A Newly Discovered Source of French Hunting Horn Signals, ca.1666*

Stuart Cheney

A manuscript copied in Paris beginning in 1666 and currently housed at the Library of Congress throws light on several late seventeenth-century French instrumental practices.[1] First, the intriguing combination of repertoires appearing in this single small manuscript is unique in sources of the period: suites for solo viol, dance tunes probably for violin, and hunting horn signals. Second, the number of different manuscript hands and their interrelationships may alter our understanding of musical training in late seventeenth-century France, since the manuscript was almost certainly the notebook of a single music student. Third, and perhaps most significant, the horn signals—notated in a unique tablature system that indicates articulation, relative pitch, and rhythm—are among the earliest examples of horn notation to indicate more than a single pitch, and are the only extant French signals between 1637 and 1705. They constitute the largest collection of hunting signals, printed or manuscript, before the publication in 1734 of Marc-Antoine Dampierre's twenty-six signals and fanfares.[2]

The manuscript's provenance before its purchase in 1930 from the Berlin firm of Leo Liepmannssohn is unknown. The significance of the viol music in this source—four suites for unaccompanied six-string bass viol and three additional pieces in tablature—was established by the late 1960s, after the manuscript was "rediscovered" by Frank Traficante while working for the Library of Congress (it had been miscataloged for decades).[3] The reemergence of this manuscript revealed the earliest dated source of music from the solo French viol school, the earliest set of instructions written in France for bowing and fingering a string instrument, and the oldest French suites for any medium in the "classic" sequence Prelude–Allemande–Courante–Sarabande–Gigue. In addition to these twenty-three pieces for unaccompanied viol, all attributed to Dubuisson, there are six dance pieces near the center of the manuscript notated in French violin (or G1) clef and probably intended to be played on violin.

As a performer and scholar of viol music, my initial interests lay in the pieces for viol. I first encountered this manuscript while researching the music of the French viol player and *maître de musique* whose pseudonym was Dubuisson and whose real name was later revealed through my research and that of Jonathan Dunford to be Jean Lacman, a friend of harpsichordist Jacques Hardel (d. 1678).[4] While studying and playing these viol works, I paid scant attention to the violin tunes or to the several short "pieces" intended for an unidentified wind instrument. An invitation to write the introduction for a facsimile edition of this manuscript forced me to take a closer look at the other repertoires, and I noticed that several of the titles of the wind instrument pieces mention manipulating the actions of dogs, and therefore probably referred to the hunt.[5]

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Hunting treatises that were designed for teaching the nobility the etiquette of hunting appear from at least the fourteenth century; many of these also contain information on playing the horn to communicate across the large distances that separated the parties involved. Most French rulers from Charlemagne to Louis XVI relished the hunt, and some were also able to sound the horn. Louis XI was buried with his horn and other hunting equipment, while Charles IX died at age twenty-four "having overtired himself by sounding the horn," according to his surgeon.[6] Louis XIII is also said to have composed and played signals, especially for his favorite sport, the fox hunt.[7] Figure 1 lists the principal sources of horn signals mentioned in this study.

1) Jacques du Fouilloux, *La vénerie* (Poitiers, 1561)
2) George Gascoigne, *The Noble Arte of Vénerie or Hunting* (London, 1575)
3) Two English manuscripts in the Beinecke Rare Book and Manuscript Library, Yale University (New Haven, CT), referred to as the Osborn MS and MS 200 (both ca. 1575)
4) Marin Mersenne, *Harmonie universelle* (Paris, 1636–37), Propositions X (244–47) and XX, Corollaire III (269–70)
5) Library of Congress (Washington, DC), M2.1.T2 17C (Case) (ca. 1666)
6) "Partition de Plusieurs Marches et Batteries de Tambour," copied under the direction of André Danican Philidor (l'ainé), Bibliothèque municipale de Versailles, MS musical 168 (1705)
7) Marc-Antoine Dampierre, "Tons de chasse et Fanfares," appendix to Jean de Serre, *Les dons des enfants de Latone: La musique et la chasse du cerf* (Paris, 1734)

Figure 1: Principal sources of hunting horn signals, 1561–1734

The signals in the Library of Congress manuscript were probably copied, like the viol pieces, in the mid-1660s and therefore fill a significant gap in the history of French hunting signals between 1637 and 1705. In his *Harmonie universelle,* published in 1636–37, Marin Mersenne includes a discussion of the hunting horn, referred to during the seventeenth century as the *trompe de chasse* or *cor de chasse*. Mersenne also addresses the instrument's uses and repertoire, and includes ten signals in staff notation. All of these are notated on a single pitch, with only their rhythms distinguishing one from another. Purely rhythmic presentation is almost consistently the manner of notating hunting signals up to the second half of the seventeenth century, although individual systems of notation varied widely between the fourteenth and seventeenth centuries. The "cries" used in the hunt, which were performed vocally, were sometimes notated with two or more pitches.

Before Mersenne, in 1561 Jacques du Fouilloux published *La vénerie,* the most influential book of the era on hunting, which included fourteen signals and sixteen cries. Nearly seventy years after Mersenne, André Danican Philidor (the elder, or *l'ainé*) copied fourteen signals into the royal library's collection in 1705.[8] These call for nine different pitches. What occurred during this remarkable seventy-year gap, which saw the horn's practical range expand from a single pitch to a sophisticated musical use of its first twelve overtones? Until recently no source of French signals from the span between Mersenne and Philidor was available to offer evidence about this important transition. Such a shift almost certainly coincided with the transformation of the instrument itself from a helical or single-loop horn into the hoop-like instrument worn over the shoulder; evidence now suggests that the repertoire of signals, its notation, and the instrument changed at nearly the same time.

[1]	1.	pour descoupler
[2]	2.	pour la queste
[3]	3.	pour le chien
[4]		pour le chien
[5]	3.	A Veüe
[6]		A Veüe
[7]	4.	pendant que lon chasse
[8]	5.	ouuary, *pour faire retourner les chiens esgares*
[9]	6.	pour le defaults
[10]	7.	pour rompre les chiens
[11]	8.	relance *C'est pour rejouir les chiens et pour les presser plus vivement quand on void, qu'ils sont desia bien ameutés & qu'ils chassent bien.*
[12]	9.	fanfare de veüe
[13]	10.	fanfare de Veüe
[14]	11.	la prise
[15]	12.	mort
[16]	13.	retraitte
[17]	14.	fanfare
[18]	15.	fanfare
[19]	16.	fanfare
[20]	17.	apel
[21]	18.	fanfare de trompette
[22]	19.	apel
[23]	20.	Marche françoise
[24]		fanfare de Veüe [copied back-to-front]
[25]		air [copied back-to-front]

Figure 2: List of signals in Library of Congress manuscript

The size of the repertoire contained in the Library of Congress manuscript is itself noteworthy; this appears to be the largest French collection of hunting signals before 1734 (see Figure 2).[9] No other source from the period is known to have presented more than fourteen. In addition to the size of this collection, the information on playing techniques that it suggests is also significant.

In the sixteenth century, the terms *ton gresle* and *ton gros* (literally "shrill tone" and "large tone") were used to describe two types of notes used in playing signals. These terms seem to indicate two pitches performable on the simple crescent-shaped horn or the small instrument with a single coil in use at the time, a hypothesis that has been tested and confirmed on modern reproductions. However, collections of notated signals from the same period, such as those published by Du Fouilloux (1561), Gascoigne (1575), and in the two Yale manuscripts, either illustrate signals on a single pitch or make no indication of pitch at all.[10] This implies the use of the simpler (and shorter) single-loop instrument referred to today as the *trompe du Fouilloux*. In Figure 3, from the *Harmonie universelle,* the instrument in the center with the harness attached is a *trompe du Fouilloux*. Mersenne's signals also indicate a single pitch, but he mentions the horn's ability to produce multiple pitches when played by expert performers. In fact, Mersenne writes that some hunters could execute on the horn as wide a range as was available on the contemporaneous trumpet (or to the sixteenth harmonic!), implying the use of the tightly wound and therefore longer helical instrument—sometimes called the *trompe Maricourt*—rather than the shorter *trompe du Fouilloux*. Figure 3 shows the coiled *trompe Maricourt* in the upper left. By Mersenne's time the *trompe Maricourt* had reached a length of approximately two meters, the same as the trumpet.

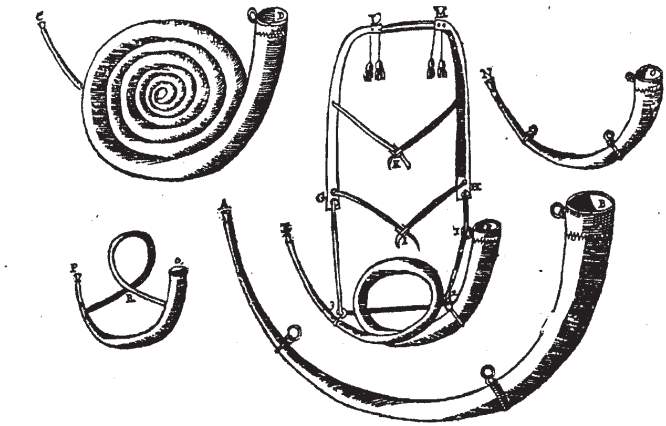


Figure 3: Illustrations of hunting horns from Marin Mersenne's *Harmonie universelle* (Paris, 1636–7).
The trompe du Fouilloux is in the center, with the harness attached.

Later sources of signals, beginning with the Library of Congress manuscript, employ the instrument's middle harmonics, beginning with the third (Figure 4 illustrates a harmonic series on C). The signals that appear in the Library of Congress manuscript are notated with five different pitches, utilizing the third, fourth, fifth, sixth, and eighth harmonics, given in C. The fourteen signals copied in the 1705 Philidor manuscript, also notated in C, extend the instrument's range upward to include the twelfth harmonic (see Figure 4).[11]

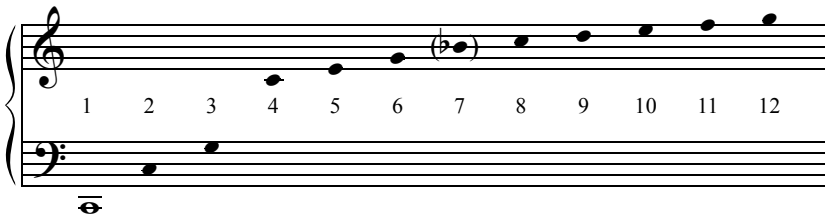


Figure 4: Harmonic series on C.

The Library of Congress source appears to be one of the latest to include articulation syllables. Such syllables do not appear in the Philidor or Dampierre sources, since neither serves the same didactic purposes as the publications of Du Fouilloux and Mersenne or the Library of Congress manuscript. Philidor's fourteen signals comprise a small part of a much larger "archival" manuscript copied for the royal library and largely devoted to military signals for drum and trumpet and trumpet parts from Lully's stage works; Dampierre's signals form an appendix to a collection of poems by Jean de Serre that glorify the royal hunt as practiced at the court of Louis XV.

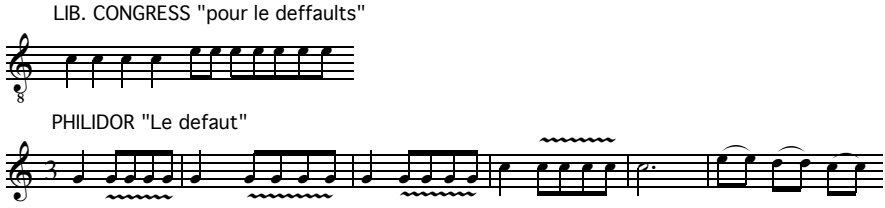
The articulation syllable in both Du Fouilloux's and Mersenne's treatises is *tran*; Mersenne mentions the syllable *houp* for use in the cries that hunters also used for communicating. The Library of Congress manuscript employs five individual articulation syllables: *ta*, *da, dan, ha*, and *ti*. Only *ta* and *ti* are written alone, with the others always forming parts of combinations with *ha* or *dan*, such as *tada*, *taha*, *tadan*, or even *dandandandandan*. The syllable *dan* is usually used on the repeated final notes, *ha* to indicate mildly rearticulated *tremolo* notes, and *ti* chiefly on the eighth harmonic, the upper tonic pitch, or occasionally on the sixth harmonic following a leap up to it.

The signals in the manuscript are the earliest known signals notated in multiple pitches, an advance in technique probably connected to a leap forward in the art of brass-work.[12] In the second half of the seventeenth century, progress in metal-working technology enabled brass to be more effectively soldered. This allowed larger horns to be constructed, since the maker was no longer limited to a single small loop as in the *trompe du Fouilloux* or the tight windings of the *trompe Maricourt*.[13] This innovation in soldering is sometimes credited to the Parisian workshop of the Chrestien (or Crétien) family, whose firm had supplied horns, trumpets, and kettledrums to French kings since the reign of Henri IV eighty years earlier.[14]

In more than just a fascinating coincidence, the name and address of a member of this same family of makers—Jacques Chrestien—appear at the end of the horn signals in the Library of Congress manuscript: "a paris par Chrestien a la trompe Royalle rüe feronnerie proche les S^ts^ Innocens" (In Paris by Chrestien at [the sign of] the Royal Horn rue Feronnerie near [the church of] the Holy Innocents).[15] The first name "Jacques" has been added in the handwriting of a different scribe just above "Chrestien." The original inscription implies via the word *par* that a Chrestien, possibly Jacques, was the copyist or composer of the twenty-five signals. In either case, the person who notated these signals was evidently at least familiar with the hunting signal repertoire, if not a practicing horn player himself. He may also be the prominent instrument maker Jacques Chrestien, who is listed repeatedly between 1657 and 1689 in notarial registers and in the records of the *Maison du Roi* as a *faiseur de cors et trompettes*,[16] although for so broad a span of years these accounts may document two members of the family with the same name, possibly father and son. In 1692 the Paris address given for "le Sieur Crestien"—the best maker of *trompettes* and *timbales*, according to the source—is "rue de la Ferronnerie, à la Ville de Vernon."[17] On 16 May 1699, a marriage contract for Jacques Chrestien, master coppersmith (*maître chaudronnier*), mentions that his father of the same name and same profession was now deceased.[18] The groom would probably have been born during the 1670s, and his father was likely the Jacques Chrestien active in the 1660s (and perhaps as early as 1657) who would have died between 1689 and 1699.

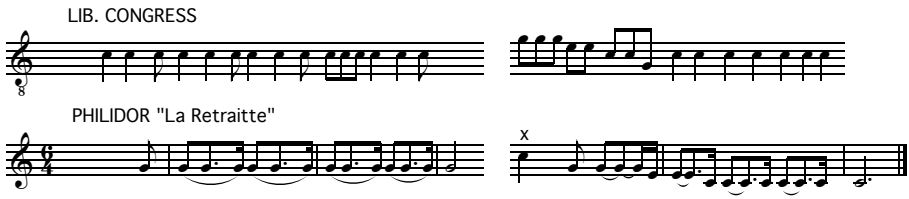
Considering his connection to the royal court establishment, whether Chrestien is copyist or composer of the signals in the Library of Congress manuscript, it is plausible that they relate to the signal repertoire of the royal household. Such a relationship appears in a comparison of the signals in the Library of Congress manuscript and those copied by the royal music librarian Philidor l'ainé in 1705.

There is no evident relationship, rhythmic or otherwise, between any of the signals in Mersenne's *Harmonie universelle* and those in the Library of Congress manuscript or the later sources. After the development of the hoop-shaped horn, a new tradition of signals apparently superseded that illustrated in Mersenne. Notable similarities are apparent between the Library of Congress and Philidor manuscripts in signals with the same or similar names and functions. In addition to some signals that exhibit similarities in general melodic shape and rhythms, others share specific melodic relationships, indicating that during the evolution of the hunting repertoire, melodic fragments and rhythm were retained for decades (see Example 1). For example, in the signal labeled *le defaut* (the false lead) only a leap up in pitch gives any hint that the two are melodically related; the Library of Congress reading rises a major third, while the Philidor version leaps a fourth; the pitches are different.



Example 1: Comparison of *le defaut* in Library of Congress and Philidor manuscripts.

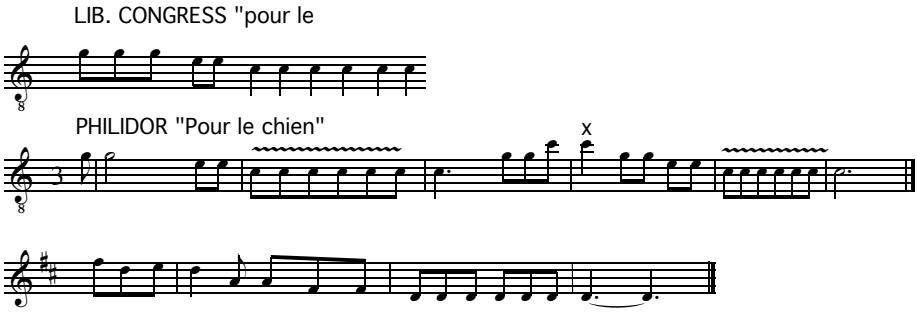
In the two signals labeled *la retraitte* (retreat), pitches differ between manuscripts but the rhythms are nearly the same (see Example 2). The inexact nature of rhythmic notation in the Library of Congress manuscript leaves doubt as to whether rhythms characteristic of this signal are identical in these two sources, but one could postulate that they are. Philidor, in the later source, shows clearly the opening rhythm on the sixth harmonic. In the Library of Congress manuscript, the groupings of three notes, with the last notated as an eighth-note, imply a similar or identical rhythm, here on the fourth harmonic. The falling motion from sixth to fourth harmonic at the end of the Library of Congress version is mirrored in the ending of the Philidor version.



Example 2: Comparison of *la retraitte* in Library of Congress and Philidor manuscripts.

Example 3 shows how the second of two signals labeled *pour le chien* (for the dog) in the Library of Congress source begins on the sixth harmonic and arpeggiates downward to two iterations of the fifth partial, then down to six repetitions on the third harmonic. Similarly, the *pour le chien* signal in the Philidor manuscript contains all the same pitches, and also descends to two iterations of the fifth harmonic before seven iterations of the fourth harmonic, then after arpeggiating upward, repeats the scheme downward to the fourth harmonic. The closing formula was apparently retained at least till the 1730s; in Dampierre's *Ton pour chien*, the identical descending motion is found at the end. These

are the strongest examples to illustrate a kinship in signals used over the forty-year span between the 1660s and 1705, and in one example, as late as 1734.



Example 3: Comparison of *pour le chien* in Library of Congress and Philidor manuscripts and the first Dampierre print.

The style of notation used for these hunting signals appears to be unique to this source. The same can be said for some earlier sources of horn signals, both prints and manuscripts, suggesting by the lack of uniformity that their primary function was that of a memory aid for a repertoire transmitted orally from teacher to pupil, an integral feature of the guild and apprenticeship systems. In practice, of course, the signals would have to be performed from memory. The type of notation used in the Library of Congress manuscript may have been a system devised by this teacher (or his "school") and only used for his pupils. The signals are notated in a kind of tablature in which articulation syllables are written in the spaces of a five-line staff to indicate relative pitches, with no apparent rhythmic indications. On the staff below, a different hand has entered pitches in standard staff notation with G1 clef, without time signatures and with very few bar lines. The rhythms of the pitches are either eighth or quarter notes, with eighths sometimes beamed in groupings that reflect an articulation grouping above, as in *tada* or *tadada* (see Figure 5). Two unnumbered signals that were entered from back to front show only the articulation syllables and are lacking the pitches in standard notation on the empty staves below.

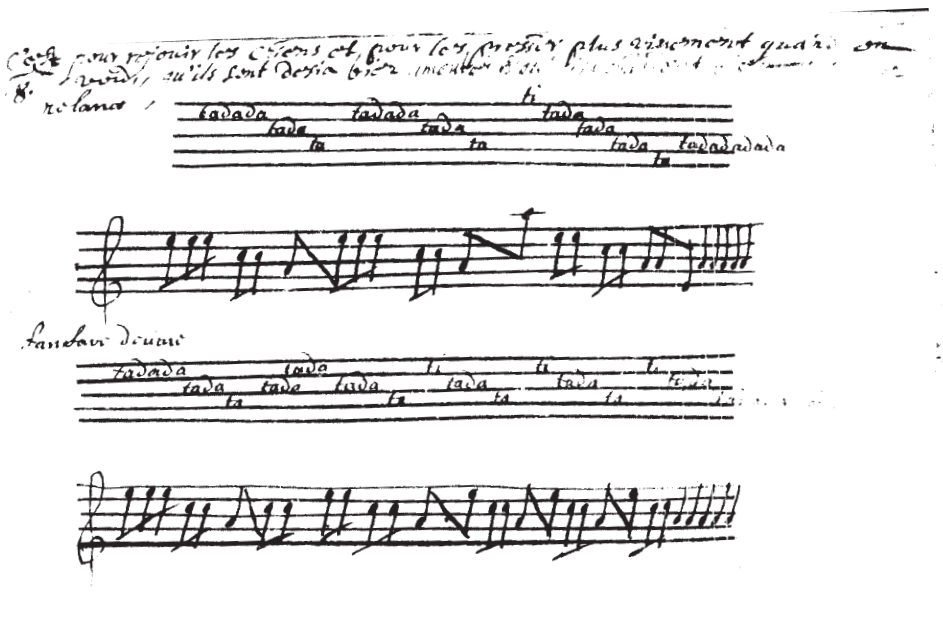


Figure 5: Page from the Library of Congress manuscript (f. 82r) showing articulation syllables (Hand C), staff notation, including beamed eighth notes (Hand E), and explanatory annotations (Hand D).

The Library of Congress manuscript appears to have belonged to a single musician who during the 1660s was studying viol, hunting horn, and perhaps violin. The strongest evidence that the repertoires are contemporary and that the manuscript had a single owner can be found in the relationships among the five scribal hands present (see Figure 6).

inside cover-fol.25	fols.67'-72	fols.77'-89	fol.89'	fol.90
Hand A	Hand B	Hands C, D, E	Hand A	Hand D
Dubuisson's address	6 dance pieces	25 horn signals	[prelude]	viol instructions
Date (1 Sept. 1666)	(for violin?)		(for viol)	
23 viol pieces				

Figure 6: Summary of manuscript's contents and handwritings.

The directions to Dubuisson's residence on the manuscript's inside front cover, the date "Le premier Jour de Septembre/ 1666," as well as the twenty-three viol pieces and their titles, were copied by the composer, designated herein as Hand A. After the viol pieces there are forty-two blank folios, ruled with staves, followed by the six violin tunes, which are copied back to front and occupy ten pages. These are in a different handwriting, that of Hand B, and were probably added to the manuscript last (after the viol pieces and horn signals) in the only available space, which was in the middle. Entries written from back to front are frequently those added later to manuscripts. Two of the violin tunes are *unica* while the others have concordances in other violin, lute, or guitar dance music collections dating from the 1640s through the 1670s.

After another six folios with empty staves come the horn signals, where three new hands appear. Hand C wrote in all the articulation syllables, the titles of the signals, and the address to Chrestien's workshop; this may be the hand of Jacques Chrestien himself.[19] Whatever his identity, Hand C seems to have been teaching the signals to a young musician. Hand D is the most intriguing in the entire source, owing to the multiplicity of its appearances. His writing first appears in annotations to two of the signal's titles, added to elaborate their function in the hunt. For example, following the label *relance* (restarting), the lengthy explanation reads, "To cheer the dogs and to incite them more strongly when one sees that they are already well whipped up and that they are hunting well."[20] Hand D also added "Jacques" to the name Chrestien at the end of the signals.

For each hunting signal, a blank staff was left under the set of articulation syllables, presumably to be filled in by the student. Under all but two of the signals, notes are entered on the staff by a less steady, inelegant hand, probably that of the student, which I designate Hand E. Figure 7 shows the last page of the horn signals, with articulation syllables, notes in staff notation, and Chrestien's address.

Two more items appear in the manuscript after the horn signals. The first is a short prelude for viol in tablature, copied by Hand A. Across from this, on the manuscript's final folio, six rules for bowing and fingering viol pieces were written by Hand D; this suggests that Hand D was involved with the manuscript shortly after the viol pieces were entered beginning in September 1666.

The reappearance of Dubuisson's handwriting (Hand A) at the end does not necessarily imply that he was involved with the manuscript repeatedly or for a prolonged period. It is possible that after he entered the viol suites at the front of the manuscript, he jotted down in tablature the single short prelude at the end as a suggestion for a short tuning piece, one of the original functions of preludes. Dubuisson may not have considered the piece substantial enough to be included with the other viol pieces.

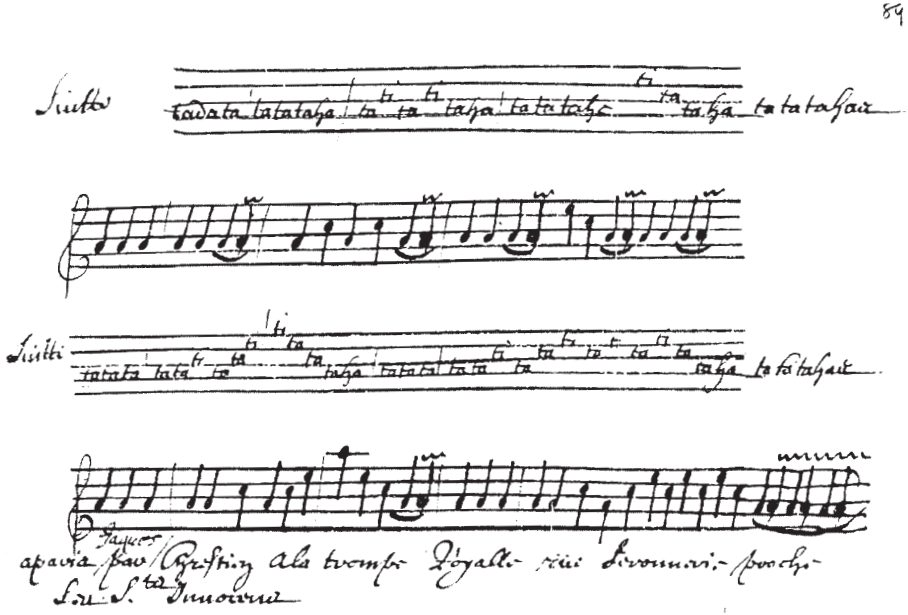


Figure 7: Page from the Library of Congress manuscript (f. 89r) showing articulation syllables, staff notation, and the inscription relating to Jacques Chrestien's address.

Only Hand D appears with more than one of the repertoires, and in both cases it expounds upon what was already written: to explain the function of horn signals and to provide basic bowing and fingering rubrics for viol. Therefore, a plausible interpretation of the role of Hand D is that of the principal teacher, whose expertise knew its limits and who was willing to send a student to special instructors to learn special repertoires, but who retained the license to make emendations. While there is no compelling reason to explain a total lack of music in his handwriting, this could owe to the fact that either his principal method of teaching was oral transmission (in accordance with contemporary guild traditions) or that this manuscript was reserved for the exceptional or supplemental pieces studied with specialized teachers, and that the main body of Hand D's tutelage to this pupil was copied into one or more manuscripts now lost. The viol teacher's address and that of Chrestien (a horn maker who may also be the copyist, composer, and/or teacher of the signals) are both written into the manuscript with their respective repertoires.

The Library of Congress manuscript may have belonged to a young amateur studying a variety of useful musical instruments, or it may have been used by an apprentice in training for a profession in instrumental music. Those most interested in learning the signal systems used in hunting would have been members of the upper class itself, or

the professional musicians employed to perform them during the hunts. Furthermore, while aristocratic amateurs certainly studied the viol during this period, along with lute, theorbo, guitar, angelique, and harpsichord, it is less likely in the 1660s that anyone but a young man destined for a profession as a musician would have played dance pieces on a melodic instrument such as violin (or oboe, flute, or recorder) for which the tunes in the middle of this manuscript were intended. While ownership by an aristocratic or middle-class amateur family often contributes to a manuscript's survival, an amateur interested in learning the hunting signals would probably already have been familiar with the hunt and its relevant terminology and would have had no need for the explanations added by Hand D.

Therefore, I believe that the Library of Congress manuscript may be a rare document of a professional musician's training in the musical apprenticeship system. The notation of each type of repertoire by a different person is strong evidence that by the 1660s some professional instrumental repertoires had become sophisticated enough to require more than one instructor to teach them all.

The manuscript's date of 1666 already establishes its importance to the histories of both viol music and the suite. Now its significance to the history of the hunting horn tradition can be demonstrated as well. The twenty-five signals are the earliest known examples in a new tradition for a new instrument, and provide a vital "missing link" near the midpoint of the almost seventy-year gap between 1637 and 1705. The latter not only marks the year that Philidor's signals were copied but also roughly the beginning of Marc-Antoine Dampierre's career. By the 1730s Dampierre would establish the basis of a tradition of signals and fanfares that persists to this day in France and Belgium. If this manuscript also offers a unique glance into the training of professional or amateur musicians in France in the second half of the seventeenth century, its small size (a little under six inches by four inches) is deceptive with regard to all that it can still tell us.

Stuart Cheney's articles and reviews have appeared in The New Grove *(2nd edition),* MLA Notes, Consort*, and* A Performer's Guide to Seventeenth-Century Music, *and he was for seven years editor of the* Journal of the Viola da Gamba Society of America. *Before moving to Southern Methodist University in 2005 he taught courses and directed early music ensembles at Goucher College, the University of Maryland, and Vanderbilt University. Cheney also plays viola da gamba and cello. His article on early Marais autograph manuscripts is forthcoming from* Early Music.

NOTES

* I sincerely thank Corinne Vaast, Stewart Carter, Donna Mayer-Martin, François-Pierre Goy, Heidi Irgens, and Kevin Salfen for their generous help and advice at various stages of this article.

[1] Shelf number M2.1.T2 17c case. The manuscript is available in a facsimile edition: *Recueil de pièces de viole en musique et en tablature. 1666. Fac-similé du Ms M.2.1 Book T2, 17C, Washington, D.C.,*

Library of Congress, introduction, index par Stuart Cheney (Geneva: Minkoff, 1998).

[2] Marc-Antoine Dampierre, "Tons de chasse et Fanfares," appendix to Jean de Serre, *Les dons des enfants de Latone: La musique et la chasse du cerf* (Paris, 1734).

[3] Traficante's valuable research on the viol and its music concentrates on the lyra viol and he has not, to my knowledge, written on this source.

[4] Dubuisson wrote over 110 pieces for unaccompanied bass viol, some of which exhibit great virtuosity and harmonic innovation; see *The New Grove Dictionary of Music and Musicians*, rev. edn., ed. Stanley Sadie and John Tyrrell (London: Macmillan, 2001), s.v. "Du Buisson: (2) Dubuisson … Lacman, Jean," by Stuart Cheney,; Hardel was godfather to Lacman's son Jacques, born in Paris in 1663. See also Yolande de Brossard, *Musiciens de Paris, 1535–1792, d'après le fichier Laborde* (Paris: Picard, 1965), 161. My comparison of the handwriting at the beginning of the manuscript and the titles of the viol pieces (Hand A) with Lacman's signatures in his marriage contract of 1655 confirms that these viol pieces are autograph.

[5] For example, two of the signals are labeled "pour le chien" (for the dog), and another "pour rompre les chiens" (to divert the dogs). Explanatory notes added in a different hand refer in one instance to bringing back stray dogs, and in another to stirring them up to improve their hunting performance; see Figure 2 for a list of the signals.

[6] Daniel Bourgue, "La trompe de chasse, son histoire, sa technique, sa musique," *Brass Bulletin* 39 (1982): 26. See also Michel Garcin-Marrou, "The horn in France: from the olifant to the orchestra," *Jagd- und Waldhörner: Geschichte und musikalische Nutzung*, ed. Boje E. Hans Schmuhl and Monika Lustig (Augsburg: Vißner, 2006), 29.

[7] *Dictionnaire de la musique en France aux XVIIe et XVIIIe siècles*, ed. Marcelle Benoit (Paris: Fayard, 1992), s.v. "Chasse (répertoire)," by Emmanuel d'Anterroches.

[8] Versailles, Bibliothèque municipale (F-V), MS musical 168, pp. 178 and 179. The second set of seven signals, with titles identical to the first seven, were "fait par Philidor l'ainé" himself and notated in alto (or C3) clef instead of the G1 clef used for the previous set.

[9] To my knowledge the only larger collection before Dampierre appears in Sir Thomas Cockaine's *A Short Treatise of Hunting* (1591), where there are twenty-three signals; see Peter Downey, "'Sir Tristrams Measures *of Blowing*,' Jacques du Fouilloux, and the English Hunting Horn Repertory of the Baroque Era," *Brass Scholarship in Review: Proceedings of the Historic Brass Society Conference, Cité de la Musique, Paris, 1999*, ed. Stewart Carter (Hillsdale, NY: Pendragon, 2006), 24–25.

[10] George Gascoigne, *The Noble Arte of Venerie or Hunting* (London, 1575); the two English manuscripts in Yale University's Beinecke Rare Book and Manuscript Library are referred to as the Osborn MS and MS 200 in Eva Heater's article "Early Hunting Horn Calls and Their Transmission: Some New Discoveries," *Historic Brass Society Journal* VII (1995): 123–41.

[11] The Dampierre *tons* and *fanfares* are notated in D major.

[12] In one of Du Fouilloux's signals, *Curée*, the third pitch is notated a third higher on the staff than the other seven pitches.

[13] The date 1680, mentioned by Morley-Pegge (page 15), Bouëssée (page 33), Flachs (page 115), and others, seemingly stems from two occurrences: Count Franz Anton von Sporck visited Versailles at about this date and was so impressed with French hunting traditions that he imported the hoop horn and its signals to his court in Bohemia. Paintings and other iconography also begin to depict the hoop horns worn over the shoulder at about the same time. See Florence Gétreau, "The horn in seventeenth and eighteenth century France: iconography related to performances and musical works," *Jagd- und Waldhörner: Geschichte und musikalische Nutzung*, ed. Boje E. Hans Schmuhl and Monika Lustig (Augsburg: Vißner, 2006), 43–49, and Joël Bouëssée, *La Trompe de chasse et Gaston de Marolles* (Paris: Féderation internationale des trompes de France, 1979), 35–37, 76–84. See

also Reginald Morley-Pegge, *The French Horn*, 2nd ed. (New York: Norton, 1973); a fundamental study of the hunting horn is Werner Flachs, *Das Jagdhorn: seine Geschichte von der Steinzeit bis zur Gegenwart* (Zug: Kalt-Zehnder, 1994).

[14] *Dictionnaire de la musique en France*, s.v. "Crétien, R.," by Emmanuel d'Anterroches. It is unclear to which family member this entry refers, although a Rollin Chrestien, "maître chaudronnier et faiseur de trompettes et cors de chasse" living on the rue Ferronnerie, was active in the early 1650s; see Françoise Gaussen, "Actes d'état-civil de musiciens français 1651–1681," *Recherches sur la musique française classique* I (1960): 166. At least seven instruments from the Chrestien atelier survive, dating between ca.1630 and 1737. See also William Waterhouse, *The New Langwill Index: A Dictionary of Musical Wind-Instrument Makers and Inventors* (London: Bingham, 1993), 75; Morley-Pegge, *The French Horn*, 16, 18.

[15] The rue de la Ferronnerie, rue des Innocents, and the Place and Fontaine des Innocents, south of Les Halles, are very near one another. The Chrestien atelier would have also been less than half a kilometer from Dubuisson's residence.

[16] See Gaussen, "Actes d'état-civil," 168; and *Musiques de cour: Chapelle, Chambre, Écurie, 1661–1733*, ed. Marcelle Benoit (Paris: Picard, 1971), 45, 48, 50, 54, 86, 93, 105, 112, 120.

[17] Abraham du Pradel, *Le Livre commode contenant les addresses de la Ville de Paris* (Paris, 1692); facs. edn. (Geneva: Minkoff, 1973), 64. "La Ville de Vernon" was a sign on rue Ferronnerie in front of a pair of shops, one of which was rented by the Chrestien family business; I thank Corinne Vaast for this information, gleaned from the Minutier Central of the Archives nationales in Paris. Any relationship between the Chrestiens and the town of Vernon in Normandy is unclear.

[18] Archives nationales, Minutier central, Étude LXXXII, liasse 61, 16 mai 1699. I thank Corinne Vaast for sharing this discovery.

[19] In addition to the inscription that reads "par Chrestien …" (*by* Chrestien), the writing style of the surname resembles a signature. Without the discovery of Jacques Chrestien's authentic signature elsewhere for comparison, however, this is only a hypothesis. The signature of the younger Jacques Chrestien on his 1699 marriage contract is different.

[20] "C'est pour rejouir les chiens et pour les presser plus vivement quand on void, qu'ils sont desia bien ameutés & qu'ils chassent bien." See Figure 5.