Readings in the History of the Flute: Monographs, Essays, Reviews, Letters Advertisements from Nineteenth-Century London. Edited and with an introduction by Robert Bigio. London: Tony Bingham, 2006. xxxi, 329 pp.; 33 black-and-white illus. ISBN: 0-946113-07-6. £35.00 (paper).

Flute maker Robert Bigio's splendid new anthology of nineteenth-century British tracts and treatises, essays, opinion pieces, letters, and advertisements relating to the flute lakes us into the heart of flute experimentation and manufacture in London during the middle four to five decades of the nineteenth century. New designs were being worked out, and new models offered to professionals and an astonishingly large flute-playing public, primarily' made up of wealthy gentlemen. Some idea of the flute's popularity is suggested by an 1843 notice from *The Musical World* entitled "Flute-Mania" that begins: "A flute is a musical weed which springs up everywhere" (p. 58). London was, according to Bigio, the ideal place for the flute to develop, for there was a completely free market in which no manufacturer needed to ask permission of any authority to set up in business"; moreover, "no central authority in the form of a powerful national conservatory ... could dictate what sort of instrument was the correct one to play" (p. ix), as was the case in France. All these factors encouraged a proliferation of new flute designs in London—according to Bigio, more than a dozen in the two decades around the middle of the century. Hence the passionate debates recorded in this collection.

I longed, as I read, to be plopped down in the midst of a collection of flutes of different designs, so I could see their mechanisms and evaluate the claims made by flute makers and other authors represented here. Not having such a collection of instruments available was the greatest disadvantage in following the arguments and counter-arguments introduced by each individual flute maker and other writers presented in the collection. Yet, the volume also deals with many matters of musical practice and history in a way that is much easier to follow.

In the first few decades covered in these readings, Charles Nicholson and other professional flutists were still playing on "old" flutes. Bigio describes these as having a conical bore, a cylindrical head joint, six unequally spaced and unequally sized finger holes, and, by the 1840s, typically eight keys. All the keys were closed-standing except for low C-sharp and C. Experiments to extend the capabilities of these old-style instruments continued throughout the period and longer, especially in Germany and Austria. Still, probably by the 1850s, and certainly by the 1870s, every professional player in London used a "modern" flute of some sort.

But not all "modern" flutes were based on Theobald Boehm's design. In mid-century London, the debate "was not so much between supporters of the old flute and supporters of the new, but rather between supporters of rival new flutes" (p. 12). The new flutes had essentially evenly spaced and equally sized tone holes that were larger than those on most old-system flutes; some, like Boehm's, had open-standing keys, though most had closed-standing keys and could be played with the fingering of the old flute. Boehm's first successful "modern" design of 1832 had a conical bore similar to that of the old flute, while his redesigned flute of 1847 had a cylindrical bore and so-called parabolic head joint. Likewise, some "modern" flutes by other makers had conical bores, while others had cylindrical bores. The inspiration for this flurry of development was apparently the great Charles Nicholson: Boehm was inspired to redesign the flute after hearing his powerful tone in 1831, and other inventors, suggests Bigio, were also trying to develop instruments that made it easier to sound like Nicholson.

Bigio's excellent introduction is filled with this son of useful general commentary, and also includes detailed information about each author: Following that, the first two selections immediately throw us into the middle of a battle in print that took place between Nicholson and W. N. James, who had previously published critical remarks about Nicholson in both his flute

magazine and A Word or Two on the Flute (Edinburgh: Charles Smith & Co., 1826; repr., London: Tony Bingham. 1982). While it is a disadvantage to the reader that James's prior appraisals of Nicholson in his flute magazine could not also have been included here—that is, if the original source materials might still be found—by the time we arrive at Mr. W.N. James's Answer to Mr. Nicholson, we can appreciate that James is fully up to the counterattack. The two criticized and taunted each other, James dismissing Nicholson's compositions (although praising some aspects of his playing) and Nicholson attacking James as "a self-satisfied pretender, the self-made professor, the great self-constituted arbiter of' public taste ..." (p. 5). Bigio notes that "Brobdingnagian egos interfered with anything that can be recognised as rational discussion" (p. xiii), and, in strong language of his own, calls James a "fool" and a "charlatan" (p. xiii), and suggests that James's stamp on a flute labeling himself "Maker to the King" made a patently untrue claim, and that the instrument was a factory-made one, possibly by Potter.

Following these opening selections and a substantial miscellany of shorter writings, we hear from flute teacher, William Annand, whose *A Few Words on Flute* (1843) provides advice on playing techniques, including embouchure, intonation, double tonguing, and the like. Annand describes the leading players of his day and touts the eight-key Nicholson flute as made by Thomas Prowse. Thomas Clotworthy Skeffington's "The Flute," in its Transition State (1862) speaks for wealthy amateur flute players, many of whom were reluctant to learn new systems. Thus, Skeffington praises John Clinton's "Equisonant" flute for retaining the old system of natural fingering while removing its imperfections.

Clinton and Richard Carte, both professional players as well as makers, played the conical Boehm flute in the 1840s and wrote tutors for the instrument, but later developed their own designs. Carte's *Sketch the Successive Improvements Made in the Flute* describes his 1851 Patent flute, which according to Bigio was "a radical new open-standing fingering system applied to Boehm's acoustical design." He also describes his new improved old-system flute, "an attempt to apply the fingering system of the eight-key flute with its closed standing keys to Boehm's design" (p. xx). Carte's two systems were intended for different markets—the first for flutists "who were not put off by the idea of learning a new fingering system but found Boehm's fingering rather awkward, particularly in sharp keys," and the second for "those who wanted as many of the [acoustical benefits of the Boehm flute as they could get but were reluctant to learn any new fingering system" (p. xx).

Clinton's A Few Practical Hints to Flute Players ... to which is prefixed an explanation of the Equisonant Flute of 1855 back-tracked on his earlier praise for Boehm's conical flute, and was now openly hostile to Boehm. Bigio suggests that Clinton turned against Boehm after the latter's new cylindrical flute was patented in 1847 and he enlisted Rudall & Rose to produce it; blocked from using the new design, Clinton pronounced it a bad idea and developed instead a conical flute with closed keys that could be played with the old system of fingering—his "Equisonant" flute. This interpretation differs from Ardal Powell's in *The Flute* (New Haven: Yale University Press, 2002), 162–63; Powell suggests that Clinton changed course because he was disappointed by Boehm's new design. But Bigio points out that Clinton began to make a cylindrical metal flute with Boehm fingerings when the patent on Boehm's 1847 flute expired.

In *The Flute Explained*, Cornelius Ward describes his own patent for an instrument that assigned an open-standing key or a hole to each finger, even though that left no finger available for the foot-joint keys; consequently, Ward designed a mechanism for the left thumb that operated levers attached to wires running the length of the flute. Bigio suggests that although Ward's execution of the design was beautiful, the flute was too bizarre for the market and failed to gain favor.

Theobald Boehm's contribution in the Readings includes the original English manuscript version (1847) of his Essay on the Construction of Flutes, which reached print only in 1882, in a slightly edited version (a German translation had, however, been published in 1847). Extracts from Boehm's letters to Waiter Stewart Broadwood, who wrote the introduction to the English edition, are reprinted, as is Broadwood's translation of Boehm's diagram illustrating his method for siting the note-holes on wind instruments for every given pitch. Also included is a translation of Carl von Schafhaütl's letter on the "authenticity" (i.e., originality) of Boehm's invention. According to Bigio, Boehm (unlike Ward. Clinton, and Carte) did not make his Essay into an advertising tract for his flute; rather, he methodically explained his new instrument and the experiments he conducted to develop it. Among the new features, he made "at the upper end of [his] tube shorter or longer contractions, which in the outline of their form approached the 'parabola,' and which terminated in, or converged to, a hemisphere" (p. 294). Dayton C. Miller's careful measurements of many of Boehm's flutes reveal that the curve had little mathematical resemblance to the parabola despite the similarity in general shape (see Nancy Toff, The Development of the Modern Flute' [Urbana: University of Illinois Press, 1979], 67). It is interesting to read Boehm's careful wording, given that the head joints of Boehm flutes are frequently described as "parabolic," without further qualification. (See also Terry McGee's discussion of Carte's use of the term -"parabola," specifically with regard to the 1847 Boehm patent. at http://www.mcgee-flutes.com [accessed November 6, 2007].)

The large section entitled "Miscellany" includes information about concert artists of the period, their repertory and performing styles, the character of the flute, and the reactions of the public to what a certain Marsyas called "The Flute Controversy." One writer asserted that the flute had been improved until its true character had been impaired, if not destroyed (p. 44), while another declared that the flute had changed for the better, writing, "the old-fashioned one-keyed flute was well styled a 'lugubrious howling-stick,' for on it, it was impossible to play in tune. It was this being out of tune which the poet eulogizes when he sings of the 'soft complaining flute'" (p. 46). A hilarious letter addressed to "my dear Phunniwistl" ridiculed both contemporary flute performance and composition. Bigio reprints letters related to the introduction of the conical Boehm flute in England (previously reproduced by Christopher Welch in his 1882 History of the Boehm Flute), plus a flurry of letters from the 1845 Musical World that Welch did not include. In all these matters, Bigio's comments help place the readings in a broader context.

Historical instrument makers and performers on historical flutes should find the rich source material in this collection fascinating, as well as essential reading. Readers with an interest in the history of performance styles as well as in no-longer-fashionable nineteenth-century, styles of composition will also find the collection useful and entertaining. Robert Bigio is to be: highly commended for bringing together so many interesting pieces relating to the flute and its development in nineteenth-century' England; the book makes it easier to compare developments there with those elsewhere. His brief bibliography and list of patent specifications may also be useful. That the book contains no index is extremely disappointing, however. One would think that in such a collection, an index would be *de rigeur*, as without it readers will have to hunt through the selections again and again to find the information they seek.

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