Historical Instrument Section

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By Craig Kridel and Clifford Bevan, Editors

The Original Intent of the Serpent

by Craig Kridel

The question was quite simple, posed during dinner at the 2005 Amherst Early Music Festival: "Craig, if the serpent was invented to help choristers stay on pitch, then why is it so hard to play in tune?" Those at the dining table were familiar with the serpent, and all knew the recordings by the London Serpent Trio, Bernard Fourtet, Michel Godard, and Douglas Yeo. The query was not meant to be sarcastic, raised by an audience member who enjoyed poking fun at an instrument whose pitch is notorious for quavering. No, the question was direct and sincere, posed by none other than Bruce Dickey, a living legend of the early music field who reintroduced to contemporary audiences the glories of the cornetto, a premiere wind instrument of the 17th and 18th centuries. A friend of the late Christopher Monk, cornetto maker and founding figure for the 20th century resurgence of interest in the serpent, Dickey was curious about the instrument and well aware of the comment by Marin Mersenne (1588–1648) who maintained that the serpent was the true bass of the cornetto family and to have one without the other was "to have a body without a soul." He was not questioning Mersenne's assessment but, instead, implicitly raising the inherent contradiction in the origins of the species—the serpent—an instrument acoustically flawed yet one that was invented to provide stable pitch for choirs. His comment represented the timeless and often well-founded impression that the serpent cannot be played in tune.[1]

The London Serpent Trio, Clifford Bevan, Steven Wick, Philip Humphries, at the Seaton Town Hall

Others from the past may have been less inquisitive than Bruce Dickey and certainly more condemning. British musician and composer Charles Burney (1726–1814) viewed the serpent as overblown and "detestably out of tune," sounding more similar to an angry Essex calf. Comments attributed to Georg Friederich Handel who, upon hearing the serpent for the first time stated "Aye, but not the Serpent that seduced Eve," are often used to liven up an on-stage description of the instrument. And our beloved Hector Berlioz denounced the horn with his richly vile phrasing, always delivered with great glee by critics as well as serpent aficionados: "The fundamentally barbarous sound of this instrument would have been much more at home in the bloodthirsty rituals of the Druids than in those of the Catholic church." This is quite a contrast to the original intent of the serpent, allegedly stated by the instrument's designer Canon Edme Guillaume of Auxerre (Burgundy, France), to support the choir in the singing of plainchant.[2]

I cannot quite recall my response that summer evening at the Amherst Festival. The question had never before been posed to me by such a distinguished musician; however, I have responded to many past queries. And as an academic, I am well trained for such situations: a shrug, a few non-sequiturs, and a digression —some unrelated reference—easily changed the subject. The other good-natured diners, few particularly interested in frothing

Clifford Bevan holding a reformed serpent

about the origins of the serpent, cheerfully allowed the conversation to shift to other matters. But the question remained.

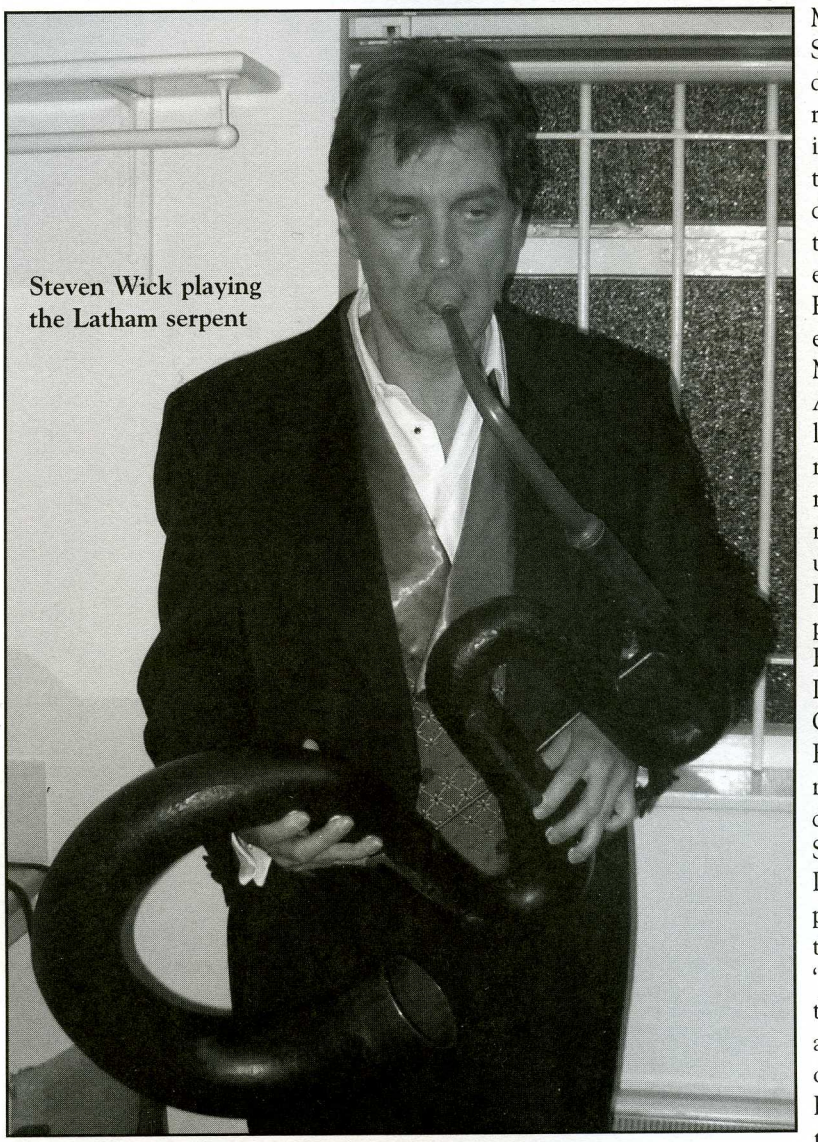
While I will fiercely protect the reputation of the serpent, I certainly cannot defend the many instrumentalists, myself included, who performed publicly before their sense of intonation had adequately formed. I suspect the thrill of owning a serpent causes many musicians to lose common sense and appear in public before they should. Or perhaps their premature outings are caused by the "transference of intonation" fallacy— namely, since one's sense of intonation is developed on tuba or sackbut, then the serpent, too, can be played well-enough in tune (supporting E. L. Thorndike's challenge to the "doctrine of transfer"). The reputation of the serpent permits such folly since the instrument's difficulties are all too well known, alas, and neophyte players can look at the stunned (or laughing) audience, shrug, and imply that the horn just cannot be played well. Yet, the serpent continued to be admired through the 18th and early 19th centuries, described by Ernst Ludwig Gerber (1746–1819) as providing music its dignity and portrayed by Imbert de Sens (circa 1770) as "supporting the voices, to sustain their pitch without drowning them and to make them sound more even."[3] Nonetheless, acceptable intonation remains the constant quest, especially when so many contemporary players expect and demand the serpent's characteristics to be similar to modern brasses. As they inevitably learn, the serpent is a serpent, constructed from wood rather than metal, cursed with acoustically-misplaced tone holes, and sporting an extreme conical bore that causes un-centered pitches. As Bruce Dickey and others know all too well, there are serpentists scattered throughout the world, many fine musicians, who play out of tune.[4]

But I digress! In a much belated response to Bruce Dickey's question, I turned to my trusty guide for all things low brass, *The Tuba Family* by Clifford Bevan, along with Benny Sluchin's *The Serpent Method of Jean-Baptiste Metoyen* and the translation of Alexandre Hardy's *Methode de Serpent* by Holly Grant. After reviewing these documents, I now find the instrument to be even more brilliantly designed and better understand its strengths and unique abilities, as conceived by Canon Guillaume, to help define pitch for singers. I will admit that the range for late 16th and 17th century serpent-playing was not as great as those self-imposed expectations of today's players. The stave for chant included merely four lines, and the tonal expanses of the cantus firmus, the line doubled by the serpent, rarely exceeded one octave in what fell within the middle-to-high range of the instrument. While each bottom octave note permits contemporary "stunt serpentists" to lip intervals of a fifth, the middle range of the instrument (into the third octave) includes pitches that lock into place. Hardy even mentions in his tutor that the upper harmonic series determines whether one has a good instrument, i.e., there is little variation in pitch. I have found the c, f-sharp, g, c^1, d^1, and e^1 to be quite stable on historical instruments in C, even though the specific fingerings of the mid-to-upper notes vary dramatically. This is to say that of the three serpents I regularly play, each (3rd octave) e1 is fingered differently, yet each is true to itself, well-centered, and cannot be varied by breath pressure or embouchure by more than 5–8 cents (stable yet still offering sufficient variations to adjust to mean tone).

Hardy states that one of the principal functions of the instrument was to give the pitch to the cantors, and the serpentist must avoid giving the tone too high or too low—to take a happy medium.[5] He implies using the third harmonic, the most stable note on the serpent, for the dominant. Since the cantus firmus would not have modulated, thereby calling upon the player to negotiate unstable sharps and flats through cross-fingering, the intonation of most notes would be centered and unwavering. Further, the slow tempo of chant, represented by whole and half notes (minims and semibreves), would have helped the serpentist, a trained singer, to establish a firm sense of intonation for the choir. With the variations among the pitch of church organs (since A=440 hz was far from being standardized) and with differentiations among temperaments, the serpent's tonal flexibility becomes one of its strengths, playing in unison with the choir and alternating verses with the organ. Further, as Metoyen pointed out, the serpent has the ability to play half or quarter-tones "as one is often forced to do following an intonation or a verse sung by the choristers."[6]

Not all of the pitches emitting from the serpent would have been equally clear and, in fact, early 19th century serpent tutors

stress the importance of a consistent sound among the various pitches. Some smirks and askance glances from today's audiences arise not just from the instrument's lack of intonation but, also, due to the unfocused tone of certain notes surrounding the harmonic series. But since the serpent, as originally conceived, was being doubled by choristers, its tonal characteristics would have blended into their sound, as the instrument does so beautifully, and the unevenness of certain tones would not have been as apparent. When the serpent is allowed to be a serpent—namely, playing in its middle-to-upper register at mezzo forte and doubling voices—its nuance and astonishing ability to engulf sound—its consonance—emerges.[7] In this capacity, the instrument more than fulfills its role. In the full acoustic of a church or cathedral, a single instrument seems to dissipate into the space's resonance and provides the choir with the additional fullness, as mentioned by Mersenne, of twenty voices.



Steven Wick playing the Latham serpent

Serpentists would later extend the demands of the instrument, increasing the range to over three octaves in some treatises and causing today's exposed, undoubled serpentists to encounter modulations, dramatic interval leaps, uncomfortable keys, and running bass lines embedded in typical ensemble playing. Yet, as originally conceived, when the instrument accompanied chant and was doubled by voices, the consonance and sonority of the serpent overcame its few intonation demands. Isn't it somewhat ironic that one of the most conspicuous-looking instruments sought to blend with others, to become inconspicuous, and its greatest abilities come forth when doubling its compatriots—voices in chant and bassoons in the military and orchestral literature. For those who wish to hear the serpent in its natural habitat, I encourage you to listen to those selections including choir from *Le Livre d'Orgue de Montreal* with Matrise de la Cathedrale d'Angers and Bernard Fourtet, *Une Messe pour la Saint-Michel* with Ensemble Vocal Ludus Modalis and Michel Godard, and *Le Monde du Serpent* with the Gloriae Dei Cantores and Douglas Yeo.[8]

An epilogue: All players are indebted to the late Christopher Monk and the London Serpent Trio whose legendary (and out-of-print) recording, *Sweet and Low*, introduced audiences throughout the world to the dignity of the serpent. I had the opportunity to visit the ensemble last summer in England, an experience as enchanting as my summer Moravian travels in America, described in the last issue and eliciting many nice email comments from readers (for which I extend my thanks). While I was unable to attend the London Serpent Trio's May performance at the Horniman Museum (in London), I met up with Clifford Bevan, Philip Humphries, and the newest member, Steven Wick, for a delightful concert at the Seaton Town Hall in Devon. Attached are a few photos of the trio, including the introduction of a "reformed serpent"—one that has gone straight. I also was afforded the opportunity to examine the Latham serpent, shown in the accompanying photographs and proving to be one of today's nicest sounding "outward" serpents. This instrument, originally owned by Morton Latham (1842–1931) of Frensham, England, composer, musicologist, and secretary of the London Bach Choir, displays the design suggested by King George III (1738–1820) that the bell should be turned outwards to increase the volume of sound. The Latham serpent, built circa 1830, is in beautiful playing condition, restored by Christopher Monk for use in the 1990 Serpent Celebration by John Weber of Chicago. Now that the instrument is in private hands (and the new owner is planning to use the serpent regularly for harmoniemusik), we look forward to comparing its playing characteristics and ascertaining the acoustical importance of an outwards bell.

Notes:

[1] The Amherst Early Music Festival has a distinguished role with the serpent in America, in part, through the efforts of Benjamin Peck, former coordinator of the brass program and founder of the Early Brass Festival (as well as director of the legendary New York Cornet & Sacbut Ensemble). The Amherst Festival held the first serpent classes of the 20th century, in 1986, when Christopher Monk was invited to teach.

This event led to the publication of *The Serpent Player,* an instructional method by Monk, and the world-premiere performance of the "The Amherst Suite for Eight Serpents" by Simon Proctor. Tangentially-related, Monk's presence at the 1986 Festival assisted in the scheduling of the organizational meeting for the Historic Brass Society, founded by Jeffrey Nussbaum.

Sitting at the table that evening not only included Bruce Dickey but also Wim Becu (one of the premiere European sackbut/trombonists), Ron Cook (director of The Early Interval and incoming president of Early Music America), and Adam Gilbert (director of Ciaramella and director of the Early Music Program at the University of Southern California). Two seats were open at the table and, in the spirit of "Amherst," anyone could have joined us— professional or student. The Amherst Early Music Festival continues to embrace the serpent and offers an inviting setting for serious modern players to learn and explore further historical brass. [www.amherstearlymusic.org]

"outward" Latham serpent, c. 1830

[2] Factual material, historical allusions, and quotations, unless otherwise noted, are drawn from Clifford Bevan, *The Tuba Family*. Winchester: Piccolo Press, 2000.

[3] Metoyen, Jean-Baptiste (edited by Benny Sluchin). *Ouvrage Complet pour l'Education du Serpent*. Paris: Editions Musicales Europeennes, 2002: xxxvi.

[4] I do wish to make a proclamation, however: fingers do make a difference on the serpent! The fingering of a serpent does, indeed, affect intonation, a statement that some *ITEA Journal* readers may find surprising. Each year at early music and brass gatherings, I inevitably hear another account by a well-meaning individual who describes a serpent demonstration where the player sounded a C-major scale with the standard fingering pattern and then repeated the scale, playing a C and "lipping" each note without moving a finger. The good-natured raconteur then smiles convinced that the serpent is just an ill-conceived instrument where fingering does not affect pitch. I recall the one occasion when I heard the same account described to Christopher Monk, founder of the London Serpent Trio, who in this instance actually knew the early 20th century musicologist who enacted this same trick on the audience. Christopher responded by saying that both scales were poorly played, i.e., to a true serpentist, fingers do make a difference and the instrument can be played in tune as he and his colleagues, Alan Lumsden, Andrew van der Beek, and Clifford Bevan, have proven. For more information about the London Serpent Trio, visit www.whitecottageweb sites.co.uk/lst

[5] Hardy, Alexandre. *Methode de Serpent* (Paris, c. 1815), translated by Holly Grant Robinson; Berlioz Historical Brass website, forthcoming.

[6] Metoyen, *Ouvrage Complet pour l'Education du Serpent,* xxvi.

[7] My thanks to Clifford Bevan for articulating the different conceptions of "playing in tune" and stressing the term "consonance." I had written to my co-columnist with Bruce Dickey's question. Noting Burney's description of the serpent serving as "a kind of crutch" for choristers, Bevan responded, "I have always considered [this statement] to be brilliant. This is what any choir singing *a cappella* needs, just that. And if it is a cathedral choir, singing in *alternatim* with the organ, the judicious support of the serpent overcomes any intonation problems inherent in its design."

[8] *Le Livre d'Orgue de Montreal* with Matrise de la Cathedrale d'Angers and Bernard Fourtet, serpent [Ateliers du Fresne #300 002.2]; *Une Messe pour la Saint-Michel* with Ensemble Vocal Ludus Modalis and Michel Godard, serpent [Alpha 514]; and *Le Monde du Serpent* with Gloriae Dei Cantores and Douglas Yeo, serpent [www.yeodoug.com]. For more elaborate historical sacred settings of the serpent: *Charpentier: Te Deum & Grand Office Des Morts* with Les Arts Florissants and Stephen Wick, serpent [Virgin Classics 7243 (5 45733 2) 3]; *Charpentier: Te Deum & Messe pour plusieurs instruments* with Choeur de Chambre de Namur, La Fenice, and Volny Hostiou, serpent [Ricercar RIC 245]. The brass world is indebted to the conscientious efforts of Paul Schmidt who maintains the most up-to-date serpent discography [www.serpentwebsite.com/disco.htm].