HISTORICAL INSTRUMENTS

Rethinking the Serpent's Origins

BY CLIFFORD BEVAN

Music dictionaries define "Serpent" along these lines: "Bass lip-reed instrument in the form of an S made from wood covered with leather (rarely, all metal), with a cup-mouthpiece, a metal bocal (crook), and with six finger-holes but no thumb-hole." They often add: "It is thought that the serpent was invented by Canon Edmé Guillaume of Auxerre Cathedral in the late sixteenth century."

The original account of this distinctive instrument's first appearance is widely available online.[1] It was written not by a professional musician or an organologist but by a member of the clergy whose substantial entry in the *Dictionnaire universel d'histoire et de géographie* begins:

> *Lebeuf (Abbot, J.), Canon of Auxerre, 1687–1760, member of the Academy of the Humanities, has rendered extensive service to national history through his scholarly and precise investigations.*[2]

Jean Lebeuf's entry in French-language *Wikipédie* gives much information about his life and work. As a student at a Jesuit college from the age of seven, he developed interests in old manuscripts, music, languages, and Gothic script. Later, studying in Paris, these interests led him to the recently introduced field of paleography [***editor's note***: the study of historic writing systems and historical manuscripts]. By the age of 18 he had also become known as a composer, and when later appointed to Lisieux he introduced reforms in ecclesiastical chant. In 1709 he returned to his hometown of Auxerre and, in 1743, completed *Mémoire concernant l'histoire ecclésiastique et civile d'Auxerre* in which he records the first appearance of the serpent.

His article on Bishop Amyot (the employer of Edmé Guillaume, the person credited with the serpent's invention) occupies 40 pages. It tells us that the bishop was a great reformer, that he loved music, and that his own involvement in the development of the serpent was as follows:

> *The author of the life of our bishop has not forgotten to register that this prelate loved music, and in his episcopal palace, he was not ashamed to sing his part with the musicians. It is confirmed that his enduring love of singing showed in his friendship for those of his canons who volunteered to sing the important parts, and he similarly esteemed all those assigned to sub-canons, cantors, assistants, and other staff who had good voices and knew their jobs, so long as they had high standards. He even found pleasure in playing instruments, and often before dinner would play a harpsichord to send him to the table relaxed after his serious studies. The high regard in which he held his musicians emboldened them to familiarize themselves with the system of chanting used by the old plainsong singers in the cathedral, whose style had been customary at least since the time of Charlemagne. It was adopted but then degenerated, and everything that did not conform to their new principles of harmony was eliminated, causing what was previously sweet to become* ***coarse****; thus resulting in an astonishing barbarity and potential to inspire misunderstanding of plainchant. But what must give comfort to those zealous for Gregorian chant and the other ancient chants is that even as this was taking place, a canon and comptroller of the household installed by our bishop invented a machine capable of giving new merit to Gregorian chant. This canon, named Edme [sic] Guillaume, discovered the secret of making a cornett in the form of a serpent around the year 1590.*[3] *It was played in concerts given at his house, and, having been perfected, this instrument has become common in great churches.*[4]

There may be a problem with this account: Lebœuf was writing much later, in the 1740s. As the introduction to a recent handbook to serpents in the collection of a British university points out, "this creation narrative first appeared in a book by Jean Lebœuf over 150 years after the fact." (The introduction continues: "This is a little like someone today saying that the young Winston Churchill liked to smoke cigars with Queen Victoria—who is around to argue the point?")[5]

But there have been more serious questions about Lebœuf's claim that Guillaume produced the first serpent. These have been raised by Curt Sachs, Julius Schlosser, and Herbert Heyde amongst others, leading to Sabine Klaus's discussion of the problems of distinguishing between the serpent and earlier S-shaped trumpets or cornetts in iconographic evidence.[6] In order to give due consideration to the question, it is necessary first of all to define exactly what a serpent is. One of the first to address the question was Reginald Morley-Pegge in 1954. In his admirable article on "Serpent" in *Grove*,[7] he pointed out that while it is "derived from the great cornett, it differs from that instrument constructionally by its more pronounced conical bore, much thinner walls, and absence of a thumb-hole." These

essential characteristics have remained as key features in distinguishing members of the family of serpents from other lip-reed instruments where pitch is changed by finger-holes.

Aware that alternative claims for the instrument's first appearance had already been made, Morley-Pegge goes into detailed investigations of the structure of those particular instruments:

> *Before going into history, we must understand that the name "serpent" applies specifically to the type of instrument described above; it does not include large cornetts of more or less serpentine form, specimens of which, undoubtedly made as early as or earlier than the true serpent, have been described in a well-known catalogue as "Italian serpents." This has given rise to the view that the serpent originated in Italy, and at an earlier date than had been generally supposed...*
>
> *The first doubt as to the Lebœuf story is cast by Aimé Cherest in a contribution to the "Bulletin de la Societé des sciences historiques et naturells de l'Yonne,"[8] further doubts being raised in due course by the catalogue referred to above. These doubts, in spite of repetition by more recent writers, do not appear to rest on any very solid grounds.*
>
> *Cherest bases his view on an entry in the accounts of the archdiocese of Sens for the period 1453–54, which reads: "Ressoudé le serpent de l'église [sic] et mis au point un lien de laiton qui tient le livre . . x," and argues from it that if the serpent was being used at Sens in 1450 it is difficult to see how Guillaume could have invented it more than a century later. This view is open to objection. The entry simply states that the "serpent de l'église," evidently a metal object, was re-soldered and that a brass stay "which supports the book" was adjusted. Nothing here to suggest a musical instrument: indeed the more obvious inference is some form of ornamental lectern. The expression "serpent de l'église" has seemingly been confused with "serpent d'église," a term which came into use in the 19th century to distinguish between the convoluted serpent normally used in churches and the upright form or "serpent militaire." Another point overlooked by Cherest is the fact that the larger wind instruments made of wood came into use only in the 16th century. It is to be feared that Cherest reached his conclusion somewhat hastily.*
>
> *As regards the catalogue that lists two "16th-century Italian" serpents, these instruments have been carefully examined. One proves to be a contrabass cornett with four open-standing extension keys—probably the only one in existence—while the other is a bass cornett with a beautifully carved bell reminiscent of a Chinese dragon's head. Neither resembles the true serpent.*
>
> *So, even though Mersenne makes no allusion to the serpent's origin, we cannot, without more convincing evidence, reject Lebœuf's account of its invention by Canon Guillaume.*[9]

Getting Down to Basics

There are reports of dissections of historic serpents, allowing detailed examinations of their structure. Frank Farrington's 1969 investigation was undertaken at a time when much about the serpent still remained to be discovered.[10] He gives a step-by-step account of how he dismantled and then rebuilt the instrument. After spending many hours, during which he achieved intimate knowledge of the instrument, Farrington concluded that it had been made in this pattern "for visual effect."

He is not the only one to have reached this conclusion. In 1975 Gary M. Stewart dissected four serpents from the Larson Collection, also in need of restoration.[11] Again, following dissection and restoration, in conjunction with full technical descriptions of how these were carried out, Stewart remarked: "in all probability, the serpent owes it shape to two factors: limitations of human anatomy and the 'twisting' complexity of the times...known in the visual and literate arts as the Mannerist period, encompassed [by] the sixteenth century and the first half of the seventeenth century."[12]

The suspicions of an enthusiast in England in the 1960s and a student in the United States in the 1970s about the reasons for the serpent's genesis, reached after dissecting and restoring old specimens, were more widely shared. There is a serpent in the Vienna Collection (SAM237) which sometime curator Curt Wegerer suggested may have been conceived for stage use. It is said to be the only one remaining from a quartet of various sizes owned by Duke Ferdinand von Tyrol in his famous collection at Schloss Ambras and it was known at Innsbruck in 1596. This date lies firmly in the period when the serpent is said to have been invented in Auxerre, France. The present curator of the Vienna collection, Dr. Beatrix Damstädter, has carried out a thorough investigation of the instrument and published the results in a German-language book.[13] Probably constructed of walnut with an overall length of 1881.7 mm (about 74 inches), it is suggested that it may have been Italian or German. The instrument has the usual six finger-holes, but the narrow end opposite the bell terminates in a snake's head. The missing bocal holding the mouthpiece would have been inserted into the serpent's mouth [see **Figure 1**]. (I should like to express my thanks to Dr. Darmstädter for providing me with this material.)

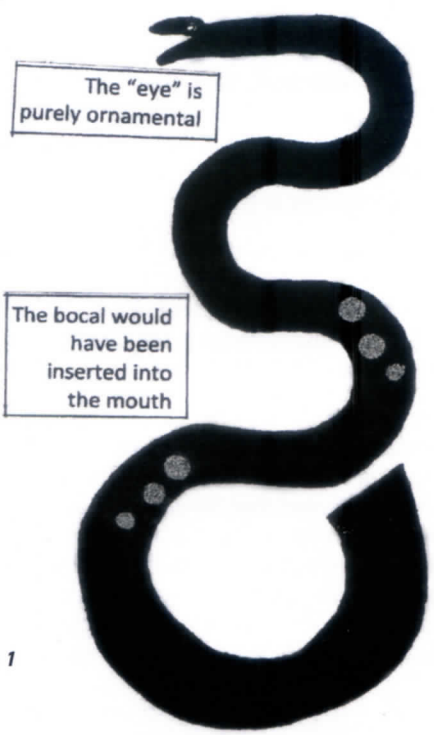

Figure 1

In view of Stewart's comments about the literary and visual arts in the period during which the serpent first became known, it is interesting to read those of the English painter, printmaker, and satirist William Hogarth (1697–1764). In 1753 he published *The Analysis of Beauty*, with an editorial "note" at the beginning of the 1909 reprint, stating the purpose of the book succinctly: "Every art student has heard of Hogarth's line of beauty. In a vague way it is known to be a serpentine line resembling an elongated S."[14] The "serpentine line resembling an elongated S" is, of course, a shape familiar to readers of *ITEA Journal*.

Mannerism Maketh Serpent?

What actually was Mannerism? From about 1520 this movement became apparent in the arts, including painting, architecture, literature, and music. As a reaction to the proportion, balance, and ideal beauty of the High Renaissance, Mannerism was demonstrated through asymmetrical or unnaturally elegant compositions. In music it was represented principally by the madrigal, vocal music sung in several parts and characterized by what musicologist Tim Carter has called "conceits and other visual, verbal, and musical tricks to delight the connoisseur."[15] This was in total contrast to chant, a type of music of prime importance in the liturgy. Here it was vital that the fundamental element should be the words, and the fundamental function of the words was to be understood. While music in many simultaneous parts (polyphony) can produce sublime and beautiful effects, it also tends to obscure the words being sung by the interweaving voices.

The Council of Trent (1545–1563) was a series of meetings of Catholic churchmen tasked with formulating the reforms desirable in the face of the growing threat during the Reformation from the Protestant Lutheran and Reformed churches. At the twenty-second session of the Council, on 10 September 1562, Canon 8 was formulated, proposing a decree that the "entire manner of singing in musical modes should be calculated not to afford vain delight to the ear, but so that the words may be comprehensible to all."

If the words were to be "comprehensible to all," they were ideally to be sung unaccompanied. But was every church choir in France able to sing without instrumental support? Bass wind instruments of the time were rare, though more utilitarian, i.e., *practical*, in form, than the serpent. The dulcian, first known in Italy in the second quarter of the sixteenth century, was made from a block of wood bored from the bottom upwards on one side and from the top downwards on the other, with the two channels connected at the bottom. It had a bocal and a double reed (like a bassoon) along with six finger-holes and two keys. Several pitches of dulcian were available, the bass, known as Chorist-faggot, stood almost 1 meter tall and was of bassoon (i.e., serpent) pitch [see **Figure 2**]. There were dulcians as far north as England by 1575. Here they were called curtals.

It has been customary to describe the S-shape of the serpent as being necessary for the convenience of the player. If you are a serpent-player, I would urge you to recollect how comfortable you were on first being introduced to the instrument. Not everyone can cope easily with its particular physical demands. The length of a serpent's tube and positions of its tone-holes are determined by the pitch of the notes it is required to sound, resulting in finger-holes that are not always positioned comfortably for the player. (Unlike the serpent the dulcian had thick walls, enabling finger-holes to be bored at an angle, showing consideration for both player and pitch.) Some would-be serpentists are even unable to cover the tone-holes in a fully airtight manner—such players have occasionally resorted to wearing leather gloves.[16]

So does this bring us any closer to the reason for the serpent's distinctive shape? We know that the instrument's original function was the support of the choristers, but also that the technical problems of holding an instrument with a twisting tube were (and are) considerable and that the technical problems of constructing a twisting tube were substantial in comparison to the two straight tubes of a dulcian. So why not follow a similar pattern?

It is possible Edmé Guillaume was not aware of the dulcian pattern; it may have bypassed France on its way north from Italy, and the French version, the bassoon, was not yet widely known. (The bassoon arrived in France later in the sixteenth century.) However, Guillaume seems to have been inspired to design an instrument appropriate for the support of plainchant after the Council of Trent's final conclusions at the twenty-fourth session, on 11 November 1563. Here, each diocese was given permission to allow its bishop, with at least two canons, to "organize and effect whatever he may judge useful and necessary... [to] determine the right manner of chanting and singing." While the way in which music was used during Mass in each diocese was thus left to local decisions, the overriding requirement was that the words should be clearly audible, their message understood and taken to heart. The best method for ensuring this was obviously through the use of unaccompanied voices, although this was not explicitly demanded.

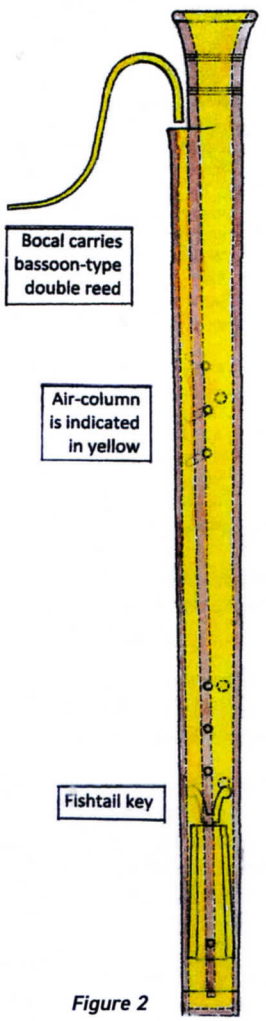

Figure 2

We are back again with the requirement for the unobtrusive but secure instrumental support that could overcome potential difficulties for unskilled singers. The words, always sung by male voices, were liable to be obscured by instruments of higher pitch. The choice of tenor or bass instruments available was limited but included the trombone (played in those days with a low breath pressure), as in some Italian churches, and the *Chorist-faggot*, also known in Italy, a dulcian whose name referred to its pitch rather than any connection with singers.

But is it possible that at Auxerre the bishop (who was both musical by inclination and keen to ensure the retention of his congregation against the counterattractions of new forms of worship by the terms of his employment) realized that he had here the opportunity to create a novel attraction, staying within the stipulations of the Council of Trent while conforming to the prevailing fashion of Mannerism?

Is What You See What You Hear?

Although the serpent is a visually striking instrument, it is not difficult to find a lack of enthusiasm for its musical characteristics. Some was shown by authorities like Charles Bordes, who prayed "ab antiquo serpente libera nos, Domine" (God save us from the ancient serpent), and Fétis, who pointed to the "stiff and repulsive manner" in which plainsong was sung in French provincial churches and added "the disagreeable effect of which is augmented by the serpent." One distinguished composer made a connection that must also have occurred to many others. The London *Oracle & Public Advertiser* of 14 August 1795 included an account of an English music-seller named Lowe who bought a serpent in France and later secured an audition with Handel who, he thought, might introduce the instrument into his oratorio *Messiah*. "Handel, bore it for some time with evident signs of perturbation: at last he could hold out no longer, but bawled out in an angry tone, 'Vere did you buy dat dere damned instrument?' 'At Lisle, sir,' said the man in a trembling voice. 'At the Garden of Eden you mean,' says Handel; 'for, by gar, it is nothing more or less than the *damned old Serpent himself*'."

In fairness, it should be said that what was *expected* from serpent-players may sometimes have been unreasonable. Illustrations of Amiens Cathedral show the singers divided between choir stalls on each side of the nave. Each group contains a serpent-player. The nave is some 14.60 m. (48 feet) wide, so after deducting eight feet for the choristers this gives a width of 40 feet on either side of which a serpentist had to play accurately with his partner, divided from him not only by space but also by all the clergy celebrating the Mass. This situation did not go unnoticed by l'Abbé Beaugeoi who in his *Nouvelle méthode de plain-chant, de musique et de serpent* (actually published in Amiens, in 1827) expressed concern about the practical problems of two widely separated serpentists playing in unison with each other.

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We are left with these questions:

1. If Edmé Guillaume was aware of instruments like the dulcian, formed of two straight parallel tubes, why did he not adopt this simple design for his instrument? The first such instrument (the bagpipe-like phagotus) had appeared early in the sixteenth century.

2. If he was not aware of the dulcian, then why not? It was known from Spain to Austria and England by the mid-sixteenth century, but not France?

3. Why were the Auxerre craftsmen required to develop totally new techniques (cutting out two perfectly-matching thin serpentine shapes in several sections which needed to be joined together along their edges on a much larger scale than in the case of the cornett)? (Readers will draw a parallel in the relatively late appearance of the Basse-Tuba, caused by the difficulties of making valves on a larger scale than those in existing smaller brass instruments.)

And, as Gary Stewart was to discover, the skills of subsequent serpent-makers varied considerably between individuals. But given sufficient attention by the craftsman and player, the many outstanding serpentists of the present day demonstrate that the instrument attributed to Edmé Guillaume is well capable of holding its own in both ensemble and solo settings. In other words, the serpent can now be accepted as a viable musical instrument. But are we any closer to knowing the real reason why it was invented?

Did it come into existence as part of a theatrical musical quartet in Italy, or was it designed as part of an attempt to encourage French Catholics to continue attendance at Mass in the face of novel forms of worship?...In which case its adoption by rural village (Church of England) church bands 300 years later[17] could be seen as somewhat ironic...

4x24

Endnotes:

1. For example, at openlibrary.org>books>OL24446294M, accessed 29.11.2022.

2. Marie Nicolas Bouillet, *Dictionnaire universel d'histoire et de géographie* [fn] (Paris: Hachette, 21st edition, 1869). "Lebeuf (l'abbé, J.), chanoine d'Auxerre, 1687–1760, membre de l'Académie des inscriptions, a rendu de grands services à l'histoire nationale par ses savantes et exactes recherches."

3. Lebœuf's description of the serpent as a "cornett in the form of a serpent" was necessitated by the need, when describing something new, to relate it to something familiar. This has not always been realized by commentators who have sometimes mistakenly understood this definition to mean that the serpent was actually a cornett in a different shape.

4. Jean Lebeuf, *Mémoire concernant l'historie ecclésiastique et civile d'Auxerre* (Auxerre: Perriquet, 1743): Tome II, 618-648. "L'auteur de la vie de notre Evêque n'a pas oublié de marquer que ce Prélat aimoit la muſique, & qu'étant dans ſon Palais Epiſcopal, il ne rougiſſoit point de chanter ſa partie avec des Muſiciens. Il ajoûte que ſon amour pour le chant lui faiſoit témoigner plus d'amitié à ceux d'entre les Chanoines qui alloient volontiers à l'aigle pour y chanter, & il eſtimoit pareillement tous les Tortriers, Chantres, Commis, & autres Gagiſtes qui avoient belle voix & qui ſçavoient leur métier, pourvu qu'ils ſuſſent de bonnes mœurs. Il ſe plaſoit même à joüer des inſtrumens, & ſouvent avant le dîner il touchoit d'un clavecin, pour ſe mettre à table l'eſprit plus dégagé après ſes études ſerieuſes. L'éſtime qu'il témoigna pour les Muſiciens les enhardit à faire main-baſſe ſur le ſyſtême de Pſalmodie des anciens Antiphoniers de la Cathédrale, dont la modulation étoit uſitée au moins depuis le ſiécle de Charlemagne. On coupa', trancha, ſupprima tout ce qui ne convenoit pas à leurs nouveaux principes d'accords, en rendant *cahoteux* ce qui auparavant étoit doux; on introduiſit donc alors une barbarie & une diſette étonnante capable d'inſpirer du mépris pour le Plainchant. Mais ce qui dut conſoler les perſonnes zélées pour le chant Gregorien & les autres chants anciens,

eſt que dans le tems même de ces entrepriſes, un Chanoine commenſal de notre Evêque & ſon œconome, inventa une machine capable de donner un nouveau mérite au Chant Gregorien. Ce Chanoine nommé Edme Guillaume trouva le ſecret de tourner un cornet en forme de ſerpent vers l'an 1590. On s'en ſervit pour les concerts qu'on exécuta chez lui, & cet inſtrument ayant été perfectionné, eſt devenu commun dans les grandes Egliſes."

5. Douglas Yeo, *Serpents, Bass Horns and Ophicleides at the Bate Collection* (Oxford, University of Oxford, 2019): 9. Historians may, of course, wish to accept the *Merriam-Webster* definition of history as "a branch of knowledge that explains past events," the operative word here being "past."

6. Sabine Katharina Klaus, *Trumpets and Other High Brass: Ways to Expand the Harmonic Series*, II (Vermillion, South Dakota, National Music Museum, 2013): 99–133.

7. Reginald Morley-Pegge. "Serpent," *Grove's Dictionary of Music and Musicians*, ed. E. Blom, (London, Macmillan, 5th ed., 1954): VII, 712–717.

8. Aimé Cherest, *Bulletin de la Societé des sciences historiques et naturells de l'Yonne* IV, 1850, 40.

9. Morley-Pegge. "Serpent," VII, 714–715.

10. Frank Farrington, "Dissection of a Serpent," *Galpin Society Journal*, XXII, March 1969, 81–96.

11. Gary M. Stewart, *The Restoration and Cataloging of Four Serpents in the Arne B. Larson Collection of Musical Instruments*, M.M. thesis, University of South Dakota, July 1978.

12. Stewart, *The Restoration and Cataloging of Four Serpents*, 5.

13. Beatrix Darmstädter, *Die Zinken und der Serpent* (Wien, Kunsthistorisches Museum/Bergkirchen, Edition Bochinsky, 2011): 228–232.

14. William Hogarth, *The Analysis of Beauty* (London, Reeves, 1753, repr. 1909): 7. The crucial chapter is "Of compositions with the serpentine-line," pages 101–127.

15. Tim Carter, *Music in Late Renaissance and Early Baroque Italy* (London, Amadeus Press, 1991): 128.

16. It has not been possible to discover the relative male hand sizes of the sixteenth century and today, but average UK heights are given as 173–174 cm (68 inches) in 1400–1650, and 178.21 cm (70 inches) in 2022 (a difference of four or five centimetres, or nearly two inches). It is to be expected that relative hand sizes would be proportionate, implying that it is generally somewhat easier for serpentists to cope today than it would have been for those at the time of the instrument's first appearance.

17. Most thoroughly (and lovingly) chronicled in Thomas Hardy's story of west-gallery musicians, *Under the Greenwood Tree (or The Melstock Quire).*

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