

REVIEWS

Beatrix Darmstädter with contributions by Dietmar Salaberger. *Die Zinken und der Serpent der Sammlung alter Musikinstrumente*. German with one English article by Bruce Dickey. Vienna: Kunsthistorisches Museum Wien, and Bergkirchen: Edition Bochinsky, 2011. 247 pages, hardcover with dust jacket. ISBN 978-3-941532-08-3. Price €49.90, plus shipping.

The *Sammlung alter Musikinstrumente* (SAM), a department of the Kunsthistorisches Museum in Vienna, is one of the most important collections of historic musical instruments in Europe. Housed in the magnificent Neue Burg, one of Vienna's major tourist attractions, the SAM can be traced back to two outstanding sixteenth-century aristocratic Renaissance collections: that of Archduke Ferdinand II, formerly kept at Ambras castle near Innsbruck, and that of Count Pio Enea degli Obizzi, who gathered his treasures in Catajo castle in northern Italy in the province of Padua. Typical for Renaissance arts and treasury collections, musical instruments of exceptional beauty as well as ordinary ones for the musician's stock-in-trade are found in the SAM, the contents of which have long been known through a descriptive catalogue by Julius Schlosser, *Die Sammlung alter Musikinstrumente* (Vienna: Anton Schroll, 1920). The holdings of cornetti in the SAM count among the most significant in the world and comprise an important source for our knowledge of the structure of this instrument type. The SAM has therefore attracted the attention of musicians, instrument makers, and scholars alike for decades. The SAM's cornetti were previously described in some detail in Friend Robert Overton's *Der Zink* (Mainz / London / New York / Tokyo: Schott, 1981) and in Edward H. Tarr's "Ein Katalog erhaltener Zinken" (*Basler Jahrbuch für Historische Musikpraxis* 5 [1981]: 11–262).

Beatrix Darmstädter's latest book continues a series of catalogues devoted to specific instrument groups within the SAM; her previous volume discusses the equally important holdings of Renaissance recorders (Beatrix Darmstädter et al., *Die Renaissance Blockflöten der Sammlung alter Musikinstrumente des Kunsthistorischen Museums* [Vienna: Kunsthistorisches Museum, 2006]). This latest catalogue describes, illustrates, and documents nineteen cornetti (eighteen dating from the Renaissance, one an early reproduction by Victor-Charles Mahillon of Brussels), one sixteenth- or seventeenth-century serpent, and a traveling case for six straight cornetti.

Darmstädter fully explores currently available methods of exact, non-destructive measuring techniques, setting a completely new standard for the documentation of historic musical instruments and doing away with the traditional measuring tape and calliper from which the instruments had suffered in the past. Triggered by the difficulties of measuring the internal bore of curved objects, industrial-grade computer tomography (CT) was used to gather the physical measurements for each instrument. This method allows much higher radiation than is used in medicine, thereby permitting faster penetration and more

precise results and creating an exact three-dimensional image of the object. With the financial help of the Austrian Fund for Research (Österreichischer Wissenschaftsfond), this project was conducted at the Fachhochschule Oberösterreich, Campus Wels, Institut für Mess- und Prüftechnik, by Dietmar Salaberger, who also served as co-author of the catalogue. Furthermore, the acoustical properties of eleven mute cornetti with integral mouthpieces and one curved cornetto with original mouthpiece were examined with VIAS (Versatile Instrument Analysis System) and BIAS (Brass Instrument Analysis System), systems developed by and commercially available from the Institut für Wiener Klangstil, a branch of the Universität für Musik und darstellende Kunst in Vienna.

The musical quality of these instruments with original mouthpieces is projected through a sound spectrum and a diagram of the input impedance. Wood and cover material were determined by sight and with the help of observations gained from the CT scans. The cover material of one cornetto (SAM 234) was examined microscopically by the Lederinstitut Gerberschule Reutlingen (Germany); the sample was unequivocally identified as leather, not parchment. Each instrument is illustrated in excellent photographs (front and back views, close-ups of marks, mouthpiece, and other details, such as stamped leather ornaments). X-ray and CT visualisations are particularly important in revealing the shape of mouthpieces of mute cornetti, and undercut tone holes. Bore measurements and tone hole positions are given as figures and are visualized in graphs. Darmstädter derives the terms for the various sizes of cornetto from Michael Praetorius's *De organographia* (1619), followed by common German terms. The pitch of each instrument is determined by an acoustical analysis of the second partial and expressed as note-names in relation to $a^1 = 440$ Hz; deviations from equal temperament are given in cents. A commentary describes each instrument's physical and acoustical characteristics, condition, and history. Each catalogue entry concludes with a quote from Julius Schlosser's 1920 publication of the respective instrument. The catalogue part is preceded by an explanatory text, defining in detail the measuring techniques and terminology used.

The catalogue part makes up about half of the book, the other half being five essays: three by Beatrix Darmstädter, one by Bruce Dickey, and one by Dietmar Salaberger. The latter ("Bestimmung von Geometriemerkmalen mit Hilfe der industriellen Computertomographie") describes how industrial computer tomography can reflect the geometric characteristics of three-dimensional objects and lays the foundation for the understanding of the measurements given in the catalogue part.

Bruce Dickey's article "Far buon stromento: A Survey of the Technique and Repertoire of the Cornetto in its Golden Age"—the only one in English—gives an overview of the cornetto's rise to one of the most important solo instruments in the sixteenth century, its use at court, in churches and in chapels, its role in Italy and north of the Alps, and the reasons for its slow decline. Dickey also discusses practical matters, such as range, fingering, and articulation, and he addresses the difficult questions of pitch and temperament. His insights into recreating a lost playing tradition are based on a lifetime of experience as a player.

Darmstädter's first article, "Die Zinken und der Serpent der Sammlung alter Musikinstrumente in historischen Inventaren und Katalogen," outlines the history of this extraordinary collection, which is documented in inventories over several centuries going back to the cornetto's heyday. Her second article, "Bausteine der Geschichte des Zinks und des Serpents aus musikhistorischen und ikonographischen Quellen," traces the history of the cornetto and the serpent from the ancestral oliphant to the nineteenth century in iconography, musical writings, and instrument treatises. Her third essay, "Ästhetische und baulich-technologische Aspekte der Zinken und des Serpents der Sammlung alter Musikinstrumente," discusses in detail observations derived from the catalogue part on technology, pitch, musical quality, and possible attributions to certain workshop traditions, in particular that of the Bassano dynasty in Italy and London; the latter is represented by eleven cornetti signed with various forms of the silk-moth stamp. Of particular interest is the analysis of the serpent: its unusual construction from numerous smaller segments, the assessment that it is possibly Italian or German, and dates from the sixteenth or seventeenth century. Moreover, a stamp with the mark of a shoe possibly stems from the person who covered the instrument with leather.

This excellent catalogue sets new standards that will be a hard act for most museums to follow, considering the substantial expenses incurred by the use of the highly sophisticated industrial CT measuring technology. It is excellently illustrated with hundreds of photographs, charts, and graphs, and it is visually very attractive. It will be an indispensable tool for instrument makers concerned with cornetti and serpents, for musicians choosing the right instrument for their own reproductions, and for musicologists, curators, and restorers searching for comparative material for their collections.

Open questions are honestly addressed; for example, the provenance of all the instruments but one (the reproduction by Mahillon) are given with a question mark, indicating that at this point in time, we still do not know for certain where these cornetti were made, although Italy, or in some cases London, is suggested as a likely place of origin. Maybe this new level of detail will help to answer these crucial questions that cloud our understanding of the history of the cornetto and the early serpent.

A considerable commitment by the reader will be required to make use of all the facts and depth of information presented in this book. For the English reader with a basic command of the German language, the academic writing style will prove challenging and could have been avoided. Subheadings, which in Dickey's and Salaberger's articles help the reader grasp the content and locate facts easily, are unfortunately almost entirely absent from Darmstädter's essays. However, it is possible to extract information from this catalogue on many different levels, not limited to the text alone, and for those who delve into it deeply it promises new discoveries for years to come. It is an excellent publication, one that should be part of the library of anyone who is interested in cornetti and serpents.

Sabine K. Klaus

Manfred F. Heidler, *Infanteriecelli und Pseudohörner: Tenorhorn, Bariton und Euphonium Gestern und Heute* (Deutsches Tubaforum e. V., 2010, ISBN 978 3 00 030336 4, obtainable through www.edition-moby.de or www.tubaforum.de), iv + 160 pp., numerous illustrations and musical examples, price €14.90 plus shipping charges.

Readers conversant in German who are interested in low brass instruments will rejoice at this book, because up to now the only book treating a similar topic was Clifford Bevan's *The Tuba Family* (London: Faber and Faber, 1978). Heidler has been publishing articles on low brass instruments and military music since 1992. He obtained his doctoral degree from the Musikhochschule Düsseldorf; his dissertation on German military music was published in Essen in 2004. In 1990 he became a teacher and training officer for wind bands in the German army. Since September 2007 he has been working both in the German army's military music center (*Streitkräfteamt*) in Bonn and in the musicological institute of the Robert Schumann Superior Conservatory of Music in Düsseldorf.

Heidler's *Infanteriecelli und Pseudohörner* is a major work. Its eight chapters and appendix leave no stone unturned. They are (my translations):

1. Prehistory—the path leading to the tenor brass instrument (Blühmel's and Stölzel's invention of the valve)
2. Historical developmental steps to tenor horn and baritone
3. The valved brass instrument: pros and cons of a progressive development (Wieprecht, Rohde, et al.)
4. Instruments, orchestras, and instrumentation (Berlioz, national traditions, Italian bands)
5. The tenor instruments in other countries: comments on bass flugelhorn and euphoniums (Červený, Sax, German World War II air force band with its tenor and baritone tubas, euphonium does not always mean euphonium)
6. Soloists between tenor and bass register (Belcke, Queisser, Bruhns, Schmidt, Mantia, and others; solo literature for tenor brass instruments)
7. Soloists, special ensembles, and chamber music (from tenor horn quartet to tuba-euphonium ensemble)
8. The author's own personal development: with tenor horn, baritone, and euphonium halfway around the world (CD, professional development as tenor horn soloist and conductor of a military wind ensemble, the situation in the USA, the German Tuba Forum, and epilogue)
9. Appendix (greetings from the German Tuba Forum, special comments, bibliography)

By the way, the front cover of this book in coffee-table format shows what appears to be a historical illustration in color of a marching tenor horn player in the uniform of the Eger infantry regiment no. 73. A closer look reveals that the player's facial expression

resembles the author's, and then we see that the drawing was made for Heidler in 1999 by Wolfgang Steinmetz!

In his discussion of tenor brass instruments, the author's goal is to show their historical development in various orchestral and band formations, to note their present-day instrumental emancipation, and to explore their future possibilities, especially in Germany, in the light of international contacts and developments. In my opinion, he has succeeded.

In this respect, Heidler goes into great detail and often includes long quotations from historical sources. Some of his sources, besides articles in various periodicals, are by the following authors: Gottfried Weber (1816), Augustin Sundelin (1828), Philipp Fahrbach (1843–44), Wilhelm Wieprecht (1843–47), Hector Berlioz (*Grand traité d'instrumentation*, 1844), Josef Sawerthal (1846), Georges Kastner (1848), Julius Rühlmann (1850–51), Hans von Bülow (1858), Theodor Rohde (1858, 1860), Emanuel Klitzsch (1865), Franz Ludwig Schubert (1866), August Kalkbrenner (Wieprecht biography, 1882), and Emil Teuchert (*Instrumentenkunde*, 1911). In his discussion of Alessandro Vessella's important *Studi d'Instrumentazione per banda*, Heidler mentions only the date of a late revised edition (1954) instead of the original one (Milan, 1897; 2 vols.), which I was able to identify from Bevan's book. The date of the famous meeting between Sax and Wieprecht in Coblenz (1845) is missing.

A large part of this work is devoted to developments in low brass in various countries, and especially the differing names that were given to the instruments in those places. This theme will be familiar to all low brass aficionados. On p. 30, Heidler includes a valuable listing of the various names for tenor brass instruments, based on historical source material:

Corno tenore chromatico – Sundelin (1828)

Corno di tenori – Berlin publishers (around 1900)

Tenor-Trompete – preferred to *Tenorhorn* by Wieprecht (ca. 1845), to avoid confusion with French horns

Althorn in B – Bavarian and Tyrolean term

Tenori in C, B \flat , and G – Schubert (1866), referring to Russian hunters' music

Tenorflügelhorn – Rühlmann (1851)

Tenor-Tuba – Rühlmann (1851) in connection with *Alttuba*, also in German World War II air force bands

Bassflügelhorn – Austria, South Germany

From this list—where the instrument is said to be in alto, tenor, and bass regions!—one can see the confusion that reigns even today. Herbert Heyde (*Das Ventilblasinstrument*, 1987, pp. 220–21, quoted in Heidler, p. 30) similarly mentions various names for baritone horns: *Bariton*, *Baritonhorn*, *Baritonbass*, *Baritontuba*. French and German terms are opposed to each other: in France, the German alto pitches in E \flat or F are considered to be in the tenor range, while the German tenor pitches in C, B \flat , and A are relegated to

the bass register. Furthermore, in France the narrow-bore ones are called *baryton* and the wide-bore ones *basse*. This is perfectly in keeping with Adolphe Sax's price list of 1850–55, mentioning *saxhorn baryton en si-bémol* and *saxhorn basse* in the same pitch.

Heidler's short chapter entitled "Euphonium is not always a euphonium" (pp. 100–01) is quite helpful. We must differentiate between the wide-bore and soft-toned instrument from the Austro-Hungarian area and the narrower-bore, clearer-toned Anglo-Saxon one deriving from Adolphe Sax's *saxhorn*. Both instruments are held with the bell pointing upwards.

For modern usage, let me supply a selected list (based on Heidler, Bevan, and John Q. Ericson, the last-mentioned in a recent e-mail; see also <http://www.public.asu.edu/~jqerics/alto-tenor-FAQ.html>):

Althorn (D) = E \flat alto/tenor instrument made in five different shapes: trumpet-form, tuba-form, upright, oval-form (resembling a small Wagner tuba), and circular (built thus by Červený, with rotary valves, usually fingered with the right hand), pitched an octave lower than F horn, played with a deep funnel-shaped mouthpiece

Alto horn (USA) = E \flat instrument equivalent to older tenor horn (GB), but of slightly smaller bore, pitched an octave lower than F horn

Bariton (D) = baritone (GB), baritone horn (USA)

Baritone (GB) = medium-bore saxhorn in B \flat or A, in tuba, oval, or helicon shape, its music notated in sounding pitch in bass clef = baritone horn (USA)

Baritone horn (USA) = baritone (GB)

Baryton(e) (F) = baritone saxhorn in c or B \flat , (D) euphonium

Barytonhorn, Baritonhorn (D) = euphonium

Bass = contrabass tuba in E \flat or B \flat

Bass horn (GB outdated, USA) = bass brass instrument

Euphonium = bass saxhorn in B \flat , like baritone but with a larger bore

Helicon = tuba in circular shape

Mellophone (USA) = alto instrument, up to WWII in E \flat (sometimes with possibility to play in F), similar to circular Althorn except with Périnet valves; later models in trumpet shape both in B \flat (an octave below B \flat trumpet) and in F alto (an octave lower than F horn)

Saxhorn (F) = family of flugelhorns in tuba, trumpet, or helicon shape; soprano in B \flat (our modern flugelhorn), alto in E \flat , baryton in B \flat , basse also in B \flat but with wider bore

Tenorhorn (D) = B \flat instrument in tenor range similar to euphonium or baritone horn

Tenor horn (GB) = alto instrument in E \flat resembling a small euphonium and performing in the same range as F horn although nearly an octave lower, used in British-style brass bands; see "Alto horn" above, whereas the modern tenor horn has a slightly larger bore than the older one

Tenor tuba = euphonium or Wagner tuba (tenor in B \flat)

Wagner tuba = oval-shaped tenor instrument developed by Wagner for use in pairs in B \flat and F in the *Ring* and elsewhere

In Heidler's discussion of orchestral and chamber works including tenor and bass brass instruments, we find Mendelssohn (oratorio *Paulus*, 1836, serpent), Wagner (who approved of Bavarian military band transcriptions of his works), Ramsøe (six quartets for cornet, F trumpet, tenor trombone or tenor horn, and tuba, 1866–88), Pfitzner (opera *Die Rose vom Liebesgarten*, 1897–1900, tenor horn), R. Strauss (*Don Quixote*, 1897; *Ein Heldenleben*, 1897–98; *Militärischer Festmarsch*, 1906; *Alpensinfonie*, 1911–15; ballet, *Josephslegende*, 1912–14, et al., tenor tuba often found), Reger (*Fanfaren für Infanteriekapelle*, 1899/1900, two tenor horns, tenor tuba), Ludwig Thuille (*Symphonischer Marsch*, op. 38, 1901, arr. for wind band by Veit, *Bariton* in C); Mahler (Seventh Symphony, 1904–05, tenor horn solo in first movement), Ewald (quintets, whereby the author mentions four instead of the authentic three [no. 1 published in 1912 and nos. 2–3 written in or after 1917], for two cornets, E \flat alto horn, B \flat tenor horn, and tuba), Respighi (*Pines of Rome* 1923–24, two *flicorni tenori* or baritones and two *flicorni bassi* or euphoniums, all in B \flat), Janáčček (*Sinfonietta*, 1926, two tenor tubas in first movement; *Totenhaus Suite*, 1927–28; *Violin Concerto*, 1926; *Capriccio*, 1926, all with tenor tuba), Hindemith (*Konzertmusik für Bläserorchester*, op. 41, 1926; and *Symphony in B \flat* , 1951, both for concert band), Shostakovich (stage band music for *Lady Macbeth of the Mtsensk District*, op. 4, 1930–32, two baritones), Prokofiev (ballet *Romeo and Juliet* 1935–36, baritone), Henze (oratorio *Das Floss der 'Medusa'*, rev. 1990, miniscule parts for tenor tuba and *bombardone* = tuba).

It would have been good to include Oscar Böhme's significant *Sextett Es-moll*, op. 30 (from 1907 or just before). Its instrumentation is for cornet in B \flat , two trumpets in B \flat , bass trumpet in E \flat or "Althorn" (its music notated in treble clef in E \flat and sounding an octave lower), trombone or "Tenorhorn" (in bass clef, concert pitch), and "Tuba hoch B (Bariton)" (its music also notated in bass clef at concert pitch). Hindemith's alto horn sonata (1939, for an oval-shaped *Althorn* in E \flat) should also have been included.

Concerning Reger's *Fanfaren für Infanteriekapelle*, Heidler does not supply a date, and I could not find one in *The New Grove* or on the Internet. Jürgen Schaarwächter of the Max Reger Institute in Karlsruhe informed me that Reger composed these fanfares in 1899–1900 as part of the music for the festival performance "Castra vetera," WoO V/1 in Wesel. The world premiere took place in Wesel's Schützenhaus on 6 May 1900. The score, but not the parts, was printed in the old collected edition of Reger's works. No wonder that Heidler writes (on p. 48) that they are hardly performed today, although for him the reason is their difficulty, especially in the high parts. A set of parts, however, can be found in the Meiningen museums, since the fanfares were to be performed there in 1956. (See *Sammlung Musikgeschichte/Max-Reger-Archiv*, Inv.-No. XI-1 586 / N 246.) For further information, see *Reger-Studien 7: Festschrift für Susanne Popp*, ed. by Siegfried Schmalzriedt and Jürgen Schaarwächter (Stuttgart: Carus-Verlag, 2004), pp. 123–39.

Strangely, Heidler does not mention “Bydlo,” one of the most frequently performed solos for a low brass instrument in classical music, in the Ravel orchestration of Mussorgsky’s *Pictures at an Exhibition*. During my Chicago days, I heard Arnold Jacobs play it with the Chicago Symphony Orchestra (CSO). Bevan (p. 95) states that it was originally written for the small French tuba in c and “may be played by the tubist on his normal instrument or a euphonium; by one of the trombonists on the euphonium ... or by a specialist player brought in.” Tom Crown recently informed me that Jacobs “always played this solo on a regular C tuba. This convention still exists in Chicago and probably in many other US orchestras. In the CSO the current second trombonist, Michael Mulcahy, plays all baritone/euphonium parts.” Crown went on to state that “the principal trombonist, Jay Friedman, although starting out his musical career on baritone horn, now plays only trombone.”

Since symphony orchestras did not make a permanent place in their ranks for performers on the tenor instrument, Heidler goes into greater detail concerning military and civilian band music, including solo repertoire for tenor horn with band accompaniment. To keep the length of this review manageable, I will not go into detail on this important and well-researched section, except to state that what Heidler has turned up concerning Nazi German air force bands, beginning in 1935, is particularly interesting. A new, brighter sound was desired. Thus brass instruments received narrower bores, and Périnet valves supplanted rotary valves on many instruments. The euphonium, so beloved in Anglo-Saxon countries, was eliminated. A four-part saxophone register was introduced, cornets and flugel horns were replaced by trumpets in high E♭ and B♭. Importantly: next to tenor and baritone horns, two completely new types of oval-shaped, bell-front tenor and baritone tubas with Périnet valves were introduced. (Heidler recently succeeded in finding two examples of these now rare instruments; see pp. 92–99 for his detailed discussion.) Below them the newly designed bass trombone received rotary valves resting on the player’s chest.

In connection with the illustration on p. 61 of a duplex instrument patented in Austria under the name of *Doublephon* by Bohland & Fuchs in 1901, it is interesting to note that two similar instruments can be found in the Bad Säckingen Trumpet Museum. Under the name of *Jazzophon*, they were patented in Germany by F.X. Hüller in 1926; their second, smaller bell is equipped with a wa-wa mute. One of the two (no. 14203) is in saxophone form, the other (no. 14229) is shaped like a trumpet. They also exist in lyre form!

Heidler gives Červený credit for the invention of the water key in 1853 (p. 71), but he was preceded thirty years earlier in England by J.R. Cotter.

The section on early soloists is excellent and detailed, and readers will find much information on the trombonist and first tenor horn virtuoso, Friedrich August Belcke (1795–1884), the “divine trombonist” (*Posaunengott*) Carl Traugott Queisser (1800–46, whose younger brother, Friedrich Benjamin, 1817–93, was a famous trumpeter, Wagner’s favorite), the trombonist August Bruns (Sr., 1834–1902), and others from the present day, first and foremost Hans-Reiner Schmidt (b. 1958, first trombonist in the Hessian Radio

Orchestra, who frequently performs solos on euphonium, tenor horn, trombone, and bass trumpet). Heidler's discussion of contemporary solo literature and the circumstances leading to the formation of the German Tuba Forum (of which he has been vice president for a number of years) is exemplary.

I have only two caveats, neither of which casts aspersions on the book's content. First, its frequent misspellings, often side by side with the correct ones, suggest that the book lacked a copy-editor when it was set in print (Alessandro Vessella instead of Alessandro Vessella, Adolph Sax instead of Adolphe Sax, Joseph Kail instead of Josef Kail, Brain Bowman instead of Brian Bowman, Coat-Gard instead of Coast Guard, Gardé republicaine instead of Garde républicaine, cornet á pistons instead of cornet à pistons, etc.). Second, some of the frequent illustrations of scores and parts of musical works are so small and faint that it is impossible to read the music.

This is an important book. I doubt whether it will exert enough influence to bring tenor instruments more often into symphony orchestras, but it will certainly provide readers conversant in German with a huge amount of valuable information on alto and especially tenor brass instruments.

Edward H. Tarr

Sabine Katharina Klaus, *Trumpets and Other High Brass: A History Inspired by the Joe R. and Joella F. Utley Collection. Volume 1: Instruments of the Single Harmonic Series* (published by National Music Museum [NMM], University of South Dakota, 414 East Clark Street, Vermillion SD 57069, 2012, ISBN 978 0 9848269 0 2), 8½ x 11", xxv, 333 pages, approximately 1000 illustrations mostly in color, graphs, charts, DVD with musical examples, price \$120.00 US.

Text edited by Howard Weiner. Principal Photographer: Mark Olencki. Designed by Jacqueline Block.

Trumpets and Other High Brass is a five-volume series that will present an extremely detailed history of the trumpet and related instruments. Successive volumes in preparation are: Vol. 2: *Ways to Expand the Harmonic Series*, Vol. 3: *Valves Evolve*, Vol. 4: *Heyday of the Cornet*, and Vol. 5: *The Modern Trumpet*. The series is funded by the Joe R. and Joella F. Utley Foundation.

Joe and Joella Utley were both born in 1935 in western Oklahoma and married in 1956. Joe (who played the trumpet) became a cardiothoracic surgeon; Joella (who played the piano) specialized in radiation oncology. Inspired by Joe, they became avid trumpet collectors and set a goal of assembling one of the finest trumpet collections in the world. They reached that goal! After working in hospitals in Kentucky and California, they went into private practice in Spartanburg, South Carolina in 1983; they retired

in 1995. The timber-frame house they built there was designed around their large and growing collection, which includes ethnic instruments and trumpets as art objects. In 1999 they donated their collection to the NMM. In so doing, they also established the Utley Institute for Brass Studies and endowed the position of curator of their collection, which Sabine Klaus has held from the beginning.

I met Joe Utley several times. He visited me at my home in Rheinfelden around 1995 and bought several instruments from me, including two natural trumpets, one by J.L. Ehe III (Nuremberg, ca. 1725–30, NMM 7160) and a silver one by John Nichols (London, 1847, NMM 7162). He later invited me and my wife to give a trumpet-organ recital and inspect the collection in Spartanburg, where it is still located. In 2001 he died after a long illness; Joella obtained a master's degree in musicology in 2007.

Volume 1 treats the instrument without valves, slides, fingerholes, or keys from Antiquity throughout its entire history up through the twentieth-century Baroque revival. When I received this book, I was flabbergasted at its high level of scholarship and its aesthetic presentation. It goes deeply into many details that cannot be found anywhere in the secondary literature. It was an excellent idea to show comparative details of similar instruments next to each other in a large number of color photos—often six or eight on a single page.

I also learned new things about instruments that had once been in my possession—for instance, that the silver trumpet from 1847 had been built by John Nichols (see pp. 172, 175, and 177), and that the richly decorated, partly gold-plated silver trumpet dedicated in 1765 to Baroness Eberhardine Spiegel (NMM 5071, see pp. 117 and 138) may be ascribed not to Ernst Johann Conrad Haas (1723–92) but to his grandfather, Johann Wilhelm Haas (1649–1723), on the basis of its hallmark (in use between 1716 and 1720). Nevertheless, I question whether this instrument, which survives in pristine condition and bears no marks of use, was locked up in a cupboard for forty-five years before it was taken out and only then sent to an engraver, who inscribed the dedication on the bell. Even though it may have been intended from the start to be a showcase instrument (as Klaus has suggested to me in an e-mail), the discrepancy of more than four decades still presents a puzzle. Klaus herself takes care to point out the many discrepancies in the makers' marks on instruments from three Haas generations. This instrument, by the way, is one of two identical ones; the location of the second one, somewhere in Germany, is presently unknown.

The four initial chapters, which deal with trumpets made of natural materials, trumpets of Antiquity, and early historic instruments up to the sixteenth century, set the standard for the entire book. The color photographs from the Utley Collection and other sources are impressive. The fourteenth-century Billingsgate trumpet and the S-shaped trumpet made in 1442 by Marcian Guitbert are discussed extensively. Although Klaus mentions fifteenth-century straight trumpets of dubious origin, she could have discussed authentic surviving ones from 1609, 1617, and 1659 by members of the Hainlein family that were used in Siena's *palio*, a medieval horseback race, until recently. They and a fourth anonymous one are now located in the Museo Civico of Siena.

Chapter 5, one of the most comprehensive ones, deals with the Nuremberg trumpet makers of the seventeenth and eighteenth centuries. It is fruitful that Klaus goes into detail, showing the interaction between them and other metal-working craftsmen—brass founder, brass hammerer, brass scraper, winch maker, brazier, glitter maker, wire maker, wire puller, pattern maker, caster, ball maker—from whom the trumpet makers obtained the various semi-finished products going into a trumpet, from the brass sheet from which the bell and tubes were made, to the metal sleeves or ferrules covering the mouthpiece receiver and tube joints and the wire reinforcing the bell rim. Her description of these crafts, and the engravings she reproduces, are based on Christoph Weigel's important *Abbildung und Beschreibung der Gemein-Nützlichen Hauptstände* (Regensburg 1698), in her words "a description of all social classes, professions, arts, and crafts of his time." She goes into such detail that she even describes three types of ferrules, as well as which kinds of solder were used: silver solder in the conical section of the bell, and brass solder in the flaring section.

This chapter contains significant information on the various trumpet-making dynasties, notably the Haas, Ehe, and Steinmetz families and their makers' marks. It continues with a description of embossed and cast elements, such as angel heads or hunting scenes, together with their religious, mythological, or profane motifs. The chapter concludes with highly interesting information on work with precious metals, such as silver, and quality control. Silver instruments were assayed to determine if their silver content was in compliance with the rules; a decree from 1659 dictated that the silver content had to be at least 81.25%. Thus a zigzag line was scraped from the metal and its contents weighed. If the object met the requirements, a hallmark "N" was stamped on it. This hallmark changed its shape every five years or so, thus offering valuable help on dating a given instrument.

Chapter 6 discusses new Nuremberg designs, including doubly folded trumpets, the coiled instrument held by Gottfried Reiche in the famous oil portrait, and single-coil miniature horns made of silver with gold-plated garnishes. The latter instruments "share a mixture of horn and trumpet features, having a conical bore but trumpet-like, cup-shaped mouthpieces." Certain larger horn-like instruments also have mixed features. Klaus thus points out their experimental character, leading to the first *Waldhorn*, a name that first appeared in 1689. Although modern writers have rightly pointed out that Nuremberg makers were resistant to new developments in the second half of the eighteenth century and thus lost their former preeminent place in brass instrument making, their earlier contribution to the development of the horn was great and has generally been overlooked.

Chapters 7 and 8 deal in great detail with trumpets in England, and lesser so with those in other places, such as the Hapsburg Empire and France, Italy, and Portugal. The information on English instruments is just as comprehensive as on Nuremberg ones. Sections that contribute greatly to our knowledge discuss goldsmith-trumpeters, metal components in surviving instruments, makers' identification and hallmarking, and the ceremonial natural trumpet as a royal status symbol even today. On their garland many bear a rose, thistle, and shamrock, symbolic of England, Scotland, and Ireland.

A long and varied chapter (9, pp. 190–239) treats bugles, hunting and post horns, fanfare and signal trumpets. Here too there is a mix of styles. For example, the mouthpiece belonging to the half-moon horn by Crétien (mid-seventeenth century) is of trumpet style, with a cast cup and a sheet-brass shank; where cup and shank meet, there is a step rather than a tapered backbore. A goodly number of such mouthpieces were made in the sixteenth and early seventeenth centuries. The instruments to which they belong thus were intended for signalling, rather than for playing melodies in the clarino register. The origin of the B \flat flugelhorn in the eighteenth century is also discussed, the name *Flügel* coming from the wings of hunting parties, each of which was headed by a *Flügelmeister*, who directed the group with signals from his half-moon-shaped horn. Half-moon instruments entered the military sphere in 1758 during the Seven Years' War (1756–63) in the Hanoverian Field Hunters' Corps. By 1778 they had arrived in England under the name of “bugle horn.” Around 1800 they were folded once in a bell-front trumpet form, and in 1810 Haliday added keys. In the 1870s Hans-Heinrich XI, Count of Pless (1833–1907), added rotary valves to the twice- or thrice-coiled version, which is called the *Fürst Pless-Horn* and is played with the bell pointing upwards. Klaus includes information on Russian horns, as well as straight horns used for the fox hunt. She distinguishes between the straight coach horn (which has a conical bore without a noticeable bell flare) and the straight post horn (with a narrower bore, a distinctly flaring bell, and a tuning slide at the mouthpiece end).

In German territories, the post horn became coiled during the seventeenth century; it is traditionally in four-foot C or 4½-foot B \flat . It too has mixed horn and trumpet features: its bore is often cylindrical or only slightly conical, and its mouthpiece usually has a trumpet-shape cup. The standard British doubly folded duty bugle—also in C with an additional crook for B \flat —was introduced in 1855 and made either of copper or (for ceremonial use) silver. The tone of a bugle made of a pure metal (copper or silver) is said to carry further than one made of an alloy (such as brass or nickel). On p. 219 Klaus explains the difference between British military pitch ($a' = 453$ Hz) and standard orchestral pitch ($a' = 440$ Hz). It was only in the 1960s and '70s, during the action “going down,” that British band instruments were converted to orchestral pitch. Klaus deals with the complicated situation in the U.S. beginning in the Civil War era, when three types of signal instruments were in use: the infantry bugle (conical, single-looped, with wide bore, in C), the cavalry and artillery trumpet (double-looped with trumpet bore), and the officers' bugle (double-looped, identical to the British duty bugle). In my own collection is an American bugle of First World War vintage (pitched in B \flat at $a' = 453$ Hz) and another from World War Two (in G at $a' = 440$ Hz, with a tuning slide). The latter is actually a trumpet, but according to Klaus (pp. 222–23) its misnomer as “bugle” originated in the period between 1892 and the 1920s.

Concerning the so-called *trompette à l'angle* (pp. 226–27), I beg to differ with Sabine Klaus. Four such instruments (nos. M 34–37) are shown on p. 120 of Malou Haine and Ignace de Keyser's *Catalogue des instruments Sax au Musée instrumental de Bruxelles* (Brussels, 1980), where they are called *trompettes de parade en fa*. On the following page we read that

they are also known as *trompette à l'ange*. Thus angel trumpets, by virtue of the addition of a single "l", become angle(d-off) trumpets! An example by Couesnon in the Bad Säckingen Trumpet Museum (no. 11206) has a completely straight, non-angled mouthpipe.

The acoustical properties of Baroque mutes and the addition of resonance funnels inside timpani (in the 1730s) are mentioned in two short chapters.

The final chapter is devoted to the revival of the Baroque trumpet, in which the undersigned has played a certain part because of his teaching position at the Schola Cantorum Basiliensis between 1972 and 2001. The true pioneer, Walter Holy (1921–2006), and his influence on the introduction of the coiled instrument with three vent holes, is dealt with justly. The English system of four vent holes, developed by Michael Laird, is also clearly explained. Robert Barclay is an outspoken defender of the true natural trumpet with no venting, and he carries out natural trumpet-making courses together with Richard Seraphinoff and Michael Münkwitz. Jean-François Madeuf, my successor at the Schola who also teaches natural trumpet in the Lyons Superior Conservatory, has developed in the last twenty years the exemplary capability to play this instrument accurately and musically. His students are working hard but will require more than their three-year study period to reach their teacher's standard.

There is a difference between musical and mathematical usages of the terms "harmonic" and "partial." In my musicology study in Basel, I learned to refer to the first partial of the harmonic series as the "fundamental" and the successive upward ones as "harmonics"; thus the second "partial" would be the first "harmonic". In her book (p. 30) Klaus refers to the seventh, eleventh, and thirteenth partials according to mathematical usage as "harmonics"; in her mother tongue, however, she speaks of *Grundton* und *Oberton*. The book would have profited from the addition of an explanation of "partial" in the Glossary.

The book contains a mistake in the notation of the harmonic series on p. xxiv. Obviously d^3 , the eighteenth partial, should be followed by $d\sharp^3$ as the nineteenth and only then by the twentieth, e^3 . The simple rule is that each octave upwards contains twice as many notes as the one below. Klaus had written the series correctly, but farmed this musical example out to a computer specialist who did not follow her notation carefully.

According to Willi Apel's *Harvard Dictionary of Music* (see "Combination tone"), difference tones (p. 18) are not "created by the sum of two frequencies," but rather by the sum *and the difference* between them, thus the name. They are also called "resultant tones" or "combination tones." Sorge in 1745 and Tartini in 1754 described such tones defined by the difference of the original frequencies, which are heard more easily than the sum. They do not exist in nature; we perceive them in our inner ear. We listen for them while playing duets on natural trumpets, and they can clearly be heard as a kind of bass line to high-pitched instruments such as recorders.

The bibliography would have profited from the inclusion of the following two publications:

Avgerinos, Cristina-Georgeta. *Blasmusiker und Standartenträger im römischen Heer: Untersuchungen zur Benennung, Funktion und Ikonographie*. Cluj-Napoca: Mega-Verlag, 2010.

Doderer, Gerhard. "Nach Lissabon mit Pauken und Trompeten! Die Verpflichtung eines deutschen Trompeterkorps an den Hof Johanns V. (1723)." *Musica instrumentalis* 3 (2001): 79–103.

The book includes in appendices a checklist with photos of all relevant instruments of the Utley Collection, the Nuremberg Trumpet Makers' Ordinance in German and English, and a glossary of technical terms. It also includes a DVD with musical illustrations performed by noted specialists. I predict that this book will become the standard reference tool in the future, worldwide. Heartiest congratulations!

Edward H. Tarr

Luc Vertommen. *Some Missing Episodes in Brass (Band) History*. Zaventem: Band Press VOF (www.bandpress.be), 2012. 326 pages (available with three companion CDs). Book with three CDs, € 100; Book only, € 60; CDs, € 20 each.

The nineteenth century continues to reveal its secrets and mysteries, and ongoing research is adding new insights to hidden corners. Luc Vertommen's book, *Some Missing Episodes in Brass (Band) History*, is helpful in increasing our understanding of nineteenth-century brass music and performance in France and Belgium.

Building on his Doctor of Musical Arts thesis from the University of Salford, Luc Vertommen's book explores three particular aspects of nineteenth-century brass performance that deserve a closer look. The book has three companion CDs that provide an excellent aural expansion of the main chapters of the book and on the whole, Vertommen's research poses and answers many questions and gives readers and scholars enough information to move ahead with additional inquiries. Unfortunately, the book suffers from a rather disjointed organization, and its proofreaders—named in its opening pages—ought to enter a witness-protection program, since the book is full of typographical, spelling, grammatical, layout, and syntactical errors that significantly mar the publication's presentation.

Among the most fascinating of nineteenth-century brass inventions is Adolphe Sax's trombone with six independent valves. The most outrageous of these instruments—which included separate tubing for each valve (and the open horn), corresponding to the seven positions of the slide trombone—had seven independent bells as well (an example can be found at the MIM in Brussels, inv. M1288). The repertoire *pour le trombone Saxomnitonique*—an instrument designed because it ostensibly could play "perfectly" in tune—has long been neglected, and Vertommen devotes the first part of his book to Sax and the solos written by Belgian composer Jules Demersseman for this curious instrument. Demersseman was an accomplished flutist whose output of solos and ensemble pieces

for flute is prodigious. His ten solos and one duet composed for the trombone with six independent valves—some of which share titles with works of the same name for flute but are completely different compositions—have mostly been forgotten, but Vertommen gives the reader an in-depth look at this music, including several reproductions of title pages and the music itself.

Patented in 1852, Sax's six-valve trombone met with some initial enthusiasm and was even included in the trombone curriculum at the Paris Conservatoire under Guillaume Dieppo. In 1863, Demesserman's *Solo in mi bémol* (Vertommen surmises this was also titled *Premier Solo de Concert*) was chosen as the trombone test piece for the Paris Conservatoire *concours*. Following Demesserman's death (1866), several of his solos were chosen for the *concours* seventeen more times between 1874 and 1895, making him the most frequently represented composer at the annual trombone contest. (NB: A list of the Paris Conservatoire trombone contest solos appears both in Vertommen's book and in *Slide Trombone Teaching and Method Books in France (1794–1960)* by Benny Sluchin and Raymond Lapie, *HBSJ* 9 (1997), pp. 25–27.) By 1870, the six-valved trombone was no longer part of the Conservatoire's pedagogy, having failed to catch on with players who seem to have been put off both with its clumsy and heavy construction and the fact that without the ability to use valves in combination, the promise of "perfect" intonation was far from fulfilled.

The inclusion of a recording of all of Demesserman's solos for Sax's six-valved trombone is a tremendous addition to Vertommen's book. Recorded on euphonium by Steven Mead, the disc is superbly produced and Mead's playing is nothing short of stunning. However, given that many of Demesserman's solos were played at the Paris Conservatoire *concours* on slide trombone, I am not persuaded that, in Vertommen's words, "the euphonium is the natural heir for this type of music." While the euphonium undeniably negotiates the fast chromatic runs with relative ease when compared to performing the same passages on slide trombone, the inclusion of Demesserman's *Introduction et Variations sur le 'Carnival de Venise'* in the *concours* in 1878 and 1892 tells us that its considerable technical demands were negotiated by students who had, by then, long abandoned Sax's invention and returned to the traditional slide trombone. Steven Mead's fine playing notwithstanding, it is puzzling to see the CD entitled, *Jules Demesserman: Complete Works for Euphonium*, when the author goes to such lengths to describe how the music was composed for trombone. Moreover, Vertommen, who claims that Mead's recordings are the first of any of Demesserman's trombone solos to have been recorded apart from one solo recorded by David Thornton on euphonium and one by Nick Byrne on ophicleide, seems to be unaware of the recordings (on slide trombone) by Benny Sluchin (*French Bel Canto Trombone*, ADDA CS 581247, including *Introduction et Polonaise* and *Grand Duo sur des motifs de Guillaume Tell*) and Carsten Svanberg (*Music for Trombone, Organ and Piano*, Parlophone LP MOAK 37, including *Cavatina*, op. 47). These recordings of Demesserman's music on the cylindrical-bore slide trombone provide a revealing comparison to this new recording on the conical euphonium. Conceived for a cylindrical valve trombone, Demesserman's pieces sound very different on the deeper- and broader-

sounding euphonium. That said, the recording is important because it brings more of Demesserman's music to our modern ears and we can be grateful that Vertommen has published new editions of all Demesserman's compositions for trombone.

The second part of Vertommen's book considers original music for brasses by Belgian composers around the time of Adolphe Sax. The opening pages discuss the instrumentation of early brass bands in Britain as well as military bands in France and Belgium. Sax's aggressive marketing of his saxhorns led to a "battle of the bands" in 1845, designed to establish the set instrumentation of the French military band. Both Sax and Michele Carafa were charged with recruiting bands for the contest: Carafa used the traditional mix of 60% reeds, while Sax crafted a band heavy with cornets, trumpets, his saxhorns and six-valved trombones, and only 24% reeds. Despite Sax's band having seven fewer players than Carafa's, Sax's band won the contest and his saxhorns became mainstays of French (and Belgian) military bands for years to come. Vertommen gives readers considerable biographical information about a host of Belgian composers, some of whose works are included on a second companion CD, *Une Soirée musicale chez Adolphe Sax*. The performances by Brass Band Buizingen and the National Youth Fanfare Band (Holland) are very fine, and Vertommen has prepared modern editions of some of the works for modern brass band. Also included on the disc is Paul Gilson's excellent *Quatour sur des mélodies Alsaciennes*, although the choice to record the quartet with two cornets and two euphoniums instead of two trumpets and two trombones (a facsimile of the first page of the printed score is found on page 239) seems curious. The cornet and euphonium playing is excellent, although considerably darker and lacking in clarity compared to the sound that would be evidenced with trumpets and trombones.

The book concludes with a look at Paul Gilson and the late nineteenth- and early twentieth-century Belgian brass ensemble, the Fanfare Wagnérienne. This ensemble varied from twelve to twenty-three players and included a set of Wagner tubas in saxhorn form made by Mahillon, along with trumpets, trombones, and tubas. Gilson's music for this curious ensemble is worthy of notice, and Vertommen has made editions of several of these works for modern brass band—which he discusses thoroughly in the text—which are recorded on a third disc included with the book, *Complete works for The Fanfare Wagnérienne*. The excellent performances by Brass Band Buizingen and Delta Brass Zeeland show Gilson's music—composed in the era before Percy Fletcher's landmark 1926 original composition for brass band, *Labour and Love*—to be a major re-discovery. Here are six substantial works for brass band—*Variations Symphoniques* clocks in at 22:32—that have been virtually unknown but can stand alongside works by more notable composers including Gilbert Vinter and Eric Ball. The unearthing of Gilson's music is Vertommen's great discovery, and he has brought to light a fine new repertoire for brass bands.

Unfortunately, it must be said that Luc Vertommen's book suffers greatly due to sloppy editing and proofing. A list of problems would take a dozen pages, ranging from simple typos to awkward use of English, misnumbering of pages in the Table of Contents, unproven assumptions, confusing and awkward page layout, and incorrect claims (such

as referring to the works of Giovanni Gabrieli as being, “for symphonic brass”). While important passages of primary source material in French are translated into English, there are many pages in French alone (such as pages 121–31 and 168–75), leaving the English reader lost. One would have hoped that the basis for the book, Vertommen’s 2011 DMA dissertation at the University of Salford, would have been held to a higher standard of grammar, punctuation, and use of the English language. These flaws prove to be frustrating to the reader, who would greatly benefit from a new edition of the book that is more attractively laid out and thoroughly edited. Despite these considerable and annoying problems, the determined reader can mine a great deal of fascinating and important information about nineteenth-century brass instrument and musical development in France and Belgium, and for this—and the companion CDs that enhance the whole presentation—we can thank Luc Vertommen.

Douglas Yeo

GUIDELINES FOR CONTRIBUTORS

The Historic Brass Society invites submissions of articles for its annual *HBS Newsletter* and annual *HBS Journal*.

1. The HBS publishes articles based on any aspect of brass instruments of the past—from Antiquity through the twentieth century and representing cultivated, vernacular, and non-western traditions. The *Journal* also publishes English translations of significant primary sources that shed light on brass instruments and their use, and it includes in-depth bibliographies and reviews. Most articles in the *Journal* are between 4000 and 6000 words long; shorter submissions (including brief reports of discoveries) are always encouraged, and longer ones may be considered as the subject and treatment warrant. Articles submitted to the *Journal* will be read by at least two expert referees who will advise the Editor and Editorial Board on acceptance or rejection. Contributors should aim for a concise, fluid style of English presentation that will be accessible to a broad audience of academics, performers, and interested amateurs. The HBS reserves the right to edit submissions for style and may return them to the author for extensive revision or retranslation.

2. Authors submitting articles for the *Historic Brass Society Journal* should send a CD in Microsoft Word for Macintosh or Windows or in “rich text” format to Historic Brass Society, 148 W. 23rd St., #5E, New York, NY 10011, USA (FAX/TEL 212-627-3820). Alternatively, authors may submit articles in Microsoft Word as attachments to e-mail, sent to the Editor at carter@wfu.edu, with copies to Howard Weiner at h.weiner@online.de and Jeffrey Nussbaum at president@historicbrass.org. The deadline for submitting articles for the *Journal* is 1 October, for publication during the following calendar year. Authors submitting material for the *Historic Brass Society Newsletter* should send a CD in one of the formats listed above to Jeffrey Nussbaum at president@historicbrass.org.

3. Accompanying graphics such as photographs, line drawings, etc., must be submitted as camera-ready artwork or graphics files on CDs; TIF format (at least 300 dpi) is preferred for graphics files. Musical examples must be either computer-typeset, engraved, or submitted as Finale© files on a CD or as attachments to e-mail, sent to the addresses given in item 2 above. Authors are responsible for any costs associated with obtaining and/or reproducing illustrations, and are further required to furnish proof of permission to reprint for illustrations that are the property of an institution or another individual. The number and size of graphics will be limited by our space requirements.

4. Authors are requested to place only one character space after every sentence and punctuation mark. Endnotes and bibliographic formats should conform to the guidelines given in *The Chicago Manual of Style*, 15th ed. (Chicago and London: University of Chicago Press, 2003).

5. Musical pitch names and designations should conform to the system given in the *New Harvard Dictionary of Music* (Cambridge: Harvard University Press, 1986), p. 640.

6. Upon acceptance of the article, the author will be asked to sign an agreement, stipulating that the material in the article has not previously been published, that it will not be submitted to another publication in the future without permission of the Editors of the *Historic Brass Society Journal*, and that the author will work with the Editors in a timely manner to prepare the article for publication. The author will further be asked to agree that while s/he retains copyright to her/his article, s/he grants permission to the *Historic Brass Society* to reprint the article in print or digital format. The author will be assigned an editor who may suggest revisions based in part on the referees' reports and in part on consideration of style. All revisions and changes should result from the ensuing dialogue between author and editor. When they have reached agreement on all revisions, the editor will send the author a revised version of the article. At this time any last-minute corrections should be made in consultation with the editor. Later the author will receive proofs in type, but the only changes allowable at this point will be corrections of any mistakes made during the typesetting process itself.

7. Submissions must include (as a separate file) an abstract of the article. If the article is accepted this abstract will be used in the major international bibliographical/abstract catalogues such as RILM. The abstract should be in English and be of no more than 350 words. It should summarize the content of the article and mention any major primary sources that are prominently interrogated. It should be written in such a way that readers will easily grasp the focus of the article and what its distinctive and original contribution to the subject is. It is worth taking into account that those who use abstract databases are not all historic brass scholars.

