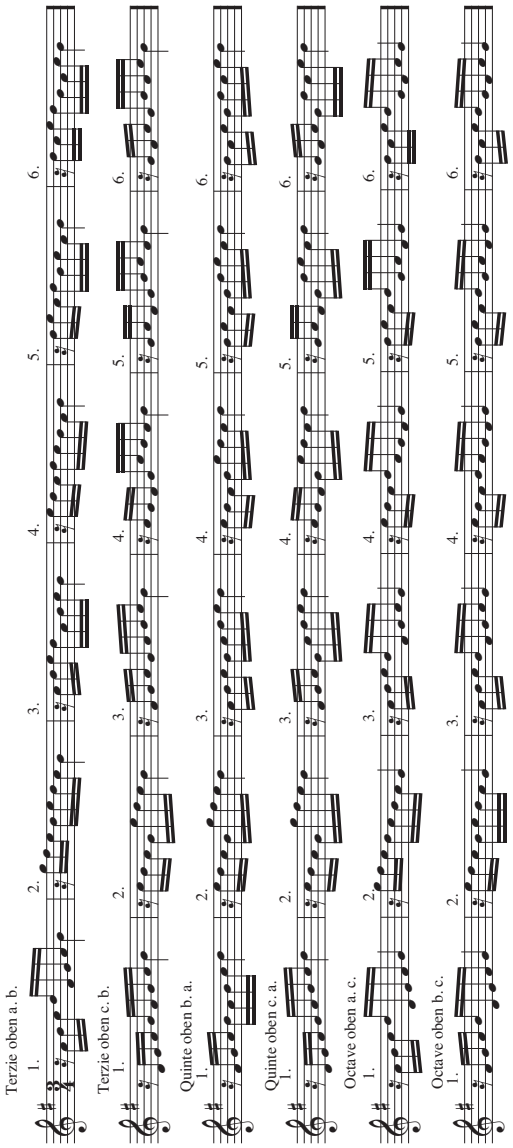
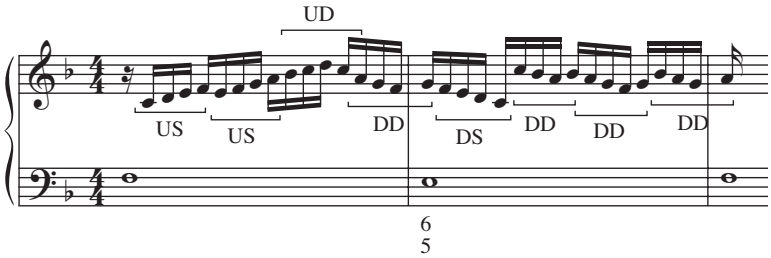


Figure 3. Michael Wiedeburg's demonstration of concatenated Schleifer, Doppelschläge, and Schneller (from Der sich selbst informirende Clavierspieler, vol. 3, pp. 575-6).

The importance of this example lies in the substantial variety of surface shapes that result from just three basic strategies for arriving upon a consonant pitch. Even though the relationship of one figure to the previous one plays no role in their application—for each figure operates only with regard to where it lands—the seam between one figure and the next can often result in a desirable secondary shape, such as an unbroken scale, a series of interlocking thirds, or a sequential pattern of leaps followed by recoveries.[15] The potential applications of Wiedeburg's technique are far broader than the simple connections that he shows between the tones of a triad; they also work well to connect across the changes in a contrapuntal progression. In Fig. 4, the four-note shapes within each beat are inconsequential to the technique; what matters are the bracketed inter-beat shapes, which are all upward or downward *Schleifer* (US, DS) or *Doppelschläge* (UD, DD).

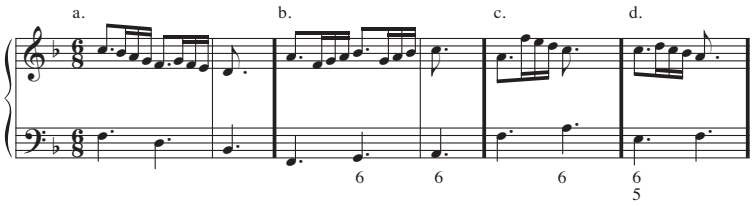
Figure 4. Illustration of surface variety through upward and downward Schleifer and Doppelschläge.



[15] It is also interesting to observe the assortment of dissonance types that arise from applications of the same three techniques. The usage of these figures is, at least initially, unburdened by the functional caution that can get in the way of improvisers (or counterpoint students) who try to create music from skeletal voice leading. To explain a *Schleifer* as "beginning a fourth away from the target and moving to it by step" is to ignore, consciously, the functional status of each of its pitches as passing, neighboring, double-neighboring, etc. The payoff is fluency, and the risk of improperly treated dissonances is also mitigated by strategies such as the ones discussed below, which embed an awareness of the contrapuntal relationships to which the figures are best applied.

The versatility of these two particular figures derives from two related factors, namely the variety of intervallic contexts to which they can be applied and the assortment of apparent surface shapes that they can produce. Important structural characteristics underpin the conformance of *Schleifer* and *Doppelschläge* to the stylistic demands of dissonance treatment in the Baroque.[16] The fourth note of either figure is, of course, guaranteed to be consonant, since the figure itself is designed to arrive at that stable pillar. In the case of the *Schleifer*, the second and third notes are also of no concern; since each of them is surrounded by unidirectional stepwise motion, they will always be either a chord tone and then a passing tone (Fig. 5a), vice versa (Fig. 5b), a double passing tone (Fig. 5c), or, rarely, two chord tones (Fig. 5d). The single constraint, then, is that the *Schleifer* must begin either on a consonance or on a pitch a step away from the preceding one.

Figure 5. Options for contextual consonance and dissonance in Schleifer.

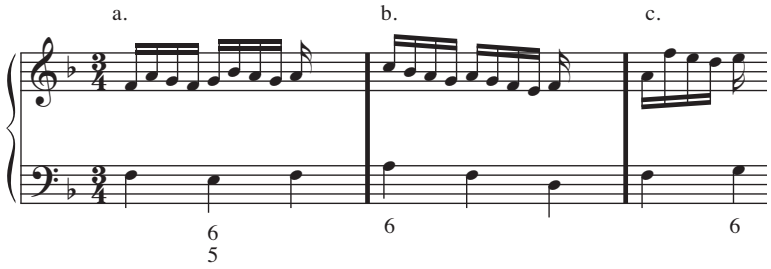


A similar principle applies to the *Doppelschlag*: provided that the figure begins appropriately after the beat (i.e., as either a consonance or a stepwise departure from the previous beat), the second and third notes will be either a passing tone and a consonance (Fig. 6a), a consonance and a neighbor (Fig. 6b), or

[16] When I teach these figures to students of counterpoint or keyboard improvisation, I first simplify eighteenth-century dissonance treatment to the following three guidelines: (1) suspensions must be prepared and resolved; (2) contextual dissonances (i.e., non-chord tones) must come and go by step; and, redundantly, (3) any skip or leap must be both from and to a contextual consonance (i.e., a chord tone). Of course, one can find myriad exceptions to these principles, such as appoggiaturas and escape tones, but they can usually be attributed to a mitigating factor such as the strength of a motivic connection or an imitation.

two dissonances that idiomatically anticipate the arrival of the consonant beat (Fig. 6c).

Figure 6. Options for contextual consonance and dissonance in Doppelschläge.



Thus, it is only the first note of each figure that must be chosen with care. Aside from the option to begin a step away from the preceding pitch, students can also rely on two nearly universal truths about the relationship of a consonant origin to its intervallic surroundings: (1) if a pitch is chordally consonant, then either the pitch a third above it or the one a third below it, or both, are also consonant, (2) if a pitch is consonant, and the pitch a third away from it in a given direction is not consonant, then the pitch a fourth away from it in that same direction is usually consonant.[17] Knowing where the next figure can begin is especially important when several such figures are used in succession, for the only opportunity to balance the entirely stepwise motion within each of them is to employ skips and leaps between one and the next (i.e., immediately after the beginning of a beat). Moreover, one can be reasonably confident that a given contrapuntal situation will offer at least a few consonant starting points for *Schleifer* and/or

[17] This does not mention the potential disqualification of other consonances for contrapuntal reasons, such as the production of undesired parallels or a second leading tone. Moreover, some interesting exceptions to these generalities arise when suspensions are present. In the case of a 4–3 suspension resolving over two beats, for example, the suspension is *present* even if it is not *consonant*. Thus, neither the octave nor the dissonant fourth above the bass has a third in either direction from it until the fourth is replaced by the third.

Doppelschläge that connect small structural intervals within a voice (i.e., unisons, and upward and downward steps and thirds), and also larger intervals that arise through motion between contrapuntal voices (i.e., fourths, fifths, and sixths in both directions). Thus, the intervallic properties of these two figures are maximally versatile with respect to the size and direction of the inter-beat interval that they need to travel. Figure 7 shows samples of each of the two figures in each intervallic context.

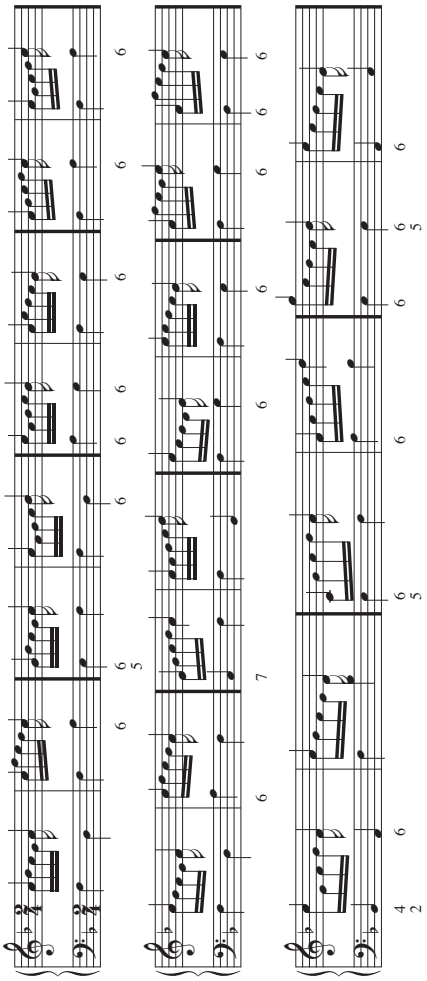


Figure 7. Adaptability of Schleifer and Doppelschläge to a variety of structural melodic intervals.

As a first exercise, I provide just the figured-bass fragments of Figs. 5, 6, and 7 (without an upper voice) to students and ask them to "find all possible applications of *Schleifer* and *Doppelschläge*." For both keyboard improvisers working at the instrument and counterpoint students working with a pencil, this early process of discovery develops the mindset needed to apply the two figures: (1) imagine the consonant pitches on which to land, and (2) approach each of them in the four ways offered by the ascending and descending forms of the two figures. By trying these and discovering the ones that do not work as well, students learn to reject options that would introduce an undesirable dissonance, doubling, or set of parallel perfect consonances.

After mastering downward as well as upward *Schleifer* and *Doppelschläge* within the narrow constraints of Fig. 7, one can put this flexibility to good use in creating a wide variety of continuously moving lines over longer basses. The strategy is simple: Using the stable pitches as targets, approach them either stepwise from a fourth away (*Schleifer*) or with a turn from a step away (*Doppelschlag*). Below the voice-leading framework (Fig. 8a), akin to what students might turn in as a part-writing assignment or play as a continuo realization, is a possible diminution of the soprano line (Fig. 8b).

Figure 8a. Realization of a figured bass.

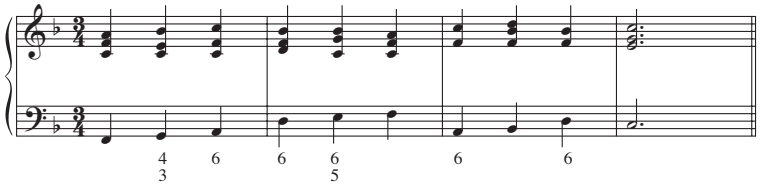
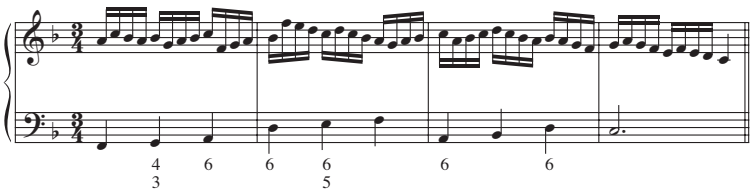


Figure 8b. Diminution of the upper voice of Fig. 8a by means of Schleifer and Doppelschläge.



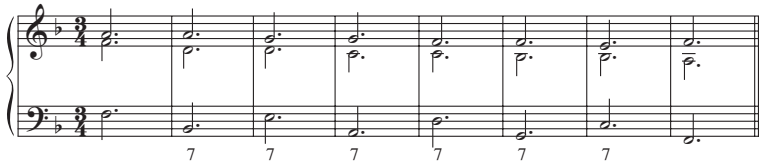
Even a tightly-constrained repertoire of diminution strategies can produce enough surface variety to avoid being tiresome. The contour of the resultant line is wide open, and despite the mere pair of inter-beat shapes that generate Fig. 8b, there are actually seven different intra-beat shapes (grouped into upward and downward variants of four different contours): stepwise tetrachords (measure 3, beats 2 and 3), skips followed by stepwise returns to the starting pitch (1/1, 1/2, 3/1), leaps followed by recoveries (1/3, 2/1), and turn figures (2/2, 2/3, 4/1, 4/2).

The simplest cases of applying these figures are those in which the origin and target pitches belong to the same contrapuntal voice. However, figures can also serve as handy transports from an origin in one voice to a more distant target in another voice, thereby rendering the basics of compound melody readily accessible through *Schleifer* and *Doppelschläge* that span larger intervals. Figure 9a presents a common contrapuntal framework for a sequence of descending fifths with interlocking sevenths, realized in a typical texture of two upper voices. This contrapuntal framework provides an opportunity to connect larger melodic intervals with *Schleifer* and *Doppelschläge*, and thereby to imply more than just a single upper voice. Students begin with just the bass and figures of Fig. 9a.[18]

[18] A keyboardist fluent with continuo playing will have a framework such as that in Fig. 9a readily accessible as a tactile habit on the instrument, but several adaptations can be made for less experienced improvisers and for counterpoint students working with a pencil and paper rather than an instrument. A novice improviser can read the entire framework (Fig. 9a) while improvising the

The contrast between the contours of the *Schleifer* and *Doppelschlag*—the larger span of the former versus the stasis of the latter—makes it easy to maneuver both between and within the constituent voices of a compound melody. First, as in the first and third measures of Fig. 9b, a *Schleifer* can forge a stepwise connection between an origin in one voice and a target a fifth away in the other voice. Second, as in the second and fourth measures of Fig. 9b, a leap onto a *Doppelschlag* can effect the voice transfer immediately and within the same harmony, followed by a stepwise motion in that voice. To execute the latter strategy, a keyboardist relies upon his tactile awareness of consonant pitches even when they are not sounding (e.g., the parenthesized A4 in m. 2 and G4 in m. 4), a frame of mind cultivated by the assimilation of thoroughbass progressions. The two strategies are reversed in Fig. 9c, with the stepwise motion between voices in measures 2 and 4, and the leaping approach in measures 3 and 5. In both examples, the bass voice is elaborated very simply by means of chordal skips and passing motion between root and third.

Figure 9a. Three-voice contrapuntal framework for a sequence of descending fifths with sevenths.



diminutions (Figs. 9b and 9c), and a counterpoint student can write out the framework as a basis for adding the diminutions.

Figure 9b. One option for implying two upper voices with Schleifer and Doppelschläge.

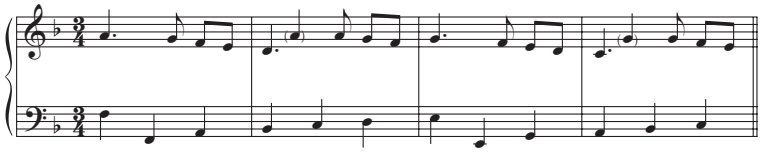
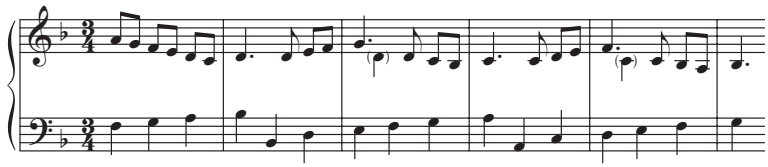


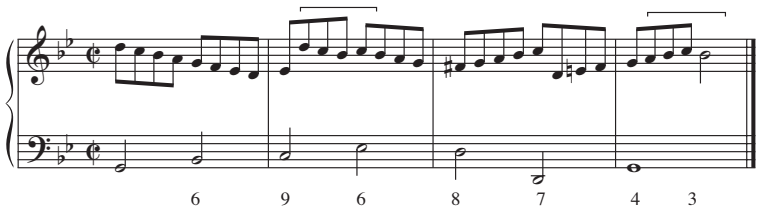
Figure 9c. Another option for implying two upper voices with Schleifer and Doppelschläge.



One determines where to employ the two figures using simple strategies that connect intuitively to an awareness of voice leading. For example, if a note a step away from the target is consonant, begin there and use a *Doppelschlag* (see Fig. 9c, m. 3 and m. 5). Or, if the target is a fifth away, use a *Schleifer* from the origin for a completely stepwise motion (see Fig. 9b, m. 1 and m. 3). Or, if the target is a fourth away, use a *Schleifer* from a repeated origin for a likewise stepwise motion (see Fig. 9c, m. 2 and m. 4).[19] Or, if a suspension is present, decorate its resolution in one of the following ways: (1) begin on the suspension and use a descending *Doppelschlag*, or (2) begin beneath the note of resolution and use an ascending *Doppelschlag* (Fig. 10, and see the treatment of sevenths in Figs. 9b and 9c).

[19] Hints such as these may seem to blur the distinction between end-oriented figures and figures learned in explicit connection to a structural melodic interval. However, the difference is still important, given the ease of learning and applying a single technique rather than remembering a substantial variety of diminutions specific to each interval. The latter guarantees proper dissonance treatment more often (though not always), but the former is a more direct path to fluency.

Figure 10. Demonstration of Doppelschläge to decorate the resolutions of suspensions.



Whether a melodic figure connects pitches within a voice or between voices, the requirements of the composer or improviser in selecting the proper figure for a given context are identical. Analytical constructs such as "passing tone" and "neighbor tone" are still useful for assessing how the figures conform to the stylistic demands of dissonance treatment, but a more streamlined decision-making process encapsulates these demands within a strategy that is simple enough to execute fluently. At the keyboard, one relies on the tactile habits and shapes (i.e., *Griffe*) already assimilated during thoroughbass training; away from the keyboard, one still composes efficiently by combining skeletal voice leading with these figures.

Following the preliminary exercises in Figs. 4-10, which work within rather narrow contrapuntal constraints, I assign counterpoint students a longer figured bass (Fig. 11, lowest staff) to treat as the foundation for a composition. The objective is to master the skills of implying suspensions and incorporating the *Schleifer* and the *Doppelschlag* both within a contrapuntal voice (i.e., connecting small structural intervals) and between two voices (i.e., connecting larger structural intervals). I insist that students follow these steps in order:

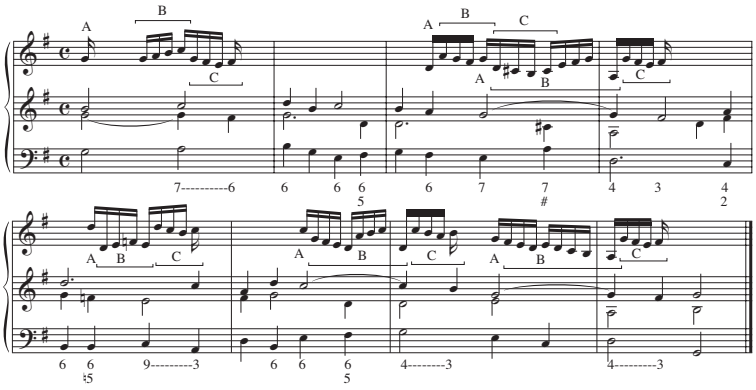
1. Write two upper voices above the bass to form skeletal three-voice counterpoint (Fig. 11, middle staff), and use this as a lead sheet for the rest of the process.

2. Create the implied suspensions first: place the preparation on a beat, either one or two beats before the suspension (marked A on the uppermost staff in Fig. 11), approach a note in the other

voice on the beat where the suspension starts (B), and then immediately leap to a *Doppelschlag* in the suspended voice in order to decorate the resolution (C). Figure 11 shows the result after this stage of the process.

3. Elsewhere, alternate between the two upper voices in roughly equal measure, preferring to land on imperfect consonances above the bass except at cadences. While it is not necessary to visit both voices within each change of harmony, be sure not to abandon any tendency notes (e.g., leading tones, chordal sevenths).

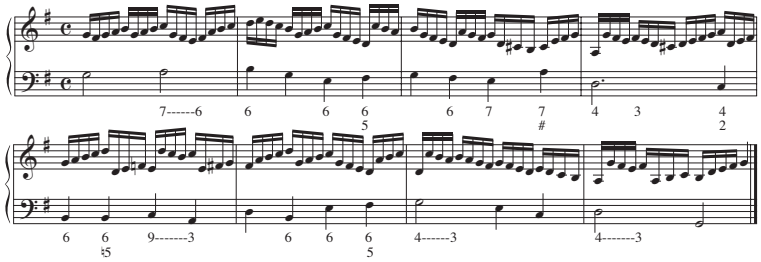
Figure 11. Preliminary stages of implying two upper voices and suspensions.



I do not require that students use a *Schleifer* or a *Doppelschlag* in absolutely every beat, since it is occasionally preferable to approach a beat by leap. A particularly effective departure from the two figures involves leaping from the preparation of a suspension onto the other voice on the beat, and then returning to a decorated resolution (as at the beginnings of m. 4 and m. 7 in Fig. 12 below). I ask for two different realizations in order to encourage versatility with the figures; one sample appears in Fig. 12.[20]

[20] I have described a written activity for counterpoint students, but the same method can also serve as a far more advanced activity for a student of keyboard improvisation. I have asked just a few of my most competent keyboard-skills students to improvise *Schleifer* and *Doppelschläge* directly from a figured bass. For more typical students, I provide the voice-leading framework (Fig. 11, middle

Figure 12. Sample realization based upon Fig. 11.



Payoff: J. S. Bach, Praeludium in F major, BWV 880

Wiedeburg's approach offers an accessible path to improvised (or fluently composed) elaborations of simple voice-leading frameworks, as illustrated above, but it also provides a narrowly focused lens through which students of counterpoint or keyboard improvisation can engage—and indeed interact—with rich works from the real musical literature. J. S. Bach's Praeludium in F major, BWV 880, from the second book of the Well-Tempered Clavier, is a perfect teaching piece; in spite of its textural variety and motivic lushness, it can be generated (or recomposed) by means of the same economy of diminution technique discussed earlier. The turn figure (i.e., *Doppelschlag*) is pervasive, with the *Schleifer* playing a secondary role; the consistency of the harmonic rhythm in half notes, and the constancy of the eighth-note embellishments, leave fewer than ten beats out of more than two hundred without at least one of these melodic figures.[21] One need only play through the

staff) in hard copy as well; reading from this, rather than just from the bass, makes the activity possible for a larger population.

[21] Williams (1983, 336-7) has discussed Bach's usage of *figurae* in this very same work, arguing convincingly for a separation in performance between the individual four-note units, as opposed to a smooth connection across entire scales. He parses the piece into motivic *figurae* according to Bach's slurs, however, which are most often within rather than across beats; therefore, the boundaries between melodic shapes and the nature of the shapes themselves are very different in our two conceptions. I am neither suggesting a different performance approach based upon my grouping, nor claiming anything about Bach's compositional method.

piece to experience how closely it often resembles the *feel* of a continuo realization, but for the motivic eighth notes that selectively highlight the motion of one or more particular voices at any given time. Aurally, though, it gives the impression of being far more than the sum of its modular parts, with seemingly endless stepwise lines cascading between voices that often sustain to form full chordal sonorities (e.g., m. 5, mm. 40–46), but elsewhere release to leave thinner, more contrapuntal textures (e.g., mm. 49–53).

The issue is one of salience: what makes Bach's surface more than just an exercise in voice leading is the interest that the eighth-note figures generate by privileging different voices (and different types of motions within or between these voices) at different times. Bach's exordium (mm. 1–4) consists of a tonic pedal followed by a tonicized half cadence, but the specific registral disposition of the counterpoint permits an unbroken, two-octave descent in thirds from the soprano F5 in m. 1 through the tenor F3 in m. 3. How might students approach the piece creatively, imagining the decision to elevate some individual melodic motions to greater salience by adding *Doppelschläge*, while leaving others farther in the distance as rhythmically unembellished and motivically indistinct? I start by providing the score of Bach's exordium (mm. 1-4, Fig. 13a) and asking for a registrally faithful sketch of the counterpoint that it realizes. Having worked with *Schleifer* and *Doppelschläge* extensively in simpler situations, students are able to parse these figures instantly and to discern the stable pitches that they approach; moreover, they show the contrast between the privileged third-wise descent and the deemphasized other voices by notating those pitches approached by a *Doppelschlag* or a *Schleifer* with round note heads and all others with diamond-shaped note heads (Fig. 13b). This activity encourages them to think creatively about the specific design that the melodic figures weave on the more generic voice-leading loom; only the descending thirds are motivically salient in the first three measures, followed by the

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Rather, my intent is to ask how the surface of this piece (or one like it) might be (re-)composed in the most efficient manner possible, and to explore what pedagogical insight can be gained through this creative process.

arrival of the dominant in the bass voice and the resolution of the two suspensions in m. 4.

Figure 13a. J. S. Bach, Praeludium in F major, BWV 880, mm. 1-4.

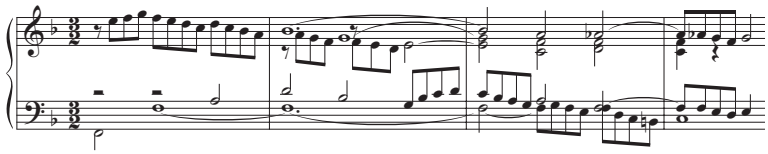
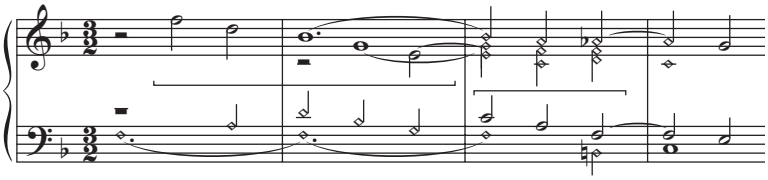


Figure 13b. Contrapuntal framework of mm. 1-4 with privileged pitches in round noteheads.



Of course, just as a loom is flexible enough to accommodate a large number of woven designs, so is the same voice-leading framework supple enough to give rise to a considerable variety of surface textures. The next activity is to read the same privileged voice-leading diagram (Fig. 13b) while, either at the keyboard (for improvisers) or on paper (for counterpoint students), weaving a different design through a varied application of the melodic figures. This is simpler than it sounds; one can read Fig. 13b note-for-note, but for the addition of a predetermined figure leading into each round-headed pitch. Figures 14a and 14b show two sample solutions; Figure 14a uses rising *Schleifer* figures and Fig. 14b uses a slightly more sophisticated combination of *Schleifer* and *Doppelschlag* in alternation. Students learn that, given the contrapuntal foundation, these two and many other surfaces are all just as simple to generate as Bach's original. They all rely on the same technique, but the resultant motivic character is quite different in each case—in the former, large downward leaps and upward stepwise recoveries from lower voices, and in the latter, arcs spanning two

thirds of a measure each (as opposed to a single scalar descent in the original).

Figure 14a. Alternate realization of the framework in Fig. 13b (rising Schleifer).

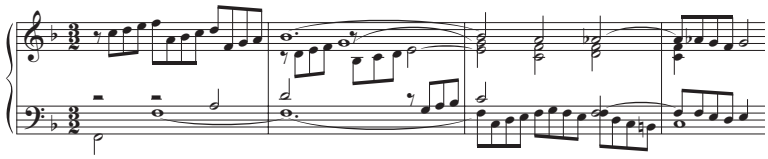
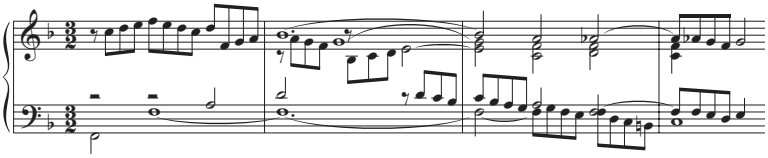


Figure 14b. Alternate realization of the framework in Fig. 13b (rising Schleifer and falling Doppelschläge).



Of particular note here, given the techniques outlined in the previous section, is the simplicity of generating these textures; provided that the original voice leading is referenced as a starting point, the process of adding *Schleifer* and/or *Doppelschläge* is eminently manageable. The next re-compositional activity is to alter the round vs. diamond-shaped notes, privileging different pitches of the same registral loom as before; a sample is shown in Fig. 15a, which takes advantage of the potential imitation between soprano and tenor in mm. 1–2, and between alto, bass, and soprano in mm. 3–4. This new design is then woven, as in the sample in Fig. 15b, which uses primarily *Doppelschläge*. What it loses in comparison to the Bach—namely, the semblance of a single, unbroken line spanning two octaves—is replaced by a more intricate set of imitations between pairs and groups of voices. By presenting some of these alternate versions, and by asking students to generate others on their own, we ask how else one might imagine the piece going—how other diminution options might be

executed just as efficiently to produce effective results—and we thereby cultivate a richer, more intrinsic understanding of contrapuntal technique and of this piece in particular.

Figure 15a. Contrapuntal framework of mm. 1-4 with different privileged pitches.

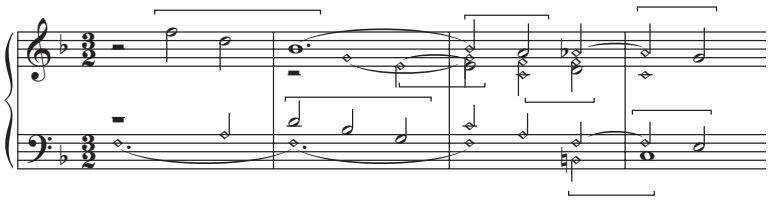
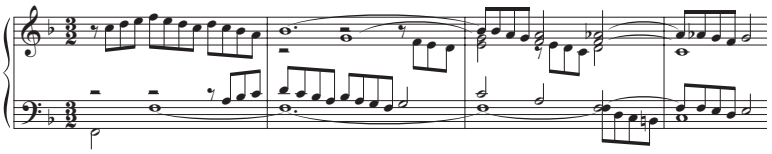


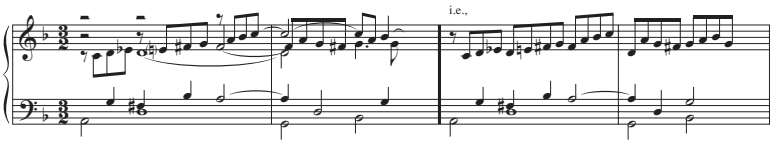
Figure 15b. Realization of Fig. 15a (primarily Doppelschläge).



In spite of the versatility of *Doppelschläge* and *Schleifer* (i.e., in terms of dissonance treatment), not every conceivable pattern of diminutions is as desirable as any other, given a specific musical context. Indeed, the F major Praeludium also serves well for teaching higher-order strategies that select especially effective contexts for the two diminution figures. The first of these strategies involves successions of two or more *Doppelschläge* that embellish adjacent tones of an arpeggiation in such a way as to feign a single contiguous line bridging several voices. Measures 1-4 are one example of how a particularly chosen series of modular figures in individual voices can add up to a surface that coheres in the longer span of two octaves across three measures. There are two variants of this technique: in places such as m. 2 (Fig. 13a) and mm. 5-6 (Fig. 16), the eighth-note figures depart stable tones by step, reaching under or over them to uncover and accumulate additional voices that each sustain as the texture progressively thickens. Because each *Doppelschlag* begins a step away from the

preceding target, a secondary line emerges in continuous eighth notes.

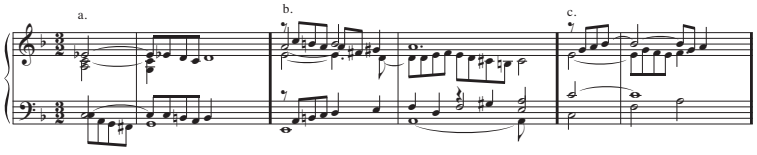
Figure 16. Feigning a single, unbroken line by reaching over or under to accumulate additional voices.



Even without sustaining, the same technique can still imply an accumulation of voices through arpeggiation, as in mm. 47–48 (in the bass) and mm. 51–53 (in both voices, with imitation between soprano and bass). In the latter case, the lack of harmonic change throughout the two measures allows for all target voices to sustain.

As discussed earlier, the shape of the *Doppelschlag* is inherently suited to decorating suspensions, since it ends a step away from where it begins and encircles the target note. Several options can be found in the Bach Prelude, which serve as models for how to apply the figure to a suspension: the *Doppelschlag* can begin as a repetition of a suspended note that has been tied over, passing over the resolution and then returning to it, as in the double suspension in m. 20 (Fig. 17a; see also m. 4 and m. 60); on a 4–3 suspension, it can leave the suspended note for the consonant fifth immediately above it, and then return to a resolution a beat later, as in m. 56 (Fig. 17b); it can also skip away from the suspended note, past the resolution, to return to the suspension and its resolution with its last two pitches, as with the retardation in m. 8 (Fig. 17c; see also m. 24).

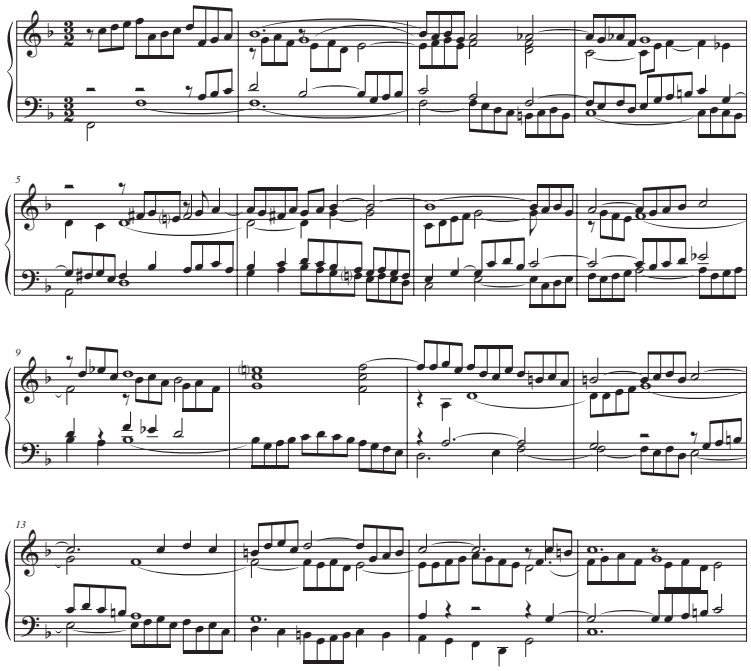
Figure 17. Options for decorating suspensions and retardations with Doppelschläge.



Through techniques such as these, melodic figures pave a rather simple path from the fundamental voice-leading habits of the thoroughbass tradition to the fluent composition of fully-realized keyboard textures—particularly in the case of pieces that feature such unanimity of motivic embellishments. Thus, the combination of the *Schleifer* and *Doppelschlag* with the prerequisite skills of thoroughbass pays off handsomely, equipping a keyboardist or a counterpoint student with the tools to improvise or compose. This connection is not just an abstract or intellectual one that links familiarity with idiomatic progressions with a general stylistic awareness; rather, it is the direct experience of playing these common progressions at the keyboard that provides a foundation on which to superimpose a lean and accessible diminution technique. Moreover, even away from the keyboard, the same techniques are enormously beneficial as part of an active, creative approach to counterpoint and stylistic composition; they provide a particularly focused method that centers on acquiring diminution technique, but actually ends up revealing something about a piece (and the paths not taken in the piece) as well.

The consequences of these end-oriented figures are far-reaching. Since the tools are so accessible, current students of eighteenth-century counterpoint can be held to much higher standards of fluency and creativity. (Incidentally, the technique also offers a much more enticing reward to students who master what we tend to call "part writing"—namely, the chance to put their voice-leading prowess to good use as the basis for immediately accessible creativity.) Once they determine and notate the voice-leading loom of an entire piece such as the F major prelude, they should be able to weave, without laborious planning, their own design of these simple embellishments into a different piece—indeed, into any number of such pieces. Such an activity forms the capstone of my unit on diminution using *Schleifer* and *Doppelschläge*. As a sample, Fig. 18 presents an alternate version of just the opening section of the prelude, through the cadence in the dominant at m. 19, created using *Schleifer* and *Schneller* (double-neighbor figures discussed in the same fashion by Wiedeburg but not emphasized in this paper) in place of the *Doppelschläge* of the original.

Figure 18. Alternate realization of mm. 1-16.



Conclusion

Views of this prelude as, on the one hand, a motivically intricate weaving-together of multiple florid voices, and, on the other hand, a potential product of simple diminution techniques, are not at odds with one another. To conceive of some keyboard compositions in both of these ways simultaneously is to subscribe to a unity of raw materials that enables rhythmic consistency, motivic economy, and even uniformity of texture, and also makes these highly desirable features accessible to those who have developed even an intermediate technique with end-oriented figures. That is, it is not just that students can use these diminution modules to generate a passable, florid version of a given progression of voice leading; indeed, they can generate *many excellent* ones that derive their coherence directly from the scarcity of raw materials. The process discussed in this paper also clarifies, in a way that is relevant to present-day pedagogy, one aspect of the familiar connection between thoroughbass, composition, and improvisation. It is worthwhile to demonstrate to students, as an example of payoff, that even textures as sophisticated and motivically coherent as those in the Bach are accessible through manageable techniques.

I have met success teaching 4:1 diminution primarily through Wiedeburg's three end-oriented figures, for they place students' focus where it helps most, namely on how to connect to what is coming next. These figures aptly treat diminution as goal-directed—as an enterprise in how to get to the next place, rather than how to fill in the current one. More generally, the construction of a multi-voice, motivic texture is possible for anyone who has achieved mastery of figured-bass realization. When guided by voice leading, highly versatile and easy-to-use melodic figures chart an easily navigable path to rhythmic life and motivic interest, offering one way to extract greater dividends from the time spent on part writing—and, at the same time, showing students that figured-bass realization at the keyboard or on paper is not so far off from such a creative and musically rewarding enterprise.

References

Benjamin, Thomas. 2003. *The Craft of Tonal Counterpoint*. New York: Routledge.

Berkowitz, Aaron L. 2010. *The Improvising Mind: Cognition and Creativity in the Musical Moment*. New York: Oxford University Press.

Christensen, Thomas. 1992. "The 'Règle de l'Octave' in Thorough-Bass Theory and Practice." *Acta Musicologica* 64 (Fasc. 2): 91–117.

Christensen, Thomas. 2008. "*Fundamenta Partiturae*: Thoroughbass and Foundations of Eighteenth-Century Composition Pedagogy." In *The Century of Bach and Mozart: Perspectives on Historiography, Composition, Theory, and Performance*. Ed. Sean Gallagher and Thomas Forrest Kelly. Cambridge: Harvard University Press, 17-40.

Christensen, Thomas. 2010. "Thoroughbass as Music Theory." In *Partimento and Continuo Playing in Theory and Practice*. Ed. Dirk Moelants. Leuven University Press, 9-41.

Cohen, Albert. 2002. "Performance Theory." In *The Cambridge History of Western Music Theory*. Ed. Thomas Christensen. Cambridge University Press, 534-553.

Gauldin, Robert. 1995. *A Practical Approach to Eighteenth-Century Counterpoint*. Waveland Press.

Gjerdingen, Robert O. 2010. "Partimenti Written to Impart a Knowledge of Counterpoint and Composition." In *Partimento and Continuo Playing in Theory and Practice*. Ed. Dirk Moelants. Leuven University Press, 43-70.

Gjerdingen, Robert O. 2007a. "Partimento, que me veux-tu?" *Journal of Music Theory* 51/1: 85–136.

Gjerdingen, Robert O. 2007b. *Music in the Galant Style*. Oxford University Press.

Harrison, Elizabeth. 1995. *Michael Wiedeburg's* Der sich selbst informirende Clavierspieler *and his Pedagogy of Improvisation*. DMA Dissertation, Stanford University.

Lester, Joel. 1992. Compositional Theory in the Eighteenth Century. Cambridge: Harvard University Press.

Schubert, Peter and Christoph Neidhöfer. 2006. Baroque Counterpoint. Pearson.

Trinkewitz, Jürgen. 2009. Historisches Cembalospiel: Ein Lehrwerk auf der Basis von Quellen des 16. bis 19. Jahrhunderts. Stuttgart: Carus.

Wiedeburg, Michael Johann Friedrich. 1765 (part 1), 1767 (part 2), 1775 (part 3). *Der sich selbst informirende Clavierspieler, oder deutlicher und leichter Unterricht zur Selbstinformation im Clavierspielen*. Halle/Leipzig (part 1), Halle (parts 2 and 3).

Facsimile ed. Harald Vogel: Florian Noetzel Verlag, 2006 (parts 1 and 2) and 2007 (part 3).

Williams, Peter. 2003. *The Organ Music of J. S. Bach*. Cambrige University Press.

Williams, Peter. 1985. "Figurae in the Keyboard Works of Scarlatti, Handel and Bach: An Introduction." In *Bach, Handel, Scarlatti: Tercentenary Essays*. Ed. Peter Williams. Cambridge University Press, 327-46.

Williams, Peter. 1983. "J. S. Bach's 'Well-Tempered Clavier': A New Approach – 2." *Early Music* 11/3: 332-339.