the scholarly expertise of the author. Even so, Sheldon's work deserves praise: he has made available for everyone his thorough understanding of Marpurg's writings. Perhaps all of Marpurg's works can appear in English translation someday so that the reader who prefers to do so, and who cannot read the original, may decide how important Marpurg's thinking is to the history of musical and theoretical ideas.


Reviewed by Ronald Rodman.

Two welcome additions to the pedagogical repertoire on 20th-century music are now available for those who wish to acquaint themselves with introductory, yet authoritative, explanations of 20th-century compositional techniques. But despite the similarity of their respective titles, Stefan Kostka's *Materials and Techniques of Twentieth-Century Music* and Joel Lester's *Analytical Approaches to Twentieth-Century Music* are very different in their breadth and scope. Kostka's book undertakes an extensive survey of the many styles and compositional techniques of the century, and thus may be considered a successor to earlier survey books such as those by Dallin and Deri. Lester's book, on the other hand, focuses on the analytic application of pitch-class set theory to atonal and serial music.

Kostka wants his book to be used as a text for a 20th-century unit or class (somewhere) in the theory curriculum. The author states that the book is organized in a "quasi-chronological" format,
covering "The Twilight of the Tonal System" through "Minimalism and Neoromanticism." Chapters vary in content, discussing either a single musical parameter such as scale formation, vertical sonority, melody and voice leading, harmonic progression, rhythm, form, timbre and texture, or a style or "school" of composition such as neoclassicism, exoticism, atonality, serialism, and chance music. Nearly all compositional issues of the century are given at least some mention, with good illustrations from numerous musical examples and excellent chapter summaries.

Particularly informative and clear are the chapters on "The Vertical Dimension," the cursory yet well-written chapters on "nonserial atonality" and "classic serialism" (though Kostka describes the prime form of the row as "P-0" while numbering his matrices from 1-12), and the descriptions of music after 1945. Many terms and analytic symbols are presented which were apparently invented by the author, and most of them are explained carefully. Some examples of invented symbols include the symbol for chords with "split intervals," e.g., F(3!) = F–A-flat–A–C, and quartal trichords (3x4) and tetrachords (4x4). The introduction of such symbology is useful in the analytic exercises at the end of each chapter and could be used selectively in the student's analytic work outside of the book. The last three chapters provide many excellent examples of more recent music which usually have been omitted from other texts of this nature.

In the chapters that discuss a certain musical parameter (scales, melody, rhythm, harmony, etc.) Kostka provides a clear, lucid writing style which is familiar from his *Tonal Harmony*. These chapters each begin with an introduction of the concept from a common-practice period perspective. For example, in the melody chapter, he lists the characteristics of melody in tonal music (e.g., motivic unity, highpoint near middle of phrase, step-wise motion with some leaps, etc.) and then describes how the parameter functions differently in its 20th-century context. Such introductions serve a twofold function which can be valuable to the student: first, they provide a review of common-practice principles, and second, they provide a point of reference from which 20th-century styles depart.
Featured at the end of each chapter are exercises for individual or class use, divided into a "fundamentals" and an "analysis" subsection. Many chapters also include activities for composing and listening, which enhances the versatility of the text. An excellent bibliography is provided in the "For Further Reading" sections also found at the end of each chapter.

The real strength of the text is the identification and discussion of the many schools of composition after 1945. Such information is imperative for inclusion in a text in 1990. Composers are discussed in this text who have been given little recognition in previous texts of this nature: Babbitt and Boulez are mentioned, of course, in the chapter on integral serialism, but so is Nono. Cage and Stockhausen are mentioned in the chance music chapter, but so are Cardew, Foss, Mortimore, and Wolff. An excellent discussion of phasing accompanies the section on minimalism. Also included is a brief but interesting section of "music on the fringe" which includes the infamous "danger music," a term coined by David Cope.

The price paid for the inclusion of such a vast amount of material is that many discussions are too superficial, resulting in proverbial "sound-bytes" of information. Many of Kostka's illuminating remarks suffer from a lack of illustration. For example, his citation of Messiaen's "modes of limited transposition" or Rimsky-Korsakov's "first" use of the octatonic scale, among other issues, would be strengthened by illustrations. Obviously, the musical examples were chosen selectively in order to avoid a too-voluminous text.

Despite Kostka's claim that the book is organized in a "quasi-chronological" format, the book seems to be more loosely organized, with two different types of chapters: those dealing with specific parameters, e.g., melody, harmony, scale formations, etc.; and those discussing styles, e.g., "exoticism," serialism, minimalism, etc. Kostka's desire to retain a chronological approach to the music of the century is not reconciled with his apparent ease of writing chapters concentrating on a single parameter or style, and thus the text suffers from inconsistent organization. Chapters are interwoven with little apparent succession of ideas. For example, after the "Twilight of the Tonal System" chapter, which discusses post-common-practice chromaticism, Kostka launches into a series of
chapters devoted to single parameters, i.e., scales, chords, melody, harmonic progression, rhythm, form (chapters 2 through 7). Chapters 8 through 10 deal with stylistic issues in an effective conceptual sequence on "Nonserial atonality" and classic serialism; but two other parametric chapters, 11 and 12, interrupt with timbre and texture studies before the resumption of "Serialism after 1945."

For the sake of pedagogical continuity, a reordering of chapters would be much clearer conceptually to the student. Because information in each chapter is more or less self-contained, the instructor may reorder the sequence in any number of ways to suit his or her needs. One procedure might be to present the parametric chapters (scales — melody, chords — harmonic progression, etc.) followed by the stylistic chapters.

The organizational problem found in the ordering among chapters sometimes appears within chapters. Important concepts and terms are often given exposition in the middle of the chapter instead of at the beginning. One example includes the presentation of chord-types in the "vertical sonorities" chapter. After a lengthy discussion of tertian and extended tertian sonorities, the author describes chord-types based on certain intervals, such as secundal, quartal, and mixed interval-types. Tertian sonorities are certainly "interval-type" chords, and an exposition of the concept at the beginning of the chapter might be effective in presenting the other chords such as secundal and quartal and quintal. Also, in the form chapter, Kostka lists musical examples by citing the published anthologies in which they appear. The list of anthologies saves space, but the list could have been utilized throughout the text for supplemental examples.

Despite the flaws in organization, Kostka's book will be quite valuable for theory courses in 20th-century music. The strong suit of the text is the excellent coverage of music after 1945, which includes serialism, chance music, minimal music and neoromanticism. These chapters are accompanied by excellent examples of music by both known and little-known composers, all of whom deserve exposition in a scholarly study. With the exception of some colloquial writing at the beginning of the text, the writing style is lucid and geared toward the upper-level undergraduate. Graduate
students desiring an introduction to 20th-century fundamentals will also find the text useful.

In contrast to Kostka's text is Joel Lester's new book, *Analytic Approaches to Twentieth-Century Music*, which deals almost exclusively with pitch analysis of atonal ("nontonal" in Lester's terms) and serial music. The strength of Lester's book lies in its concise and pedagogical explanation of pitch-class set and serial analysis which is presented in a more complex manner by authors such as Forte, Perle, and Morris. These explanations are supplemented by insightful analyses of a handful of important 20th-century compositions.

Despite the all-encompassing title, the text focuses on pitch structures in 20th-century music. Though Lester provides brief discussions on texture, rhythm, and form, the major portions of the book are devoted to pitch analysis of nontonal and serial music. In these sections, Lester provides a sequential discussion of the principles of set theory unparalleled in any resource in its simplicity and clarity. As in his *The Rhythms of Tonal Music* and other books and articles, Lester manifests a wide breadth of knowledge of musical repertoire and scholarly writings. A multitude of scholarly books and articles are listed and numerous pieces by a variety of 20th-century composers are discussed. The author takes a handful of important 20th-century works and subjects them to analysis throughout the units of the text, which are: I. Tonality and Twentieth-Century Music, II. Pitch Structures, III. Serial Music, IV. Since World War II. One would expect works such as Schoenberg's String Quartet No. 4, op. 37 and Webern's op. 5, no. 4 to appear in set theory analysis, but Lester also applies set theory analysis to works such as Stravinsky's *Petrushka* and Debussy's *La mer*. Other important works referenced in the book are Bartók’s Fourth String Quartet, *Music for Strings, Percussion and Celeste*, selections from *Mikrokosmos*, Messiaen's *Quartet for the End of Time*, Stravinsky's *Rite of Spring*, and other works by a variety of composers such as Varèse, Crumb, Ravel, Babbitt, Copland, and Ives.

The first unit, "Tonality and Twentieth-Century Music," sets the stage for Lester's discussion of nontonal analysis. The basic aim of the unit is to establish a perspective of historical continuum and
how musical parameters interact to create distinct style differences between tonal music and the 20th-century pieces listed above. To illustrate his ideas, Lester discusses other parameters besides pitch, dedicating chapters to rhythm and meter, texture and timbre, and form. Lester's treatment of these parameters is insightful and valuable, but regrettably these parameters are virtually ignored throughout the rest of the volume. Obligatory discussions of topics such as layered textures, *Klangfarbenmelodie*, new instrumental combinations, forms based on tonal models, arch form, and new formal possibilities are contained within the unit. In pointing out that many of the rhythmic, formal, and textural conventions in 19th-century music are tied directly to tonality and directed motion, one can almost sense a future volume in the making. More extensive discussion of these parameters would undoubtedly lead to a volume of unwieldy proportions, however, and thus dilute the primary purpose of the text, which is to describe pitch analysis.

The chapter on pitch in Unit I prepares the reader for the pitch analysis that is to come later in the text. Lester emphasizes the distinction of directed versus non-directed motion and the distinction of motive versus set. Functional tonality is equated with directed motion, and the dissolution of functional tonality in the 20th-century is presented in five stages: the use of chromaticism, the use of distant harmonic relationships, the use of dissonance, modal alterations of diatonic scales, and the avoidance of direct statements of tonic. Lester also describes the difference between "motive" and "set," the former having melodic/harmonic connotations in a tonal context, while the latter involves only the pitch parameter. Unit Two takes up the primary emphasis of the text, which is to describe the principles of set theory. Lester begins with the most basic concepts of pitch-class set analysis and takes the reader through a painstaking sequence of terms and concepts, beginning with pitch class, interval class, pitch-class sets (in which he includes pitch collections of from three to eight pitches), transposition and inversion and interval tables. Lester invents the term "lowest ordering" to replace Forte's term, "normal order" (found in *The Structure of Atonal Music*). For Lester, "lowest ordering" is the single name of a pitch-class set that begins with 0 and contains the lowest possible numbering of the set. Instead of employing Forte's
"interval vector" to describe the interval content of pitch-class sets, Lester uses a "complete table" format listing each interval and its complement as interval classes with the "number of instances" of each interval and its complement. Such a table, though bulky, helps to clarify the concept for the set theory novice.

In the unit on pitch-class set analysis, Lester grapples with the inevitable issue of segmentation in the context of a composition. His position on segmentation reflects a pragmatic approach which permeates the book. He states that finding pitch-class sets in a piece is a subjective process with "no hard and fast rules" and that the context of a piece is all-important to segmentation. He continues that the purpose of finding pitch-class sets in an analysis should be to supplement the hearing of a piece. This position provides a basis for analysis of the music, while side-stepping the issue of hierarchical structure, for example, nexus sets. Also, by invoking the issue of subjectivity, he also avoids the potential problem of conflicting segmentations of pieces, since he does not advocate a "best segmentation." Lester seeks only to find relationships among pitch-class sets within a composition, relationships based on common pitch classes and similar interval content.

From the discussion of unity and variety of pitch-class sets, Lester broadens the discussion to pitch "regions." "Regions" are pitch-class sets involving nine to twelve pitches, and thus encompass scales, modes, and the aggregate. The inclusion of the notion of regions is an important link between pitch-class set analysis and serial analysis in Unit Three. The concept of regions also affords an opportunity to discuss 20th-century scale formations described recently by authors such as James Baker and Pieter van den Toorn. Lester's discussion of regions includes the diatonic, whole tone, and octatonic scales. The applications of the diatonic scale are presented briefly (and thus vaguely) in different ways: as a basis for harmony and as a series of fifths. "Pandiatonicism" is defined as the use of the diatonic scale as a harmonic entity in which the scale is used as a region without implying functional harmony. The brevity of Lester's discussion does not help clarify the vague definition of the term. The explanation of the diatonic scale as a series of fifths reminds one of Hanson's now antiquated book, Harmonic Materials of Modern Music, in which intervals were "projected" to create a
variety of scale structures. A catalogue of scale formations resulting from the series of other intervals is not listed in Lester's text as it is in Hanson's, but Lester speculates on the pitch possibilities created by these altered scale forms. The diatonic scale is also viewed in light of "wrong-note harmonies," the discussion of which invokes an irrelevant reference to Schenker and his famous (or infamous) article deriding Stravinsky's music (found in the *Meisterwerk* volumes).

From regions, Lester effects a transition into serial music, again introducing basic terminology, such as series forms and the aggregate, and he continues sequentially into hexachordal combinatoriality, derived sets, and multiple orderings to highlight the characteristics of the serial music of Schoenberg, Webern, and Berg, respectively. Included in the discussion are major works such as Schoenberg's Fourth String Quartet, op. 37, Webern's *Concerto for Nine Instruments*, the *Symphony*, op. 21, and the String Quartet, op. 28, and Berg's *Lyric Suite*. The "Multiple Orderings" chapter includes a discussion of rotation and examples of Stravinsky's serial music.

As Lester addressed the issue of segmentation in Unit Two, in Unit Three he addresses another controversial issue, concerning the ability to hear the occurrence of the series and its permutations. His position is that hearing the occurrence of the series is difficult even after repeated hearings, and that the recognition of all forty-eight forms of the series is impossible. He contends that merely identifying and labelling all occurrences of the series is a poor way to analyze the music, and he concludes that serial composers "adapted the system because it enabled them to control certain aspects of musical structure while it left them their creative imaginations free to deal with . . . aspects they were already exploring in their earlier music."

The format of the book will assist the student reader in the retention of basic terms and concepts. The great strength of the book is Lester's ability to link pitch-class sets to regions, on to the aggregate, and thus incorporate a vast amount of musical material under a single over-arching concept. Each chapter contains a list of important terms at the chapter heading, a "Points for Review" section, and exercises in analysis and composition at the end of each
chapter. Particularly useful are the "Suggestions for Further Study" at the end of each chapter, which list compositions for further analysis and references to scholarly books and articles comprising the core literature of music theory. Books and articles listed include those by such notable theorists as Boretz and Cone, Berry, Babbitt, Perle, Forte, and Rahn, to name only a few.

Some inconsistency of format runs throughout the book, as Lester jumps from chapters with prose narrative writing to chapters with italicized subsections to chapters containing a Fuxian question-and-answer format. This inconsistency is not distracting, however, and is done for the sake of getting essential points across in the most clear, lucid manner. An appendix on hexachordal combinatoriality is useful for those desiring more information on how to identify series having this property.

In summary, the book is, and will continue to be, an excellent resource for musicians wishing to develop a basic analytic approach to nontonal music of the 20th century. The issues in pitch organization are treated exhaustively and comprehensively. The other issues (in form, texture, and rhythm) are treated less thoroughly, but with insight. These factors combine to make the book a welcome addition to the pedagogical literature, for Lester's clear and concise writing style provides an effective introduction to the principles of set theory and serial composition. Thus Lester's text can be used in advanced undergraduate or graduate courses as a prelude to the more advanced texts of Forte, Morris, and Perle.