

chapters are indispensable sources for Feldman scholars and performers. The overall tone is accessible and largely free of jargon. In addition to its contribution to the field of Morton Feldman studies, this book is a valuable addition to several related fields, including The

New York School, indeterminacy in music, twentieth-century American music, Abstract Expressionism, and interdisciplinary studies of music, art, and dance.

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## INSTRUMENTS

**Meantone Temperaments on Lutes and Viols.** By David Dolata. (Publications of the Early Music Institute.) Bloomington: Indiana University Press, 2016. [xx, 280 p. ISBN 9780253021236 (cloth), \$48.00; ISBN 9780253021465 (e-book), varies.] Diagrams, tables, audio files, appendices, bibliography, index.

Many music theorists of the sixteenth and seventeenth centuries, Vincenzo Galilei and Giovanni Maria Artusi among them, described equal temperament as the sole tuning scheme appropriate for fretted instruments such as the lute and viol. These instruments, however, are performed in consort with keyboard instruments tuned to meantone temperaments. Some sources and iconographical evidence also suggest the use of non-equal temperaments by professional—or at least highly skilled—lutenists and violists. Previous scholarship has documented the historical evidence for and against particular tuning schemes for these two instruments, but usually without offering clear guidance for historically minded performers. The goal of David Dolata's new book, published under the auspices of the Early Music Institute at Indiana University, is "to provide practical advice that can be used on a daily basis" (p. 4) by players interested in experimenting with meantone temperament on their fretted instruments. As such, it is the serious amateur or advanced student who stands to gain the most from Dolata's treatment of the topic, which is less theoretical and more hands-on than previous accounts of historical tuning.

The book is divided into three related (but largely independent) multi-chapter parts: "Precedent," "Theory," and "Practice." The first sets out to debunk the "myth" (p. 9) that the lute and viol were tuned exclusively in equal temperament during the sixteenth, seventeenth, and eighteenth centuries. Despite the importance of fret placement, only forty or so sources address the issue between 1520 and 1760. Dolata makes a useful distinction between theorists, who tended to valorize certain systems because of their ancient pedigree (e.g., Pythagorean tuning and just intonation) or theoretical elegance (e.g., equal temperament), and practicing musicians, who were more willing to endorse the sometimes messy tuning adjustments made by players in everyday performance situations. As is clear from the work of these latter authors, whose fretting schema often imply both chromatic and diatonic semitones, many performers adopted temperaments other than equal to achieve more euphonious thirds in certain commonly encountered keys. Several of the surviving fixed metal-fret instruments surveyed by Dolata corroborate this fact. The instruments—a cittern, bandora, and orpharion—all reject strict equal temperament in favor of

what Dolata describes as “utilitarian temperaments combining elements of several varieties of meantone temperament” (p. 40); and while there are of course no lutes or viols with fixed metal frets, these instruments would have been performed with, and thus tuned to, the cittern, bandora, or orpharion in the Elizabethan broken consort. Finally, Dolata addresses the iconographic evidence for meantone temperament: paintings and other representations of lutes and viols whose fret patterns suggest its characteristic arrangement. He discusses a number of examples, handsomely reproduced in thirteen black-and-white plates, but, more importantly, he also begins to develop a set of principles to aid scholars in evaluating the verisimilitude of artistic representations of fretboards. Although painters may seem to have rendered their musical subjects with a high degree of realism, this is no guarantee that they have faithfully reproduced the often-subtle distances separating individual frets. Some clues, however, suggest that they have—for example, the level of detail of other complicated objects (Anatolia rugs, books, sheet music, etc.) in the image. Dolata’s goal is to “mitigate the subjectivity and wishful thinking” (p. 63) on the part of researchers dealing with ambiguous images, and he brings a keen and practiced eye to the task. His principles should prove useful to future researchers interested in visual representations of historical tuning.

With the precedent for meantone temperaments on the lute and viol established, Dolata turns to the mathematical theory underpinning this and other related tuning schemes in the book’s second section. His is a mostly clear and amiable guide through well-trodden territory; the calculations, for example, are often rounded to the nearest tenth for ease of reading. Following the introduction of basic

concepts—such as the harmonic series, beats, cents, and the Pythagorean and syntonic commas—the work embarks on a “Tour Through Tuning Systems” (chapter 5). Here Dolata sets forth the intrinsic characteristics of Pythagorean tuning, regular and irregular temperaments, and, finally, equal temperament. He also describes the more advanced concepts of cents charts and dissonance factors. The primary value of this section of the book is the way it relates each tuning system to specific issues of lute and viol fretting, with diagrams demonstrating the spatial consequences of each system on the fretboard.

In the final section, “Practice,” Dolata broadens his focus to encompass all aspects of tuning on the lute and viol, whether or not directly related to meantone temperament. After all, one cannot tune a lute to any particular temperament if the instrument itself fails to produce clear, sustaining, and consistent pitches. He begins with physical and environmental factors, which include the strings and frets (the two most important variables), tailpiece, bridge, nut, and tuning pegs. Each must be carefully considered and calibrated to performance conditions before these two instruments, both notoriously difficult to tune, are ready for more advanced tuning techniques. These techniques include the application of *tastini* or miniature frets to the fretboard to achieve a greater pitch range for certain strings, double and split frets, and slanted frets, which can compensate for the sharpening effect caused by the thickness of frets on lower strings. High-resolution photographs illustrate the implementation of these modifications on the author’s lute. The book’s penultimate chapter addresses the fraught topic of continuo playing in meantone temperament. As Dolata recognizes, an entire book could be written on this complicated

subject, but he does a fine job identifying the stakes at play and the basic strategies necessary to realize a bass line in a temperament other than equal. The final chapter addresses issues specific to the viol, including the opportunities for pitch adjustment afforded by the instrument's bow.

Much of the book's strength lies in its accommodation of the performer. The sometimes-heady calculations and concepts central to temperament on the lute and viol are well illustrated in numerous diagrams, photographs, and musical examples. In addition, a useful appendix walks the reader through the steps of programming equal temperament offset charts into their electronic tuners, which enables quick and easy placement of frets for meantone temperament. Dolata has not neglected the aural component of tuning, either; he provides thirty-eight audio files, streamed on the book's accompanying website, that demonstrate chords, harmonic progressions, and entire pieces in various temperaments, allowing the reader to immediately hear the sonic ramifications of this or that tuning adjustment.

Nevertheless, one could question the order in which Dolata has presented his material. Although beginning with the historical precedent for meantone temperament makes a certain chronological sense, it also means that readers unfamiliar with the technical characteristics of this tuning system (i.e., most readers) will have to wait until page 98 for a thorough explanation. Switching the order of the "Theory" and "Precedent" sections, or even combining the two into a larger section that discusses theory in relation to historical sources, might have made for a smoother, more linear reading experience. The book also suffers from a small number of editing oversights, including the occasional misplaced punctuation mark. These quibbles notwithstanding, the book is a success. It handles a difficult

subject with clarity and vigor, and I imagine it will find a welcome place on the bookshelf of the serious student interested in exploring the unique soundscape attainable only through meantone temperament.

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**The Violin.** Edited by Robert Riggs. (Eastman Studies in Music.) Rochester, NY: University of Rochester Press, 2016. [x, 326 p. ISBN 9781580465069 (hardback), \$39.95; ISBN 9781782048527 (e-book), \$39.95; ISBN 9781782048978 (e-book for handhelds), \$24.99]. Music examples, illustrations, endnotes, index.

Summarizing the essence of an individual instrument, particularly one as ubiquitous as the violin, is a risky endeavor. Existing histories of the violin have incited their share of controversy, and general studies must grapple with the problem of scope, the subject ever too broad to be treated satisfactorily by a single author. Robert Riggs acknowledges these pitfalls in his preface, stating that the book is by no means comprehensive and neither a history nor an encyclopedia; instead, the goal is to provide "space for moderately detailed discussions" on a few topics (p. xii). The majority of the five-author volume forms a chronological discussion of repertoire in the modern West, though outer chapters touch on symbolism and non-Western traditions. Riggs addresses *The Violin* to an audience of serious performers and informed listeners, to expand their understanding of "the musical and cultural contexts of the violin and its repertoire" (ibid.). This group is certainly well served by targeted literature, but such undertakings are always in danger of perpetuating undue historical stereotypes.

In "Associations with Death and the Devil," Riggs interprets "deeply en-

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