

There was a method, design and comprehension behind Talma's use of serialism as an expressive musical language that the author contends has been undermined by more than one scholar on the grounds not only that Talma's serialist language was not 'proper serialism', lacking in serial purity, but that she was incompetent and did not understand what she was doing. (There exists documented evidence of her stated intentions, which shows, to the contrary, how well she understood and achieved her serially framed designs.) The works of her contemporary Irving Fine, however, were not so disregarded. Leonard turns to Joseph Straus's recent volume¹ on the impact of twelve-tone music on compositional developments in the United States, citing Straus's advancement of a body of evidence gathered from American composers (including Talma and Fine) during the 1950s and '60s that there was a 'serialism myth', that serial purity was widely considered to be the artistic zenith. Leonard explains that this is not nearly the whole story: Straus contends that, if one truly examines the evidence regarding the extent to which tonality was combined with serialism by a significant proportion of American composers, serialism never had the American compositional world in such a firm grip. We are led to draw our own conclusions about what actually took place aesthetically, and what was once described as 'the dominant aesthetic' is now a discussion appropriate for reception theorists, indeed maybe even more pertinently for gender theorists.

Chapter 6 focusses on Talma's only full opera, *The Alcestiad* (1955–58), which is chronicled in detail as it marks a significant moment and a substantial achievement in her career. In particular, the creative stress Talma endured in order to compose the work is scrutinised; the inclusion of this analytical narrative is revelatory.

A characteristic of Kendra Preston Leonard's writing throughout could be said to be the quality of the 'yarn'. Put simply, each chapter draws you in. The author's writing style is such that at the beginning of a chapter, one is not entirely sure what road it will take; where we, the reader, will end up. It is a stimulating read, a book not easily put down, which hopefully signals the advent of more vibrant musicological writing that tells a story for now, rather than brushing off some dusty old documents found in a

university library and remodelling those into a worthy tome.

The strength I most admired in the writing style was the gentle prodding and nudging around boundaries of gender and queer politics. The autobiographical is clearly present throughout – Leonard gently scrutinises issues that subtly raise complex and contentious issues of personal politics. There is a clarity, poise and maturity in the writing which serves with vitality the advancement of Talma's work: I hope this book will reach a wide readership and lead to a resurgence of interest in the music of Louisa Talma.

Rose Dodd

The 21st-Century Voice: Contemporary and Traditional Extra-Normal Voice (2nd edition) by Michael Edward Edgerton. Rowman & Littlefield, 2015. \$54.00

Writing a 'voice' volume for a series on new instrumentation, as Michael Edward Edgerton was commissioned to do in 1995 with the first edition of this book, is a unique challenge, given that the voice is an instrument for which there is no standard model, and arguably no objective technique. In the face of this, Edgerton has done a remarkable job in capturing the purely technical possibilities of the voice based on its bioacoustical framework, analysing every potential aspect of the vocal mechanism, from the movement of air itself to the consequences resulting from the minutest adjustment of each articulator, to the production of complex multiphonics.

Edgerton's approach in outlining the 'extra-normal voice' is that of an active composer, examining what is physically possible in order to discover *more* possibilities. As stated in the précis of the book offered on the publisher's website, Edgerton explores 'experimental methods of sound production, offering a systematic series of approaches and methods for assessing, engaging, and, in some instances, overcoming the assumed limits of vocal singing'. Edgerton's new edition of the book includes a deeper exploration of techniques that require close microphone placement in performance, such as unvoiced sounds in the oral cavity, and he also furthers his study into vocal fold asymmetries (resulting in multiphonics). At times, the book can serve an inquisitive composer well, although those coming to this volume, no matter how curious, are likely to be overwhelmed at points by the technical language and detail. The reader should also be advised that this is not meant to

¹ Joseph Straus, *Twelve-Tone Music in America* (Cambridge: Cambridge University Press, 2014).

be a practical manual for the performer, although Edgerton does sporadically offer tips and exercises to help achieve many of the techniques. Sometimes the descriptions only depict what the vocal folds are doing when producing the sound, giving the misleading impression that the singer can directly control them, like changing fingering on a clarinet.

This leads to a self-evident yet important point that Edgerton does touch upon now and then: each voice is *unique*, housed in a *unique* body with a *unique* brain. Not every vocalist has the physical capabilities to create the sounds called for in this book, regardless of whether they have a desire to develop those capabilities. Therefore, many of the models presented here are of limited use, and a composer should not operate under the illusion that even singers who specialise in contemporary music have mastered, or are even vaguely familiar with, the majority of these techniques. While I would consider myself a specialist in contemporary vocal repertoire, this book introduced me to a great many new techniques. Composers should also be mindful that, even if they personally can make the sound, a singer might not be able to make that same sound. Once, in a Gaudeamus Muziekweek concert, a composer wrote in a sound that no one in our ensemble of specialists could produce (but not for lack of trying); we ended up recording the composer making the eerie multiphonic sound and playing the recording at the appropriate moment in the performance.

Along those lines, when addressing phonation, so much relies on the proprioceptive memory, defined as 'the ability to mentally image, sense, or hear a desired tonal result in advance'¹: you have to imagine the sound before you can try to create it. For most singers, the most detailed description of how to make a sound pales in comparison to hearing the sound and finding a way to produce it with their own voice. Additionally, this is one explanation as to why many of the techniques here, such as the glottal whistle (also referred to as M4, one register higher than the M3 female whistle register), are discovered and developed by vocal improvisers, who perhaps start with an imagined sound and accompanying physicalisation, but then wander off the chart of imaginable vocal techniques to encounter something new and at first uncontrollable.

Edgerton has used speech production rather than classical vocal pedagogy as the framework for his book, dividing the volume into four parts: airflow, source, resonance/articulation and heightened potentials. In the first chapter/part, Edgerton addresses airflow and ways in which it can be manipulated. By opening with a discussion of ingressive (inward-moving) airflow, Edgerton tackles a misunderstood yet commonly used technique: singing on an in-breath. (Anyone interested in exploring this technique in depth should read Amanda DeBoer's 2012 dissertation² on the topic, which Edgerton references.) He also addresses manipulation of the support mechanism to affect the sound, a technique that remains confounding to me: it seems that the same sounds could be achieved using other techniques that do not go against a singer's personal and well-developed approach to breathing.

The second part of the book is an exploration of the source (the vocal folds and laryngeal semi-periodic source) and register. His chapter on the vocal folds is clear and accessible, useful to composers who want to become familiar with how the vocal source functions. Since vibrato and tremolo also make an appearance, I think that this section would have been an appropriate point at which to address straight tone, though Edgerton does not. He instead jumps into a section on asymmetrical movement of the vocal folds (initiating a longer discussion on multiphonics) and then tackles the glottal whistle, a whistle-like sound that occurs deep in the throat. These last two techniques depend entirely on the individual voice, and they should only be used by a composer in dialogue with the performer.

The discussion of source continues with sound production above and below the vocal folds and postlaryngectomy speech. (I was fascinated to discover the Brazilian Sua Voz Choir, a group of larynx cancer patients who use esophageal voice, electric larynxes and other methods to sing.) Edgerton concludes this part of the book by tackling register – moving between registers, and the unusual registers of the voice. As a high soprano who is too often asked to sing in whistle register, Edgerton could usefully replace his paragraph griping about the name of this register with practical information for composers about this register.

¹ Clifton Ware, *Basics of Vocal Pedagogy: The Foundations and Process of Singing* (New York: McGraw-Hill, 1998), p. 105.

² Amanda DeBoer, 'Ingressive Phonation in Contemporary Vocal Music' (DMA dissertation, Bowling Green State University, 2012).

Resonance and articulation are the focus of the third part of Edgerton's book, starting with filtering sound through the vocal tract and the elements of language as codified in the International Phonetic Alphabet. He then presents the Edgerton Model of Filter Articulation, complete with a lingual-palatal map of how to 'play the vocal tract as an instrument' (p. 52).

It is approximately here, with the introduction of this model, and then with the Model of Turbulent to Absolute Airflow Modification in the following chapter, that Edgerton starts to lose my attention. His objective to stick with the bioacoustical framework of the instrument, without a serious discussion of application to aesthetics or even sonic reality, is admirable, but a bit too dry. It's wonderful to have all of these sounds and combinations of sounds documented; on the other hand, do I need to read about each and every one, especially since the differences between many of them can only be heard with substantial amplification? While charting the minute sonic changes related to tiny adjustments to the vocal tract and articulators is a necessary scientific exercise, I'll be interested to know if this analysis leads a composer directly to an audible aesthetic result.

The last part of the book, 'Heightened Potentials', begins by discussing multiphonics that are not the product of a filtering function. It would be fair to say that, while most singers have access to moving their articulators with specificity, many more struggle with, or are completely unable to access, specific multiphonic techniques. A composer should therefore use caution when composing with these techniques, many of which are related to a certain culture (i.e. Tuvan throat singing or specific chant methods), and can take years to learn.

Extremes are the focus of the next chapter, and Edgerton mercifully opens with a survey of the dangers that extreme vocal behaviour can cause when utilised on a regular basis, noting that 'certain performers have the ability to practise extreme vocal behaviors without lasting ill effects while others do not' (p. 127). He divides the extreme behaviours into three categories: complex and unstable oscillations

(i.e. screaming), forced blown air and, finally, rasp. Edgerton touches on causes and treatments of vocal disorders as well as pedagogical tips for healthy ways to develop the extreme voice. Edgerton's goal in the final chapter of the book, 'Multidimensional Voice', is to expand on 'the bioacoustical diversity of voice production' (p. 133), which seems like a difficult topic to codify and an obvious characteristic of the voice as an instrument anyway.

Every chapter concludes with a list of suggested reading and references; appendices include a section on voice science, a glossary and a list of representative compositions. All musical examples are online instead of included as a CD. For future editions, I'd like to recommend a download option, which would make listening and reading the book on the go (i.e. without a good internet connection) much easier.

Many of the score examples, as well as accompanying recordings, could benefit from a little more explanation; many feel too short and somehow not adequately framed for the listener. The selection can also seem arbitrary at times, and I would have preferred more of a balance between items of the 'core' extended technique repertoire and Edgerton's own compositions (I imagine that copyright issues may make a request like this problematic.) An appendix cataloguing different notational techniques could also be interesting; I know that my colleagues and I would certainly appreciate a move in the direction of standardising notation in the field of contemporary vocal music.

In short, Edgerton has assembled a monumental volume of vocal possibilities, and his book is a welcome resource – and one of few available – for composers pushing the boundaries of the voice. While some composers and performers (like me) may prefer more of an emphasis on sonic possibilities, and a bit less bioacoustical information, *The 21st-Century Voice* is a good addition to a singer's or composer's library as a reference or compositional handbook.

Christie Finn