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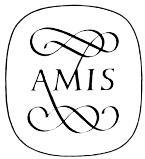

BOOK REVIEWS

James Coover. *Music at Auction: Puttick and Simpson (of London), 1794–1971*. Detroit Studies in Music Bibliography 60. Warren, Mich.: Harmonie Park Press, 1988. xxiii, 528 pp.; 10 plates, 56 pp. of facsimiles, 5 tables. ISBN: 0-89990-038-0. $55.00.

James B. Coover, longtime director of the music library and Ziegele Professor of Music at the State University of New York at Buffalo, has an enduring interest in musical trade matters, particularly those in England. Notable recent evidence of this is a pair of monographs from his pen, *Music Publishing, Copyright and Piracy in Victorian England* and *Antiquarian Catalogues of Musical Interest*.[1] His latest oeuvre in this genre is a study of the Puttick and Simpson auction house.

Established in 1846, when Thomas Puttick and William Simpson purchased a firm founded in 1794, which itself had already passed through a number of hands, the Puttick and Simpson house endured for the next century and a quarter, through a takeover by the Phillips establishment in 1954 and the eventual elimination of its own name from the catalogs in 1971. Puttick and Simpson held music sales under its own banner on a regular basis throughout its existence, and musical instruments of all kinds figured prominently in many of these. The resulting volume of printed sales catalogs is simply staggering. Good British stewardship and the happy fortune of having been buried deep and safe in company archives for decades have preserved the vast majority of the more than 10,500 P&S catalogs, which survive today in a virtually unbroken set in the British Library. Coover had to examine all of these in order to extract the 1650 volumes containing musical materials. As the British Library set emanates largely from the auction house itself, the catalogs there are normally annotated with prices fetched, buyers' names, and occasional interesting marginalia.

A preface outlines the genesis of the research, its place in modern musicology and organology, and indicates where this work may lead.

The first part of the book, entitled simply "The Firm" (pp. 1–122), furnishes extensive historical background, not only on Puttick and its

1. James Coover. *Music Publishing, Copyright and Piracy in Victorian England*. London: Mansell, 1985; James Coover. *Antiquarian Catalogues of Musical Interest*. London: Mansell, 1988.

predecessors, but on the life of retail music trade in England from the mid-nineteenth century onward. Coover has endeavored to present more than the impersonal works of a place of business. In the face of a nearly total lack of surviving manuscript or personal documentation, he has, by dint of widespread, tenacious research (including frequent trips to London and correspondence with surviving P&S employees) managed to ferret out vivid data that would have been missed by most writers. This detailed and lively material greatly increases the interest of the book, which originally was intended simply as a checklist of P&S catalogs. Much analytical and comparative sales information from the author's considerable knowledge of the British music trade is provided, making this substantial introductory section a work of no small interest in its own right. One of the most felicitous touches in this respect appears on pages 48–51, where the author alerts his readers to collections sold which require further elucidation, and may thus serve as future research projects for interested parties. This book is replete with such examples, not as clearly delineated as here.

Further chapters in Part I deal with aspects of the better-documented collections sold, as well as contemporary sale practices in general, and make fascinating reading. A chapter treating the catalogs themselves in their many and varied aspects follows, and the narrative first part of the book is rounded out by a chapter on the house (i.e., the building) itself, with appropriate illustrations. An extensive list of sources consulted in this research closes the section.

Part II, "The Sales," comprising the bulk of the volume, lays out the music sales by Puttick in chronological order, beginning with its predecessors in 1812 (6 pages only) and continuing under its own name from 1846 through its absorption by Phillips, and the dropping of its name altogether in 1971. Furnished are highlights of many of the more notable sales, graced with apposite quotes from the British Library catalog set. The author strives here, as throughout the volume, to give the reader an idea of the tastes of the era. This approach enhances the literary value of the book considerably. It is, even in the catalog section, far more than a dry list of sales literature.

For all catalogs, the P&S (after 1967, the Phillips) numbers as well as the British Library pressmark (where present) are given. The library locations for catalogs not in the British Library are also furnished. This union catalog aspect of Part II is invaluable for future research, the stimulation of which is, as the author indicates (p. 128), one of the basic

aims of this compilation. Indeed, this objective is a constant throughout Coover's work over the years.

A most useful pair of indexes closes the volume. Included in the general index are alphabetical listings of buyers, divided by interest categories (Books and Music, Plates and Copyrights, Instruments); of private collections, similarly arranged; of holographs sold (by composer); of instrument makers; of manuscripts sold (by composer); and of trade sales (by firm). A title index of works sold follows.

The book itself is a handsomely produced, well thought-out volume, as one has come to expect from this author and publisher. It is cleanly set and well graphed, with plenty of space for marginal notes. A large number of illustrations from P&S catalogs and related literature appear on various pages throughout, though their arrangement is somewhat inconsistent. The endpapers attractively reproduce a holograph letter from Puttick himself (not transcribed, unfortunately), one of the very few such extant documents. On the minus side, a cover reproduction of the interior of the auction gallery (reproduced more clearly on p. 138) did not quite succeed. More significant are the fairly numerous typographical errors as well as a number of other minor editorial inconsistencies of very much the sort notable in the previous volume by this author in the Detroit Studies series.[2] In a work of such outstanding scholarship and high-quality physical production, small flaws of this nature tend to stand out more clearly than they might elsewhere.

Coover's study is of great importance to those in organology interested in tracing the provenance of instrumental proprietorship, a difficult and all too often near-impossible task. When, for example, one saw "Nettlefold Sale" cited without further elaboration, one was, until now, at sea unless one happened to be familiar with the unwritten history of instrument sales in London. Now, at last, there is recourse to an important contribution toward the rebuilding of this lost history. The index to this volume, as indicated, lists owners of collections (as and where given in the catalogs themselves) sold by the Puttick and Simpson firm. Thus, one may learn that "Nettlefold" refers to one Archibald Nettlefold, whose collection was sold on 25 April 1946, and that details of same may be found in P&S catalog number 770. Though by no means devoted exclusively to musical instrument sales, the citations to same in the

2. James Coover. *Musical Instrument Collections: Catalogues and Cognate Literature*. Detroit Studies in Music Bibliography, 47. Detroit: Information Coordinators, 1981.

present book make it a worthy companion to the author's previous work in the organological field. The importance of Puttick and Simpson was strongly indicated in the 1981 book, and has now been copiously documented here. As is often the case with scholarship on this level, the earlier work was the impetus for the present one.

Coover's 1981 bibliography of musical instrument collection catalogs provided us the first comprehensive view of the vast and little-charted world of organological documentary literature. For those trying to reconstruct the fragmented history of musical instruments, this work is, quite simply, invaluable and irreplaceable. Now, with his latest essay, this author has given us a work of equal value, illuminating an even more rarefied but no less important literature. We have much to thank James Coover for in this unique contribution to the growing scholarly literature in our field.

MICHAEL C. FINKELMAN
Sam Houston State University, Huntsville, Texas

Malou Haine. *Musica: Les instruments de musique dans les collections belges / Musical Instruments in Belgian Collections / Muziek-instrumenten in Belgische versammlungen.* Liège: Pierre Mardaga, 1989. 214 pp.; 152 color photographs, 8 black-and-white photographs, 4 x-ray photographs. ISBN: 2-87009-409-4. 1,950 Belgian francs / 347 French francs.

Malou Haine teaches at the Free University of Brussels and the University of Liège, and is a consultant to the staff of the Musical Instrument Museum of Brussels. She is known in the United States primarily for three publications: her detailed study of Adolphe Sax (the topic of her dissertation);[1] an excellent catalog (edited with Ignace De Keyser) of the instruments by Charles Joseph Sax and Adolphe Sax in the Musical Instrument Museum of Brussels and in other public and private collections;[2] and a comprehensive dictionary of instrument makers (edited

1. Malou Haine, *Adolphe Sax (1814–1894): sa vie, son oeuvre et ses instruments de musique* (Brussels: Editions de l'Université de Bruxelles, 1980). See the review by Carolyn Bryant in this *Journal* 9 (1983): 132–35.

2. Malou Haine and Ignace de Keyser, *Catalogue des instruments Sax au Musée instrumental de Bruxelles; suivi de la liste de 400 instruments Sax conservés dans des collections publiques et privées* (Brussels: Musée instrumental, 1980).

with Nicolas Meeùs) in the Walloon area and Brussels.[3] Haine's extensive scholarly work includes a detailed study of Parisian musical instrument makers during the industrial period of the nineteenth century;[4] a catalog of musical instruments made in the Walloon area and Brussels in the Musical Instrument Museum of Brussels;[5] the editorship of a study of instrument makers active in the Walloon area and Brussels in 1985;[6] and (with Nicolas Meeùs) a catalog of musical instruments in Brussels and the Walloon area for an exhibition at the Musée de Mariement.[7] Her latest offering is a lavishly illustrated 214-page catalog entitled *Musica: Musical instruments in Belgian collections.*

This attractively-designed volume is primarily a picture book of some stunningly beautiful European instruments of various types, found in nine Belgian museums. However, this volume is of great interest to specialists because the majority of the instruments photographed have seldom or never appeared in previous publications to my knowledge. Haine notes in the introduction that this book is meant for the general public; therefore, technical descriptions and measurements are omitted on purpose. One hundred fifty-two color photographs of 147 instruments are presented according to eleven easily-understood groupings rather than organological categories: clavichords, virginals, and harpsichords (pp. 28–53); organs (54–63); pianos (64–77); plucked stringed instruments (78–91); bowed strings (92–110); flutes and reed instruments (111–33); mouthpiece instruments (134–59); percussion (160–71); mechanical instruments (172–79); popular instruments (180–97); and curiosities (198–209). (The category called mouthpiece instruments is somewhat misleading since woodwinds also have mouthpieces; perhaps the term lip-vibrated should have been considered.)

The caption to each photograph includes the name of the instrument, name of the maker, the place and date of manufacture (Haine cautions

3. Malou Haine and Nicolas Meeùs, eds., *Dictionnaire des facteurs d'instruments de musique en Wallonie et à Bruxelles du 9^e siècle à nos jours,* (Liège: Pierre Mardaga, 1986). See the reviews by Barbara Owen in this *Journal* 14 (1988): 164–67, and by William Waterhouse in *Galpin Society Journal* 41 (1988): 120–22.

4. Malou Haine, *Les facteurs d'instruments de musique à Paris au 19^e siècle: des artisans face à l'industrialisation* (Brussels: Editions de l'Université de Bruxelles, 1985).

5. Malou Haine, *Instruments de musique en Wallonie et à Bruxelles au Musée instrumental de Bruxelles* (Liège: Pierre Mardaga, 1984).

6. Malou Haine, ed., *Les facteurs d'instruments de musique actifs en Wallonie et à Bruxelles en 1985* (Liège: Pierre Mardaga, 1986).

7. Malou Haine and Nicolas Meeùs, *Instruments de musique anciens à Bruxelles et en Wallonie, 17^e–20^e siècles* (Liège: Pierre Mardaga, 1986).

the reader to be prudent about accepting dates even when found on the instrument), the location, museum, and inventory number. Prominent characteristics of each instrument are occasionally described, along with some discussion of construction or decoration, and other details of past ownership or playing technique. In addition, there are thirty excellent color details of instruments, eight black-and-white details (piano nameboards, labels of a guitar and woodwinds), and four revealing x-ray photographs of a virginal, a guitar, a tenor lute, and a set of crumhorns.

The text of the eighteen-page introduction and the captions for photographs of instruments in *Musica* are written in three languages: French, English, and Dutch. The original French text was translated into English by Allen James and into Dutch by Ignace de Keyser. Haine states that the object of this book is to induce the public to visit museums in Belgium in order to see these beautiful instruments. The choice of the illustrations was determined by two considerations: the first is to illustrate instruments from museums other than those frequently visited in Brussels and Antwerp (Bruges, Ghent, Dehay-Imay, Liège, Mons, Namur, Tournai); the second is to present in an attractive manner a wide range of European classical and folk instruments made from the sixteenth to the nineteenth centuries. These objectives have surely been achieved in this book. Other topics adroitly discussed in the introduction include the problem of forgeries and composite instruments (e.g. Ruckers harpsichords, violins by Stradivari and Amati); the illegal export of hundreds of old Italian bowed stringed instruments by the violin maker Luigi Tarisio (1790–1854); finely made copies of string instruments by Jean-Baptiste Vuillaume; and outright forgeries by Leopoldo Franciolini. Haine also touches upon the modernization of harpsichords, violins, and guitars by many makers during the eighteenth century; the recent restoration of many instruments in museums; some of the earliest collections of instruments from the sixteenth century; and the beginning of modern instrument museums in the nineteenth century.

The color photographs are of uniform quality and of sufficient clarity to study very small details. Readers of this *Journal* will recognize some well-known instruments in the Brussels museum: a clavichord by Hieronymus Albrecht Hass of Hamburg, 1744 (pp. 30–31); a bass viol attributed to Gaspard Tieffenbrucker, ca. 1560, but dating in part from the seventeenth century (pp. 104–105); a set of four crumhorns, Germany or Italy, end of the sixteenth century (pp. 116–17); and a clarinet by Jacob Denner, Nuremberg, early eighteenth century (p. 128). We also

find a number of fascinating and little-known examples. The keyboard instruments include a virginal by Gabriel Townsend, London, 1641 (pp. 38–39), according to the text the oldest extant example of an English virginal; a traveling harpsichord by Jean Marius, Paris, 1709 (pp. 44–45);[8] a "harpsichord-spinet" by Jan Joseph Coenen, Roermond, 1734 (pp. 46–47); a "Vis-a-Vis" piano by Pleyel, Wolff & C^{ie}, Paris, 1899 (pp.72–73), made so that two pianists can be seated directly across from each other to play on one instrument; and a pyramid piano by Christian Ernst Frederici, Gera, 1745 (pp. 74–75), made with doors highly decorated in marquetry.

Other unusual or important instruments photographed are an early Neapolitan mandolin by Vincenzo Vinaccia, 1750 (p. 83); a highly decorated bass viol by Joachim Tielke, Hamburg, 1701 (pp. 106–07), formerly owned by Adrien-François Servais; a set of four bajoncillos or early bassoons (pp. 124–25), two by Rodriguez Melchor, Madrid, second half of the seventeenth century; a chandelier made of twelve serpents and a Turkish crescent, Belgium, nineteenth century (p. 135); a musical box called a double comet, after 1885 (pp. 174–75), which plays two discs at once; a set of bells arranged on a frame for Janissary music called "Lochky" (spoons), Russia, nineteenth century (pp. 194–95); and a finger-exercise machine called a "chryo-gymnaste" by Casimir Martin, Paris, 1841 (pp. 208–209).

Unfortunately, the book lacks a list of photographs and an index to the instruments, both of which would have increased its utility a great deal. Only one photograph of three cornetts, Germany or Italy, sixteenth or seventeenth century, treble, alto, and tenor, is too small to see the instruments in sufficient detail (p. 134). The English translation is quite good throughout although occasionally sometimes too literal. For instance, on page 14 in a description of the detail of the "Plan de Paris" on the back of a bass viol attributed to Gaspard Tieffenbrucker, the phrase "it cannot be excluded that this marquetry was 'fabricated' in the 19th century . . ." would have been more clearly stated as "it is possible that this marquetry was 'fabricated' in the 19th century . . ." On page 123 there is a description of a Boehm-system oboe by Adolphe Sax the Younger, Paris, ca. 1910. Instead of referring to the mechanism as the "Boehm ring flute," the more common English term is "Boehm flute" or,

8. See Laurence Libin's informative article on these types of instruments entitled "Folding harpsichords," *Early Music* 15 (1987): 378–83.

following the French text, "Boehm's flute with moveable rings" ("flûte à anneaux mobiles de Boehm"). One date in the English translation on page 185 should be 1829 instead of 1929, and on page 192 the first sentence should read: "A tambourine whose hoop has slits in which are small bells and small rings (not cymbals) of brass."

I found that some captions could have been clarified by a fuller explanation; for instance, how did the keyboard function in the transposing harpsichord by Andreas Ruckers, Antwerp, 1640 (pp. 40–44); and what is the pitch or dimensions of the basset clarinet by Johann Ziegler, ca. 1820 (p. 130)?[9] The caption (p. 68) concerning an interesting square piano marked "Johannes Riburius Meirherz, Paris, 1780" states that this is the only example of his work. However, its place of origin might have been questioned, since it is known that some eighteenth-century makers sometimes signed their instruments as being made in Paris in order to ensure their sale.[10] Under her description of walking-stick flutes, Haine should have mentioned that along with clarinets and violins, oboes, horns, and trumpets were made from the early sixteenth century in this form.[11] Three more substantial errors in the text must be noted. The Anonymous French "Cistre," ca. 1790 (p. 89) should not be called an "English Guitar" because it is different in many constructional features from the English instrument.[12] It would be more accurate to retain the name "Cistre" or perhaps "French Cittern." A photograph of three flutes made in Paris (pp. 114–15) includes instruments by Naust, 1750, Remi Genin, early nineteenth century, and I. Scherer, 1750. Yet Phillip T. Young's important article in the *Galpin Society Journal* of 1986, "The Scherers of Butzbach," established the identify of Johannes Scherer, Jr. and George Henrich Scherer; their place of manufacture in Butzbach, Germany; and the fact that only two bassoons are signed "I Scherer".[13] An editorial lapse must have caused the caption to the photo of an oboe

9. At least one clarinet specialist, Nicholas Shackleton, believes that this instrument is a basset horn rather than the much rarer basset clarinet.

10. This observation was made to the reviewer by Michael Latcham, curator of the Gemeentemuseum in The Hague.

11. See Hermann Moeck, "Spazierstockinstrumente: Eine kurze Vorstudie zu folgendem Aufsatz," in *Studia instrumentorum musicae popularis III* (Stockholm: Musikhistoriska museets skirfter, 1974), 149–51, 279; and Catherine Dike, *Cane Curiosa: From Gun to Gadget* (Geneva, 1983).

12. This fact was brought to my attention by James Tyler.-

13. *Galpin Society Journal* 39 (1986): 112–24; see also Phillip T. Young, *Twenty-Five Hundred Historical Woodwind Instruments* (New York: Pendragon Press, 1982).

by Jean-Hyacinthe Rottenburgh, Brussels, ca. 1750 (p. 122), to state that this instrument was made rather than "invented" by Jean Hotteterre.[14]

Apart from these few comments, this is a book well worth having both for the music lover and the organologist. It will create a desire by the public to see these exceptional instruments in Belgium. For those who wish more information on specific instruments, one can consult catalogues or write directly to the museum where the instrument is preserved.

Albert R. Rice
The Fiske Museum of The Claremont Colleges

14. For an important study of the Rottenburgh family of instrument makers, see Stefaan Ottenbourgs, "Die Familie Rottenburgh. Eine der zahlreichen musikalischen Dynastien aus dem barocken Brüssel," *Tibia* 14 (1989): 477–89, 557–67; German translation by Reinhold Quandt of "De Familie Rottenburg. Een van de talrijke muzikale dynastien uit het barokke Brussel," *Musica Antiqua, een uitgave van Het Vlaams Centrum voor Oude Muziek* (1988), pt. 4; (1989), pt. 1.

Kunitachi College of Music Research Institute, Division of Musical Instruments. *The Collection of Musical Instruments,* ed. Sumi Gunji, Kazue Nakamizo, Miki Ito, and Mayumi Okada. Tokyo: Kunitachi College of Music Research Institute, 1986. 319 pp.; 101 color photographs, 963 black-and-white photographs, 18 x-ray photographs. No price given.

Reference books for non-European instruments are rare. The first notable such monograph, Victor-Charles Mahillion's. *Catalogue descriptif et analytique du Musée instrumental du Conservatoire royal de musique de Bruxelles,* 2nd ed., 5 vols. (Gand: A. Hoste, 1893–1922), is not readily accessible, and does not contain adequate artwork for all instruments.

The Collection of Musical Instruments, is currently the most complete pictorial dictionary of non-western instruments organized as a catalog of this museum's collection. Four points are of interest in this review.

First, of the approximately 500 depicted instruments, all the photographs are clear, contain a measurement gauge, are accompanied by very legible catalog information in English, and are printed on high-quality pages that are strongly bound into a durable book. The catalog information is organized thusly: registered number (presumably museum accession number), system number (see below), instrument name,

regional instrument name, region of construction, maker of instrument, date of construction, and short notes. Though the information is brief, it is usable, and the photographs make up for an unfortunate lack of artwork in other recent reference books.

Second, the editors laid out the book following a major reworking of Hornbostel-Sachs system of classification for musical instruments. The reader will note that instrument's family names have been redefined, and that, following taxonomical hierarchy, sound producing features are classified from most to least significant element, using a simplified number system placed within the system number field instead of scientific names.

Third, all instrument types are given equal coverage. Thus, spiked fiddles are treated with the same care for detail as Latin American globular flutes, toy instruments, modern reproductions, and elaborate court instruments within the collection.

Fourth, the use of regional names is also of interest. Such names are derived from Sibyl Marcuse's. *Musical Instruments: A Comprehensive Dictionary.* (New York: Norton, 1975) and *The New Grove Dictionary of Musical Instruments,* 3 vols., ed. Stanley Sadie (London: Macmillan, 1984), with attributions following the name. When the name is not known, but the species type is evident, that information is provided in italics (i.e. slit drum, p. 29).

One hopes for more such carefully prepared books, especially when they elucidate topics poorly covered in the current literature. One also hopes that this book will stimulate further interest in refining a taxonomy for musical instruments, as the current methods of data retrieval related to musical instruments can be most protracted. This useful book addresses one of the most difficult subsections within organology: nonwestern instruments within Linean taxonomy of musical instruments and their names.

PETER H. ADAMS
Silver Spring, Md.

***Il flauto dolce: revista semestrale per lo studio e la pratica della musica antica,* ed. Giancarlo Ristirolla. Rome: Società Italiana del Flauto Dolce, 1971–. Semiannual. 40 pp. (no. 13); 84 pp. (nos. 14–15); 96 pp. (nos. 17–180). 8,000 lire (no. 13); 15,000 lire (nos. 14–15); 20,000 lire (nos. 17–18).**

Il flauto dolce ("The Recorder") is, according to its masthead, a semiannual review devoted to the study and the practice of early music, produced by

the Società Italiana del Flauto Dolce. The titles of both the society and its publication naturally invite comparison with the American Recorder Society and its journal, *The American Recorder*. However, a perusal of the examples of the Italian journal submitted for review—no. 13 (Oct. 1985), nos. 14–15 (April–Oct. 1986), and nos. 17–18 (Oct. 1987–April 1988)—reveals its very different scope and purpose. Here are to be found no "how-to" articles of a purely practical nature nor interviews with modern practitioners of early music, but only articles and reviews of a serious scholarly intent. These are not confined to the subject of the recorder or even to instruments in general, but concern all aspects of early music: history, analysis, biography, and performance practice, as well as organology; the *flauto dolce* of the title is thus to be understood as a metaphor for the entire field of study.

However, a large portion of the articles in *Il flauto dolce* do concern matters of organological interest, and their findings are of enough importance to warrant the attention of readers of this *Journal*. Of particular significance are those cases in which native Italian researchers can demonstrate their linguistic advantage in dealing with Italian subjects. This advantage is clearly to be seen, for instance, in Marco Di Pasquale's study of the documents associated with the history of the Accademia Filarmonica of Verona ("Gli strumenti musicali dell'Accademia filarmonica di Verona: un approccio documentario," nos. 17–18: 3–17). Here Di Pasquale joins the many scholars who have struggled with the thorny problems of Italian woodwind terminology of the Renaissance, pointing out that the archival evidence is often at variance with the established terminology of Renaissance textbooks on instruments (such as those by Zacconi, Cerone, and Praetorius) and that the correct interpretation of this evidence is further hampered by internal inconsistencies and the prevelance of dialect expressions. In offering his own solutions, Di Pasquale identifies several clues, some linguistic and some purely logical, which have been ignored or misinterpreted by his (mostly non-Italian) predecessors in the field.

Other archival studies are less controversial in nature. In "La diffusione degli strumenti musicali nelle case dei nobili, cittadini e popolani nel XVI secolo a Venezia" ("The Distribution of Musical Instruments in the Houses of Nobles, Citizens, and Commoners in Sixteenth Century Venice," nos. 17–18: 33–40) Gastone Vio and Stefano Toffolo present the results of their examination of certain notarial inventories in the Venetian State Archives; these lists of the household effects of Venetian residents on their decease often include instruments and can thus provide a small window into their musical lives. Some of the researchers of Alfredo Bernardini are familiar to readers of this *Journal* through his

article "Woodwind Makers in Venice, 1790–1900" (This *Journal* 15 [1989]: 52–73); this is, in fact a translation and expansion of his article in *Il flauto dolce* "Andrea Fornari (1753–1841), 'fabricator di strumenti'a Venezia" ("Andrea Fornari (1753–1841), 'Instrument Maker' of Venice," nos. 14–15: 31–36). Incorporated into the *JAMIS* version are some findings by Stefano Toffolo regarding Fornari which are reported in his "La construzione degli strumenti musicali a Venezia dal XVI al XIX secolo" ("The Construction of Musical Instruments in Venice from the Sixteenth to the Nineteenth Centuries," *Il flauto dolce*, nos. 14–15: 24–30).

Two other contributions of Bernardini are less purely archival in nature. "Carlo Palanca e la costruzione di strumenti a fiato a Torino nel Setticento" ("Carlo Palanca and the Construction of Wind Instruments in Turin in the Eighteenth Century," no. 13: 22–26) reports what is known of the life of this important maker and attempts to assess the qualities of his surviving instruments. Palanca is of particular interest, according to Bernardini, because he was a player as well as builder, because his name appears often in connection with that of the famous oboist Alessandro Besozzi, and because he is the Italian builder from whose hand the largest number (at least thirty-three) and greatest variety of woodwind instruments survive. Centering on a somewhat later period is the article "Due chiavi per Rossini? The History and Development of the Oboe in Bologna before 1850," nos. 17–18: 18–32). Here Bernardini combines archival and iconographic evidence with information from musical scores, method books, and instruments themselves to give us a picture of the oboe in one musically important city for which the documentation is relatively complete. Among other things we learn that oboists of the early nineteenth century lagged behind the players of other woodwinds in embracing the innovations of additional keywork.

Laura Och, in her article "Bartolomeo Cristofori, Scipione Maffei e la prima descrizione del 'gravicembalo col piano e forte' " (Bartolomeo Cristofori, Scipione Maffei, and the First Description of the 'Harpsichord with *Piano* and *Forte*' ") nos. 14–15: 16–23, examines documents, both published and unpublished, that point to repeated occasions of contact between the inventor of the piano and his literary champion Maffei. We cannot escape the conclusion that Maffei's pronouncements about keyboard instruments and their tuning stem directly from Cristofori.

Two articles deal primarily with description of surviving instruments. One is Renato Meucci's "Due trombi a chiavi 'Pirozzi' del Museo nazio-

nale degli strumenti musicali di Roma" ("Two Keyed Trumpets marked 'Pirozzi' in the National Museum of Musical Instruments of Rome," no. 13: 29–30). The other is Pierluigi Ferrari's "La liuteria veneziana del Cinquecento e la viola da gamba di Antonio Ciciliano del museo civico di Bologna" ("Sixteenth-Century Venetian Instrument Makers and Antonio Ciciliano's Viol in the Museo Civico of Bologna"), nos. 17–18: 49–53. This instrument is similar in many ways to the other surviving Venetian viols described by Martin Edmunds[1] and other writers, except for its having a carved rather than a bent top.

Besides articles of interest to scholars and performers of early music, *Il flauto dolce* provides reviews of books, editions of music, and recordings. One might infer from the occasional tendency to pair together some of the "semiannual" issues into one annual offering that the editors are somewhat more concerned for the quality of the product than for its timely publication. It is handsomely presented (in quarto format), with numerous clearly reproduced photographs and diagrams. In the latest example available for review are subtended summaries of the main articles, written by the authors and translated into English by Hugh Ward Perkins; these will prove to be an obvious boon to many readers of this *Journal.*

Herbert W. Myers
Stanford University

1. "Venetian viols of the sixteenth century," *Galpin Society Journal* 33 (1980: 74–91.

Alison Crum, with Sonia Jackson. *Play the Viol: The Complete Guide to Playing the Treble, Tenor, and Bass Viol.* Early Music Series, 10. New York: Oxford University Press, 1989. xii, 185 pp.; 41 black-and-white illustrations, 79 musical examples. ISBN: 0-19-317422-7. $45.00.

The growing fascination for Western music from periods earlier than the eighteenth century has brought a renewed interest in playing early instruments. A fine instructional book on the viol is especially welcome because we have so few modern methods for the instrument. *Play the Viol,* as its title suggests, is a tutor primarily for beginning players, but it can equally well be used by more experienced players desiring to review their technical and musical knowledge of the instrument and its repertories.

Five clearly organized chapters present elementary technical principles, more advanced technical matters, repertoire and performance practices, suggestions for effective practice, ensemble playing, performing, and recommendations on buying and maintaining viols and bows. Three appendices provide a discussion of tuning (by Elizabeth Liddle); addresses of societies, journals and dealers in the United Kingdom and the United States; and a list of published music for the viol. These are followed by a bibliography of period treatises, modern tutors, books, and periodical articles," a selected discography of viol music; and an index. The book is engagingly written, with much practical advice, helpful photographs of posture and position, encouragement for the discouraged beginner, imaginative metaphors (for smooth bow changes, "imagine a silk scarf being trailed through water"; for different tonal shapes, those of "pears, lemons, carrots, and parsnips"), and well-chosen quotations from period sources. For a study repertoire, students are referred to companion volumes edited by Alison Crum. The English terminology for rhythmic values may at first be daunting to American beginners, but this is a small point; perhaps slightly more important is the fact that while the authors claim that the book presupposes only the ability to read music, a number of fairly sophisticated terms are used without explanation: harmony, phrase, cadence, eight-foot pitch, consort, obbligato, and Urtext, for example. The interested reader can, of course, look these up.

Not surprisingly, we find little organological information. The discussion of buying a viol centers around practical matters such as the size of the instrument and the relation of price to quality. The authors note that different instrument models are suited to different repertoire: early Renaissance-type viols are appropriate only to sixteenth-century music, while the seven-string bass can be used for most baroque music. They suggest English-type instruments as the most suitable to players who wish to play a wide range of viol music, recommending copies of Jaye's and Rose's consort instruments for early seventeenth-century music and copies of Barak Norman's or Meares's for later music. They include photographs of Martin Edmunds viol after Ciciliano (c. 1560), a seven-string bass by Robert Eyland after Bertrand (1704), a treble by Neil Hansford after Jaye (c. 1630), an alto by Norman Myall after Jaye (1662), a tenor by David Rubio after Rose (1598), and a bass by Robert Eyland after Rose (1595). Bows are categorized as either the early "stick" type (fixed frog, narrow hairing; suitable for Renaissance instruments)

or "transitional or baroque type" (with a tension screw or a clip-in frog), and the authors provide photos of representative bows by Christopher Allworth, Doug Eaton, Sue Watt, and others. The maintenance of instruments and bows is, of course, treated with more detail, and the authors make an important distinction between repairs and adjustments that can be made by the player and those that require professional attention.

An entire chapter surveying the viol repertoire and its performance practices covers types of music, including consorts, dance music, fantasies, accompanied songs, continuo playing divisions, lyra viol music, chamber music, and French suites, with useful suggestions for novice players. They are told, for example, how important it is to bring out subject entrances in imitative passages and to clarify cross-rhythms in dance pieces and other music; that repeats in dance forms should be ornamented; that English sarabandes tend to be fast and light, French ones slow and stately. With vocal music, the viol player should be sensitive above all to the vocal line and to the words, regardless of instrumental phrasing. In continuo playing, the harmony is first in importance: chord-tones should be held down on the fingerboard for the duration of the chord to enhance its resonance. The discussion of division playing culminates in Christopher Simpson's five-step method for timid improvisers, beginning with the ground-bass played in notes of smaller rhythmic value, gradually elaborating upon and return to the ground-bass notes, finally playing harmonizing notes and filling in gaps with passing tones; by now, the viol-player is ready to add a true descant to the ground. Crum and Jackson suggest that tenor players learn the lyra viol repertoire, as they have no solo music of their own. They help the beginner to decipher French tablature and provide a useful table of lyra-viol tunings. Their discussion of the performance of sonatas, arias, and chamber music calls attention to works by J. S. Bach, Telemann, C. F. Abel, and Schenk. I am not persuaded, however, that when slurs in identical phrases differ "for no apparent reason" or solo parts are in parallel phrases, the slurs ought to be made uniform. Sources have such frequent disparity that I doubt that we must always attribute it to error, and by doing so we may diminish musical interest. In regard to French style, the authors refer to Sainte-Colombe's introduction of the seventh string, the pardessus, *inégale* playing, French ornaments, with a table of those used by Marais, and several practice examples taken from Marais, with humorous allusions to his personality.

Elizabeth Liddle's appendix on tuning offers a helpful discussion for students ready to venture into that thorny subject. Preliminary explanations of the harmonic series, commas, and various temperaments lay the groundwork for practical information on setting temperaments. Fret diagrams and a table of measurements in cents for quarter-comma, fifth-comma, and sixth-comma meantone and for Valotti's system add much to this synopsis.

I noted only a few omissions. In the second appendix, Early Music America ought to appear along with the Viola da Gamba Society of Great Britain and the Viola da Gamba Society of America Inc., and this *Journal* along with *Early Music* and *Early Music News*. Deborah Teplow's *Performance Practice and Technique in Marin Marais' Pièces de viole* (Ann Arbor: UMI Research Press, 1986) and Jason Paras's *The Music for viola Bastarda* (Bloomington: Indiana University Press, 1986) do not appear in the bibliography, and I wish that the fine live concern recording, *In memoriam Jason Paras* (Focus 821), were in the discography.

These few reservations aside, Crum and Jackson's book is a worthy contribution to the beginning and intermediate study of viol playing. Readers of this journal will be most interested in the discussions of performance practice.

M. Alexandra Eddy
Sweet Briar College

Martin van Schaik. *De harp in de mideleeuwen: Studies naar de symbolick van een muziekinstrument.* Utrecht: [the author] 1988. 244 pp., 52 black-and-white illustrations. ISBN: 90-9002348-8, Softbound. 75 Dutch guilders.

Martin van Schaik's dissertation covering aspects of symbolism of the medieval harp is a very welcome addition to the literature. As he notes, a vast body of information about the early harp has been transmitted to us but there are comparatively few modern studies devoted to this instrument. A reason, in part, for both circumstances is that the harp was awarded religious symbolic meaning by a culture very remote to ours, resulting in a profusion of sources that were protected and hence survive and now must be interpreted. In this study, van Schaik successfully separates the real from the symbolic in a way that illuminates the mean-

ing of the symbol. In the future, a general statement about David's harp, such as, "David is often [depicted] tuning his harp, preparing for the performance to come,"[1] will no longer suffice when it associates a theme such as David's harp tuning with a specific symbolism backed by exegesis dating to the first century A.D. Van Shaik's work will be useful to medievalists, iconographers, theologians, organologists, church musicians, and historical harpists, to name a few. It deserves a wide readership, and the English translation, to be entitled *The Harp in the Middle Ages: The Symbolism of a Musical Instrument,* now in the final stages of preparation, will help.[2]

This book covers ground traversed many times before but uses a new vehicle (new at least for studies of the medieval harp) and travels farther along the chosen paths. Van Schaik bases his study on two pillars, music iconography and the study of medieval texts. He begins his study with the year 1000 A.D., when a positive connection can be demonstrated between the name "harp" and the object harp, so that he can correlate the two types of data, and ends in 1400. As befits a (partly) iconographical work, all fifty-two pictures are reproduced with outstanding clarity.

Van Schaik chooses what are, at first view, "a quintet of strongly divergent subjects" (p. 14), which are indeed linked by a common thread, King David, but his determination to establish this connection actually hampers the presentation of material. Each subject is treated in a study and presented as a chapter with numbered sections. The results are given invariably in the chapter's penultimate section, and the associations with David, which he calls the important conclusions, are given in the chapter's final section labeled "Conclusion." Van Shaik relies implicitly on the common thread of David to bind together his study. He includes a summation in German that condenses the chapter conclusions.

In the first study, "Name and Object," van Schaik ferrets out the use of the term "harp" from a great diversity of sources. (Tables listing the most important texts are included in chapter 3.) His tenacity in pinpointing exactly when the term was introduced into a version of a text during its transmission is impressive. In light of his comments (p. 11) about the wealth but "inaccessibility" of medieval texts, this chapter is one of the most beneficial. It is also the most grisly: two of the thirteen terms

1. Ann Griffiths, Joan Rimmer, and Sue Carole de Vale, "Harp," *NGDMI* 2:136.
2. Personal correspondence, 6 Sept. 1990.

glossed with "harp" are instruments of torture. Van Schaik mentions an association in German texts of the name "swallow" with the "English" harp but dismisses a suggestion of swallow symbolism as speculation (p. 33) The suggestion indeed does not provide a contemporary document supporting the claim. He notes (p. 9) that it was unusual for an existing instrument like the harp to be awarded Christian symbolic significance. It would be even more unusual for an indigenous instrument to be entirely devoid of pre-Christian symbolism. Given the abundance of zoomorphic symbolism, even bird symbolism, in traditional instruments,[3] van Schaik should reevaluate the suggestion in light of an exciting possible instance of surviving but undocumented pre-Christian symbolism.

In the second study, "Harp and David," van Schaik ostensibly seeks whether a symbolic meaning can be allied with each of the three different iconographical appearances of the harp with David (being held, being tuned, being played); the result is "yes." In actuality, after dispensing with the first and third appearances, he thoroughly investigates the second theme, extending to a classification of ten tuning key shapes. David's harp playing has two meanings, first as composer of psalms and second as healer of Saul's soul, thus symbolizing the ordering of the microcosm (harmonizing of body and soul). The contexts that determine the meaning of David's harp playing are succinctly presented in the conclusion of chapter 4 (p. 112), although van Schaik directs the reader elsewhere. The meaning of David's harp tuning in the context of a psalter-wide mensual symbolism is provided in the section entitled "Excursus." Van Schaik briefly touches upon two aspects of power frequently articulated for non-Western instruments and worthy of further investigation, the "troubling" idea that the harp in the hands of David represents power (p. 38), and an exegetical claim that the supposed precursor to the harp has power because of its shape (p. 41).

The "delta harp," to use its modern name (medieval exegetes called it *cithara* and *psalterium*), identifies the instrument shaped like the capital Greek letter delta, often with misplaced and missing tuning pegs and

3. For examples of the tenacity of zoomorphic symbolism, see Theodore C. Grame and Gen'ichi Tsuge, "Steed Symbolism on Eurasian String Instruments," *The Musical Quarterly* 58:1 (1972): 57–66. Leopold Vorreiter, in "The Swan-neck Lyres of Minoan–Mycenean Culture," *Galpin Society Journal* 28 (1975): 93–97, discusses early examples of bird symbolism. For later examples, especially those associated with the *kithara* itself, see Martha Maas and Jane McIntosh Snyder, *Stringed Instruments of Ancient Greece* (New Haven: Yale University Press, 1989).

often pictured with King David; a delta harp with twenty-four strings and three tuning pegs is depicted on the cover of the book. The third study, "The Delta Harp," demonstrates the efficacy of van Schaik's dual approach: he derives a satisfactory understanding of this instrument from a confusion of illustrations and a confusion of instrument names from the Old Testament, Septuagint and Vulgate Bibles, and a thousand years of exegetical writing, precisely the situation F. P. Pickering calls "well–nigh hopeless.[4] The delta harp is invested with symbolism of shape, of number, and of position (soundbox pointing up or down), to some of which some exegetes claimed exclusive understanding. It is ironic that the central question of this study, did it really exist as a corporeal instrument, should be answered negatively after assembling so many examples of its symbolism.

The strictly iconographical and quantitative fourth study, "The Harp in the Psalm Initials," extracts the criteria evidently used by medieval illustrators to select psalm initials in which harps are pictured. (They are position of psalm in classification system, instruments mentioned in psalm text, and psalm exegesis and symbolic interpretations about David and the harp.) Van Schaik examines those ten psalms that begin the divisions of West European psalter classification. An outstanding feature of this study is the concise history provided for each aspect. Surprisingly, van Schaik does not actually provide the actual numbers resulting from this first quantitative study made a psalm initials; they can be derived from Appendix III:

No. harp illustrations: 242					No. psalters: 219					
Psalm:	1	80	97	38	26	51	52	68	101	109
No. pict.	192	26	8	5	3	3	2	1	1	1
p. 195: "preferred by illustrators" most harps depicted here					harp usually absent *even* when David is central figure					

Particularly in light of his discussion in the excursus of the hidden mensural symbolism in Psalms 1, 80 and 97, his classification of Psalm 38 is confusing.

In "The Ass with the Harp," van Schaik examines another difficult subject. He traces the transmission of the image in texts, and catalogs the depictions of the harp-playing or harp-tuning ass. Despite reviewing facets

4. F. P. Pickering, *Literature and Art in the Middle Ages* (Coral Gables, Fla.: University of Miami Press, 1970): 285.

as particular as the direction of the portal on which the sculpture is placed (usually west), he was not able reconcile information from the two sources. He concludes that the saying possibly was mixed with the concept of the contrasting character of the ass, representing disbelief in Christ, and David, the prefiguation of Christ, producing pictures in which the ass handled the harp as David did.

This work is insightful, thorough, and unfortunately not easy to use. First, van Schaik does not provide an overall conclusion, and the reader wanting this must supply it. Ideally a conclusion would give a comprehensive chronology incorporating the David themes, the delta harp, and the ass and harp. Second, Van Schaik sometimes furnishes such abbreviated references that the reader must consult the source. In particular, a summary of the arguments pertaining to the identification of David by his harp, a very important assumption in this study, would have been very welcome. Third, the reader must be careful with van Schaik's claims of what others wrote. For example, contrary to his claim on p. 114, Helen Adolf also asserts that the ass represents the pagan mind, using this exact wording.[5] Again, Genette Foster does discuss the different appearances of the harp, in a sentence beginning on the very page (p. 37) that van Schaik claims that she does not. Further, the citation for this sentence refers to another author whom van Schaik also claims did not discuss the topic.[6] Fourth, his discussion of non-Western instruments does not receive the same quality of attention as other aspects. He provides no references for his discussion of *sistrum* (p. 28). Contrary to his statement on p. 64, scholars do not agree that the Latin term *cithara* (from the Greek *kithara*) is derived from the Hebrew term *kinnor*.[7]

Finally, Van Schaik appears to have misplaced two full paragraphs about the harp as an unplayed attribute, placing them at the end of section 2.2.1, "David Ordering the Microcosm," already one of the most difficult sections. These complaints should not deter one from examining this important and useful study.

Linda Simonson
Bowie, Maryland

5. Helen Adolf, "The Ass and the Harp," *Speculum* 25 (1950): 52.

6. Genette Foster "The Iconology of Musical Instruments and Musical Performance in Thirteenth-Century French Manuscript Illuminations," (Ph.D. dissertation, City University of New York, 1977), 30–31.

7. Maas and Snyder (p. 54) identify the positions held by different scholars and conclude that *kithara* derives from a term in an as yet unidentified (and perhaps unidentifiable) West Asiatic language.

James Tyler and Paul Sparks. *The Early Mandolin*. Early Music Series, 9. Oxford: Clarendon Press, 1989. x, 186 pp.; 13 black-and-white illustrations, 30 musical examples. ISBN: 0-19-318516-4. $49.95.

One can only applaud publication of a book of this sort. It sheds new light in a darkened nook of the earlier history of Western music. This sort of production takes a lot of work and is of interest to a relatively narrow audience. But those interested in early music should be grateful for the compilation of such an important reference work.

This book is actually a combination of two works. The first is a look by James Tyler at the mandolino, and the second is a study of the mandoline by Paul Sparks.

The mandolino, the earlier instrument, is quite clearly an outgrowth of the lute family. It is small, bowl backed, generally with a sickle-shaped pegbox, strung with gut, and has four to six courses, often doubled, tuned in fourths. This instrument has also been known or misidentified by the names mandola, mandora, soprano lute, pandurina and other hybridizations.

The mandoline, developed ca. 1740, is quite similar to the Neapolitan mandolin today. It has a bowl back, guitar-type peghead (with friction pegs), and four double courses tuned in fifths. The top has a bend at the bridge to add strength and string tension.

One of the main differences between today's model and the one that Mozart and Beethoven composed for is that the fret board was still on the same plane as the top, like a lute. This instrument was generally metal strung and played with a plectrum ostrich quill, cherry bark, raven quill, or tortoise shell. The top had an inset pick guard.

Both authors thoroughly discuss the history and construction, and what is known of makers, dealers, teachers, composers, and virtuosi of the instruments—the culture surrounding these instruments. They cover practical instruction for today on how to play the instrument, lists of current supply houses and makers, published music, existing examples, etc.—a thorough compilation of information pertaining to these instruments. There are also discussions of related and similar instruments.

This is a fine addition to the reference library. If a criticism is to be made, it is a request for modern photographs of ancient instruments which would not only broaden the appeal of this book but would deepen the information provided to the specialist. There are a number of period illustrations and it is a very good thing to gather them together here, but

these are really of more use in authenticating existing examples and illustrating the mode of dress of the musicians than describing the instrument in detail. As a maker, curious about technicalities, this writer grows impatient with the quaint glyphs in which the body points north and the neck northwest. There is, however, one photograph included of two incredibly ornamented eighteenth-century mandolinos.

In summary, this is an excellent and welcome volume. It has a very nice and pleasing appearance.

PATRICK SNOWDEN MARSHALL
Portland, Oregon

Nelly van Ree Bernard. *The Psaltery: An Annotated Audio-visual Review of Different Types of Psaltery.* Buren, The Netherlands: Frits Knuf, 1989. 167 pp.; 39 color photographs, 17 black-and-white photographs, 28 facsimiles, 22 line drawings, 40 musical examples, analog audio cassette with 24 musical examples. ISBN: 90-6027-616-7 (soft cover) 66 Dutch guilders; ISBN; 90-6027-609-4 (soft cover with cassette); ISBN: 90-6027-614-0 (cloth), 88 Dutch guilders; ISBN: 90-6027-610-8 (cloth with cassette); ISBN: 90-6027-615-9 (cassette).

The Psaltery is a chronological review of a selected group of seven types of instruments that were played between the tenth and the eighteenth centuries. A modern twentieth-century psaltery designed by Nelly van Ree Bernard is presented as the last example. The author has reconstructed (between 1975 and 1986) each type of psaltery discussed in the book and then plays the instruments on the accompanying cassette tape, demonstrating the various ways to play each model. The examples chosen for this study, which does not claim to include every known type of psaltry, are representative of the most common forms played during the Middle Ages and later: a four-stringed tetrachord, four diatonic models (the *canon entero,* the *medio canon,* the *citara,* and the *ala entera*), a semichromatic octochord, and two chromatic psalteries (the *salterio "Minguet"* and the author's new design for a chromatic psaltery).

Before the reconstructed models are introduced, a brief history of the psaltery in Europe is presented. The definition of the word psaltery is given in its broadest and narrowest senses, noting the many names given to the instrument in various parts of the world. The general construction of the psaltery is covered, pointing out elements common to most mod-

els as well as typical variations. Stringing and tuning are then explained, followed by an overview of playing methods. The playing techniques discussed include only plucking and striking with hammers; bowing, a technique possible on certain psalteries and currently popular at traditional music events in North America, is not considered in this review.

The psaltery developed from a monochord, through diatonic and semi-chromatic models, to a fully-chromatic instrument. The addition of a keyboard led to the birth of the harpsichord, while the psaltery itself continues to be developed today in Europe and many other places in the world. *The Psaltery* focuses on certain European types that trace this development, each type having been reconstructed from Nelly van Ree Bernard's in-depth study of a large mass of historical illustrations and written information. The specific sources for each model are given in the descriptions. Most of the original source material is from Spain, where the author grew up. The exact tunings for these early instruments have often been lost, and the author has painstakingly created hypothetical tunings for some of the models. These tunings were determined from intense study of the musical examples extant from each time period. For example, in order to establish a likely tuning for the *canon entero,* the author states that she studies the "compass and mode of more than 400 cantiga melodies." After making working drawings for each of the models, Van Ree Bernard had two German instrument makers build the psalteries. She then set out to reconstruct the playing methods used, recording many of the musical examples on the accompanying cassette. It is the recorded music that brings to life this study of the psaltery.

In the discussions of the specific types of psalteries a consistent format is employed: first the name of the model with a "type" number assigned by van Ree Bernard (e.g. "Tetrachord, type NvRB-24") followed by the names of the persons who designed and constructed the model and the dates of construction; next the "shape, sources, period" from which the model was reconstructed; then the "Result: case, roses, bridges, stringing, range, tuning"; "Employment, music, voices"; "Playing methods: position of the instrument, techniques, playing areas"; and ending with "Musical examples" (with the dates of the recording). This consistency in presentation greatly facilitates the comparison of the eight models.

In addition to presenting in meticulous detail the technical information on each of the reconstructed models, van Ree Bernard also includes the actual sound of the music. Most of the twenty-five selections recorded on the accompanying cassette are also notated in the back of the

book. Each musical example is discussed at the end of the section on the technical aspects of the instrument, detailing the position in which the psaltery is being held and the method by which it is being played. The resulting variations in sound quality and harmonic accompaniment possibilities are called to the listener's attention.

One of the most exciting aspects of this audio-visual presentation, however, is that van Ree Bernard goes beyond presenting the music to the reader as a listener—she gives the music to the reader as a musician. In two instances she details how to play the psaltery in an instructional sense. She provides musical exercises and specific playing techniques for one of the oldest models presented in the book (the medieval *canon entero*) and the newest (her own chromatic psaltery). Since there is little certainty on the exact methods of playing the *canon entero* (and since the newest model is her own creation) the instruction is presented as a series of exercises to explore possible playing techniques. Always willing to acknowledge that much of the information is hypothetical, van Ree Bernard has not been shy about presenting her own methods of playing. She has made educated guesses based on her research, and as such, her methods and conclusions deserve full consideration. She has resurrected the lost music played on these early instruments, given it new life through her own playing techniques, and returned it unselfishly as a gift for others to enjoy with her. There is more than sufficient specific guidance to assist the musician in gaining a basic proficiency on each instrument and sufficient general suggestions to allow the musician to continue to explore the psaltery independently.

Of course, learning to actually play these instruments requires a working model. This profound necessity is not overlooked, for included in the book is a full-page working drawing for each of van Ree Bernard's designs. A note at the end of the book states that all the working drawings are available on a 1:1 scale from the publisher. (One should note, however, that the written text on these drawings appears to be in Dutch.) Details concerning innovations (such as removable bridges) in her designs are explained thoroughly in the main text for each model, with specific examples of how to use these new features. Also included in the book are precise instructions on making the accessories used in playing: the *dediles,* goose quills, and hammers.

Of interest to any musician is the section on "Elaboration of Medieval Melodies for Diatonic Psaltery," which follows the instructional section

for the *canon entero*. In this section the author presents suggestions for improvisation, composition, and variations that could be applied to many forms of music. Further enlightenment is given for the chromatic salterio "Minguet" through a translation (with facsimile) of a 1754 Spanish instruction manual and a translation only of a 1770 Italian work containing "recommendations" for playing (beginning with the proverbial admonishment to sit up straight). Both give added insight into the popular styles of playing the psaltery during the eighteenth century with much of the information being applicable to modern psaltery, dulcimer, or zither players.

The considerable amount of supplementary material at the back of the book greatly enhances the understanding of the main text. First there is a section of color photographs, including a clear close-up of each reconstructed model. Other photographs show the author demonstrating the various playing methods discussed in the text. (One especially delightful photograph has van Ree Bernard juxtaposed next to a thirteenth-century illustration of a citara player, both players posed in an identical manner.) The photographs are followed by the full-page working drawings of the eight reconstructed psalteries. Next is the program of music on the accompanying cassette (also included as an insert with the tape itself), followed by the music notations (including most, but not limited to the selections on the cassette). A summary (in both English and Dutch) precedes the index, list of illustrations and notations, bibliography, discography, and acknowledgements.

With this audio-visual production, every aspect of the psaltery is covered: the history, the construction of the eight instruments and their accessories, the written music, the sound of each model, and the playing techniques used to effect those sounds. Nelly van Ree Bernard sums up: "In this review I have presented my personal approach to the fairly detailed iconographic and written data from earlier times, concerning the construction of the psalteries as well as the interpretation of the music played on those instruments. With the help of historical material I have tried to create something new in which constructions and melodies of days long past are interwoven with those of the present time."

She has succeeded. *The Psaltery* is a comprehensive study worthy of a place in the libraries of scholars, luthiers, musicians, and historians alike.

Becky Blackley
Brisbane, California

Ki Mantle Hood. *The Evolution of Javanese Gamelan. Book 3: Paragon of the Roaring Sea.* International Institute for Comparative Music Studies, Berlin. Pocketbooks of Musicology, ed. Richard Schaal, 64. Wilhelmshaven: Heinrichshofen (distributed by C. F. Peters, New York), 1988. 390 pp.; 2 black-and-white plates. ISBN: 3-7959-0282-7. Paperbound, DM 29,80 / $30.25.

In 1986, during a conference on Indonesian music at the Expo in Vancouver, B.C., a representative of the Indonesian government awarded Mantle Hood the title "Ki," an honor bestowed on teachers, in recognition of his introduction of Javanese music to American academia. The author's name appears as Ki Mantle Hood in Book 3, *Paragon of the Roaring Sea,* of the trilogy, *The Evolution of Javanese Gamelan.* Although the intent of Book 3 is to document "principles governing musical composition and improvisation" (p. 19) and there are only scattered references to the instruments, the Glossary and References Cited are for all three books, so this brief review supplements those of Books 1 and 2 (in this *Journal* 11 [1985]: 192–95 and 12 [1986]: 158–61).

The Glossary is divided into "Concepts" and "Terms." The gamelan instruments appear under two of the six concepts: "Principal Colotomic Instruments" and "Melodic Instruments." This is a functional grouping within which organological types appear as subdivisions: gongs and drums within "Principal Colotomic Instruments"; and gongs, metal-keyed instruments with individual resonators, metal-keyed instruments with trough resonators, a xylophone with through resonator, a plucked zither, a two-string bowed lute, and an end-blown bamboo flute within "Melodic Instruments." Gongs, including different kinds of sets of horizontally-mounted gong kettles with central boss, contribute to the colotomic and melodic functions. The names of some of the specific instruments are also entered in the section of "Terms."

The References Cited should be helpful; however, a considerable number of items are missing—even a publication by the author is among the six missing from the twenty sources cited in Book 2. Furthermore, incorrect spelling of names of authors and titles of publications, although they may not greatly inconvenience readers who are already well acquainted with the literature on Javanese music, pose an unfortunate obstacle for non-specialists who, after reading these books, may desire to learn more about this fascinating music and its culture.

Barbara B. Smith
University of Hawaii

Hans Georg Richter. *Holz als Rohstoff für den Musikinstrumentenbau.* Celle: Hermann Moeck *Verlag,* 1988. 44 pp.; 24 black-and-white illustrations. DM 38.

Trombones, gender, and oliphants notwithstanding, wood is the single most important class of materials used for musical instruments. Although those who make and study musical instruments should therefore have considerable knowledge of wood and its properties, most remain unfamiliar with the broader perspective and assistance that can be provided by the scientific study of wood. This unfamiliarity is not surprising: much of the relevant information is to be found only in difficult-to-obtain and highly technical literature widely scattered in a variety of fields including botany, engineering, and acoustics. Clearly, if this store of learning were organized into a single interdisciplinary treatment of the musical uses of wood, the resulting book would be a major resource for organology. One approaches *Holz als Rohstoff für den Musikinstrumentenbau* (Wood as Raw Material for Musical Instrument Making) with great expectations. That the author is a distinguished scientist at an important center for the study of wood[1] raises these expectations, as does the assumption that the publisher, a prominent manufacturer of musical instruments, has contributed organological information and practical insight from the workshop that would help to illuminate this grey area between art and technology. The book that they have produced, whose title seems to imply a comprehensive treatment of the subject (or, given its small number of pages, at least an overview that could provide an intelligible introduction to the subject), is, however, marred by numerous deficiencies. These include poor organization; inadequate presentation of scientific concepts for the benefit of the nonexpert; scientific and organological errors; insufficient indexing, cross-referencing, and citation of sources; and a most distressing myopia that results in a disproportionate treatment of subjects apparently of special interest to the author or publisher and in an almost exclusive concentration upon woods used by present-day German large-scale industrial manufacturers.

The arbitrary decision so to limit the subject geographically and chronologically, which should have been explained in the general introduction but is barely mentioned here and there in the text, is, I believe,

1. The Institut für Holzbiologie und Holzschutz of the Bundesforschungsanstalt für Forst-under Holzwirtschaft in Hamburg.

unjustifiable. Instruments from non-European cultures are, after all, musical instruments too and are of significance not only in their own right but also because of the considerable extent to which they have, over many centuries, influenced and continue to influence Western music and instrument making. Further, instruments originally developed in Europe, for example, pianos, guitars, and recorders, are now made in large numbers elsewhere in the world so as to rival the native European production in quantity, quality, and international distribution. Within European instrument making itself, modern practice is largely founded upon tradition: present-day violin and harpsichord makers, for example, strive to equal the finest instruments of past centuries. Since the woods available to and chosen by instrument makers vary from place to place and time to time, this book's concentration upon a single time and place undermines, from the inception, much of its potential substance and utility. Its discussion of soundboard wood, for example, which deals exclusively with spruce and similar softwoods, would have been greatly enriched by the inclusion of the hardwoods used in some early Western and contemporary non-Western instruments,[2] not to mention cypress, traditionally used for Italian harpsichord. As for the section on woods used for keyboard instruments, it seems perverse that poplar is mentioned only as used for laminates of "flat components of low mechanical strength requirements (e.g., harpsichord and spinet lids)" (p. 34) while its use by the Ruckers for the cases, key levers, soundboard ribbing, etc., of their preeminent harpsichords is unmentioned.

Immediately, in the first paragraph of the introduction, readers with the slightest awareness of the history of musical instruments will question the organological competence of one who could write that the "type, form, and construction of the most widely used instruments have changed little during the last five centuries." After two largely irrelevant paragraphs about the difficulty of finding substitutes for spruce as a soundboard wood, the introduction ends with the presentation of a peculiar ad hoc system for classifying musical instruments according to

2. Until the eighteenth century soundboards of continental European harps were usually of maple (*Acer campestre,* for example, in a German harp of about 1700 in the Museum of Fine Arts, Boston, N. Bessaraboff, *Ancient European Musical Instruments* [Cambridge: Harvard University Press, cat. no. 237 p. 41]). See also Robert Hadaway, "The Re-creation of an Italian Renaissance Harp," *Early Music* 8:1 (Jan. 1980), pp. 59–62. Among non-Western instruments, *Cedrela toona,* for example, is used in the sitar (see Alastair Dick, "Sitar," *NGDMI,* 3:395),and *Firmiana platanifolia* is used in the *qin* (Liang Ming-Yueh, "Qin," *NGDMI* 3:171.)

their principal uses of wood: 1) instruments with resonating woods, divided further into a) instruments with resonant plates (i.e., soundboards, violin bellies, etc.) and b) xylophones; 2) instruments with wood not directly involved in sound production, i.e., woodwinds (appended to this category are instruments, or parts thereof, in which wood is used for mechanical or visual reasons, e.g., bows and keyboard instrument cases). The body of the book follows this scheme. Thus, there are two main chapters (resonant and non-resonant woods) divided into subsections, each with a brief introduction, followed by descriptions of various woods. This arrangement, which might have been practicable if each kind of wood were used for only one purpose among all musical instruments, is, in reality, an organizational nightmare. Brazilian rosewood *(Dalbergia nigra),* for example, used for guitar sides and backs, xylophone bars, woodwinds, violin chinrests and pegs, piano-case veneer, etc., could have been listed in several categories. As with some other woods (e.g., maple, pear, and ebony) each used for several purposes, Brazilian rosewood is arbitrarily described under what is obviously a favorite section (its sixteen pages taking up nearly half of the book's text), woodwinds. Although some other uses of this wood are mentioned here (p. 25), there is no allusion to it under the other appropriate categories, except for a reference, in the xylophone section, to see the woodwind chapter. (The inadequacies of the book's internal referencing and indexing are further exemplified here by the failure to state a specific page number to turn to.) Even more remarkably, the most important use of Brazilian rosewood in modern instrument making, as the preferred wood for guitar sides and backs, seems to have been lost in the shuffle and is not reported in the book at all, nor is East Indian rosewood *(Dalbergia latifolia),* used as a substitute for the increasingly rare Brazilian species, mentioned. A clearer organizational procedure for the book, by which such lapses might well have been avoided, would have been to have, first, a general introduction about woods and their properties, second, an organologically arranged list of instruments naming the woods used in each type, and, third, descriptions of the various woods arranged according to their botanical families.

The descriptions of individual woods range from relatively complete accounts (including scientific and common names, geographical distribution, gross features, physical characteristics, and uses both for musical instruments and other objects) to a few lines (giving only names and distributions). Because there is no discussion of wood structure in the

book, technical terms used to describe near-microscopic features (e.g., "storied structure" and "storage-cell bands" on p. 14; "pith flecks" and "pores . . . diffuse" on p. 20) will be meaningless to most readers. Persons familiar with wood anatomy will admire the excellent photomicrographs of cross sections, but their usefulness is vitiated by a failure to indicate the magnifications. These are the only illustrations. It might have been more appropriate and more useful to most readers to provide color photographs of wood surfaces like those on the book's cover.[3] The only quantitative physical characteristic included in the descriptions is density. Although the elastic modulus (Young's modulus) is mentioned more than once (pp. 8 and 13) as an important acoustical factor, this value is not given for the described woods, nor are data about other factors mentioned in the acoustical literature such as internal damping, "Q," and shear.[4]

The woodwind subchapter, with detailed descriptions of eighteen woods arranged in order of increasing density from maple to Africa blackwood *(Dalbergia melanoxylon),* comprises the most complete treatment of any subject in the book. Makers and players will be particularly interested in warnings about the unhealthful properties of certain woods and in the tonal qualities associated with each wood. The introduction to this section (p. 17) mentions (without reference to a source) that experiments with organ pipes have established that increasing roughness of internal surfaces (greatly influenced by the microscopic structure of the

3. Low-magnification photomicrographs of cross sections like those found in *Holz als Rohstoff* are usually used as references (along with more detailed verbal descriptions of the pore arrangment, etc., than those provided in this book) for identification of wood by viewing the end grain through a hand-held lens. Although this is easy to do with a piece of lumber, I have found in identifying the woods used in antique musical instruments that suitable surfaces for this kind of identification are rarely available and that one must usually examine thin sections under a microscope. On the other hand, closely related woods, such as the various rosewoods of the genus *Dalbergia,* are often microscopically very similar, and features visible to the unaided eye, e.g., color, are important for an accurate identification. Thus, color photographs of rosewoods, for example, those in Dick Boak, "The Rosewood Jungle Finding your way in and out," *Fine Woodworking* 77 (July/Aug. 1989), pp. 48–51, can be more useful than the Dalbergia illustrations in *Holz als Rohstoff.*

4. See, for example, I. Barducci and G. Pasqualini, "Misura dell'attrito interno e delle costanti elastiche del legno," *Il nuovo Cimento* 5:5 (1948), pp. 416–66, reprinted in Carleen M. Hutchins, ed., *Musical Acoustics, part I; Violin Family Components,* Benchmark Papers in Acoustics no. 5 (Stroudsburg, Penn.: Dowden, Hutchinson & Ross, 1975), pp. 379–409 (with an English translation by Elizabeth B. Abetti, pp. 410–423); Daniel W. Haines, "On Musical Instrument Wood," *Catgut Acoustical Society Newsletter* 31 (May 1979), pp. 23–32; and John C. Schelling, "Wood for Violins," *Catgut Acoustical Society Newsletter* 37 (May 1982), pp. 8–19.

wood) reduces the overtones (a brief paper reporting a similar effect in the finger holes of woodwinds is also cited). Nevertheless, tonal characteristics reported about each wood—e.g., maple recorders are "full and lovely . . . fundamental and gentle," (p. 19); African blackwood flutes are "bright and carrying, clear rich in overtones and elegant," (p. 32)—are presumably the authors (or publishers?) subjective evaluations. Although such adjectives as "elegant," or "easy [of] speech" and "warm" (see olive, p. 23) would be difficult to quantify, this is such a controversial subject[5] that some more objective data (e.g., overtone analyses might well have been included.

Although the discussions of wood for woodwinds and also for xylophones seem to be fairly complete and authoritative as far as modern practice is concerned, there are some minor lapses, for example, the statement (p. 25) that "formerly, oboes, clarinets, and transverse flutes, later also recorders" were made of boxwood (can the author really be unaware that boxwood recorders were made long before the earliest clarinets?); the failure to list birch as used for xylophones[6]; and the assertion, unsupported by the available acoustical data, that the woods used for xylophones, being "very dense, therefore have high internal damping" (p. 12).[7]

Far more serious are lapses in the coverage of woods used for stringed and keyboard instruments. As mentioned above, the subchapter on woods for resonant plates deals only with a few softwoods: apparently ignoring studies establishing the importance of the resonance characteristics of the backs of stringed instruments,[8] the author has deliber-

5. At the beginning of his woodwind subchapter, Dr. Richter aptly opposes quotations from two authorities on the recorder with diametrically opposed opinions as to the effect of wood on tone.

6. Experiments on birch xylophone bars, used in Japan, are reported in Masamitsu Ohta, Takesi Okano, and Ikuo Asano, "Vibrational Properties of Marimba Sound Boards Related with its Grain Orientation and Density Variation," *Proceedings of Pacific Regional Wood Anatomy Conference* (Tsukuba, Ibaraki, Japan, October 1984), pp. 25–27, a source listed in the bibliography of *Holz als Rohstoff*.

7. See the data in Barducci and Pasqualini, *op. cit.*, esp. pp. 391–94, and in Haines, *op. cit.* For example, the logarithmic decrements (measurements indicative of internal damping) reported by Haines (p. 27) for European spruce and for maple *(Acer platanoides)* are similar, but maple is about 40% denser.

8. See, for example, Carleen Maley Hutchins, "The Physics of Violins," *Scientific American* 207:5 (Nov. 1962), pp. 78–93, and "The Acoustics of Violin Plates," *Scientific American* 245:4 (Oct. 1981), pp. 171–86. According to John C. Schelling, "Requirements for Sounding Board Material," *Catgut Acoustical Society Newsletter* 11 (May 1969), pp. 18–22, in "the

ately excluded (see pp. 9 and 19) from consideration in this context woods, such as maple, used as tone wood by instrument makers. In the introduction to this subchapter, the measurable characteristics of good resonant wood, such as density, elastic modulus, and annual-ring width are touched upon. Readers familiar with keyboard instruments will wonder why it is recommended (p. 8) that soundboards he composed of planks with wide rings in the bass and narrow in the treble: in modern pianos the planks are placed more or less parallel to the bridge so that there can be no differentiation in grain width between treble and bass; in fine antique harpsichords the grain in the treble is usually no finer than that in the bass and is sometimes coarser.[9] Readers familiar with acoustics will notice that the mathematical formula for the derivation of the speed of sound in a material from its elastic modulus and density is given incorrectly.[10] And readers expecting at least a minimal comprehensiveness will be led to frustration with the statement (p. 9) that "this overview of important physical and biological criteria gathered from the specialist literature can give only broad indications for the characterization of high-quality resonant woods (those interested can find more information in the literature listed at the end)." Can many, if any, of these sources (e.g., and unpublished *Diplomarbeit* at the University of Hamburg and papers in such journals as *Sozial. Forstw.* and *J. Jap. Wood Res. Soc.*) be available even to those with access to large research libraries?

The last sections of the book concern woods used for keyboard and percussion instruments, bows, and recorder blocks. What might have been an enlightening discussion of the slowness of bow makers to adopt pernambuco, introduced to Europe in the sixteenth century, while snakewood was the standard wood used in the seventeenth and early eighteenth century, is spoiled by the statement that pernambuco was first used for bows about 1750 (p. 39): it was, in fact, used much ear-

violin the top plate provides about ⅔ of the radiated sound pressure" (p. 21). Presumably most of the remaining ⅓ is radiated by the back.

9. See Grant O'Brien, *Ruckers: A Harpsichord and Virginal Building Tradition* (Cambridge: Cambridge University Press, 1990), p. 100: "No attempt was made to use, say, wide-grained wood in the bass, and narrow-grained wood in the treble." In the harpsichord by Henri Hemsch, Paris, probably 1736, in the museum of Fine Arts, Boston, the grain is wider in the treble than in the bass.

10. See p. 8. The square root symbol that should be around E/r (E = elastic modulus, r = density) is missing, and an extraneous lambda is present.

lier.[11] An entire page is devoted to the theory of recorder blocks and a description of the red cedars (i.e., *Juniperus* spp.) used for this purpose, but the vast subject of keyboard instruments is summarily dealt with in two-and-a-half pages. Organs (in which the choice of woods for pipes, windchests, cases, and actions can hardly be deemed unimportant) are dismissed in a footnote. This leaves stringed keyboards, for which "only the most important woods used in domestic [i.e., German] instruments are presented in a brief format," because "with the exception of components with very specific requirements for wood qualities (e.g., soundboards, wrest planks, etc.) the criteria . . . are of a general nature" and "of much more importance to selection are tradition, experience, location of the workshop . . . appearance . . . availability and price." (By the same standard the woodwind section would have been reduced to a few pages.) Thus, only a few species used in pianos and harpsichords are listed. Spruce and pine are mentioned only as used for soundboards, not also for such components as ribs, cases, and framing.[12] Not mentioned at all in the book are numerous woods widely found in historical harpsichords and still used by the finest German makers (who do not work on an industrial scale), for example, limewood (i.e., linden, *Tilia* spp.), cypress, and walnut.

Holz als Rohstoff might be of marginal interest to xylophone and woodwind makers. This generally superficial and uninformative book—really little more than a pamphlet—cannot, however, be recommended to the majority of those in the organological world. Lamentably, a rare opportunity to introduce instrument makers and scholars to the science and technology of wood has been squandered.

JOHN KOSTER
The Shrine to Music Museum, The University of South Dakota

11. See David D. Boyden, *The History of Violin Playing from its Origins to 1761* (London: Oxford University Press, 1965), pp. 114, 207, and 209; and David D. Boyden, "BOW," *NGDMI* 1:259.

12. The cases of Bösendorfer pianos, for example, are made almost entirely of spruce: see Anthony Liversidge, "Of Wood and Wire Wrought: The Making of a Bösendorfer," in James R. Gaines, ed., *The Lives of the Piano* (New York: Holt, Rinehart and Winston, 1981), pp. 75–99.