

A History of Performing Pitch: The Story of "A," by Bruce Haynes. Lanham, MD and London: The Scarecrow Press, 2002. 632 pp. ISBN 0-8108-4185-1 (cloth; alk. paper). 36 graphs, 8 appendices of instrument pitches, 4 illustrations, \$80.00. Contact Scarecrow Press, Inc. 4720 Boston Way, Lanham, MD 20706. (800) 462-6420. www.scarecrowpress.com (15% discount online).

Anyone researching or playing historical music inevitably confronts issues of pitch: in deciding what instrument to buy, which instrument to play in the Second Brandenburg Concerto, or in heated discussions over transposition in Monteverdi's *Vespers*. For singers as well as instrumentalists, pitch profoundly affects the character of a work and the ease of its performance. Writing in the nineteenth century, Alexander Ellis gathered extensive data on pitch levels, calculated in Hertz, to support his belief that music had arrived at an ideal "mean pitch." The twentieth-century musicologist Arthur Mendel understood the relationship between *Chorton* and *Cammerton* as a valid approach, but distrusted precise measurements.¹ In the context of this conceptual divide, a wealth of further studies have struggled with a bewildering array of contradictory terminology and data. Happily, Bruce Haynes applies his expertise as a scholar and performer to place the history of musical pitch into perspective. This book, which expands upon his previous research, is a welcome addition to the literature.²

Haynes' goal is practical: "The objective of a general study of pitch is to be able to determine the original pitch of any given piece of music" (p. xli). In order to do so, he unites the traditionally separated categories of pitch names and specific frequencies. The Introduction provides a system that equates each pitch standard with a specific symbol, while allowing for minor variations in pitch. For example, A+0 equals roughly the modern standard of $a'=440$ Hz, while each number added or subtracted represents approximately a half-step. Thus A+1 means roughly $a'=464$ Hz, a range of pitches from $a'=453$ -479; and A-1 refers to a range around $a'=413$ Hz, from $a'=409$ -427 (p. lii). Those who shy away from lingering discussion of frequencies, tuning, and acoustics have little to fear: the system is clear and efficient, and the text is easy to understand.

Chapter 1 assesses the available evidence for establishing historical pitch standards. Among the most reliable instruments are the flute, recorder, clarinets, pitch pipes, and organs, but the hero remains the curved cornetto, which became synonymous with one of the most stable pitch standards of history. Haynes gathers extensive archival evidence: instrument orders, payment records, personal accounts, and almost 1400 surviving instruments. He notes his debt to the early music revival, with the recent availability of viable instrument copies and expert players, enlisting the authority of modern performers and makers of historical instruments. Their comments and tips, which echo the musings of their historical counterparts, add a particularly attractive element to this book.

Haynes recognizes the four most important kinds of information regarding musical pitch of any particular work—the city where the music was played, the period in question, the genre and function, and the instruments that were involved—and structures his book accordingly. Each chapter covers a particular chronological period, with sections devoted to

individual cities, countries, and political or cultural entities. Chapter 2 traces pitch levels in the period before the instrument revolution of ca. 1670, explaining the relationship between *chorista* or *Chorton* (A-1) for playing with voices and *Cammerton* (A+1) for instruments, which tended to be a tone higher. Haynes places the seventeenth-century Italian terms *mezzo punto* (A+1) and *tutto punto* (at A+0) in context of a presumed older pitch standard at A+2. While straight mute cornetts appear frequently at *tutto punto*, cornetto pitch (*Cornet-ton*) is equated with *mezzo punto*, consistently near $a'=464$ Hz. The same pitch level can be established for sackbuts, which, like cornetts, most likely performed at A+1, around $a'=464$ Hz (p. 81). Slightly different standards in England, under the name *Quire-pitch*, allow Haynes to make plausible conjectures about the provenance of specific instruments (p. 94).

Chapter 3 recounts the various national and local responses to the hegemony of French culture and music during the instrumental revolution from 1670 to 1700, defining *Ton d'Opéra* (A-2), *Ton de la Chambre du Roy* of Louis XIV (A-1 $\frac{1}{2}$), and *Ton-d'Écurie* (which, like the Dutch *klarin trompettentoon*, is equivalent to *Cornet-ton*, or A+1). The shift to the lower French pitch marks a divide between Renaissance instruments and their Baroque counterparts that is echoed in comments by Quantz and reflected in the English relegation of the sackbut to the wind consort, in favor of the lower-pitched French bassoon (p. 125). Most significant is the reversal in definition between *Chorton* (formerly A-1) and *Cammerton* (formerly A+1) (p. 137). As a result, the faithful *Cornet-ton* (at A+1) becomes associated and linguistically confused with *Chorton*.

Chapter 4 details the adoption of a fairly common pitch level of A-1 between 1700 and 1730. Brass players may note the discussion of pitch differences between Giuseppe Torelli's early and later trumpet concertos (p. 169). Chapter 5, devoted to the same period in Germany, establishes the relationship between *Cammerton* and the lower *tief-Cammerton* and includes specific performance and transposition instructions for trumpets by Kuhnau in Leipzig (p. 183), echoed by Altenburg in the 1770s (p. 318). Because of concurrent pitch levels, Mattheson notes that brass instruments, such as trumpets, would play in C but sound in relation to other instruments in D (p. 203). In a brief discussion of temperament, Haynes acknowledges problems arising from transposition, citing a diatribe by Mattheson, who compares the result to "the quarrel of the hounds over the fallen body of Jesabel" (p. 190). Kuhnau attests to the stable role of cornetti at A+1 when he tests the pitch of an organ by bringing in the *hautbois* and trumpets to see if they can play together (p. 201). This same period also witnesses the demise of the cornetto, in an account of Christoph Denner, who died before he could finish an order. His sons later explain in a letter that the instrument could not be altered in pitch and was not much in use any more (p. 203).

Haynes devotes Chapter 6 to thorny issues raised in performing the works of Johann Sebastian Bach. He takes into account each city and period of Bach's career, unraveling the intricacies of *Chorton*, *Cammerton*, and *tief-Cammerton*. In addition, he provides a list of works in which pitch is an issue and considers each individually, compiling existing scholarship and possible solutions for the performance of such works as the Second Brandenburg Concerto (p. 237), the *Magnificat* (p. 240), and the trumpet aria in Cantata no. 12 (p. 247), including brief notes about the use of crooks on trumpets.

Chapters 7 and 8 deal with the diversity of pitches between 1730 and 1770 and the adoption of more uniform standards during the classical era (1770-1800). Haynes illustrates pitch levels between $a^1=410$ Hz and $a^1=440$ Hz. He assails the notion of a common “Classical” pitch at 430, but does suggest several standards around the same level (p. 302). A gradual rise in pitch led, by the 1780s in Vienna, to an acceptance of something close to A+0. As a result, trombones, which had been pitched at A+1, were now converted to the new *Wienerton*, with no fundamental pitch change, but rather a new conception of the instruments in B \flat (p. 321).³ Chapter 9 focuses on the early Romantic era, with its ever-rising pitch levels, resulting in disputes and anxieties over the need to purchase new instruments, in order to rise “an expensive semi-tone” (p. 330). Chapter 10 traces attempts to deal with a general rise in pitch and the desire to find a single pitch standard in the years between 1830-2001, culminating in the adoption of the universal pitch standard in 1939. Of course, despite the current “official” placement of this pitch standard at $a^1=440$, modern ensembles frequently perform at higher levels in performance.

In a final chapter, Haynes cross-references his own account in a useful summary of the historical development of pitch levels by individual countries. As a result, the reader interested in music of one place or time, or in a specific work, can easily find pertinent information. By gathering and organizing a wealth of information in one place, Haynes manages to illustrate that, despite a variety of temporal, geographical, and musical contexts, and the use of confusing terminology, the pieces of the puzzle fit together logically, fulfilling his promise that “the history of pitch standards is actually simpler than it first appears” (p. 1). He reconciles apparent contradictions by placing them in a particular context, and candidly admits the rare occasions when a solution remains elusive (e.g., p. 268). In addition to achieving his stated goals, Haynes’ gaze through the prism of pitch offers a rich view of performance history, to which the opinions of Quantz and Mattheson and the eccentricities of the Italian legal system provide diversion and dry humor. The result is both a riveting overview and a 600-page compendium of minute but crucial details to consider in the performance of individual works. Generous graphs and lists of surviving instruments with their known pitches, source materials rendered in both the original language and English translation, and detailed notes, all help make this book an excellent and indispensable reference work.

One may inevitably quibble with a few bits of information or interpretations. In his translation of a 1592 Genoese instrument order (p. 59), for example, he tentatively translates the term *fiffari* as shawms (p. 59). Since they are listed as six instruments made from heavy boxwood in a single case, flutes appear a more likely conjecture. In his brief discussion of *chiovette* transposition (p. 73), he translates the term *tutto punto* as “thoroughly,” rejecting its ubiquitous use as a designation of pitch. Considering the frequent use of the term in the lively debate surrounding transposition in Monteverdi’s *Vespers*, such a glossing over of contradictory interpretations regarding organ pitch in Mantua seems premature. Others who disagree with individual details will be thankful for his ample documentation.

The detail Haynes devotes to Baroque and Classical woodwinds reflects an understanding of their role in establishing pitch standards; it also grows out of his expertise as an oboist and

the focus of his previous research. While this book offers a wealth of detail about cornettos and oboes, it does so less for later brass and other wind instruments. A study gathering the pitches of later instruments would probably not alter his conclusions, but could prove a useful subject for a future reference work.

In the music of the sixteenth century and earlier, Haynes notes problems surrounding the evidence provided by voices in determining early pitch standards (p. 29), citing the impossibility of using vocal ranges in the Renaissance to set a pitch standard, in part because voices could change pitches at ease, especially in an *a cappella* context. His premise that “singers simply set the pitch for each piece so that its range matched comfortably their voices” (p. 55) may be true, but could mislead one into thinking that pitch was not an issue before the sixteenth century. More problematic is the premise that pitch standards rely on the requirements of voices and instruments performing together. On the contrary, this book contains enough evidence to venture some further conjectures about earlier pitch. For example, considering the degree to which cornettos remain stable around A+1, and to which trombones and surviving shawms played together at the same pitch, added to what we now know of the *alta capella* ensemble performing vocal repertoire, it should be possible to reach back farther in time to make some conjectures about pitch levels that are being adopted by modern performers of fifteenth-century music.

Perhaps this discrepancy recalls a fundamental discontinuity that Michel Foucault invokes between the Renaissance tendency to see everything in terms of proportion, whereby “each particular similitude was then lodged within its overall relation,” and the seventeenth-century desire to separate, codify, and classify “by means of measurement with a common order . . . permitting an absolute certain knowledge of identities and differences.”⁴ In this sense, “the story of A” as a pitch standard can be told only during the era of classification. Perhaps this suggests one direction that research on performing pitch might take in the next half-century. The same exhaustive compilation of instrumental and vocal ranges in earlier music, in conjunction with theoretical discussions of vocal functions, might not yield actual pitch standards, but could offer a similar kind of perspective that Haynes has achieved for music of the last four hundred years.

Adam Gilbert

NOTES

¹ These are joined in a single volume, in Alexander John Ellis and Arthur Mendel, *Studies in the History of Musical Pitch: Monographs by Alexander J. Ellis & Arthur Mendel* (Amsterdam: Frits Knuf, 1968).

² Bruce Haynes, “Pitch Standards in the Baroque and Classical Periods” (Ph.D. diss., University of Montreal, 1995). See also *The New Grove Dictionary of Music and Musicians*, 2nd edn., ed. Stanley Sadie and John Tyrrell (London: Macmillan, 2001), s.v. “Pitch,” by Llewelyn S. Lloyd and Richard Rastall.

³ A recent study by Stewart Carter (“Trombone Pitch in the Eighteenth Century: An Overview,” in *Posaunen und Trompeten: Geschichte, Akustik, Spieltechnik*, ed. Monika Lustig, Michaelsteiner Konferenzberichte 60 [Blankenburg: Stiftung Kloster Michaelstein, 2000], 53–66) suggests that the change may have occurred as early as the first decade of the eighteenth century.

⁴ Michel Foucault, *The Order of Things: An Archeology of the Human Sciences* (New York: Random House, 1970), 55.

ERRATA FOR VOLUME 14

Two musical examples in Howard Weiner's article "Beethoven's Equali (WoO 30): A New Perspective," in *Historic Brass Society Journal* 14 (2002): 215-277, inexplicably grew in size between proofreading and printing to such an extent that parts of them did not make it on to the printed page. Musical examples 2 and 5 are reproduced below in their entirety.

Moreover, the vocal texts and performance markings in the scores in Appendix 2 (pp. 267-70) which should have been printed in a proportional Times New Roman font were miraculously transformed after proofreading into a non-proportional Courier font. We apologize for these mishaps.

Page 242:

Musical score for Page 242, featuring vocal parts and brass instruments. The score is in 3/2 time, key of B-flat major, and includes the following parts:

- Tenore 1:** *pp* mun - - - da me!
- Tenore 2:** *pp* man - - - da me!
- Basso 1:** *pp* mun - - - da me!
- Basso 2:** *pp* mun - - - da me!
- Trombone 1:** *p*
- Trombone 2:** *p*
- Trombone 3:** *p*
- Trombone 4:** *p*

Page 244:

Musical score for Page 244, featuring vocal parts and Trombone 4. The score is in 3/2 time, key of B-flat major, and includes the following parts:

- Basso 2:** *f* mi - se - re - re me - i de - us *f* mi - se - re -
- Trombone 4:** *f* *p* *f*