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CONTENTS

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EDITOR'S MESSAGE

Once again, it's been a big year for the Historic Brass Society. In his annual message in this Journal, HBS president Jeffrey Nussbaum recounts our accomplishments, particularly the various international conferences sponsored, wholly or in part, by the Society. Chief among these was "Toronto 2000: Musical Intersections," a mammoth symposium featuring no fewer that fifteen music societies, held in Toronto, November 1-5. The HBS participated in four half-day sessions consisting of papers, panel discussions, and lecture-recitals.

The last of the HBS sessions took place on Saturday afternoon. Chaired by Steven Plank, the session was an overview of brass historiography, featuring an introduction by Plank, three position papers, and three respondents. A more complete summary will appear in the next issue of our *Newsletter,* but the position paper by Margaret Sarkissian, an ethnomusicologist at Smith College, particularly captured my attention. I do Prof. Sarkissian a disservice by focusing only on a part of her presentation here, but she offered some pointed suggestions that bear on the future of our Society in general, and this Journal in particular.

Sarkissian offered a thumbnail survey of recent brass scholarship, and came up with two observations of particular significance. First, she noticed the relative dearth of articles on brass topics outside the Western European-American mainstream—in *HBSJ* as well as other scholarly publications. One of the few studies in this category, in fact, is Sarkissian's own article in Trevor Herbert and John Wallace's *Cambridge Companion to Brass Instruments* (Cambridge: Cambridge University Press, 1997). I could point to a few additional exceptions in *HBSJ,* such as Ross Duffin's article "Backward Bells and Barrel Bells" in vol. 9 (which traces connections between some European and East Asian instruments), and Enrique Bermudez' article on early wind bands in South America in vol. 11. But these are slim pickings indeed from the cornucopia of brass scholarship.

Sarkissian's second point concerned the paucity of scholarly articles on brass by women. Again there are some notable exceptions, but Sarkissian's point strikes home. One might argue that most scholars who write on brass-related topics are—or have been—performers on brass instruments, most of whom are males. But this is a circular argument and serves only to expand the scope of the discussion. The "brass gender gap" is one that should concern all who are interested in brass instruments and music.

Prof. Sarkissian has issued us a challenge. I hope we shall rise to it.

Stewart Carter

PRESIDENT'S MESSAGE

2000 was yet another productive year for the HBS, particularly in terms of events that we staged. In April of 2000 we collaborated on a Cornetto Symposium in Oxford, England that was attended by major performers, scholars, teachers, makers, and cornetto enthusiasts from throughout the world. In late July we presented the Sixteenth Annual Early Brass Festival in a new location—the University of Connecticut at Storrs—and by all accounts the event was a great success. In late August we co-sponsored with STIMU (the organization that produces the world-renowned Utrecht Early Music Festival) a Symposium on early brass in Utrecht.

The final HBS event of the year was a collaboration with fifteen other music organizations in the largest musicological meeting ever assembled, "Toronto 2000: Musical Intersections." We sponsored or co-sponsored four well-attended and wonderful sessions at that conference. The success of this event was particularly gratifying, since it was the result of more than three years of work.

As always it is my great pleasure to thank our members for continuing to support our good efforts. In addition to the various HBS Board members who are terrifically helpful, a number of people deserve special thanks. Our Editor Stewart Carter has guided the *Historic Brass Society Journal* and Bucina book series to a very high level, which has made it an important and respected presence, not only in the brass community but in the music world in general. Membership Secretary Dan Burdick, *Historic Brass Society Newsletter* editor Mike O'Connor, *Journal* Production Editor Benny Sluchin, and Webmaster Steve Lundahl have also contributed much work and deserve our thanks. While all the HBS Board members are quite helpful, I must specially thank Keith Polk and Trevor Herbert for their enormous and wise guidance.

I'm not sure if we are entering the first or second year of the new millenium, and since we are the "Historic" Brass Society, perhaps we should try to settle that question! But be that as it may, I look forward to more great work by our community in 2001.

Jeffrey Nussbaum

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2000
Christopher Monk Award
Presented to
Bruce Dickey

For his pioneering work in cornetto performance,
teaching, and performance practice studies.

The Historic Brass Society established the Christopher Monk Award
to recognize
outstanding scholars, performers, teachers, instrument makers,
and others who have made significant
and lifelong contributions to the early brass field.

The Award will be given periodically, and presented at the
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should be sent with detailed written support of the nominee
to the HBS offices.

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ORGANOLOGY: A POSITION PAPER

ARNOLD MYERS

The roundtable discussion "Organology and its Impact on Performance Practice" at the Historic Brass Society meeting in Paris in March 1999 brought out the concerns of several prominent organologists and museum professionals with historic brass interests. The discussion (to be summarized in the Proceedings of the "Journées de Cuivres Anciens" Symposium[1]) included the case put by Herbert Heyde for studying the development of instruments as cultural phenomena that reflect the sound ideals of their particular times and places, in turn expressing the wider cultural outlook. Such a broadening of outlook for organology is certainly desirable; at the same time, there is a case for studying the surviving instruments themselves in fresh ways.

Much organology has, perhaps, concentrated on dating inventions and the earliest appearance of new models of instruments rather than characterizing the instruments in common use. One aim—perhaps the main aim—of organology is informing "authentic" performance of instrumental music on instruments appropriate to the place and time of the origin of the music. Renato Meucci reminded us in Paris that all too often as a matter of convenience players today use "historical" instruments that look like, but do not sound like, the original instruments.

Other speakers discussed the question of which instruments to choose to copy. This concern with period instrumentation is not new. Forsyth wrote (about the french horn) in 1914, "One could wish that the music of the old masters should be performed only on the instrument for which it was written."[2] There is, of course, no one perfect or even optimal historical performance of any music from the past, and "the instrument for which it was written" is rarely a straightforward choice. Even if a close approach to some ideal could be reached, it might not be the most enjoyable for the audience or the most profitable for the performers. But every closer approach to historic performance is at the very least a piece of worthwhile research, improving collective knowledge about the sound-worlds of the past. An important role of organology is to provide the most complete and reliable information that practising musicians and instrument makers can then draw on, and make their decisions in full possession of the facts. Authenticity can be an information aim, rather than a rule for performance. Even when audiences do not prefer their music to be authentic, and players wish to limit their efforts in this direction, knowledge of the sounds and styles appropriate for period instruments are of value in informing the inevitable compromises.

How does one recognize an authentic instrument (and mouthpiece) for a certain repertoire? How well-matched to time and place does an instrument model need to be? Does the well-equipped trumpet player need to have one instrument from each decade of the nineteenth century and from each national school? Experience would suggest that in terms of the tonal qualities and the playing possibilities of brass instruments, developments in instrument design have been very uneven—periods of stasis have been interspersed with

periods of rapid change. A British trombone of 1950 can differ little from one of 1880, yet a German trombone of 1850 may be very unlike one of 1840. The largely new repertoire for band instruments gave rise to an apparent chaos in brasswind design in the nineteenth century from which the present-day instruments have emerged by a process of "survival of the fittest." Niles Eldredge[3] has explored the parallel with biological evolution. The analogy with biological scholarship suggests the use of the word "taxonomy" for the study of the various instrument models and their relationships. In the field of natural history, taxonomists do not merely wish to classify species for convenient handling of museum specimens and written descriptions, but also to suggest the evolutionary relationships among species.

With artifacts, as opposed to natural entities, there is no requirement for a new species to have evolved from a previous species: objects can be new inventions. However, completely new musical instruments are rare. Although some brasswind types such as the keyed bugle, cornet, ophicleide, and tuba could have been claimed to be new, many developed while keeping the name and some of the character of a predecessor. The instruments designed for the purpose of performing, say, orchestral trumpet parts have been very varied, but each generation has to do justice to the existing trumpet repertoire. The concepts of evolution and taxonomy are more than metaphor in this situation. There is clearly a need for an objective assessment, a set of parameters. The information derived from playing surviving instruments is certainly valuable, but is always highly subjective. Some surviving instruments are not playable for various reasons, but can be investigated by benign acoustical techniques; yet more may not be in good enough condition for acoustical investigation but can be physically measured. The number of measurements required for a faithful reconstruction of an old instrument is large. Obviously some are more important than others. We would expect a 25% increase in mouthpiece cup volume to have a significant effect on sound and playability, whereas a 25% increase in bell garland width might be imperceptible. To re-create the sound of an early twentieth-century British orchestra, one would need trombones of appropriate bore diameter, but it would matter relatively little if the instruments used were raw brass or silver-plated. The factors affecting sound quality and playing characteristics need to be prioritized.

We also need to find objectively measurable parameters that reflect a player's experience of an instrument but contain the information in a form that can be measured on unplayable instruments and can be repeated by researchers elsewhere. In assessing the fitness for the purpose of an instrument in historical performance, one would look first for a good match of the most significant parameters. This is a process that is carried out at present by a mixture of expertise and guesswork. Such a set of parameters would also highlight the really important advances in instrument design, and allow a history of instruments to be written in fresh light. Finding a set of parameters to characterize brass instruments is not easy—if it were, it would have been done long ago. The parameters used to specify, say, a camera, seem simple in comparison, partly because the optics of photography are better understood then the acoustics of brasswinds, and partly because the parameters for a camera are fairly independent of each other (although some consequences arise from their interacting), but in brasswinds they are hard to disentangle. The broad-brush classifications

used by authors to arrange material in books, and by museums to arrange displays and catalogues, have no precisely stated criteria or tests. Terms such as "conical" and "cylindrical" have intuitive meaning but are not rigorously defined. Simple classification schemes may distinguish satisfactorily between the types of instrument in use before the invention of the valve, but fail to give clear places to new types such as the cornet, the bass tuba, the saxhorn, the bass trumpet, and the Wagner tuba, let alone discriminate between different models of nominally the same instrument. It is a valid question whether the hundreds of nominally different instruments developed in the nineteenth century really all respond to the player and sound differently. After discussing valved brass instruments in some detail, Carse states provocatively,

> The field is limited, and there is not room for any great variety between the tone-quality of the cornet and that of the bugle, whether large or small; nor does the admixture of trumpet-, horn-, or trombone-bore, and their characteristic mouthpieces, supply sufficient variety to provide very many new and clearly different tone-qualities .... The fluegelhorns and contralto saxhorns, the tenorhorns and baritones, the tubas and bombardons may be differently named in each country, or may even be differently named in the same country, but their nomenclature is always more varied than their tone-qualities. Different widths of bore and diversity of mouthpiece-cup will give variety of tone-quality within a certain radius, but that radius is limited in extent. In the highest register, the field of brass instruments in high E♭, it matters little to the hearer whether the instrument be a trumpet, cornet, saxhorn, or fluegelhorn. In the contralto or B♭ register, there is room enough for the cornet and the flügelhorn, but hardly for anything in between the two. So it is in the tenor or E♭ register, the baritone and the bass registers; we can admit instruments which are large-sized cornets or large-sized bugles, but anything between these two makes the distinction too fine for ordinary ears, and therefore too fine for practical use.[4]

Carse may or may not be correct in suggesting that "ordinary ears" can distinguish no more than two differing types of brasswind in each register. However, there is no doubt that trained musicians can recognize more than two types, if not as auditors then certainly as performers. The continued production by individual manufacturers of a wide range of instruments as well as differing models of the most popular instruments, nominally the same type, is commercially justified only by purchasers perceiving differences.

Taxonomy can be regarded as reflecting a classification by sound ideal. To belong to the same taxa, instruments should convert a similar output from a player into a similar input for a listener. The parameters should relate to factors under the control of instrument makers (e.g. properties of their patterns and mandrels), to the audible character of the instruments (e.g. the radiation characteristics of the bell flare) and the feel to the player (e.g. the input impedances). Ideally there should be some quantity that remains constant, or at least changes slowly and continuously, when an instrument undergoes an "evolutionary" development. The state of knowledge at present is hardly advanced, and has barely reached the state where different models can be positively identified. It is still a challenge

to distinguish objectively a bass trumpet from a valve trombone. The parameters developed in my own studies enable classification schemes to be created that begin to meet museum and other needs. They use well-defined categories based on practicable (though rather laborious) measurements. The inventiveness of instrument makers has been such that no taxonomic system is likely to present in a simple structure the full diversity of brasswind design. Papers published so far[5] test these concepts on limited samples of historic instruments. To finish that task would involve detailed measurements and assessments of the significance of thousands of surviving instruments in museums and private collections, followed by detailed analysis of the data.

NOTES

[1] Proceedings of the Symposium "Journées des Cuivres Anciens," Paris, March 1999 (Hillsdale, NY: Pendragon Press, forthcoming.

[2] Cecil Forsyth, *Orchestration* (London: Macmillan, 1914).

[3] Niles Eldredge, "Evolution in the Marketplace," *Structural Change and Economic Dynamics* 1 (1997): 285-398; idem, "Biological and Material Cultural Evolution: Are There Any True Parallels?" *Perspectives in Ethology*, vol. 13, pp. 113-53. New York: Kluwer Academic/Plenum, 2000).

[4] Adam Carse, *Musical Wind Instruments* (London: Macmillan, 1939).

[5] Arnold Myers, "Trombone Designs in the Transition from Early Models to Modern," in Monika Lustig, ed., *Posaunen und Trompeten - Geschichte, Akustik, Spieltechnik*: Bericht über das 19 Musikinstrumentenbau - Symposium in Michaelstein, 20-22 November 1998 Michaelsteiner Konferenzberichte, Band 60 (Blankenburg, Harz: Kloster Michaelstein, 2000; ISBN 3-89512-116-9), pp. 39-52; Arnold Myers and Murray Campbell, "Trumpet Design and Acoustical Characteristics," in Proceedings of the Symposium "Journees des Cuivres Anciens, Paris, March 1999 (Hillsdale, NY: Pendragon, forthcoming); D.B. Sharp, Arnold Myers, and Murray Campbell, "Using Pulse Reflectometry to Compare the Evolution of the Cornet and the Trumpet in the 19th and 20th Centuries," In *Proceedings of the International Symposium on Musical Acoustics, Edinburgh, 19-22 August 1997*: Proceedings of the Institute of Acoustics, no. 5 (ISBN 1 901656 04 7), pp. 541-48; Arnold Myers, "The Horn Function and Brass Instrument Character," in *Perspectives in Brass Scholarship: Proceedings of the International Symposium on Historic Brass Instruments, Amherst, 1995,* ed. Stewart Carter (Stuyvesant, NY: Pendragon, 1997), pp. 239-62; Arnold Myers and Murray Campbell, "Approaches to an Acoustic Taxonomy of Brass Musical Instruments," in *Proceedings of Acoustics '93, Southampton, 1993,* Proceedings of the Institute of Acoustics, no. 3 (1993): 697-704.