

# ***Basic Post-Tonal Theory and Analysis***

by Philip Lambert

New York: Oxford University Press, 2019. 356 pages + ix.

## ***Introduction to Post-Tonal Theory***

by Joseph N. Straus

Fourth edition. New York: W.W. Norton & Company Inc., 2016. 396 pages + xiv.

Reviewed by OWEN BELCHER



In middle school, I remember a math teacher telling our class at the end of the year not to worry if we did not like algebra, because students who did not like algebra usually did well in geometry and trigonometry—the courses which followed. I remember overhearing a similarly hopeful (and ultimately incorrect) pronouncement from my undergraduate cohort regarding music theory. “Do not worry,” was the mantra, “twentieth-century analysis does not have anything to do with tonal analysis.” With hindsight, I am not exactly sure why one would take comfort in the idea that two years of training were now meaningless for the road ahead. Of course, many instructors strive every day to help their students draw connections between tonal and post-tonal analysis. Yet ideas such as those anecdotally expressed above come not just from the mouths of students. Due to philosophical, curricular, and budgetary constraints, many institutions view that pesky fourth or fifth semester of post-tonal theory as an expendable elective, to be sacrificed when the need arises. Such perspectives reinforce the idea of a tonal “core,” with other theory classes constituting nonessential extras.

Perhaps a new work by Philip Lambert and a revision of Joseph N. Straus’ well-known text will finally dispel the tired conventional thinking regarding post-tonal theory’s curricular expendability, or at least its analytical isolation. My review divides into two parts. Part 1 overviews Lambert’s text (published in 2019), concentrating on how he relates post-tonal theory and analysis to tonal concepts and analysis, the text’s general accessibility in terms of breadth and depth of content, and the range of the text’s musical examples. Since Straus’ text is well-known in the field, in Part 2 of the review, I eschew traditional chapter-by-chapter commentary, and instead compare the third and fourth editions of the book, highlighting various improvements in the fourth edition as regards to repertoire inclusivity, breadth of content, and general accessibility.

## I

As noted in his preface, Lambert organizes *Basic Post-Tonal Theory and Analysis* so that “the first four chapters offer a step-by-step introduction to the methodology of post-tonal theory,” while chapters six through ten are devoted to various extensions and systems based on the introduction (ix). Thus, with certain caveats, the instructor can skip around after completing the first four chapters. Below, I overview each chapter and explore possible paths through the text in more detail.

One of the most successful features of Lambert’s text is the way he relates post-tonal analytical techniques to more familiar tonal concepts. Chapter 1 epitomizes this idea, contrasting musical units in Mozart (String Quartet in E-flat major, K. 171, Minuet) with musical units in Webern (the first of the Six Bagatelles, Op. 9). The analytical reduction underneath Mozart’s score divides the minuet into its component parts—namely, melodies dominated by stepwise motion and thirds, and a triadic accompaniment. The exercise offers two benefits. First, the student learns the analytical shorthand as applied to a well-known idiom, so that when they tackle the Webern Bagatelle they are not grappling with both a new musical language and a new analytical method. Second, the emphasis on intervallic recursion as a primary determinant for musical units has the effect of defamiliarizing the Mozart passage with the result that the Webern Bagatelle, one of whose primary units is the chromatic cluster, does not seem so novel. Chapter 1 immediately establishes strong links between students’ knowledge of tonal procedures and the analytical perspectives that will be important in the study of post-tonal idioms. My undergraduate cohort would have become immediately suspicious of their received “wisdom.”

Before introducing the traditional distinction between pitch and pitch class space, Chapter 2, titled Musical Spaces, theorizes the relationship between the analytical shorthand in Chapter 1 and the musical score. We learn that such analytical reductions exist in “note space,” an environment whereby “musical groupings are viewed in a neutralized state, without regard for their original rhythmic settings, durations, dynamic markings, modes of articulation, and spellings” (19–20). “Musical space,” on the other hand, is “any specifically defined perspective on a musical idea,” which includes the actual music (20). Thus, pitch space and pitch-class space exist in note space. The bulk of Chapter 2 is devoted to the basic mechanics of note space, introducing the various types of intervals, pc numbers, mod-12 arithmetic, and two musical transformations: ordered pitch-space transposition, which preserves the pitch interval and ordered pitch-space inversion, which projects identical intervals in opposite directions.

Just as the musical observations in Chapter 1 prepare the student for the formal technology in Chapter 2, Chapter 3—on trichords and trichord classes—provides an accessible introduction to the larger set class universe explored in Chapter 4. One of Chapter 3's strongest rhetorical moves is the way the machinery of set classes, normal order, and prime form—topics which, if poorly broached, can appear to be mere exercises in theoretical esoterica—develop explicitly from a musical concern. Having introduced Schoenberg's "Nacht" along with its characteristic  $+3/-4$  motivic segment in Chapter 2, Lambert demonstrates how reinterpreting the segment ("a meaningful musical grouping with a specific ordering" (41)) as a set ("a musically meaningful collection of notes in any possible ordering" (41)) connects the original motive to several audibly-related variants through a process of "transposition plus reordering" (42–43). From there, Lambert fleshes out the 24 members of the Nacht trichord's set class, introduces transposition and inversion in pc-space, normal form (a universal "ordering standard that will apply in any piece or context" (47)) and prime form ("one member of the set-class [designated] as its identifier and representative" (49)). The chapter concludes with a discussion of symmetrical trichords, total interval-class content (Lambert does not use the term interval vector), and a list of the 12 trichord classes.

The trichord training wheels come off in Chapter 4—the last of the essential introductory chapters—which covers normal form and prime form for larger sets, the Z-relation between tetrachords (0146) and (0137), set complementation, the Forte catalog, and subsets. Chapter 4 revisits Webern's Bagatelle extensively in order to introduce new concepts in the context of now-familiar repertoire. Despite this admirable pedagogic decision, I find that the theoretical concepts in Chapter 4 develop less naturally from some of the musical examples than in previous chapters. The most serious offenders in this regard are the examples illustrating literal and abstract complementation (Exx. 4.8 and 4.9), where the guidance concerning musical units in Webern from Chapter 1 is ignored in order to segment various aggregates.

If Chapters 1–4 establish the essential mechanics of pitch class set theory, then Chapters 5–6 introduce increasingly sophisticated methods of harmonic organization, beginning with centricity and source sets (diatonic, diatonic modes, octatonic, whole-tone, and hexatonic) and leading to interval cycles, combination cycles, intervallic wedges, and more general inversional symmetry. Lambert devotes much of Chapter 6 ("Structural Models") to various types of wedge formations. These wedge models are first grouped according to whether they have an even or odd index number, and then categorized further by their pitch class sums. Thus, a 10-wedge is a wedge model

with an even index whose corresponding pitch classes all sum to  $10 \bmod 12$ . In my opinion, the extended discussion of interval cycles and wedges are one of the book's best features. Analytically, these chapters execute a shift in perspective from local set classes of various cardinalities to longer-range linear analysis—a perspective that, in my experience, is often lost in the midst of students' attempts to isolate and calculate every relevant trichord and tetrachord.

Two especially interesting analyses in this regard are the cyclic analysis of the opening of Ives's "On the Antipodes" (138–141), and the wedge analysis of the end of Schoenberg's "Angst und Hoffen" (148–49). Lambert, an Ives specialist, analyses the large chords in mm. 1–3 of "On the Antipodes" as a progression of increasingly smaller interval cycles (Chord 1 is based on a 7-cycle, Chord 2 on a 7–6 cycle, Chord 3 as a 6–5 cycle, etc.). The decreasing size of the interval cycles is reflected registrally in pitch space. Beginning in measure 3, the interval cycles reverse direction, increasing in size until Chord 21 in measure 4, which is constructed from an 11-cycle.<sup>1</sup>

Other analyses of "Angst und Hoffen" concentrate on the transformations and symmetries generated from the opening Angst und Hoffen trichords.<sup>2</sup> Lambert demonstrates, however, that the end of the song projects a  $0$ -wedge which collapses from  $C_4$  and  $C_5$  to  $G\flat_4$  at the final "Angst" trichord. The brief example is especially appealing precisely because the piano part so strongly suggests a trichordal set-theoretic approach. Lambert's linear perspective serves as a healthy reminder to students that post-tonal music—like all music—responds to multiple analytical perspectives, and that questions of melodic and contrapuntal motion are just as relevant in many post-tonal idioms.

Where Chapters 5–6 are concerned with the inner forms of post-tonal works, Chapter 7, "Instrumental Forms," establishes connections between the outer forms of post-tonal compositions and their more familiar tonal precursors. This chapter is so helpful that I wonder if it might have been better placed after Chapter 1, since consideration of the large-scale form is often an accessible starting point for any unfamiliar piece. Lambert begins the chapter by establishing three formal functions: thematic, connective (including introductions, transitions, and closings), and developmental, which may involve one of three constructive techniques: repetition, variation, and contrast. Importantly, according to Lambert's framework, constructive

---

1 Lambert's conception of interval cycles differs somewhat from George Perle's understanding, in that Perle labels interval cycles based on interval classes whereas Lambert uses pitch-class intervals. Thus, Perle would not distinguish between a 1-cycle and an 11-cycle, but Lambert does.

2 See, for example, Lewin 2006.

techniques do not correspond 1-to-1 with the formal functions. For example, “a section with a thematic function—with stable phrasing and cadences—might repeat a section previously heard, or present a variation on earlier material, or introduce a contrasting, entirely new melody” (174). Thus, the constructive techniques are a non-exhaustive list of tools from which composers can fashion passages exhibiting one of the three formal functions.

Having introduced local formal functions and common methods of construction, Lambert provides a survey of several familiar genres and formal procedures: simple sectional forms (by which Lambert means ABA structures), sonata forms, fugue, and theme and variations. The chapter concludes with a brief mention of collage techniques, moment form as defined by Karlheinz Stockhausen, aleatoricism, indeterminacy, and open form. Particularly noteworthy is Lambert’s discussion of sonata forms after 1900. He divides such works into three categories: 1) music by composers who follow “standard practices quite closely, even while avoiding traditional principles of melodic construction and harmonic organization,” 2) “works that preserve some essential features of the traditional sonata form while radically reconceptualizing others,” and 3) “radical reconceptions,” which “challenge the definition of the form itself, raising questions about what elements are necessary in order for a sonata form to be recognized” (178).

Lambert cites the first movement of Prokofiev’s Fifth Symphony as an example of the first type. The movement projects the traditional exposition-development-recapitulation structure of a Type 3 sonata, the exposition contains two contrasting theme groups related by fifth, and the recapitulation presents those same theme groups “now mostly in the tonic key” (178). The opening movement of Bartók’s Piano Sonata exemplifies the second category. Like Prokofiev, Bartók presents a traditional exposition-development-recapitulation organization, where the material of the exposition repeats in the recapitulation. Unlike Prokofiev’s symphonic movement, however, the exposition’s two theme areas are not related by fifth. Instead, Bartók transforms the first theme group by  $T_5$ , and the second by  $T_7$ . “When these ideas return in the recapitulation and coda, we hear no sense of resolution of an earlier disparity, but instead a more extensive continuation of the previous transposition patterns” (178).

To illustrate the most radical type of 20th-century sonata form, category 3, Lambert chooses Act 2 scene 1 of Berg’s *Wozzeck*, which Lambert notes was “conceived [. . .] as a sonata form, including contrasting themes and developments” (178). Yet, “the sense of ‘sonata form’ survives mainly as an intriguing aspect of the composer’s

creative process, not as a perceptual reality for most listeners” (178).<sup>3</sup>

Chapter 7’s detailed discussion of instrumental forms is so helpful that one wishes there was an analogous chapter on vocal forms. While the book contains many examples of vocal music—especially songs—comparatively little attention is devoted to the relationship of music and text.<sup>4</sup> Such relationships seem like an intuitive, accessible starting point for analyzing music in an unfamiliar idiom, and a chapter devoted to a comparison of late-Romantic and expressionist lied would be well-placed either before or after Chapter 7. As it stands, the instructor might consider supplementing Chapter 7 with a short unit comparing the *lieder* of Wolf and Schoenberg, for instance.

Chapter 7 is not particularly technical, and accentuates so many important connections to students’ experience of common practice musical forms that it might have been better placed after Chapter 1. After comparing and contrasting local musical units in Mozart and Webern, the move to formal functions, constructive techniques, and larger forms might provide the most logical transition to the musical spaces in Chapter 2. So too, Chapter 8 on “Modern Approaches to Meter and Rhythm” seems rather rudimentary after the technical thorniness of Chapters 3 and 4. In addition to the section on metric modulation, most of Chapter 8 is concerned with defining various basic metrical terminology such as asymmetrical meter, polyrhythm, cross-rhythm, etc. Chapter 8 might be supplemented with a discussion of beat-class sets, so that the student is able to apply some of the theoretical apparatus from earlier in the book to the domain of rhythm and meter. As it stands, the text is heavily weighted—in terms of amount of material and the theoretical sophistication of that material—towards pitch and harmonic concerns.

The final two chapters are devoted to the twelve-tone method and various twelve-tone techniques. Lambert’s organization here recalls his approach in Chapters 3 and 4, where the student was introduced to the world of set theory via trichords before exploring sets of larger cardinalities and more advanced set-theoretic techniques.<sup>5</sup> Chapter 9 is concerned with the four basic row types, finding row forms, and building the 12x12 matrix. Chapter 10 concludes with more advanced applications and analysis, exploring invariance, combinatoriality, arrays, and total serialism.

The paperback text functions as both textbook and workbook, with large, easy

---

3 As anecdotal evidence, this listener grudgingly admits that despite his efforts Lambert’s evaluation is accurate.

4 Though there are exceptions. See, for instance, Analysis exercise H in Chapter 4, which asks students to relate the musical phrase divisions to the poem’s meaning and metrical structure.

5 Straus (2005b) follows a similar structure for the twelve-tone material in Chapters 5 and 6.

to read musical examples, a glossary, lists of important vocabulary, and blank spaces to complete technical exercises. Answers to all exercises are listed at the end of the book. The main text is accompanied by a robust set of supplementary materials including exercises for sight-singing and dictation, chapter-by-chapter PowerPoints for instructors which explain some of the text's musical examples and important key terms, additional exercises with solutions, and recordings for musical examples. Of these, the PowerPoints and extra assignments seem to be the most useful, especially for instructors teaching any of the subject matter for the first time. Writing this review in the age of COVID-19, I can attest to the utility of premade PowerPoints that track a course text. Instructors could also frame Lambert's materials with their own examples and resources. Such framing would be essential if the instructor intended to make substantial use of the sight-singing and dictation exercises which consist mainly of abstract melodic and rhythmic patterns, though some of these are keyed to particular musical examples in the text.

As the music theory community looks for ways to bolster inclusivity in the classroom and highlight previously-marginalized voices, one important component of any textbook review is a survey of the repertoire presented in the text's musical examples. Figure 1 tabulates Lambert's examples by composer and number of unique compositions as listed in the index. The diagram is incomplete in that it does not account for Lambert's aforementioned penchant of returning to the same pieces in an effort to deepen students' analytical perspective over time. For example, Webern's Six Bagatelles Op. 9, No. 1 and Schoenberg's "Nacht" from *Pierrot Lunaire* are explored extensively in the first few chapters.

| Composer (Last, First) | Number of Mentions in Index of Unique Compositions (references to different movements of a multi-movement work are counted as distinct compositions) |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Babbitt, Milton        | 1                                                                                                                                                    |
| Bach, Johann Sebastian | 3                                                                                                                                                    |
| Bartók, Béla           | 22                                                                                                                                                   |
| Beethoven, Ludwig van  | 2                                                                                                                                                    |
| Berg, Alban            | 17                                                                                                                                                   |
| Berio, Luciano         | 3                                                                                                                                                    |
| Bernstein, Leonard     | 1                                                                                                                                                    |
| Bloch, Ernst           | 1                                                                                                                                                    |
| Boulez, Pierre         | 2                                                                                                                                                    |
| Brahms, Johannes       | 1                                                                                                                                                    |
| Cage, John             | 2                                                                                                                                                    |
| Carter, Elliott        | 1                                                                                                                                                    |
| Casella, Alfredo       | 2                                                                                                                                                    |
| Copland, Aaron         | 1                                                                                                                                                    |
| Cowell, Henry          | 1                                                                                                                                                    |
| Dallapiccola, Luigi    | 4                                                                                                                                                    |
| Debussy, Claude        | 3                                                                                                                                                    |
| Dukas, Paul            | 1                                                                                                                                                    |
| Ferneyhough, Bryan     | 1                                                                                                                                                    |
| Foss, Lukas            | 1                                                                                                                                                    |
| Gershwin, George       | 1                                                                                                                                                    |
| Ginastera, Alberto     | 1                                                                                                                                                    |
| Griffes, Charles T.    | 1                                                                                                                                                    |
| Gubaidulina, Sofia     | 3                                                                                                                                                    |
| Harbison, John         | 1                                                                                                                                                    |
| Hindemith, Paul        | 4                                                                                                                                                    |
| Ives, Charles          | 15                                                                                                                                                   |
| Kay, Ulysses           | 1                                                                                                                                                    |

**Figure 1.**  
Composers and number of unique compositions in Lambert 2019 as cited in the index.



| Composer (Last, First)   | Number of Mentions in Index of Unique Compositions (references to different movements of a multi-movement work are counted as distinct compositions) |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ligeti, György           | 4                                                                                                                                                    |
| Lutoslawski, Witold      | 1                                                                                                                                                    |
| Lutyens, Elizabeth       | 1                                                                                                                                                    |
| Mahler, Gustave          | 2                                                                                                                                                    |
| Messiaen, Olivier        | 9                                                                                                                                                    |
| Milhaud, Darius          | 2                                                                                                                                                    |
| Mozart, Wolfgang Amadeus | 3                                                                                                                                                    |
| Pärt, Arvo               | 1                                                                                                                                                    |
| Persichetti, Vincent     | 1                                                                                                                                                    |
| Prokofiev, Sergei        | 3                                                                                                                                                    |
| Puccini, Giacomo         | 1                                                                                                                                                    |
| Ravel, Maurice           | 1                                                                                                                                                    |
| Riegger, Wallingford     | 2                                                                                                                                                    |
| Rochberg, George         | 1                                                                                                                                                    |
| Rzewski, Frederic        | 1                                                                                                                                                    |
| Satie, Erik              | 1                                                                                                                                                    |
| Schnittke, Alfred        | 2                                                                                                                                                    |
| Schoenberg, Arnold       | 20                                                                                                                                                   |
| Shostakovich, Dmitri     | 5                                                                                                                                                    |
| Smith, Hale              | 1                                                                                                                                                    |
| Stockhausen, Karlheinz   | 4                                                                                                                                                    |
| Stravinsky, Igor         | 16                                                                                                                                                   |
| Toch, Ernst              | 1                                                                                                                                                    |
| Tower, Joan              | 1                                                                                                                                                    |
| Webern, Anton            | 18                                                                                                                                                   |
| Wuorinen, Charles        | 1                                                                                                                                                    |
| Zimmermann, Bernd Alois  | 1                                                                                                                                                    |

**Figure 1 (cont'd).**

Composers and number of unique compositions in Lambert 2019 as cited in the index.

From Figure 1 one sees that, while Lambert's examples exhibit a significant degree of stylistic diversity and music by American composers, the bulk of the repertoire—at least in terms of number of examples—is drawn from the music of Bartók, Berg, Ives, Schoenberg, Stravinsky, and Webern. These are the familiar figures from many post-tonal texts, and for good reason, since many of the theoretical ideas were first developed in response to the music of these composers. However, as the discipline broadens its methodological horizons, perhaps future editions of text could provide more balance in terms of repertoire.

Overall, Lambert's text provides an admirable, accessible, and musical introduction to post-tonal theory and analysis. I echo Inessa Bazayev's quote cited on the back cover where she writes, "Undergraduates are often put off by non-tonal music because of their failure to see any continuity or similarity with the music from the common-practice era. Lambert does a great job in bridging that gap" (back cover). Indeed, this book seems excellently-suited for an upper level undergraduate course or for younger graduate students attempting to bridge the gap between the musical idioms of the 18th and 19th centuries, and those of the 20th and 21st.

## II

In his preface, Lambert acknowledges what he calls "six foundational studies," which establish the theoretical underpinnings of his work (x). One of these foundational studies is the fourth edition of Joseph Straus's *Introduction to Post-Tonal Theory*, first published in 1990 by Prentice-Hall. The 2016 fourth edition is published by Norton. While traditionally the preserve of graduate courses, the fourth edition is much more accessible and able to be used in advanced undergraduate courses. In what follows, I detail what I believe to be the most important changes between the third (2005) and fourth editions of the book, focusing on issues of accessibility, audience, and repertoire.

The physical appearance of the fourth edition is much more inviting. The third edition's 9x6-inch format is light and portable, but results in many musical examples that are fairly small. Example 4-13b on page 149, for instance, seems positively impressionistic in its legibility. Other examples, such as 3-23 on page 108 are less extreme but still convoluted. Norton's fourth edition, in contrast, is a 10x8-inch text with correspondingly more room for musical examples and student note-taking. If the third edition presents itself as a theoretical handbook which prioritizes brevity, the fourth edition presents itself as a true textbook in terms of physical layout,

internal format, and content.<sup>6</sup> Both editions contain six chapters, but the fourth edition condenses the two twelve-tone chapters of the third edition (Chapters 5 and 6) into a single chapter (Chapter 6). Chapter 4 of the third edition is expanded into two chapters in the fourth. The expansion allows for a more thorough discussion of interval cycles and triadic post-tonality, as well as two topics new to the fourth edition drawn from Straus's research: fuzzy transposition and inversion and voice-leading in set-class space.<sup>7</sup>

The inclusion of these topics broadens the scope of the text considerably, and could be further supplemented by the instructor with outside resources, perhaps taken from Lambert's textbook. If "Post-Tonal Theory" in the third edition is largely a by-word for set theory and twelve-tone theory, the fourth edition presents a more well-rounded introduction to various methods of post-tonal analysis beyond prime forms and hexachordal combinatoriality.

There is some room to cavil at the margins: it is hard to call John Adams's Nixon in China post-tonal in any meaningful sense, for example. The Adams discussion, however, corresponds to one of the most interesting changes in the fourth edition. Whereas the third edition discusses triadic transformations primarily in the context of PLR cycles, the fourth edition employs a more robust—and useful—system of six triadic transformations. In addition to the traditional PLR operations, Straus includes P' (equivalent to SLIDE) which has the effect of transforming a major or minor triad to another triad of the same quality that shares the same third (e.g.,  $P'(F+) = F\#-$ ). Also included are L' and R'. L' transforms the root of a major triad to the fifth a minor triad (e.g.,  $L'(F+) = B\flat-$ ), while R' transforms the fifth of a major triad to the root of a minor triad (e.g.,  $R'(F+) = C-$ ). All three operations are reversible, like the familiar PLR transforms. In my experience, students always enjoy learning and applying a way of conceptualizing consonant triads besides the Roman numeral/figured bass approach, and the inclusion of this material has the added benefit of widening the available repertoire to include contemporary composers working in a variety of neo-tonal idioms.<sup>8</sup>

---

6 I find the decorative, nonsensical transformational graph on the cover of the fourth edition an aesthetically-pleasing bit of cover art. Furthermore, it provides a potential teaching tool later on. Having introduced node and arrow systems in Chapter 2, the instructor could use the cover art as a foil, having students articulate why, in fact, the graph's construction is faulty.

7 Straus (2003) and (2005) establish the theoretical framework for these topics.

8 In this regard, it is interesting to note just how far removed the technology of "triadic transformations" has become from its methodological origins in the work of Hauptmann, von

I have used the fourth edition to teach both undergraduate and graduate music students, and from these experiences I believe that one of the strongest features new to this addition are the many guided analyses that follow each chapter. Straus's model analyses, present in the third edition, are excellent, pedagogical demonstrations of how to go about an analysis in an unfamiliar musical idiom. But they are just that: demonstrations. In the fourth edition, each chapter is followed by several analytical assignments based on short, digestible excerpts. The assignments ask focused, leading questions that help the student apply the concepts of the chapter, but also help train students more generally to recognize the types of musical elements to focus on when conducting an analysis.

In my own classes, I often assign the guided analyses for homework. Two that my students have found particularly interesting are 1.10, on the first fourteen measures of Ursula Mamlok's *Variations for Solo Flute*, and 4.1, on the opening of Act III, Scene 5 of Thomas Adès's *The Tempest*. *The Tempest* excerpt is isorhythmic in that it presents a combination cycle and, separately, a pattern of durations. A related process occurs in a later guided analysis, of Witold Lutosławski's *Funeral Music*, first movement, mm. 1–22. Together, the two analyses provide a framework for a class discussion and homework assignment, or for small group analysis sessions. The Mamlok passage is actually twelve-tone, but that feature does not come into play in the guided questions. Instead, Straus asks the student to discover the symmetrical structure of the melody, durations, and dynamics based on leading questions about intervallic patterns. While some of my vocal students were familiar with Adès's opera, none of my class had heard the Mamlok work, and it was rewarding to watch them engage with new repertoire, and to watch their astonishment as they realized just how many musical domains Mamlok marshals in order to project the symmetry of the passage.

Despite the many positive features of the fourth edition, the text still presents some pedagogical challenges, especially if the *Introduction* of the title is taken seriously. Rather than starting with a complete piece or larger excerpt, Chapter 1 dives right in to the various equivalences necessary to construct pitch-class space. The discussion of the several types of intervals which immediately follows is especially cumbersome. The different abbreviations—pi, opi, upi, pci, opci, upci—are not particularly helpful in my experience using the text. I confess that I am also uncertain about the analytical utility of the unordered pitch interval. Does the presence or absence of the + or – really necessitate another bolded term and abbreviation? Is the distinction between

---

Oettingen, and Riemann. Those theorists might have been perplexed to learn that the means by which they understood tonality had been co-opted (transformed?) into labels for pitch-class voice-leading.

an unordered pitch-class interval and interval class necessary?

To my mind, a similar issue arises in the discussion of contour relations in Chapter 3. The brief overview of contour segments (CSEGs) as applied to melodic contour, dynamics, and duration provide an important tool for exploring musical domains that are often ignored in the headlong rush to calculate pc sets and row relations. However, given the number of different concepts introduced in Chapter 3, is the concept of CSEG-*classes*—a tool I admit to having never seen deployed—essential for an introductory text? These are quibbles, but given the amount of new jargon crucial to navigating the set theory universe, I look to reduce nonessential terminology whenever possible.

A more substantial issue with the interval discussion in particular and with Chapter 1 in general is that the text provides little explicit rationale for *why* a student might want to conceptualize four different types of intervals or calculate an interval-class vector in the first place. Students might be forgiven for wondering if the various tools in Chapter 1 are merely intended to relate mathematically two musical objects that seem, in the end, unrelated. The question of providing students with a rationale—something immediately musically relevant—is something I have struggled with when I teach these introductory topics in particular, and I think the fourth edition misses an opportunity here.

The fourth edition presents a marked improvement compared to the third edition in terms of the inclusivity of musical examples: examples by Ruth Crawford Seeger now outnumber examples by Alban Berg, for instance. Figure 2 diagrams the composers included in the fourth edition based on mentions in the index. For the purposes of Figure 2, references to different movements of a multi-movement work count as unique compositions. Like Lambert, there is a clear privileging of the traditional big names, but there is also a notable attempt to include both a diversity of musical styles and a number of women composers—an attempt that was noticed and positively received by a number of my students.

The fourth edition of Straus's *Introduction to Post-Tonal Theory* offers multiple, significant improvements on a well-established text that has helped to educate generations of musicians and music theorists in the standard approaches to post-tonal theory. The fourth edition will no doubt continue to play a central role in post-tonal theory education.

| Composer (Last, First) | Number of Mentions in Index of Unique Compositions (references to different movements of a multi-movement work are counted as distinct compositions) |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adams, John            | 2                                                                                                                                                    |
| Adès, Thomas           | 1                                                                                                                                                    |
| Babbitt, Milton        | 5                                                                                                                                                    |
| Bartók, Béla           | 15                                                                                                                                                   |
| Berg, Alban            | 3                                                                                                                                                    |
| Berio, Luciano         | 1                                                                                                                                                    |
| Boulez, Pierre         | 1                                                                                                                                                    |
| Britten, Benjamin      | 1                                                                                                                                                    |
| Cage, John             | 1                                                                                                                                                    |
| Carter, Elliott        | 4                                                                                                                                                    |
| Cowell, Henry          | 1                                                                                                                                                    |
| Crawford Seeger, Ruth  | 6                                                                                                                                                    |
| Crumb, George          | 4                                                                                                                                                    |
| Dallapiccola, Luigi    | 2                                                                                                                                                    |
| Debussy, Claude        | 1                                                                                                                                                    |
| Feldman, Morton        | 2                                                                                                                                                    |
| Finney, Ross Lee       | 1                                                                                                                                                    |
| Glass, Philip          | 1                                                                                                                                                    |
| Gubaidulina, Sofia     | 1                                                                                                                                                    |
| Ives, Charles          | 1                                                                                                                                                    |
| Ligeti, György         | 2                                                                                                                                                    |
| Lutoslawski, Witold    | 1                                                                                                                                                    |
| Mamluk, Ursula         | 2                                                                                                                                                    |
| Maxwell Davies, Peter  | 1                                                                                                                                                    |
| Messiaen, Olivier      | 2                                                                                                                                                    |
| Musgrave, Thea         | 1                                                                                                                                                    |

**Figure 2.**

Composers and number of unique compositions in Straus 2016 as cited in the index.

| <b>Composer (Last, First)</b> | <b>Number of Mentions in Index of Unique Compositions (references to different movements of a multi-movement work are counted as distinct compositions)</b> |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reich, Steve                  | 1                                                                                                                                                           |
| Rimsky-Korsakov, Nikolai      | 1                                                                                                                                                           |
| Ruggles, Carl                 | 1                                                                                                                                                           |
| Saariaho, Kaija               | 1                                                                                                                                                           |
| Schnittke, Alfred             | 1                                                                                                                                                           |
| Schoenberg, Arnold            | 16                                                                                                                                                          |
| Sessions, Roger               | 1                                                                                                                                                           |
| Shostakovich, Dmitri          | 2                                                                                                                                                           |
| Stockhausen, Karlheinz        | 1                                                                                                                                                           |
| Stravinsky, Igor              | 23                                                                                                                                                          |
| Tower, Joan                   | 1                                                                                                                                                           |
| Varèse, Edgard                | 3                                                                                                                                                           |
| Webern, Anton                 | 18                                                                                                                                                          |
| Wolpe, Stefan                 | 1                                                                                                                                                           |
| Wuorinen, Charles             | 2                                                                                                                                                           |
| Zwilich, Ellen Taaffe         | 2                                                                                                                                                           |

**Figure 2 (cont'd).**

Composers and number of unique compositions in Straus 2016 as cited in the index.

## Bibliography

- Lewin, David. 2006. "A Way into Schoenberg's Opus 15, Number VII." In *Studies in Music with Text*. 321–43. New York: Oxford University Press.
- Straus, Joseph N. 2003. "Uniformity, Balance, and Smoothness in Atonal Voice Leading." *Music Theory Spectrum* 25 (2): 305–52.
- . 2005. "Voice Leading in Set-Class Space." *Journal of Music Theory* 49 (1): 45–108.
- . 2005b. *Introduction to Post-Tonal Theory*. Third ed. New Jersey: Pearson, Prentice Hall.