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Dissertation

MERRI FRANQUIN AND HIS CONTRIBUTION TO
THE ART OF TRUMPET PLAYING

by

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To the memory of Pierre Thibaud

and Roger Voisin
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ABSTRACT

Merri Franquin (1848 – 1934) left a significant legacy to the art of trumpet playing. A student of J.-B. Arban, Franquin authored a substantial method book, wrote an important historical article, invented an ascending valve system for brass instruments, and had several contest solos (morceaux de concours) dedicated to him, such as Légende by Enesco (Enescu). This dissertation represents the first comprehensive study of Franquin’s contribution to the trumpet’s pedagogy, history, instrument design, performance practice, and repertoire.

Research for this document began with examination of Franquin’s Méthode complète and the entry he wrote on the trumpet and the cornet in Albert Lavignac’s Encyclopédie de la musique et Dictionnaire du Conservatoire. Investigation continued with previously untapped archival material associated with his career as a student and teacher at the Paris Conservatory. A letter to Henri Rabaud in Franquin’s faculty file
delineates Franquin’s major accomplishments, as he himself saw them—casting light on the fundamental innovation of his method.

With aid from Enoch & Cie., the author obtained primary material including manuscripts by Franquin, Enesco, C. Erlanger, G. Pierné, L. de la Laurencie, and C. Saint-Saëns. Roger Voisin and family granted interviews to the author, access to documents of René Voisin, and use of a Franquin-system Thibouville-Lamy trumpet brought from France during the 1952 Boston Symphony European tour under Charles Munch. The author obtained and translated copies of patents for the four- and five-valve trumpets of Franquin’s design.

This research reveals Franquin’s role in the shift to small trumpets in France at the end of the nineteenth century. His writings helped shape the scholarly discourse on the subject and illuminate the reasons for the rise of the cornet in France. His method book, building on the works of F.G.A. Dauverné, J. Forestier, and Arban, clarifies and develops their principles, applying them to the modern trumpet. Franquin taught at the Paris Conservatory from 1894 – 1925, a fecund period for the commission of new contest solos. Those composed for trumpet bear his mark in their content. Franquin’s many students perpetuated his ideas in France and abroad. Through them, the tradition he represents has continued.
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Merri Franquin, 1900 (Collection of the Bibliothèque nationale de France, public domain).
CHAPTER 1
INTRODUCTION

Outside of France, Merri Franquin remains best known to trumpet players as the dedicatee whose name appears atop Georges Enesco’s popular *Légende pour trompette avec accompagnement de piano* (1906). That Enesco felt no compunction to specify “chromatic trumpet” or “trumpet in C” (*en Ut*) in his work’s title—as might have been the case just a few years earlier—bears testament to the influence of Merri Franquin. As will be seen in the pages that follow, many of the musical elements present in this piece and other French solo trumpet works composed for the terminal trumpet competitions at the Paris Conservatory during the *belle époque* represent Franquin’s particular pedagogical, instrumental, and musical preferences. These grew from a continuous tradition of high brass performance dating at least to the eighteenth century, and shaped the sound of the trumpet as heard during the twentieth century and beyond.

Merri Jean Baptiste Franquin was born to Jean Baptiste Etienne Franquin, a farmer in the small Provençal commune of Lançon, in 1848. At the age of fifteen, he discovered an old cornet at home and began to play. Within four years he made his way to Marseille, where he started to perform professionally in the *Casino Musical*, the *Palais Lyrique*, and the *Théâtre Chave* until called to military service in 1870.¹ Merri Franquin came to the French capital in 1872 to study at the Paris Conservatory with cornetist Jean-

Baptiste Arban. After two years of study with Arban, three with his temporary replacement Jacques Hippolyte Maury, and several attempts at the annual terminal competition, Franquin, aged 28 years, 11 months, received his premier prix de cornet in 1877.

From these inauspicious beginnings, Franquin rose to become the scion and standard-bearer of the brass dynasty that can be traced in France to the eighteenth century and trumpeter David Buhl. Franquin assumed the chair of Principal Trumpet (Premier trompette solo) in every major Parisian orchestra of his time: Les Concerts Populaires (Pasdeloup, 1876 – 1884), Les Concerts Colonne (1884 – 1892), La Société des Concerts du Conservatoire (1892 – 1901), L’Opéra Comique and Le Grand Opéra (Théâtre National de L’Opéra, 1880 – 1901). Franquin performed as a trumpet soloist (in Baroque works)—which was uncommon during this period—with such orchestras as the Concerts populaires de Pasdeloup (1882) and the Grands Oratorios de St.-Eustache (1899 – 1901). He also championed the trumpet in contemporary chamber music, frequently performing the septets of Camille Saint-Saëns, (Victor) Alphonse Duvernay, and other composers.

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2 1908 birth certificate (Extrait du Registre des Actes de Naissance) in the collection of the author, reproduced in Appendix 1; Class Rosters (Tableaux des Classes), 1872 – 1873, Paris Conservatory Archive Collection, No. AJ97, French National Archives, Paris, France.


Vincent D’Indy, and Gabriel Pierné for concerts held by Parisian societies including the Cercle Volney and the Cercle Militaire.7

As a teacher, Franquin held the post of Professor of Trumpet at the Paris Conservatory (first occupied by Dauverné, in 1833) for thirty-one years, from 1894 until 1925. During his tenure as Professor, he wrote his Méthode complète de trompette moderne, instructed fifty-nine winners of the premier prix de trompette, perfected a new valve system for the trumpet, and wrote his monumental article on the trumpet and the cornet for Albert Lavignac’s Encyclopedie de la Musique et Dictionnaire du Conservatoire. Propagated by his students, Franquin’s pedagogy, equipment, and musical concepts have gone on to influence successive generations of trumpeters, both in France and abroad. His contribution in these domains will be examined in the third through fifth chapters of this dissertation, which assess the particular contributions of the method book, trumpet valve systems, and contest repertoire associated with Merri Franquin. As a historian of the instrument, his encyclopedia article set—from the viewpoint of an active participant—the scholarly discourse surrounding the rise and fall of the cornet in the French orchestra during the nineteenth century and its relation to the evolution of the trumpet from a large natural instrument to the small, valved version commonly used today. The following chapter, based largely upon Franquin’s article, addresses this topic, and serves as a point of entry into his musical milieu.

7 Franquin, “La Trompette et le cornet,” 1612; Gaston Andrieu, “Merri Franquin : 1848 – 1934”; The composers scored their septets for various mixed ensembles. Saint-Saëns’ 1880 Septet (Septuor) in E-flat, op. 65 and Duvernoy’s 1906 Sérénade, op. 24 were both written for trumpet, piano, two violins, viola, violoncello, and double bass. D’Indy wrote his 1886 Suite dans le style ancien, op. 24 for two flutes, trumpet, and string quartet. Pierné scored his c. 1893 Pastorale variée, op. 30 for flute, oboe, clarinet, two bassoons, horn, and trumpet.
CHAPTER 2
THE QUEST FOR ACCURACY

Of all the musical instruments, the trumpet had been, until now, the most resistant to progress, thanks to the obstinacy of old practitioners and their opposition to young musicians making use of easier-playing instruments, thanks above all to the cornetists—trumpet renegades, who at all costs wanted the cornet to preserve its head start on the trumpet and the favor it had usurped from the trumpet in orchestras. The best way to achieve this end was evidently to deny the trumpet all improvement, and as a result, to leave it the monopoly on cracked notes (“clams”).

I. THE TRUMPET IN CRISIS. Thus Merri Franquin, writing at the turn of the twentieth century, summed up the situation of the orchestral trumpet as he had witnessed it at the close of the nineteenth. Today, scholars agree that the art of trumpet playing experienced a general decline during the latter part of the eighteenth century and the first half of the nineteenth, with the gradual fall from vogue of clarino playing and the simultaneous increase in the number and pace of key changes, if not yet outright

1 « La trompette avait été, jusqu’ici, de tous les instruments de musique, le plus réfractaire au progrès, grâce à l’entêtement des anciens professionnels et à leur opposition à ce que les jeunes fissent usage d’instruments plus avantageux ; grâce surtout aux cornettistes, transfuges de la trompette, qui voulaient à tout prix que le cornet conservât l’avance pris sur elle et la situation qu’il lui avait ravie dans les orchestres. Le meilleur moyen d’y parvenir était évidemment de refuser tout progrès au perfectionnement de la trompette, et, par conséquent, de lui laisser le monopole des couacs. » [N.B.: English-speaking brass players commonly use the colloquial expression “clams” to refer to the particular type of missed notes Franquin calls « couacs. »]


2 Merri Franquin submitted his monumental article “La Trompette et le cornet,” to Encyclopédie editor Lionel de la Laurencie (successor to Albert Lavignac) “at the end of 1922” (à la fin de 1922). It did not see publication until sometime after 1924; Lionel de la Laurencie to Merri Franquin, 16 December 1924, signed manuscript in the collection of the author.
chromaticism, in musical style. These historical developments outpaced the melodic limits of the natural trumpet—even when equipped with a complete gamut of different-keyed crooks—relegating it for the most part to reinforcing the percussion (or the winds in loud, tonally stable passages) and playing the occasional fanfare. Franquin laments that just when the invention of the valve and a corresponding willingness on the part of composers to write more involved trumpet parts should have improved its lot dramatically, the valve was not applied to the trumpet in its most “advantageous” form for nearly seventy-five years. Instead, only the cornet fully profited from the innovation during this period.

The application of valves to brass instruments had been accomplished in Germany around 1816. However, valves did not appear on trumpets—in concert music—for over a decade. When they did, the young Hector Berlioz took to them early on, combining large valved and natural trumpets in the overtures to Les Francs-juges (1826) and Waverly (1827–28), both of which he wrote as a student at the Paris Conservatory. Here the young composer may have had in mind François Dauverné, Principal Trumpet of the Paris Opera at the time (1820–1851), founding member of the Société des Concerts du Conservatoire (1828), and future Professor of Trumpet at the Paris Conservatory.

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3 Clarino playing refers to the historical style of natural (valveless) trumpet writing that exploits the adjacencies available in the upper (> 7th) harmonics; Edward Tarr, The Trumpet, trans. S.E. Plank and Edward Tarr (Portland: Amadeus Press, 1988), 145.
4 As Franquin points out in “La Trompette et le cornet,” the pre-Lohengrin operatic repertoire presents this kind of trumpet writing almost exclusively, 1609.
5 To realize their full potential, valves would need to be applied to a small trumpet, one-half the length of the corresponding natural trumpet in the same key. Ibid.
In 1826, Dauverné brought the first large valved trumpet (in F) to Paris. Valved trumpets made their debut at the Opéra with Hippolyte Chélard’s Parisian flop, *MacBeth*, (1827)—with Dauverné at the helm of the section. Rossini’s *Guillaume Tell*, which also received its premiere at the Paris Opera, became in 1829 the first important work to exploit valved trumpets.

After this, (large) trumpets with valves began to take hold, at least at the Opéra. They were soon heard again in Giacomo Meyerbeer’s *Robert le Diable* (1831), *Les Huguenots* (1836), and Fromental Halévy’s *La Juive* (1835). Perhaps most importantly for future developments, Richard Wagner adopted valved trumpets (used alongside natural trumpets) for his first opera, *Rienzi* (1842). Although *Rienzi* received its premiere in Dresden, Wagner completed it in Paris (1840), while under the patronage of Meyerbeer. His openness to the new trumpet likely resulted directly from its successes at the Paris Opera.

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9 Sometimes called “low” trumpets, the description “large” has generally been adopted here. This provides a more logical contrast to the “small” (petit) trumpets ushered in by Franquin and his contemporaries. Although the early trumpets possessed a fundamental tone in the octave below that of their modern equivalents, they performed in the same (high) tessitura, as will be discussed at length below. Thus the word “low,” in reference to them, could be particularly deceptive.


Like their natural counterparts, early valved trumpets had tubing comparable in length to organ pipes in the eight-foot rank. They possessed an extended chromatic low register (prime range for the trombone, thus not particularly useful from the perspective of orchestration) and unstable upper-middle and high registers. The earliest valved trumpets in France also suffered from design inadequacies that jeopardized their timbre and relative intonation. Later designs seem to have resolved these two problems somewhat, but still presented serious obstacles to accurate performance. Nowadays, the euphonium and the baritone—both of comparable length to the early valved trumpet, but played in the low register encompassing their first and second harmonics—generally come equipped with a compensating valve system. Lacking compensation, the large valved trumpets were severely out of tune on notes requiring a combination of valves, especially those requiring the third valve in combination. Although the most out-of-tune valve combinations largely could be avoided altogether on the large trumpets since

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14 The organist and composer Charles-Marie Widor made this illustrative parallel. Charles-Marie Widor, Technique de l’orchestre moderne, faisant suite au Traité d’instrumentation et d’orchestration de H. Berlioz, 2ème ed. (Paris: Henry Lemoine, 1904), 81; By the same logic, small (modern) trumpets correspond to the four-foot rank, and the piccolo trumpet in B⁰/A corresponds to a two-foot.
15 As tessitura rises, the intervals between harmonics become progressively smaller, increasing the risk of missed notes.
16 François Dauverné, Méthode pour la trompette, 21.
17 Non-compensating instruments become sharper as a function of the number of valves depressed. On modern (small) trumpets and cornets, this can be corrected in performance by means of adjustable first- and third-valve slides operated by the thumb and ring finger of the left hand. Finger- and thumb-adjustable valve slides had not yet been adopted at the end of the nineteenth century. Because of the long lengths of the large trumpets—requiring the addition of several inches of tubing to fully compensate for the simultaneous use of all three valves—they would not have been entirely effective anyhow; To a certain extent, out-of-tune notes can be “lipped” to correct pitch in slow passages. This type of pitch correction, however, becomes increasingly difficult and inexact with speed. Furthermore, “lipping” not only dulls the tone in pulling it away from its resonant harmonic center; it increases the risk of missed notes. Franquin, “La Trompette et le cornet,” 1635.
they—like natural trumpets—played almost exclusively above their third harmonic, the problem of instability remained. According to Merri Franquin, the addition of valves to the eight-foot instruments solved very little:

> It was, in appearance, a great advantage to no longer be obliged to change crooks all the time and to possess the entire chromatic scale; but, from the point of view of facility of execution, no progress; the trumpet remained exactly what it had been before, as much in terms of playing difficulty—its risk of “clams”—as for its unnatural situation of low trumpet played in the high register, of bass playing tenor lines.\(^{18}\)

The manufacturers of early valved trumpets certainly realized that the invention might allow them to halve the length of tubing without losing the practicable range of the instrument. During the same period, the cornet underwent this very change rapidly after its creation. The first cornets appeared in Paris in 1830.\(^{19}\) Of the same length as natural trumpet or high horn, they had two valves that allowed them to play an almost-complete chromatic scale in their middle and upper registers. To accommodate their missing notes and to mitigate tuning problems in keys remote from their nominal key, they came equipped with crooks for every key from low Db to up to high C.\(^{20}\) Cornets soon acquired an additional (third) valve. This made them fully chromatic over their playable range. It also allowed them to summarily drop half their length, losing only the unused notes of their lowest octaves. Most commonly, players performed on them pitched in

\(^{18}\) « C’était, en apparence, un grand avantage de ne plus être obligé de changer de tons à chaque instant et de posséder toute la gamme chromatique ; mais, au point de vue de la facilité d’exécution, nul progrès ; la trompette demeurait exactement ce qu’elle était auparavant, tant pour la difficulté de son jeu, de ses dangers de couacs, que pour sa situation anormale de trompette grave jouée dans l’aigu, de basse jouant les ténors. » Franquin, “La Trompette et le cornet,” 1612.

\(^{19}\) Ibid.

high A, B♭ (their usual modern pitch), and even C.  Thus by mid-century, cornets had already assumed their small modern proportions. In his 1864 *Grande Méthode complète de cornet à pistons et de saxhorn*, Jean-Baptiste Arban noted that the (small) C cornet had become “indispensable” for orchestral playing as it facilitated transposition. He recommended C cornet for solo playing, as well, because of its “distinguished” timbre. In “Arban’s time” and “on his recommendation,” many of his contemporaries also adopted the C cornet “even for the execution of cornet parts written [for instruments pitched] in the keys of B-flat and A… this in the interest of accuracy of execution.”

Smaller trumpets and cornets have the advantage of improving accuracy and stability as compared to larger ones. Input impedance peaks at frequencies corresponding to a brass instrument’s harmonics. These impedance peaks dictate the pitches (frequencies) at which resonant sounds can be produced with ease. They have maximum amplitude—thus sound production becomes easiest—in the mid-range of the instrument. It requires significant effort on the part of the player to bend a pitch away from these natural harmonics. In absolute terms, a larger interval separates adjacent harmonics for any given note for a smaller instrument as compared to the same note on a larger one. Thus for any given concert pitch, smaller instruments provide a greater intervallic distance between adjacent targets—which helps to increase note accuracy. At the same

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21 Franquin, “La Trompette et le cornet,” 1625.
time, because the mid-range of a smaller instrument comes at a higher tessitura than that of a corresponding larger instrument, it improves stability in the normal playing range. Although these phenomena have been explained scientifically only recently, any trumpet or cornet player can immediately sense these differences when playing instruments of varying lengths.

In his opinionated entry on the trumpet and the cornet in Albert Lavignac’s *Encyclopédie de la musique et dictionnaire du Conservatoire*, Franquin suggests that the delay of the trumpet to become equipped with valves and to be adopted in smaller form resulted mostly from the stubbornness of older trumpeters and composers. In his view, they had simply become used to the old-fashioned instruments: routine and complacency blinded them to the possibilities for improving them. But in addition to the weight of tradition, prejudice against the timbre of smaller trumpets also provided a major obstacle to their acceptance. As Charles-Marie Widor memorably wrote in his *Technique de l’orchestre moderne* (1904), “Next to [the] manly and imperious tone [of the large F trumpet], the small modern trumpet almost resembles a cornet à pistons.” Franquin, convinced of the merits of shorter trumpets, gave no credence to this kind of prejudice:

People had become so used to the missed notes of the trumpet and the horn that, in orchestra, the idea of trumpet was inseparable from that of clam. Thus, an instrument that produced few or no clams could not be a true trumpet and deserved only the name piston. This, in general, was the unconscious drive of the detractors of the modern trumpet. Nevertheless, the cornet à pistons being a sort of trumpet, it is not surprising that, in certain circumstances, the true trumpet might have some

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manner of resemblance to it; but in this case, one must reverse the phrase and say, “the piston resembles the trumpet.”

Despite Franquin’s witty response to the type of objection raised by Widor, some of the disinclination toward the sound of the new small trumpets may have been well founded. Their relatively small bore gave them a significantly brighter sound—much more so than their equivalents today. This may have made them seem particularly strident to audiences accustomed to natural and valved trumpets, larger in both length and bore.

II. **The Cornet to the Rescue?** With its invention, the cornet—a new instrument, free of any particular tradition—stood to benefit readily from all available technological innovation. It began to assume a prominent role in the mid-nineteenth century, both as welcome member of the orchestra and uninvited guest. What acceptance the cornet gained in classical music it achieved on the basis of its technical merits, not its sound. At the time its tone was said to impart “platitude and odious vulgarism” to lighter melodies. As “the soul of the Quadrille” this may have been the result of its principal

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27 “On était si bien habitué aux accidents de la trompette et du cor que, à l’orchestre, l’idée de trompette était inseparable de celle de couac. Donc un instrument avec lequel on faisait peu ou pas de couacs ne pouvait être une *vraie trompette* et ne méritait que le nom de piston. Voilà, en général, quel était le mobile inconscient de l’opinion des détracteurs de la trompette moderne. Cependant, le cornet à pistons étant une espèce de trompette, il n’est pas surprenant que, dans certaines circonstances, la vraie trompette ait quelques points de ressemblance avec lui ; mais alors, il faut renverser la phrase et dire : ‘Le piston ressemble à la trompette.’” Franquin, “La Trompette et le cornet,” 1616.


29 Franquin, “La Trompette et le cornet,” 1626.

30 Hector Berlioz, *Grand Traité d’Instrumentation et d’Orchestration Modernes, Nouvelle Édition*, (1855; repr., Paris: Henry Lemoine, c. 1880), 198; This description of the cornet sound, and those attributed to Berlioz that follow, appear identically in the earliest texts of his *Treatise*
association—with popular music—in the minds of nineteenth-century audiences.\textsuperscript{31}

Nevertheless, in France especially, the cornet became an accepted member of the orchestra, because composers, following the example of Berlioz, began to write for it in combination with natural trumpets. Berlioz made no secret of his views on the sound of the cornet. Beyond the description just cited, he characterized it as “without the nobility of the horn, nor the pride of the trumpet,” or worse, “biting, blaring, shameless…..”\textsuperscript{32}

But cornets seemed to him a necessary evil, since they could sound similar to trumpets and play chromatically throughout their compass with great agility: “employed in harmony, [the cornet] melds quite well with the other brasses; it serves to complete chords in the trumpets, and to throw into the orchestra groups of notes—diatonic or chromatic—that, owing to their rapidity, suit neither trombones nor horns.”\textsuperscript{33}

Certainly the successes of the famed cornetist Jean-Baptiste Arban, a ready supply of his pupils from the \textit{Gymnase musical militaire} and later the Paris Conservatory, and other prominent French cornetists did nothing to hurt the case of the cornet in France.\textsuperscript{34} At any rate, the mixed section, two cornets and two trumpets, became common in French orchestras (and orchestration) from Berlioz to Debussy.

\footnotesize{31 François Dauverné, cited in Tarr, \textit{The Trumpet}, 168.}
\footnotesize{32 « …ni la noblesse des sons du cor, ni la fierté de ceux de la trompette… » Berlioz, \textit{Grand Traité d'Instrumentation}, 197; « …mordant, fanfaron, déhonté… » Ibid., 198.}
\footnotesize{33 « Employé harmoniquement, il se fond très bien dans la masse des instruments de cuivre ; il sert à compléter les accords des trompettes ; et à jeter dans l’orchestre des groupes de notes, diatoniques ou chromatiques, qui, à cause de leur rapidité, ne conviendraient ni aux trombones, ni aux cors. » Berlioz, \textit{Grand Traité d’Instrumentation}, 197.}
\footnotesize{34 Franquin, “La Trompette et le cornet,” 1611.}
During the nineteenth and early twentieth centuries, the cornet also entered the orchestra surreptitiously, as many players (following Arban’s example, according to Franquin) simply performed trumpet parts on the cornet if they felt they could get away with it. The case of the Paris Opera seems typical. There, “the cornet, in effect, after the middle of the nineteenth century, replaced the [large] trumpet for playing the chromatic parts, and even certain natural trumpet parts, in solos that would have exposed the would-be trumpeter to missed notes easily avoidable with the high cornet.”

Of course, this could cause problems if someone in a position of authority happened to notice the substitution. Franquin relates an anecdote from the premiere of Giuseppe Verdi’s Othello at the Paris Opera (1894). At that time (and apparently through at least 1922), cornetists played the second stand trumpet parts in this opera. At a certain point during the first rehearsal, the composer himself complained about the use of cornets. For the following rehearsals and performances, the trumpet players and cornet players would momentarily exchange places for the passage that had piqued the composer, the trumpeters taking the places of the cornetists and vice versa.

At the end of the nineteenth century, not only French orchestras, but also those in Britain, the United States, Belgium, Spain, Italy, etc., commonly used cornets to play

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orchestral trumpet parts. Germany (and probably Austria) remained the only significant holdout against the cornet incursion. This may have been the result of the enormous influence in those countries of composers such as Brahms and Wagner, who never wrote for the cornet. More likely, it resulted from a relatively early switch to small trumpets, spurred by the increasing difficulty of parts by German and Austrian composers during the latter half of the nineteenth century.

The first German performer to make the change seems to have been Dresden trumpeter Albert Kühnert. While not abandoning the large F trumpet altogether, between 1850 and 1860 (just after Wagner left Dresden for Zurich), he began to use the small Bb trumpet. This mix of large and small trumpets remained the norm in German trumpet sections for some time, as Richard Strauss wrote in his revision of Berlioz’s *Treatise on Instrumentation*, “to the best of my knowledge, trumpet players now [1904] prefer the following keys: first trumpets–high A, Bb, C; second trumpets–[low] F, D, Eb.”

III. THE NEW MUSIC OUTPACES THE CORNET. As the German trumpeter Hermann Pietzsch pointed out in 1900, with the beginning of the new century, and the adoption of the high trumpets even in France, “the orchestral days of the cornet-à-pistons [were] numbered.” In the 1855 edition of his *Traité*, Berlioz stated that cornet achieves its best

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39 (The tubing of this Bb trumpet would have the same length as its modern equivalent.) Millington, “Wagner: 1” in *Grove Music Online*; Tarr, *The Trumpet*, 170.
sound in its second octave, roughly that encompassed by the treble staff. Although the cornet offers a distinct advantage over the trumpet in that register in terms of accuracy and flexibility, it does not produce high notes as well. Especially when equipped with a characteristically deep mouthpiece, the cornet produces notes above G5 with progressive difficulty. In the high register, its diffuse tone lacks projection and tends to sound muffled. From the point of view of the player, the notes become ever more unstable as the register ascends. Scenes such as the following, reported by Franquin, must have become increasingly common as orchestral trumpet parts began to climb into the high register:

The problem occurred for the first time during a rehearsal for [Ernest] Reyer’s *Sigurd* at the Paris Opera [c. 1884]. In this opera, the cornets today still [c. 1922] play the [valved] trumpet parts. At the work’s read-through, in the orchestra, there was a solo entrance in the [valved] trumpet parts—entrusted to the cornetists—that climbed up to a sustained B-natural (concert pitch). When the note was not reached, Monsieur Reyer asked why, affirming that it had been played successfully elsewhere (he was alluding to the Théâtre de la Monnaie in Brussels where *Sigurd* had its premiere). So we confessed to him that the cornet was incapable of replacing the trumpet in that situation. At the next rehearsal, the passage was transferred to the trumpet desk, by means of a momentary exchange of parts [where it was played on small C trumpets].

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44 « Le fait s’est produit, pour la première fois, à une répétition de Sigurd de REYER à l’Opéra de Paris. Dans cet opéra, les cornets à pistons exécutent encore actuellement les parties de trompettes chromatiques. A la lecture de cet ouvrage, à l’orchestre, il y avait au pupitre des trompettes chromatiques, confié aux pistons, une rentrée solo qui monte jusqu’au si-bécarre (note réelle) de valeur longue. Cette note n’ayant pas été atteinte, M. REYER en demanda la raison en affirmant qu’elle avait été rendu ailleurs (Il faisait allusion au Théâtre de la Monnaie à Bruxelles où Sigurd a été créé). On lui a alors avoué que le cornet était impuissant à remplacer la trompette en cette circonstance. A la répétition suivante, le passage était transféré au pupitre des trompettes, au moyen d’un échange momentané des parties. » Franquin, “La Trompette et le cornet,” 1627; 1611.
IV. THE RISE OF SMALL TRUMPETS IN THE BELLE ÉPOQUE. Contrary to what one might expect, it was not the demands of new music, but that of the Baroque (undergoing a revival in France at the time) that first spurred French trumpeters to begin performing regularly on smaller instruments. According to Franquin, Xavier Napoléon Aimé Teste became, in 1874, the first influential player to perform on a small trumpet in France. As Principal Trumpet of the popular Concerts Lamoureux, he had a small trumpet in D made for a performance of Handel’s Messiah at the Cirque d’Été. This petite trompette en ré has the same size as a modern D trumpet—not a modern piccolo trumpet as might be assumed. By adding an optional longer tuning slide, Teste’s trumpet could be extended to the size and pitch of a modern orchestral C trumpet. His success with this small instrument soon brought him appointments as Principal Trumpet at the prestigious Société des Concerts du Conservatoire (19 October 1875), then as First Trumpet at the Opéra (where he already held a position as section trumpeter and cornetist). During the winter 1890–91 Société des Concerts du Conservatoire season, Xavier Teste performed the high trumpet part of Bach’s B Minor Mass in its entirety, in one of the first complete performances (with the trumpets playing in the correct octave) since the eighteenth

46 Holoman, <http://hector.ucdavis.edu/sdc/MainRoll/T.htm>, accessed 5 February 2008; Because of resistance to modern (i.e., shorter) instruments from the elder members of the trumpet section (and, it must be supposed, because of a certain macho imperative to prove that they, too, mastered the old-fashioned instruments), with only rare exceptions, Teste and Franquin continued playing long trumpets, both natural and chromatic, at the Opéra until 1891, when the old-timers left the section. All the while (after 1874) they played high D trumpets for solo appearances elsewhere, and (usually extended to the key of C) with the trumpet sections of Société des Concerts du Conservatoire and other ensembles. Franquin, “La Trompette et le cornet,” 1611.
The piece entered the repertoire of the Société, with whom Teste’s successors Franquin and Édouard Jean Lachanaud, respectively, continued to perform the high trumpet part on the (small) D trumpet. In 1882, Merri Franquin took up the mantle of soloist from his celebrated colleague. He performed the aria “Let the Bright Seraphim” from Handel’s oratorio Samson with soprano Carlotta Patti for the Concerts Populaires de Pasdeloup to critical acclaim at a time when such a performance still seemed to have an air of novelty.

V. NEW TRUMPETS, NEW PROBLEMS. By 1890, the Paris Opera had become one of the last bastions of the old technology in Europe. But in 1891, with the Paris premiere of Lohengrin, the last large trumpet holdouts in the section had retired. Small trumpets made their definitive appearance in the pit.

Despite their increased accuracy over larger instruments, the new trumpets were not always ideally suited to their increasingly demanding repertory. Aside from the

49 Somewhat amusingly, Franquin includes a critique of his own performance from Le Figaro (15 February 1882) in his encyclopedia entry. After a few lines about Mme. Patti’s success, the article reads « Il est juste d’associer à ce succès M. Franquin, qui a exécuté la partie de trompette avec une étonnante sûreté et un rare bonheur. » [“It is fair to associate M. Franquin with this success, who executed the trumpet part with astonishing accuracy and a rare felicity.”] Franquin, “La Trompette et le cornet,” 1611.
51 Natural trumpets appeared onstage in Lohengrin, however, for visual impact, if not for their characteristic sound. Franquin, “La Trompette et le cornet,” 1611.
considerable difficulty of performing Baroque music for trumpet in the original tessitura, at the beginning of the twentieth century, orchestral composers began to push the limits of the practical high range, even for smaller instruments. Furthermore, beginning with Wagner (for example, in the gentle, arching trumpet lines marked sehr zart in Parsifal), composers increasingly explored the softer, lyrical side of the trumpet. Wagner and his followers, in particular, tested trumpet players in their scores with the compositional technique of “inaudible entry,” by which the additive (and in principle, inaudible) entries of subsequent instruments effect an orchestral crescendo. Although smaller trumpets certainly improve accuracy and stability, paradoxically, their construction can actually make attacks more difficult as compared to a larger instrument.

With the twentieth century, one can add to the orchestral demands placed upon the trumpet those of the increasing repertoire of new solo works, exploration of Baroque repertoire, changes of transposition (pushed to an extreme in the works of Wagner, then by Mahler and Strauss), and expectation with regard to accuracy and intonation.

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52 “The trumpet in high C is coming more and more into general use [in Germany], as the demands on durability [sic], power, fullness and high notes are constantly increasing. To prove the statement, the dreaded Zarathustra-Motive [pick-up to 3 mm. after fig. 18] by Richard Strauss has been excelled by a voluntary trumpet-motive in the Symphonia Domesticae [sic].” [2 mm. before fig. 101]. Pietzsch, The Trumpet, 31.
3 Tarr, The Trumpet, 194.
54 This relative difficulty of attack on modern trumpets as compared to historic large trumpets seems to result from differences in the geometry of their bore and bells, and can be observed even in the absence of a valve section. Arthur Benade, “The Problem of Clean Attack,” 1973 Manuscript on Trumpet Acoustics, <http://la.trompette.free.fr/Benade/Trumpet73/Attack.htm> (accessed 29 July 2008).
55 Gunther Schuller muses on the compositional practice and logic—or lack thereof—of frequent transposition changes in works by these composers by examining five passages from their works in “Trumpet Transposition and Key Changes in Late 19th-Century Romantic Compositions,” International Trumpet Guild Journal 13, no. 3 (February 1989): 19 – 24.
1901, Merri Franquin retired from the orchestras of the Opéra and the Société des Concerts, in which he had until then served as Principal Trumpet.\(^5\) Taking up the legacy of his first teacher at the Paris Conservatory, Arban (and of Arban’s teacher Dauverné), Franquin assumed the trumpet professorship at the Paris Conservatory on November 1\(^{st}\), 1894, upon the retirement of Dauverné’s successor, Jules Cerclier.\(^5\) Now having positioned himself at the head the French School, Franquin would begin to rehabilitate the Conservatory trumpet class which, since the rise of the cornet with Arban, had been more or less completely eclipsed. He succeeded by devising new principles of study, incorporating them into the first modern trumpet method, inventing a new type of high C trumpet designed to excel at both contemporary and historical repertoire, and overseeing the creation of a new body of solo literature for his instrument. In the process of producing the some of the most successful classes of trumpet students the Paris Conservatory has ever known, Merri Franquin perpetuated a musical dynasty that has remained one of the most visible and influential in the world for over one hundred seventy-five years.

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\(^{5}\) Franquin, “La Trompette et le cornet,” 1611; Baroque music—and some music written for large valved trumpet in F—poses a particular equipment problem for trumpeters. Although it places demands in the high register that would favor execution on a small instrument, being written for larger instruments, it sometimes requires notes below the practicable range of a small trumpet.


\(^{5}\) Constant Pierre, Le Conservatoire national, 439, 441, 444.
CHAPTER 3

TRADITION AND INNOVATION IN MERRI FRANQUIN’S
MÉTHODE COMPLÈTE DE TROMPETTE MODERNE, DE CORNET ET DE BUGLE

After slipping into relative obscurity for most of the latter half of the twentieth century, Merri Franquin’s *Méthode complète de trompette moderne, de cornet et de bugle* has begun to make a resurgence. Enoch & Compagnie—the original publisher—still sells the method, reprinting it digitally as recently as 2004. Thus, it cannot rightly be said to have disappeared completely. Rather, as will be shown, even in active disuse as a method for study, its principles nonetheless exerted a strong behind-the-scenes influence on trumpet instruction and performance over the last century.

According to the publisher, much of the current interest in Franquin’s *Méthode complète* resulted directly from public endorsements by Maurice André.\(^1\) As described in André’s memoir, Franquin student Léon Barthélemy became his first major teacher—his “carrier rocket” (*fusée porteuse*). With Barthélemy, André worked from Franquin’s method before gaining entrance at the Paris Conservatory.\(^2\) Records at the Conservatory show no evidence that the trumpet classes continued to use the *Méthode complète* as an official method of instruction after Franquin’s retirement in 1925.\(^3\) This may well be because Fraquin’s immediate successors, Professors Eugène Foveau and Pierre-Joseph Véronique Lavedan, interview by author, Paris, France, 11 September 2007.\(^1\)


Vignal, completed their studies at the Conservatory before its publication. Perhaps they felt that they owed their success to study from the (older) cornet methods of Jean-Baptiste Arban and Joseph Forestier, which were officially retained as methods of instruction.  

According to Stephen Burns, currently one of most important proponents of the Franquin Méthode in the United States, Pierre Thibaud (Professor of Trumpet at the Paris Conservatory from 1975 until 1994) essentially rediscovered it in 1985, bringing home ten copies which he had rebound for himself and his studio. Thibaud introduced Burns and his other students (including, eventually, this author) to Franquin’s Méthode complète and incorporated its use in his instruction.

I. The Library of Merri Franquin: Les Principaux Auteurs. Merri Franquin’s Méthode complète first appeared one hundred years ago. At the time, no major method

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4 Hondré, “Les méthodes officielles du Conservatoire,” 104 – 106; Foveau won a 1er prix de cornet in 1906 (from the class of Joseph Mellet) and a 1er prix de trompette (from the class of Merri Franquin) in 1907. Vignal won a 1er prix de cornet (from the class of Joseph Mellet) in 1902. Although both men would have been exposed to Franquin’s principles of study by proximity to colleagues in the trumpet class (and Foveau in the trumpet class—where he probably also worked on many of the exercises later included in the method), neither would have had the opportunity to work out of the Méthode complète, the publication of which was only initiated (but not completed) in 1906. Hugon-Roydor, ed., Annuaire Officiel du Conservatoire National de Musique et de Déclamation, (Paris: Maurice Sénart, 1919), 195, 275; Photocopy of publication contract for “Grande méthode de trompette moderne” between Enoch & Cie. and Monsieur Merri Franquin, dated 18 December 1906, collection of the author.

5 Thibaud had almost definitely been aware of Franquin’s method since much earlier, during studies with Eugène Foveau and Raymond Sabarich. Burns was present the day Thibaud brought the copies of the method home. Stephen Burns, e-mail message to author, 3 December 2008.

6 Undocumented in the Library of Congress catalogue and other sources, the publication year of Merri Franquin’s Méthode complète de trompette moderne, de cornet et de bugle can now be firmly established. In a letter discovered by the author during the course of researching this dissertation, Franquin refers to his book as “my method for trumpet and cornet the first edition of which dates to the year 1908” (ma méthode de trompette et de cornet à pistons dont la première édition remonte à l’année 1908). Franquin addressed the letter to his « Maître et cher directeur. » Judging by its contents and other correspondence between the two, this refers to Lionel de la
book for trumpet had been introduced in France for over fifty years, since the final version of François George Auguste Dauverné’s *Méthode pour la trompette*, published in 1857. Specifically, no complete method books existed that addressed the instruction of the modern trumpet, or developed the techniques essential to the performance of its new and newly-revived repertoire. Dauverné, founder of the trumpet studio at the Paris Conservatory (Professor of Trumpet, 1833 – 1869), had conceived his method book for the instruction of the natural trumpet, the slide trumpet, and the long piston-valved trumpet. Thus, Dauverné’s book presented the last major historical natural trumpet method, the first valved trumpet method, and the first of a family of influential French method books for trumpet and cornet associated with professors at the Paris Conservatory. The recent interest in historically-informed performance on original instruments has led to a resurgence of interest in Dauverné’s work. This has resulted both in a reprint of the first edition and the inclusion of several of its natural trumpet exercises in a well-regarded modern method book for baroque trumpet.  

In the time between the publication of the trumpet methods of Dauverné and Franquin, several French cornetists published complete methods for their instrument. Jean-Baptiste Arban (*1er prix de trompette*, 1845), Dauverné’s most illustrious student and the first of Franquin’s two cornet teachers at the Paris Conservatory, authored the

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Laurencie. De la Laurencie became editor (*directeur générale de l’édition*) of the *Encyclopédie de musique et Dictionnaire du Conservatoire* after the death of Albert Lavignac. As such, Franquin corresponded with him over a period of several years regarding Franquin’s entry on the trumpet and the cornet. Merri Franquin to [Lionel de la Laurencie], 8 November 1926, handwritten signed copy, currently in the collection of the author.

most widely-used brass method book. Arban may be the single most influential brass performer and pedagogue of the last one hundred and fifty years. He enjoyed international fame as a traveling cornet soloist during the mid-nineteenth century. As such, he became the paradigm for the many cornet virtuosi to follow him, whose celebrity drew audiences to the band and light orchestra concerts they headlined for decades.

Arban also performed as an orchestral conductor, invented a new valve system for the cornet, taught as Professor of Saxhorn through the Gymnase musical militaire (1857 – 1868), and became the first Professor of Cornet at the Paris Conservatory (1869 – 1874, 1880 – 1889). As with Dauverné, Arban’s creation of a new studio for his instrument at the Conservatory—in effect gaining it official approval of the French establishment as an instrument of art or “concert” music, not merely an instrument of military or popular music—represents a particular accomplishment in and of itself. Arban’s Grande Méthode de Cornet à Pistons et de Saxhorn appeared in 1864. Today, Arban’s Grande Méthode still represents the worldwide standard for brass instruction, used not only by students of trumpet and cornet, but also of horn, trombone, and tuba.

It should be noted that another Dauverné student, Louis-Antoine Saint-Jacome (1er prix de trompette, 1858), authored a well-regarded cornet method book around the

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9 L’Institut de France, specifically L’Académie des Beaux-Arts governing the Paris Conservatory, embodied the French establishment in this case.
same time as Arban. Saint-Jacome’s method book also has many adherents today—among English speakers, at least. It has been published continuously in the United States since 1894 by Carl Fisher. American trumpeter Claude Gordon reedited it shortly before his death in 1996. However, Saint-Jacome does not seem to have had much impact on brass instruction in his native France. Paradoxically, no French language edition of Saint-Jacome’s *Grand Method* may ever have existed. This may explain why Franquin makes no mention of it or of its author.

Joseph Forestier wrote the third influential French cornet method book to emerge in the nineteenth century. Forestier also studied at the Paris Conservatory, although neither the trumpet nor the cornet. Ten years Arban’s senior, he began his studies there before classes in either instrument existed. In fact, he studied in the horn studio of Louis-François Dauprat. Thus, Forestier received his prize on natural horn (*1er prix de cor*, 1834). Forestier performed as a member of the trumpet section with the orchestra of the Paris Opera (1844 – 1868), and as a cornetist, notably of the Musard concert series.

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11 The seemingly inexplicable absence, historically, of Saint-Jacôme’s method from the curriculum of the Paris Conservatory and other music schools in France has led some to speculate that he may have been Belgian. He was in fact French, born in Paris on 13 May 1830. Pierre, *Le Conservatoire national*, 846.


13 Saint-Jacome traveled to London not long after winning his prize at the Paris Conservatory, to play as a member of the Alhambra orchestra and as a soloist. In 1870 he began to work as an arranger for the English branch of the Messrs. Lafleur Musical Publishing Company (in London), where he published his *New and Modern Grand Method for the cornet-à-pistons, soprano saxhorn or bariton* (London: J.R. Lafleur, 1870), apparently only in English. He continued to live and work in London for the rest of his life. From the 1890’s until his death in 1898 he served as the principal cornet tester and tuner for the manufacturer Besson. Glenn Bridges, *Pioneers in Brass* (Detroit: Sherwood, 1965) 80.

14 Although Dauverné started the trumpet class at the Paris Conservatory in 1833, his first students to participate in the terminal competition did so in 1835. Pierre, *Le Conservatoire national*, 649.
During roughly the same period that Arban taught saxhorn to the military students of the Gymnase musical militaire, Forestier taught a similar class for military cornetists (1856–1870). This program, Classes spéciales annexées au conservatoire pour les musiciens militaires, budgeted by the French Ministry of War, ended abruptly in 1870. Its demise presumably resulted from bureaucratic and budgetary changes that came about with the end of the Second French Empire.

The first edition of Forestier’s method book (1844) appeared before that of Dauverné or Arban. However, he modified and expanded it several times over the course of the latter half of the nineteenth century, apparently in response to improvements in instrument design, and to accommodate the increasing level of technique demanded of cornetists:

As the instrument evolved and new requirements arose, I revised my method little by little or wrote others—with the aim of comprehensive instruction; but the method, thus completed, finds itself today disseminated in four different works, perforce loaded with redundancies and extraneous information. This can only impact the clarity and the regular pace of progress negatively, and it is to obviate these obstacles that I undertook to combine the necessary lessons, the quintessence—if I may so speak—of these four methods into one. I added new études, examples, exercises, duets, etc., that appeared indispensable to form the most complete work and, I dare say, the most rational of cornet pedagogy.


Au fur et à mesure des progrès de l’instrument et ses besoins nouveaux, je retouchai ma méthode ou j’en composai d’autres afin de compléter mon enseignement; mais cet enseignement
One cannot help noticing in this last sentence a certain acerbity, seemingly directed at the rival method of Arban. Forestier updated his method several times, at least in part to accommodate the extension of cornet multiple tonguing technique pioneered by Arban.\(^{19}\) He apparently felt compelled to try writing a better—or at least more “rational”—method book. Aside from the organization of his book by progressive lessons (explained below under \textsc{Organization of the Method}), this so-called “rational” aspect may refer to Forestier’s instructive comments, particularly thorough and abundant as compared to those of Arban.\(^{20}\) Franquin refers to a post-Arban edition of Forestier’s method in his own.\(^{21}\) This can be inferred from Franquin’s citation of Forestier’s explanation on multiple tonguing extended passages of rapid, unrepeated notes—the technique first exploited by Arban in 1848—identical to those found in the complete,

\begin{quote}
ainsi complété se trouve aujourd’hui disséminé dans quatre ouvrages différents, forcément surchargés de redites et de longeurs. Cela ne peut que nuire à la clarté et à la marche régulière des progrès, et c’est pour obvier à ces inconvénients que j’ai entrepris de réunir les leçons nécessaires, la quintessence, si je puis m’exprimer ainsi, de ces quatre méthodes en une seule. J’y ai joint des études nouvelles, des exemples, exercices, duos, etc., qui m’ont paru indispensables pour former l’ouvrage le plus complet et, j’ose le dire, le plus rationnel de la scolastique du cornet à pistons. » Forestier, \textit{Grande Méthode} 1:1.
\end{quote}

\(^{19}\) Prior to Arban’s monumental solo cornet performance in 1848 of a flute piece by Theobald Boehm in concert with the \textit{Sociéte des Concerts du Conservatoire}, multiple tonguing had been confined on brass instruments to short bursts of notes, usually on the same pitch. He became the first to extend the technique to long scalar passages and intervallic leaps. Jean-Baptiste Arban, \textit{Arban’s Complete Conservatory Method for Trumpet} (New York: Carl Fisher, 1936), 3 (footnote); Merri Franquin, \textit{Méthode complète de trompette moderne, de cornet et de bugle} (Paris: Enoch, 1908), 229.


three-volume edition of Forestier’s *Grande Méthode de cornet à pistons* currently in print.\(^2\)

Dauverné, Arban, and Forestier, whom Merri Franquin collectively calls “the principal authors” (*les principaux auteurs*), represent his pedagogical heritage.\(^3\) He refers only to their works as bearing on his understanding of trumpet and cornet performance and study. Evidently, this selection betrays a certain French chauvinism, specifically one attached to the nineteenth-century school of brass instruction associated with the Paris Conservatory and *Gymnase musical militaire*. But that all three of the method books by Franquin’s Principal Authors still have currency today—over one hundred and fifty years later—supports the notion that such chauvinism might be, in this case, well-justified. Aside from shedding light on the genesis of Franquin’s *Méthode complète* in particular, familiarity with all of the books in this great family of methods by teachers, students and colleagues at the Paris Conservatory is helpful in coming to terms with the individual books. The authors tend to explain similar concepts with different emphases and varying degrees of thoroughness. Sometimes, they contradict each other outright. What the teacher spells out explicitly might be taken for granted in the method of the student, and vice-versa. As a result, important explanations sometimes do not appear in one or the other of their respective methods.

In some cases, a pedagogical evolution reveals itself. For example, in his first exercises on sound production, Dauverné states that the “>” signs marking each note


\(^3\) Merri Franquin, *Méthode complète*, 229.
indicate that the tones must be strongly attacked, then gradually (insensiblement) diminished—the effect being nearly the same as a drawn-out bell tone. Forestier includes comparable exercises, with the same markings and similar instructions, at the beginning of his second lesson. He calls them “attacked and diminished tones” (Sons attaqués et diminués). Neither of these authors offers an explanation as to why this dynamic shape might be desirable in learning sound production. The same signs appear over the notes of the first exercises in Arban’s Grande Méthode. In this case the exercises come with the contradictory instruction that the sound be “attacked… and well-sustained giving it all possible brilliance and power.” Thus Arban modifies his teacher Dauverné’s approach while retaining the same nuance marking, but without any explanation. In Franquin’s Méthode complète, the author explains the pedagogical reasoning behind both approaches, “To avoid the bad habit of forcing the tone [denoted by a little crescendo, accompanied with the syllable “dous”], it is not necessary to contract the contrary habit, which consists of attacking each note forcefully, hammering and then immediately diminishing the sound [little diminuendo, marked “tan”].” Thus it can be seen that Dauverné and Forestier recommended the “>” shape (not just an accent in this context, but one accompanied by a decrescendo) simply to avoid the development of the bad habit of swelling the sound. In his first exercises, Arban maintained the “>” notation, but altered the instructions, apparently convinced of the risk of developing the “contrary habit” explained by Franquin’s text.

25 Franquin, Méthode complète, 16.
II. ORGANIZATION OF THE METHOD. In the French tradition of brass method books, there exist two basic organizing principles. The first kind can be described as organization by lesson; the second, by series. When organizing by lesson, the author attempts to create lessons that, when studied progressively, each stand on their own. Each lesson contains the correct variety of practice material appropriate to the development of the student at a given point, builds on the lessons before it, and can be worked on independently without having to return to the preceding lessons. Mastery of the material in a given lesson allows the student to progress to the next until—in principle—the student masters the entire method (and the instrument). The author, in essence, directly assumes the role of instructor in determining what the student should practice, leaving it up to the teacher only to determine when the student should progress to the following lesson. Forestier uses this type of organization in his Grande Méthode de Cornet à Pistons, organized into forty-five lessons, some of which have accompanying supplemental exercise series. Saint-Jacome employs a similar approach in the first part of his method book.

The organizational approach favored by Dauverné, Arban, and Franquin consists of grouping similar exercises together in series, rather than meting them out over the course of numerous heterogeneous lessons. In his 1807 method for horn, Heinrich Domnich (Professor of horn at the Paris Conservatory, 1795 – 1817), refers to these series as “classes.” He explains:

To proceed methodically in the manner of presenting the exercises, I have distributed them in several classes, and I have assembled in the same class all the exercises of a given nature. But as this system of classification could only have a tangential relation to the progress of the student, I have
re-established the lessons in order of increasing difficulty, by means of the two series of [exercise] numbers below [one set for the study of “first horn,” the other for the study of “second horn”]. It is thus according to these two series that the student must direct the progress of his studies, and not following the order of the numbers printed before each exercise on the page.²⁶

With the opening words of his method, Franquin clearly states his adoption of this organizational approach, also favored by his teacher and his teacher’s teacher (neither of whom—Arban or Dauverné—actually explain the system in their methods):

The principle adopted in this method consists of assembling [each of] the various genres of exercises in complete and graduated series, instead of disseminating them by small doses in mixed groups, each representing a session of daily practice.

The goal of this grouping is to oblige the students, in the course of their studies, to observe and to find out themselves—or with the help of their teacher—where their technical weak points lie, so that they can concentrate their efforts accordingly; to dose, so to speak, each type of exercise. Thus, in evaluating the results obtained, they can vary the regimen of daily studies accordingly.²⁷

Like Dauverné, Franquin divided the Practical Part of his method into three subsidiary parts. However, Dauverné’s divisions consisted of 1) natural trumpet technique, 2) duets, trios and quartets for natural trumpet, to develop musicality, and 3) technique for the contemporary chromatic trumpets (the long, valved trumpet and the slide trumpet). Franquin marketed his method for the modern trumpet, cornet, and

²⁶ « Pour procéder méthodiquement dans la manière de présenter les exercises, je les ai distribués en plusieurs classes, et j’ai rassemblé dans la même classe toutes les études de même nature. Mais comme ce système de classification ne pouvait avoir qu’une relation fort indirecte avec les progrès de l’élève, j’ai rétabli les leçons dans l’ordre de difficulté graduelle, au moyen des deux séries de numéros ci-dessous. C’est donc seulement d’après ces deux séries que l’élève doit diriger la marche de ses études, et non d’après la suite naturelle des numéros placés en tête de chaque leçon. » Heinrich Domnich, Méthode de Premier et de Second Cor (1807; repr., Geneva: Minkoff, 1974), 31; Domnich’s dates are listed in Pierre, Le Conservatoire national, 641.
²⁷ Franquin, Méthode complète, 9.
flugelhorn. Theoretically, these instruments share the same basic range and fingering. Therefore he differentiated the three subsidiary divisions (which he simply called “Parts”) in the Practical Part of the *Méthode complète* by level. Some of the longer series of exercises within each part further subdivide by degree of difficulty (*degré*).

Franquin designed the first part (pp. 60 – 95) of the Practical Part of his method for the ambitious beginner, one already possessing a good working knowledge of pitch, musical notation and theory—i.e. one who has already studied *solfège*. It progresses quickly through all the fundamentals of trumpet playing. After some supplementary review material, a collection of seventeen “Recreational Pieces” (*Récréations mélodiques*) by such composers as Grétry, Gluck, Haydn, Beethoven, and Schubert complete the first part. At one time, Enoch & Compagnie published this first part separately, along with introductory material, as the *Méthode Élémentaire*. The second, intermediate part of the *Méthode Complète* elaborates the technique of the first, in preparation for the advanced material of the third. It contains several series of exercises and etudes that progress in difficulty, then concludes with six slow melodies serving as lyrical studies. The third and final part of the method’s Practical Part, delving into extremes of technique and range, targets the most advanced player. It begins with a typical warm-up routine (*programme moyen de préparation*), followed by several possible variants. Myriad series of exercises follow these: scales, arpeggios, and other drills and etudes of varying types, both reinforcing and expanding upon the technique of

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28 In French, “bugle” means flugelhorn.  
29 Although Enoch & Compagnie no longer publishes the *Méthode Élémentaire*, an advertisement describing it can be found on the back cover of Alexandre Georges’ trumpet solo *Légende de Larmor*, currently available from the same publisher.
the first two parts, and developing advanced techniques such as high register playing, multiple tonguing, and the use of alternate fingerings and ornaments. The book then presents a collection of melodies by Cherubini and Bordogni, followed by fifteen original “Miscellaneous Etudes” (*Etudes diverses*). Georges Enesco composed the last of these, on sight transposition. The method comes to a close with several entire pieces and long excerpts from the modern trumpet solo repertoire. Mostly these consist of the competition pieces from the Paris Conservatory commissioned during Franquin’s tenure. At the very end of the *Méthode complète*, Franquin appends the first trumpet part to J.S. Bach’s *B-Minor Mass*.

III. *Partie Théorique*: Introductory Material. Franquin’s *Méthode* begins with fifty-nine pages of introductory material, denoted in the table of contents as the book’s Theoretical Part (*Partie Théorique*). This section contains, by far, more exhaustive explanatory material than any previous brass method book. Its comprehensive nature can be taken as a testament to the importance in Franquin’s method of adhering to the specific practice procedures spelled out therein. In addition to reflecting his penchant for thoroughness, Franquin’s *Méthode* provides insight into the complexity of the numerous kinds of trumpets and cornets in use around 1900. By comparison, Dauverné’s introduction is only ten pages long, Arban’s is around eight pages (depending on the edition and translation), and Forestier’s nearly sixteen. The unprecedented size of Franquin’s introduction can be attributed in part to the many photographs that accompany the explanatory text. They demonstrate the correct way to hold the trumpet, cornet, and
flugelhorn, correct playing posture, and the placement of the instrument on the lips. Also included here are ten pages of photographs of trumpets and cornets equipped with shanks (tons), crooks (coulisses d’accord), tuning slide extensions (rallonges), and/or quick-change rotary valves (barillets) in various combinations, tuning them to the keys of A, Bb, B, C, Db, and D. That French trumpet players and cornetists circa 1908 might need to draw on such an extensive battery of different-keyed (although nominally chromatic) instruments does not betray poor or unused transposition skills. Rather, composers still felt it necessary to write for trumpets in a variety of keys in order to accommodate intonation and response inconsistencies in the trumpets of the time. It must be noted that sometimes, even if the performer has a trumpet in the “correct key” available, the preferred instrument for performance does not always correspond to the key of the instrument written in the score. This reality may result in otherwise unnecessary sight transposition, for example when an orchestral trumpet player chooses to perform a part written for B-flat on a trumpet in C, because the higher-pitched instrument affords more

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30 Perhaps not surprisingly, given his views on the old-fashioned, large instruments expressed in the previous chapter, Franquin did not include photographs of the large F trumpet, even though it had not yet become completely obsolete by 1908. However, in the section of his introduction immediately following the instrument photographs, he does chart its fingerings. As if to retain a degree of historical distance, he labels it “the antique trumpet, called in F” (la trompette ancienne, dite en fa). He specifies “called in F” because the trumpet—although most frequently used in F—was actually pitched in G without its extension shank or crooks. Franquin, Méthode complète, 39, 43.

31 Although modern instruments have still not been perfected in this respect, the instruments available at the time of the publication of Franquin’s method had even greater limitations in this area, which may explain why trumpets (or extension shanks and crooks) in keys such as A, B, and Db, as well as the quick-change valve itself, have become obsolete. That being said, trumpets adjusted into the keys of B and Db probably never saw much use. They came as the collateral result of the use of a single half-tone quick-change valve on C and D trumpets—without the use of the accompanying one-half tone extensions or quick-change valves that lower such trumpets by a complete (whole) tone, to the more useful keys of Bb and C, respectively.
accuracy. But in such cases the benefits gained from using an instrument suited to playing the part accurately more than make up for the inconvenience of transposition. As will be seen in later chapters, Franquin himself tried to remedy this need for a plethora of instruments complicated by shanks, crooks, extensions, and quick-change valves. He designed a “perfected” C trumpet. By means of additional piston valves, Franquin’s trumpets played—in principle—equally well in all keys, eliminating inherently out-of-tune notes and problems such as awkward whole-tone trills over the entire range demanded by the repertoire at the time.

To have instructive photographs, not just drawings (as in the earlier horn method books of Heinrich Kling [1865] and Oskar Franz [1880]) appears unique to the series of instrumental method books initiated by Franquin’s publisher, Enoch & Compagnie, around 1910. But even with their photographs, the introductions to the other instrumental method books in the Enoch series do not match Franquin’s in comprehensiveness or sheer length. Prosper Mimart, author of the contemporaneous Enoch clarinet method, limits himself to eight pages, including an attached pullout fingering chart for the Boehm system. Louis Bas, author of the Enoch oboe method, has eighteen pages of introductory material, including photographs on holding the

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32 Horn method authors apparently pioneered the inclusion of instructive illustrations for brass instruments out of a need to clearly describe the placement of the hand inserted into the bell for holding the instrument and stopping.

instrument and posture, numerous musical examples, a fingering chart, and six pages of photographs detailing the tools and processes of reed making.\textsuperscript{34} The members of the modern trumpet family, refined over the centuries for musical use, still retain some of the crude, signal-instrument tendencies of their military predecessors. As Franquin notes in his discussion of full-volume attacks, “the brutal, violent attack needs but little practice.”\textsuperscript{35} On the other hand, delicate sound production—particularly that of the very first note of a phrase, passage, or piece—tends to pose considerable difficulty on brass instruments, especially the trumpet. The relative degree of relaxation required to play gently can only result in a missed note, if not precisely coordinated, timed, and calibrated for sound production at the desired pitch and dynamic level. However, once the player overcomes this initial reticence, when the ear and physical means of production have engaged harmoniously, continued dolce playing presents relatively less difficulty. Referring to this problem of initial note response, Roger Voisin, former Principal Trumpet of Boston Symphony Orchestra, succinctly explained (in the context of the trumpet section’s quest to make entrances gentle enough to satisfy the demands of conductor Serge Koussevitzky), “we had to learn to play the second note first.”\textsuperscript{36} In light of Franquin’s observation that “certain exercises appear useless or ridiculous to the eyes of those who have never been part of a large orchestra


\textsuperscript{35}« L’attaque brutale et violente n’a besoin que d’un peu de pratique. » Franquin, \textit{Méthode complète}, 16.

\textsuperscript{36}Roger Voisin, interview by author, Boston, MA, February 8, 2007.
and are unacquainted with all its requirements…”\textsuperscript{37} one can well imagine that a similar exigency drove Franquin to first devise his response exercises, or as he would have them called, exercises on “\textit{émission}.”\textsuperscript{38} As will be shown, his response studies present, in effect, a series of isolated “first notes”—in the sense alluded to by Voisin—to be practiced in such a way as to develop “second note” facility in their production. Franquin also realized that the practice of response exercises could provide much more than just a means to obtain attack accuracy. This type of practice represents the crux of Franquin’s thirty Principles of Study, discussed below. Over one-fifth of them hinge on its implementation in various contexts. Accordingly, response exercises begin the first part of Franquin’s method book, preceded by additional instructive notes on their correct practice. He elaborates this explanation as he introduces response exercises over a larger range at the end of the first part, and again at the beginning of the advanced third part, where they encompass the range from high C to pedal C.\textsuperscript{39}

Certainly, brass players and teachers before Merri Franquin practiced the musical emission of sounds in the context of a particular trouble spot in preparation for performance, with the goal of gaining reliability, control, and quality of attack. However, Franquin became the first to recognize it as a skill demanding regular study in and of itself.


\textsuperscript{38} “\textit{Émission},” has largely the same meaning and connotation in French as in English, although it comes across as (slightly) less unwieldy. The word “response” seems to present a fitting substitution in contemporary English for discussion of Franquin’s exercises on sound production. It well conveys the passive nature of the process as cultivated in the emission exercises. Also, the word “response” has already gained currency in English-speaking brass circles, in reference to the lips’ ability to respond mechanically to the airstream by vibrating. Therefore, “response” will often be employed here as a translation for Franquin’s “\textit{émission}.”

\textsuperscript{39} In trumpet parlance, high C sits on the second ledger line above the treble staff, and pedal C lies in the second space of the bass staff.
itself, and to devise exercises and write a method meeting this need. Before him, no one considered response and sound production on brass instruments so carefully, and made of it a practice—indeed, a discipline. For him, careful practice of note emissions not only provided a means to achieve accuracy and reliability: it served as a warm-up (préparation), a daily exercise, a warning sign to stop practicing should emissions become difficult as the result of tired lips, and a “warm-down” in case of overexertion.

Although Franquin sometimes refers to it in the method simply as a “lip warm-up” (préparation des lèvres), the diligent student soon realizes that this type of practice serves to warm-up—and over time, to develop and coordinate—all of the mechanisms involved in sound production. Franquin urged that this type of practice be the first of the day, even if one “cannot do any other.”

His disciple Francisque “Francis” Bodet (1er prix de cornet, 1914) takes the practice even further, recommending in the instructions to his own book of Franquin-inspired response, flexibility, and long-tone exercises, “…doing these exercises preferably in the morning, if possible before [ablution], so that the lips should be in the least favourable state, thus necessitating a greater degree of [assiduity] than if this work were done at any other moment of the day.”

Both Forestier and Dauverné used the expression “sound emission” (émission du son). But they employed the term only in passing, in their explanatory notes on sound production. With Franquin, the expression not only took on much greater significance, it took on a particular definition. For him (as for many authors of brass methods) the

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40 Franquin, Méthode complète, 114.
41 Francis Bodet, La Technique des lèvres: 250 Exercises progressifs pour trompette, cornet, bugle et tous instruments à embouchure (Mâcon, France: Robert Martin, 1982), xv.
42 Forestier, Grande Méthode, 1:20; Dauverné Méthode, 61.
word “attack,” commonly employed in French as in English to describe the beginning of a sound, necessarily signified a certain violence. This could be limiting or potentially confusing in brass instruction especially in the case of the oxymoronic “gentle attack.” Thus Franquin appropriated the term “émission” generally, to cover all types of note beginnings—whether quiet or loud, percussive or gentle. He used the word “attaque” specifically to refer to émissions (quiet as well as loud) defined by the brusque, percussive action of the tongue releasing the air. Franquin adopted the descriptive “sound placement” (pose du son) to refer specifically to émissions at the other end of the spectrum—in which the tongue plays a subsidiary role in starting the note. In making these distinctions, Franquin became the first to clearly formulate what has come to be held universally as a fundamental truth in brass playing, that “it is… not the action of the tongue that produces the sound, but rather the breath” (“Ce n’est… pas l’action de la langue qui produit le son, mais bien le souffle.”) With the means of sound production, specifically the initiation of tone, thus theoretically liberated from the stroke of the tongue, it then became possible to conceive of a pp note with a percussive attack, as well as the converse, a ff note with a gentle attack. This realization would have far-reaching consequences on the variety of note attacks written for and performed upon the trumpet. It freed the palette of possible note beginnings from dynamic context. Likewise the idea of the pose du son, taken to the extreme of starting notes without any aid from the tongue whatsoever, has had a broad impact on modern techniques of embouchure training, from

43 Authors since at least the time of Dauverné and the horn professor Dauprat have realized that the retrograde motion of the tongue, not the forward stroke, corresponds to the beginning of the sound.
44 Franquin, Méthode complète, 16.
the “pu” or “poo” attacks of Richard Shuebuk and James Stamp, to the breath attacks of Carmine Caruso and his disciple Laurie Frink.

In his discussion of sound production, Franquin establishes three motions required to engage the muscles of the embouchure for playing.\(^4\) His predecessors already understood the first two of these:

1\(^{st}\) Motion. – Placement of the mouthpiece on the lips, which are closed and in a position of total relaxation.\(^5\)

2\(^{nd}\) Motion. – Pulling back of the lips to take position and to leave in the mouthpiece—by means of its contact with them—only the portion necessary for their desired tension and [vibration]. (Instinct is the best guide to this end.) The plenitude of this portion, so far as it is not excessive, has a very positive effect on flexibility, endurance, and high range facility.\(^6\)

The third describes for the first time a key element of the ideal brass embouchure as generally understood today:

3\(^{rd}\) Motion. – Contraction of all the muscles forward, in the direction of the mouthpiece, at the moment of sound emission. (Relative contraction according to the pitch of the sounds to be obtained.) All without stiffness.

It is this third motion that, bringing the muscles toward the mouthpiece, brings the pressure of the lips to bear against it, instead of the mouthpiece pushing against the lips. This provides the means of obtaining rich sounds and of developing their fullness.\(^7\)

\(^{4}\) The French word *embouchure*, seemingly identical to the English, presents a potentially confusing false cognate. *Embouchure*, in French, simply means “mouthpiece.” In French it does not commonly refer to the disposition of the lips and muscles of the face used in playing a brass instrument.

\(^{5}\) « 1\(^{er}\) Mouvement. – Placement de l’embouchure sur les lèvres fermées et dans l’attitude du repos absolu. » Franquin, *Méthode complète*, 17.

\(^{6}\) « 2\(^{e}\) Mouvement. – Recul des lèvres pour prendre position et ne laisser dans l’intérieur de l’embouchure, au moyen de son contact avec elles, que la fraction nécessaire à leur tension facultative et à leur action. (L’instinct est le meilleur guide à cet effet.) L’abondance de cette fraction, tant qu’elle n’est pas excessive, a une influence considérablement avantageuse sur la souplesse, la résistance et la facilité à atteindre l’aigu. » Ibid.

\(^{7}\) « 3\(^{e}\) Mouvement. – Tension de tous les muscles en avant, dans la direction de l’embouchure, au moment de l’émission du son. (Tension relative selon le degré des sons à obtenir.) Le tout sans raideur. C’est ce troisième mouvement qui, amenant les muscles sur l’embouchure, fait opérer
This observation directly contradicts the corresponding advice in Arban’s method book, that “one must never bring the lips forward; one must, on the contrary, pull the corners of the mouth: by this means, one obtains a much more open sound.”

With respect to range and endurance, time has born out the validity of Franquin’s approach, particularly concerning the second half of the first motion and the third motion. Many trumpet players today routinely play in the vicinity of double-high C, a full octave above the top notes in Arban’s method. Likewise, students in high school—and younger—now regularly play the characteristic studies that Arban had designed to push the limits of the most advanced trumpet students of his time. Brass players today generally understand that mouthpiece pressure against the face, inevitable to some degree especially in the high range, will tend to hinder blood flow to the lips—and thus limit endurance and range. Stretching the lips taut across the teeth only aggravates this tendency.

l’appui des lèvres sur elle, au lieu que ce soit l’embouchure qui appuie sur les lèvres Ce moyen permet d’obtenir des sons gras et d’en développer l’ampleur. » Franquin, Méthode complète, 17.

49 « Il ne faut jamais ramener les lèvres en avant ; il faut, au contraire, tirer les coins de la bouche : par ce moyen, on obtient un son beaucoup plus ouvert, » Arban, Grande Méthode, 4; In the Carl Fisher edition of the Arban method, « ramener... en avant » is incorrectly translated as “protruded.” The same translation mysteriously renders “tirer”—which simply means to pull or draw (in this case “pull back” or “draw back” since it appears in contrast to “bring forward”)—as “[draw] down”. These instructions have been mistranslated either through carelessness, or perhaps with the intent to mask Arban’s retrograde thinking on this particular point. Jean-Baptiste Arban, Arban’s Complete Conservatory Method for Trumpet, ed. Edwin Goldman and Walter Smith (New York, 1936), 7; During the late-nineteenth and early-twentieth centuries, many noted brass pedagogues in addition to Arban endorsed this so-called “smile” description of the brass embouchure. See for example, that of Franquin’s colleague on the faculty of the Paris Conservatory Alexandre Petit, Grande méthode complète de cornet à pistons, bugle, trompette & d’instruments à pistons, 3rd ed. (Paris: E. Gaudet, 1921), 22; or the end of the Introductory Notes to the Max Schlossberg Daily Drills and Technical Studies for Trumpet (New York: M. Baron, 1941).
The current state of the art, in terms of describing the brass embouchure, received its formulation by Philip Farkas in *The Art of French Horn Playing*. He explains it as an isometric balance of the facial position used for whistling with that for smiling: the “puckered smile.” The smile allows the lips to maintain the degree of tension necessary for optimal vibration, and the pucker serves to maintain a cushion of tissue between the mouthpiece and the teeth that improves the sound, increases endurance, and helps prevent injury of the lip tissue.\(^{50}\)

The Principles of Study (*Principes d’étude*) represent one of the most important and innovative parts of Merri Franquin’s *Méthode complète*. He himself saw them as central to his life’s work, and to his teaching method. Upon his retirement from the Paris Conservatory, he wrote to its director, “I will bring… to my retirement the great satisfaction… of having created principles of study theretofore inexistent, of having inserted them into a method book… which all brass instrument professionals draw inspiration from and practice today….”\(^{51}\) Franquin expresses a guiding tenet behind these principles in their subtitle:

**WORK MUCH, TIRE LITTLE; IN OTHER WORDS, ALWAYS REST BEFORE THE LIPS ARE TIRED. IN THE SUM TOTAL OF DAILY PRACTICE, AVOID OVERWORK.**\(^{52}\)

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\(^{51}\) “J’emporterai… dans ma retraite la grande satisfaction… d’avoir créer des principes d’étude inexistent jusque là, de les avoir insérés dans une méthode, et dont tout les professionnels des instruments de cuivre s’inspirent et pratique aujourd’hui….” Merri Franquin to the Director of the Paris Conservatory (Henri Rabaud), 12 July 1925, letter in the faculty file (*dossier de professeur*) of Merri Franquin, Paris Conservatory Archive Collection, No. AJ\(^{57}\) 69 \(^{5}\), French National Archives, Paris.

\(^{52}\) “Travailler beaucoup, se fatiguer peu; en d’autres termes, se reposer toujours avant que les lèvres soient fatiguées. Dans la somme d’étude quotidienne, éviter le surmenage. » Franquin, *Méthode complète*, 20.
Dauverné made a similar observation two generations earlier, but addresses this advice to beginners only, stating, “The student, at the beginning of his studies, must not prolong his practice to the point of fatigue, but come back to it assiduously, alternating work on low notes and high notes, pieces of different tempo and character, in all keys or crooks.”

Franquin seems to have been the first—and so far, the only—pedagogue to define at precisely what point the lips should be considered sufficiently tired to warrant rest. He defined this point of diminishing returns as being when response (émission) becomes jeopardized.

By the time Merri Franquin wrote his method book, the extreme physical demands of both Baroque and early-twentieth-century music regularly confronted professional trumpet players in performance. As demonstrated in the Principles of Study and elsewhere in the method, Franquin became the first brass pedagogue to grasp the full implications, to study, of the athletic nature of brass performance. He recognized the kinds and quantity of work—and more importantly, of rest—required by players to overcome its demands. In the previous generation, Arban, with the lengthy and demanding characteristic studies included in his method, had sought to “inculcate in students an invincible force of will.” He realized that “they will tire themselves out, above all in the beginning,” but that “study and experience will teach them to triumph

53 « L’élève, au début de ses études, ne doit point prolonger ses exercises jusqu’à la fatigue, mais y revenir assidûment, en travaillant tour à tour les sons graves et les sons aigus, les morceaux de mouvement et de caractère différents, sur tous les tons ou corps de rechange. » Dauverné, Méthode, 62.

54 Franquin, Méthode complète, 23 (Principle of study no. 18), 87, 114, 119, 122.
over this difficulty and to discover ways to reach the end of their task without incident.”

Franquin realized that this stoic approach no longer sufficed. With time, overwork—especially in the high register—can lead to chronic fatigue, injury, and a gradual degradation of tone and technique. To develop endurance and range, a special regimen of practice must be instituted that balances work in the high and low registers, as well as measured periods of rest and exertion.

Franquin asserts at the beginning of his Principles of Study,

I do not pretend—in writing this article—to have the last word on how to study trumpet, cornet, and flugelhorn. Rather, one could say that it is the first word; as until now, methods as well as teachers in general have not discussed it, per se. They have confined themselves, for the most part, to advice on sound production, articulation, fixing style, common faults to avoid, etc…. But regarding the principles behind directing the daily practice of technique, they have tended toward generalities without specifying anything, if only the vague recommendation to play long tones—excellent advice, but insufficient.

« J’ai composé les quatorze études suivantes dans le but d’inculquer aux élèves une invincible force de volonté. Ils se fatigueront sans nul doute, surtout dans l’orgine, en jouant des morceaux d’aussi longue haleine ; l’étude, l’expérience leur apprendront à triompher de cette difficulté et à découvrir des ressources pour arriver sans encombre au bout de leur tâche. » Arban, Grande Méthode, 192.

Franquin, Méthode complète, 18 – 19; This theme has been revisited several times in the United States during the twentieth century, notably in the works of Claude Gordon, Carmine Caruso, Roger Spaulding, and Louis Maggio’s student Carlton MacBeth.

« Nous n’avons pas la prétension, en écrivant cet article, de dire le dernier mot sur la manière d’étudier la Trompette, le Cornet, et le Bugle. On pourrait plutôt dire que c’est le premier mot, car jusqu’ici, les méthodes, de même que les professeurs en général, n’en ont, pour ainsi dire, pas parlé. On s’est bourné, à peu près, à donner des conseils sur la formation des sons, sur les articulations, la correction du style, sur les défauts à éviter, etc…., mais en fait de principes sur la manière de diriger l’étude quotidienne du mécanisme, on s’en est tenu aux généralités sans rien préciser, si ce n’est la recommandation vague de filer des sons, conseil excellent mais insuffisant. » Franquin, Méthode complète, 21 – 22.
He aimed to systematically identify the “essential principles of study”—the quantities and types of exercises necessary for progress on the instrument, and to establish “rules to observe in the order of the main types of exercises, and the manner to proceed to use time and physical resources to greatest advantage.” Franquin realized that no set approach or routine of study could work perfectly for all students. He urged those studying his method to take the Principles of Study as a point of departure, to apply them critically, and to modify them if necessary.\textsuperscript{58}

In all, Franquin gives thirty Principles of Study. Most of them (nos. 1, 2, 4, 6, 7, 13, 15 – 19, 23, and 25 – 30) present common sense, practical advice about how to practice, and what aspects of playing should be attended to in each type of exercise. For example:

13. – All that poses difficulties must first be practiced in moderate or even slow tempo, and not sped up until its execution is perfect, this is the best way to avoid mistakes. In the moderate or slow tempo, inequalities in the fullness and dynamics of the notes, their defects in cleanness of attack, of intonation, all imperfections are much more easily distinguished and can more easily be remedied. But above all, one should not forget that the manner of execution in the moderate or slow tempo must be exactly the same as in the fast, that is to say, that if the execution demands \textit{portato} articulation and flexibility, one must practice accordingly in the slow tempo, or else the passage will remain heavy and hard. In other words, the attacks must be just as light in the slow or moderate practice tempo as in execution at speed; not more \textit{martelé}, and just as connected one to the other, that is to say, without more separation.\textsuperscript{59}

\textsuperscript{58} Franquin, \textit{Méthode complète}, 21.
\textsuperscript{59} « 13. – Tout ce qui est difficultueux doit être travaillé d'abord dans un movement modéré ou même lent, et n’augmenter la vitesse que lorsque l’exécution est parfaite, c’est le meilleur moyen d’éviter les accidents. Dans le mouvement modéré ou lent, les inégalités d’ampleur de sons et de leur nuance, leurs défauts de netteté d’émission, de justesse, toutes les imperfections se distinguent beaucoup mieux et l’on peut plus aisément y remédier. Mais surtout, il ne faut pas l’oublier, la manière d’exécuter doit être exactement la même dans le movement modéré ou lent que dans le mouvement vif, c’est-à-dire que si l’exécution demande des détachés dans le son et de
29. – Avoid overworking the lips with the approach of a major performance. The day of the performance, confine practice to \textit{pp} and \textit{f} exercises on sound production. This all without excess. Reserve stamina practice for days without any heavy performance responsibilities.\textsuperscript{60}

The iconic American orchestral trumpeter Adolph Herseth has frequently repeated this very same tenet—to carefully balance one’s practice workload and performance responsibilities—in master classes and lessons. Herseth credits his former teacher Georges Mager (1\textsuperscript{er} \textit{prix de cornet}, 1906, class of Jean-Joseph Mellet) as passing on the advice, which helped him to maintain his position as Principal Trumpet of the Chicago Symphony Orchestra for over fifty years.\textsuperscript{61}

The remaining Principles of Study contain observations of common stylistic and rhythmic faults (nos. 8 – 12), and some of a more philosophical nature (nos. 2, 3, 5, 14, 20 – 22, 24). For example:

9. – When a dotted quarter note is followed by an eighth note, one must pay special attention to give the eighth note its full value. The same goes for a sixteenth note preceded by a dotted eighth. The inexactitude is all the more shocking when such a sixteenth note is followed by other sixteenth notes. The regularity of the successive notes calls attention to the incorrect value of the first.

In certain cases, the sixteenth note preceded by a dotted eighth can be executed as a thirty-second note, or even allowed some liberty to its

\textit{la souplesse, il faut agir de même pendant l’étude en mouvement lent, sinon le trait restera lourd et dur.}

En d’autres termes, il faut que les émissions des sons soient aussi légères dans l’étude en mouvement lent ou modéré qu’elles doivent l’être dans l’exécution en mouvement vif; pas plus martelées et aussi allongées les unes vers les autres, c’est-à-dire sans plus de séparation. » Franquin, \textit{Méthode complète}, 23.

\textsuperscript{60} « 29. – Éviter le surmenage des lèvres à l’approche d’une épreuve. Le jour de l’épreuve, se borner à l’exercice des émissions \textit{pp} et \textit{f}. Le tout sans excès. On réserve l’étude de la résistance pour les jours où l’on n’a pas une trop grande responsabilité en public. » Ibid., 25.

duration, but rarely in classical music. When a group of two or four sixteenth notes occurs in a slow, lyrical melody, do not give in to the instinctive temptation to play them too quickly. 62

21. – Certain exercises appear useless or ridiculous to the eyes of those who have never been part of large orchestra and are unacquainted with all its requirements; who do not know that the things which appear most simple are often in reality the most difficult and perilous. 63

The inclusion of sample practice regimens in the introduction to the Méthode complète comes as another apparent pedagogical innovation—at least to brass methods—by Merri Franquin. A short list summarizing the various disciplines to be covered in the course of daily practice follows the Principles of Study in the introduction. Several related observations accompany this list, followed by detailed discussions of the practice of long tones (sons filés) and the importance of rest (repos) to successful study.

Model practice routines (Quelques Programmes d’étude quotidienne) follow, in single and multiple daily sessions. Each routine outlines specific amounts of time to be dedicated to the various disciplines or type of practice, and prescribes precise durations and distributions of rest throughout the day’s work. Franquin suggests that regardless of the total duration of daily practice, one should divide it—time permitting—into two sessions, one in the morning and one in the afternoon.

62 « 9. – Quand on a une noire pointée suivie d’une croche, il faut s’appliquer à donner à la croche toute sa valeur. De même pour la double croche précédé d’une croche pointée. L’inexactitude est encore plus choquante quand cette double croche est suivie d’autres doubles croches. La succession étant faite en mesure met plus en evidence le défaut de valeur de la première. Il y a des cas où la double croche précédé d’une croche pointée peut s’exécuter comme une triple croche ou bien lui donner une valeur fantaisiste, mais rarement dans la musique classique. » Franquin, Méthode complète, 22.

63 « 21. – Certains exercices paraissent inutiles ou ridicules aux yeux de ceux qui n’ont jamais fait partie d’un grand orchestre et n’en connaissent pas toutes les exigences; qui ne savent pas que les choses les plus simples en apparence sont souvent les plus difficiles et les plus dangereuses en réalité. » Ibid., 24.
For example, he gives the following program for two hours of practice (along with different plans for one, three, and four hours):

**FOR TWO HOURS**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions, pp</td>
<td>20 min</td>
</tr>
<tr>
<td>— f</td>
<td>5</td>
</tr>
<tr>
<td>Rest</td>
<td>10</td>
</tr>
<tr>
<td>Long tones</td>
<td>15</td>
</tr>
<tr>
<td>Rest</td>
<td>15</td>
</tr>
<tr>
<td>Miscellaneous exercises</td>
<td>20</td>
</tr>
<tr>
<td>Rest</td>
<td>15</td>
</tr>
<tr>
<td>Etudes, melodies, or pieces</td>
<td>20</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>120 min</strong></td>
</tr>
</tbody>
</table>

Characteristically thorough, Franquin cautions that he gives such practice regimens merely as suggestions and that they should not be taken as hard and fast rules.65

The revolutionary nature of this type of structured practice regimen in brass pedagogy can hardly be overemphasized. Before Franquin no one realized the importance of balancing physical exertion with rest in brass study *at all levels*.

Numerous offshoots (or subsequent re-discoveries) of these principles can be seen in brass methods that appeared over the course of twentieth century. Notable examples came with the practice checklists of hornist Philip Farkas,66 the musical calisthenics of Carmine Caruso,67 and even in the myriad books of daily practice routines such the

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65 Ibid., 27.
Setting Up Drills of Herbert L. Clarke. The prescription for types of exercises rather than just a collection of specific exercises sets apart Franquin’s Principes d’étude, as applied in his daily practice routines, from these others (with the exception of Farkas). The latter type of routine, after a certain period of improvement, can offer only diminishing returns (and increasing tediousness) with daily repetition.

The balance of the introduction to Franquin’s Méthode complète addresses in depth the other areas of special concern to the student of trumpet (cornet, and flugelhorn), as well as subjects of general musical-pedagogical interest. The trumpet-specific subjects include such topics as breathing, support (tension), high range, different keys of trumpets in use, and transposition by means of movable C- and F-clefs. Franquin also gives tables on transposition, harmonics and fingering, and instructions on how to tune the instrument’s slides. The general music subjects include lists of Italian musical terms with French translation, and signs in conventional music notation with explanation of how to play them, as well as discussions of style, staccato, and the use of dynamics.

One notable omission in the introduction is the absence of any significant instruction on the use of vibrato. In Franquin’s day, the traditional French brass sound concept in the performance of classical music did not include continuous vibrato. Early

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69 Arban speaks to the subject in his discussion of “Faults to be Avoided” (Défauts à éviter): “The oscillation of sound [vibrato] is obtained on the cornet in the same manner as on the violin, by slight movement of the right hand. This type of effect produces great sensitivity, but one must take care to avoid its abuse, as its overuse would become a serious fault.” « L’oscillation du son s’obtient sur le cornet, de la même manière que sur le violon, par un léger mouvement de la main droite ; ce genre d’effet produit une grande sensibilité, mais il faut se garder d’en faire l’abus, car son emploi trop fréquent deviendrait un grave défaut. » Arban, Grande Méthode, 8.
recordings of French trumpeters and cornetists bear this out. The tight, incessant vibrato that has sometimes come to be associated with French trumpet playing in the twentieth century came as a later accretion. As suggested by Julien Porret, the widespread adoption of vibrato among French instrumentalists probably resulted from the influence of American jazz and popular artists. In his discussion of musical style (Du Style) Franquin leaves little doubt as to his opinion on the subject, in explaining the nature of the “health,” “life,” and “generosity” that should be present in the sound:

This does not mean to cultivate that bleat by which certain artists believe they can evoke emotion that they themselves do not feel, and which makes of this technique mere artifice. It can be employed in certain cases, but without excess, in popular music—never in classical music.

With his method, Franquin became the first modern author to compare and reference specific sources for his ideas on trumpet/cornet technique, to evaluate them.

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70 For example, in early recordings by Eugène Foveau and Georges Mager, one can hear no vibrato—although both artists were known to use it regularly later in their careers. One can detect no vibrato in the sustained notes of Foveau’s performance with Narcisse Bizet (1er prix de trompette, 1902) and the Musique de la Garde Républicaine in the duet Les deux cousins (recorded in 1908). Mager maintains a remarkably steady tone in the cornet solo Si j’ai rêvé (recorded in 1910). European Cornet and Trumpet Soloists, 1899 – 1950, various performers, International Trumpet Guild CD 114-1, 2005; Even the trumpets on several later orchestral recordings play with virtually no vibrato, as heard in the CD collection Maurice Ravel: Orchestral Works, such as the 1930 recordings of Daphnis et Chloé, Suite No. 2 by the Orchestre des concerts Straram conducted by Philippe Gaubert and Boléro by the Orchestre des concerts Lamoureux conducted by the composer. Maurice Ravel: Orchestral Works, various performers, Andante 1978 (CD), 2002.

71 Later in his career, Eugène Foveau played with “a vibrato which is the mark of his time.” Julien Porret traces the use of continuous vibrato in France by wind instrumentalists directly to the influence of Jazz, citing is use by the oboist [Myrtile-Gilbert-Gontran] Morel as early as 1920, the horn player Jean Devêmy, the flutist [Marcel-Joseph] Moyse, and the saxophonist Marcel Mule “who was known to be inspired by the Paul Whiteman saxophonists.” Michel Laplace, “Les Fondateurs de l’école française,” 73 – 74.

72 « Cela ne veut pas dire de rechercher ce chevrotinement par lequel certains artistes croient provoquer une émotion qu’ils n’епrouvent pas eux-mêmes, et qui font de ce moyen un procédé factice. On peut l’employer dans certains cas, mas sans exagération, dans la musique de fantaisie ; jamais dans la musique classique. » Franquin, Méthode complète, 28.
and to synthesize them, often reaching novel conclusions about some of the more contested points of brass pedagogy. His formulations of the basic principles of brass study and performance have withstood the test of time. He provides precise and thorough explanations. But despite this penchant for precision and detail, he seems to proffer detailed descriptions of the most fundamental physical procedures only grudgingly. In this, too, he foreshadows another twentieth-century trend in brass pedagogy, the avoidance of what has come to be called “paralysis through analysis.” This idea holds that since the coordination of all the parts of the body implicated in playing offers such complexity, any conscious attempt to control the various elements involved can only hurt the process. Franquin states this same philosophy, in various formulations, in the introduction and elsewhere in the method. He writes that one should “…think only of the goal without worrying about the means…. ” He gives this advice particularly with respect to the fundamentals of breathing, sound production, and attack.

IV. Partie Pratique: Exercises, Studies, and Pieces. With the Practical Part of his Méthode, Merri Franquin creates and assembles an extensive collection of exercises, études, and melodies. He accompanies these with comprehensive explanatory material and notes, thereby reinforcing and supplementing the concepts expounded in the Theoretical Part. He develops all his exercise series progressively and with great rigor.

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74 “…ne pens[er] qu’au but sans [s’]occuper des moyens… » Franquin, Méthode complète, 19.
For the most part, he presents the kinds of exercises found in the method books of the Principal Authors. He places surprising emphasis on arpeggio exercises resembling—in some cases, duplicating—those in the natural trumpet method of Dauverné. In the discussion that follows, particular attention will be given to the innovative pedagogical techniques and exercises introduced by Franquin. These, in combination with other procedures and types of exercises that distinguish it from cornet methods, make his method book the first modern trumpet method in the French tradition.

A. EMISSION STUDIES. Franquin’s response exercises (Exercices de l’émission) follow a simple formula. The student sets a metronome to “very moderate” speed, usually quarter note = 76, then plays a series of pp half notes on different pitches, each without change of dynamic shape, each separated by six beats of rest (to be counted “scrupulously”). The accompanying instructions describe the process clearly, outlining a number of distinct procedures to follow—chief among these that the mouthpiece be removed from the face of the player during the rests, immediately after the sound has ended, and not replaced until the moment the next note is sounded. Insisting on the removal of the mouthpiece from the face between each attack—seemingly a minor detail—represents the primary innovation by Franquin in his exercises. This way every note becomes a “first note” in the sense referred to above by Roger Voisin.

Each note should be cleanly produced, pianissimo to the degree possible, or attempted again (after counting six beats of rest with the instrument removed from the lips) until attaining noticeable improvement (amélioration sensible). Thus, each note to
respond poorly should be repeated as many times as necessary before moving to the next pitch. To discourage the overly conscientious student from obsessively repeating the same “imperfect” note ad nauseam, Franquin notes that the improvement (perfection) sought will be realized a little every day (and not in the course of one sitting). Franquin offers a final, Zen-like touch with this instruction, “The syllable ta must be pronounced cleanly and with gentleness, without any stiffness, in the most simple manner (without the voice, naturally) as if one did not want to obtain the sound. After several tries in this vein, separated by the measured rest indicated, it ends up being produced, so to speak, in spite of itself.”

After completing a series of quiet response exercises, he directs the player to perform a second set, this time progressively approaching ff note by note. As “the brutal attack requires but little practice… it comes after the ‘pose du son’, to ‘reestablish the equilibrium’…. The lips having been contracted during the pp exercise will lack flexibility for the development of the sound and for accuracy in ff attacks without this precaution.” Thus one proceeds by progressive crescendo over a number of notes (poses du son en crescendo de force), until reaching the “attaque violente.” The exercise ceases as soon as “the goal is reached, that is to say, as soon as the attack is full, ample,

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75 Franquin, Méthode complète, 114 – 115.
76 « Il faut prononcer la syllabe ta avec netteté et douceur, sans aucune raideur, de la façon la plus simple (moins la voix naturellement) comme si l’on ne voulait pas obtenir le son. Après quelques tentatives de ce genre, séparés par les repos écrits et mesurés, il finit par se produire, pour ainsi dire, malgré soi. » Franquin, Méthode complète, 114.
77 Ibid., 16.
brilliant, precise and accurate in the three registers: low, medium, and high, but principally on [G# and A above the treble staff].”

Similar exercises on sound production such as those by Dauverné and Arban advised the student only to breathe between each note without any measured rest or instruction to remove the mouthpiece from the lips. Also, as discussed above, Dauverné’s bore the instruction to diminuendo after striking each note, whereas Franquin’s instructions indicate that the note should be held at a steady dynamic. Forestier’s exercises on “straight tones” (sons droits) come closest to anticipating Franquin in this regard. The “straight tones”—so named because they do not diminuendo or crescendo—appear at the beginning of Forestier’s method. They consist of whole notes tied to quarter notes (five beats on the same pitch), unique among the exercises of the other Principal Authors because of their inclusion of written rests (three beats) between each note. However, they do not come with the instruction (central to Franquin’s response studies) to remove the mouthpiece from the lips. Referring to the respective discussions of Dauverné, Forestier, and Arban on breathing confirms that all of Franquin’s predecessors agreed on the point that the mouthpiece should not be removed from the face during the breath. So it can be inferred from the absence of specific instructions to do so that none of the Principal Authors—Forestier included—advocated the removal of the mouthpiece from the face between attacks for their sound production.

78 Franquin regards the notes G# and A above the treble staff as being the most difficult on the trumpet, in terms of obtaining clean, accurate attacks. Merri Franquin, “La Trompette et le cornet,” Encyclopédie de la musique et dictionnaire du Conservatoire Part III, vol. II, ed. Albert Lavignac and Lionel de la Laurencie (Paris: Deleagrave, c. 1925), 1637.
79 Franquin, too, maintained this point of view for playing in general; just not in the context of his response exercises. Franquin, Méthode complète, 19.
exercises.\textsuperscript{80} And whereas Franquin unquestionably considered response practice over the full range of the instrument to be essential to all levels of study, for the beginner as for the seasoned performer, Forestier clearly reserves his straight tone exercises for beginners. They never ascend above third-space C, and, after the first several exercises of his first lesson, he abandons them altogether.

Franquin also suggests modifying his basic exercise from time to time to precede each half note with (an) additional pick up note(s), either single- or multiple-tongued. The addition of a pick-up figure of triplet sixteenth notes on the same pitch represents one such modification of the study suggested by Franquin.

Another transformation of the response exercises extends them to short \textit{vocalises} by the addition of a chain of notes following the first. In these studies, slurred passages alternate with legato-tongued passages and occasional isolated single notes. Each group of notes (or isolated note) remains separated from the next by six counts of rest. Franquin puts such exercises under the heading “Warm-up alternating slurred tones and \textit{détachés} in the sound” (\textit{Préparation en son liés et détachés dans le son alternativement}). He instructs that these exercises can be substituted for the classic single-note response study, or used as a complement to it. As in the basic exercise, clean production of the first note of each sequence receives special attention, but in this case it should open the

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{80} Beginning students normally exhibit the tendency to stop playing and remove the instrument from their face excessively, regardless of any printed instruction to do so (and often despite repeated verbal instructions to the contrary). It may be for this reason that none of the Principal Authors felt such an instruction to be necessary. If this were the case, Franquin’s response exercises might be slightly less innovative than supposed here. However, it would further support the notion that he alone intended his sound production and response exercises for practice by advanced players.
\end{itemize}
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door to smooth production of subsequent tones. Of particular interest to trumpet players (as will be discussed below), these exercises emphasize patterns based on the harmonics available with the seven positions or fingerings—making them what have come to be known as flexibility exercises.\footnote{Franquin, Méthode complète, 86, 116 – 119.}

Since the publication of Franquin’s method, a number of authors have appropriated his procedure for working on response through sound production and attack exercises. According to Michel Laplace, Julien Porret and Francis Bodet fall among his most prominent (early) pedagogical disciples in Europe.\footnote{Michel Laplace, “Les fondateurs de l’école française,” 69.} Each wrote a book incorporating Franquin-inspired response exercises. Porret points out in the conclusion of his method that both he and Bodet attained their 1er prix de cornet from the class of Alexandre Petit the very same year as Marcel Lafosse (1er prix de cornet, 1914; Second Trumpet of the Boston Symphony Orchestra, 1930 – 1956).\footnote{Julien Porret, Méthode progressive de cornet à pistons, trompette, bugle (Charnay-lès-Mâcon: Robert Martin, 1964), 57; Hugon-Roydor, ed., Annuaire Officiel du Conservatoire National de Musique et de Déclamation, (Paris: Maurice Sénart, 1919), 95, 155, 217.} Porret received an additional 1er prix, in trumpet (1920), from the class of Merri Franquin.\footnote{M. Gillian MacKay, “Trumpet and Cornet Concours Music at the Paris Conservatoire, 1835 – 1925: the Development of Styles and Roles,” (doctoral dissertation, Northwestern University, 1996), 256.}

An American, Richard Shuebruk, became the first trumpet player after Franquin to publish similar attack exercises. Shuebruk performed in Boston during the 1880’s with the Handel and Haydn Society and the Boston Symphony Orchestra. After one year as Second Trumpet of the Boston Symphony, he served as Principal Trumpet during its 1886 – 1887 season. He taught at the New England Conservatory, then later, from 1910
until 1933, in New York City.\textsuperscript{85} There, in 1923, he published three graded pamphlets of “Lip Trainers,” each about fifteen pages in length. Shuebruk devoted the first third of each pamphlet to attack exercises nearly identical in form and procedure to Franquin’s response exercises. The instructions and explanatory notes for the pamphlets present more or less match those in Franquin’s method, containing most of the same salient points—including a short list of “General Rules for Practice.”\textsuperscript{86}

Shuebruk also elaborates his exercises as suggested by Franquin, by the addition of pick up figures to the main notes. Unlike Franquin, he varies the dynamics between successive attacks within each exercise, in essence combining Franquin’s “\textit{pp emissions}” and “\textit{poses du son en crescendo de force}.” Shuebruk innovated the practice of “poo” or “pu” attacks, articulated by the lips without the aid of the tongue. This expedient—more suited to practice than to performance for reasons of reliability—ensures the result of bringing the lips forward, in much the manner explained by Franquin in his description of the “3\textsuperscript{rd} Motion” involved in sound production.

The horn, to borrow Merri Franquin’s comments regarding the large, valved trumpets of the past, still has the dubious honor of being “exactly what it was before [the addition of valves], as much in terms of playing difficulty—its risk of \textit{couacs}—as for its unnatural situation of low instrument played in the high register, of \textit{bass} playing \textit{tenor}

\textsuperscript{86} Richard Shuebruk, \textit{Graded Lip Trainers: Grade 1. Teachers and Pupils, Grade 2. Business Players, Grade 3. First Chair Men}, (New York: Carl Fisher, 1923). This author’s research has revealed little information on the background and training of Richard Shuebruk. As will be discussed further in the conclusion to this chapter, the means of transmission of Franquin’s influence on Shuebruk—if any—remains unclear.
As such, the horn presents an obvious candidate for accuracy exercises. Not surprisingly, in the last half-century, Franquin-style response exercises came to be adopted for that instrument as well. In *The Art of French Horn Playing* (1956), Philip Farkas includes a page-long accuracy exercise, virtually identical in format, content, and procedure to the attack exercises of Shuebruk. Gunther Schuller includes similar attack exercises in his book *Horn Technique* (1962); however these present multiple attacks on the same note (for a series of several different pitches). He credits as his inspiration the warm-up procedures of Richard Moore, former first horn at the Metropolitan Opera. Mr. Moore in turn had “assembled this exercise from a variety of sources, including primarily the warm-up procedures of Bruno Jaenicke [Principal Horn of the New York Philharmonic for some twenty-five years toward the beginning of the twentieth century] and Mr. Moore’s teacher, Xavier Franzl.”

B. TRANSPOSITION. Developing proficiency in transposition at sight became an essential skill to trumpet players by the close of the nineteenth century for several reasons. Baroque trumpet parts written with no key signature, for a natural instrument pitched in the key of the piece, often need to be played on modern trumpets pitched in keys other than the supposed original. Also, late-nineteenth and early-twentieth century orchestral compositions require trumpeters to change transposition frequently, often several times.

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87 On its F side, the modern horn has the same length as the F tuba. Thus Merri Franquin’s sentiments regarding the long trumpet in F have even more validity in the context of the horn, which has twice its length. Merri Franquin, “La Trompette et le Cornet,” *Encyclopédie de la musique et dictionnaire du Conservatoire* Part III, vol. II, ed. Albert Lavignac and Lionel de la Laurencie (Paris: Delagrave, c. 1924), 1612.

Finally, certain passages—usually as the result of excessive enharmonic/alternate fingering possibilities, tuning peculiarities of certain notes, or simply because of awkward fingerings—can sometimes be more easily executed on a trumpet pitched in a key other than that indicated in the score. Rigorous *solfège* training (which, in France, includes elements of music theory in addition to the aural skills the term implies in the United States) has traditionally been available in the French conservatory system, and would permit most musicians brought up in that system to understand transposition through movable C- and F-clefs. Among modern instrumentalists, trumpet players are most routinely called upon to transpose at sight, in real time, at a large variety of intervals. Even if all trumpet parts were to be standardized in concert pitch, trumpet players would still find it necessary to transpose when using different-keyed instruments to facilitate execution.

Creating a method that leaves it to the student to effect transpositions of the exercises can be pedagogically risky. If the author does not write out transpositions explicitly, most students do not bother to transpose them. On one hand, Dauverné could well give students the directive to practice his exercises in all of the keys available to the natural trumpet. This could be achieved simply—in terms of mental effort—by

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89 For example, the third trumpet part to Strauss’s *Till Eulenspiegels lustige Streiche* changes from trumpet in F to trumpet in E after rehearsal no. 22, moves back to trumpet in F after no. 24, and then to trumpet in C after no. 27, before returning to trumpet in F (written in bass clef) after no. 29. Richard Strauss, *Till Eulenspiegel’s lustige Streiche*, Op. 28, Trompete III, (New York: Kalmus, no date), 2.

90 Pierre Thibaud advanced this opinion (expressed frequently during lessons with the author, 1994 – 1998), citing the success of the books of Arban and Herbert L. Clarke, the latter of whom based his influential technical studies for cornet on just seven basic patterns, transposing them into all keys over the range of the instrument. See for example, Pierre Thibaud, *Method for the Advanced Trumpeter* (Montrose, CA: Balquhidder, 2002), 115 – 133.
means of different-keyed tuning crooks. However, obliging the student of valved trumpet to transpose difficult exercises at sight—hundreds of them, each requiring unintuitive (as compared to keyboard, stringed, or woodwind instruments) changes of fingering and mental gymnastics—risks putting-off all but the most ambitious from even trying. With Dauverné’s book, where almost all of the exercises—even those for valve- and slide-trumpet—appear only in C major, the danger exists that most modern-trumpet students using his method will become proficient in only a limited number of major keys. At worst, they would just learn in C major, if they neglected to transpose his exercises at all. By writing their exercises in all different keys, Arban and Forestier guarantee the diligent student a chromatic familiarity with their instrument. But in so doing, they eliminate the need to practice transposition in order to acquire this familiarity.  

To familiarize even those for whom transposition would “take too long or be too tedious” to a wide variety of keys, while at the same time promoting the development of solid transposition skills in more ambitious students, Franquin combines the approaches of his predecessors. Like Forestier and Arban, he writes different exercises in a large variety of keys. However, beginning with the scale exercises of the first part of his method, “second degree,” he includes suggested transpositions for most exercises; including those on arpeggios, finger coordination, large intervals, slurs, speed, and multiple tonguing. The written exercise serves as the model for transposition. Franquin indicates the suggested transpositions by means of additional clef/key signature

91 Saint-Jacome alone, among French authors of nineteenth-century cornet method books, suggests different transpositions for (many of) his exercises.  
92 “…serait un travail trop longue ou trop pénible… » Franquin, Méthode complète, 10.
combinations placed after it. For example, an exercise written in C major might be followed by a tenor clef and key signature of two flats. When applied to the written (C major) version of the exercise, these transform the model into B-flat major. This same exercise could then be followed by an alto clef accompanied by two sharps, which would, accordingly, place it in D major. In the first part of the book, he suggests only a few transpositions for model exercises, but with the second part of the method, he regularly indicates transpositions in all twelve keys, progressing through a circle of fifths or a circle of fourths.

To develop sight transposition skills as much as possible, Franquin routinely suggests half-step transpositions in instances where a simple change of key signature would have the same (enharmonic) effect. For example, his sixth scale exercise on page 149 appears in the key of B-flat major. He suggests (among other transpositions) reading the model pattern in the key of C-flat major—indicated by the substitution of an alto clef and a key signature of seven flats. Clearly, it would be easier for most people to simply read the exercise in the enharmonic B major, without change of clef, by (mentally) substituting a key signature of five sharps for the two flats printed in the model. Evidently, Franquin believed that acclimating the student to unnecessarily difficult transposition in practice would facilitate that required in actual performance.

C. RANGE AND ENDURANCE. The suggested transpositions adhere to a reasonable limit in the high range, appropriate to the difficulty level (dégré) of the exercise, and do not extend down into the pedal register. Should an exercise encompass a particularly large
range, only the transpositions meeting these requirements will be suggested. Since it may be possible to transpose a given exercise at different octaves in the key indicated, Franquin indicates the specific octaves to be studied by means of a starting note (or notes, if the exercise should be practiced in multiple octaves) in treble clef placed just after the substitute clef/key signature. As a further aid to the instructor and student, Franquin places a numerical difficulty rating, from one to three, over each transposition suggested, based on the upper limit of the resulting range. Thus, just by quickly scanning the numbers (and without effecting the transposition) one can determine which transpositions fall within the range appropriate to the level of the student. According to Franquin’s system, “1” corresponds to exercises extending up to G on top of the treble staff, “2” up to high B-flat, and “3” for those exceeding high B-flat.93

Theoretically, the cornet can play as high as the trumpet, although in practice it offers very little in terms of resonance or stability above high C.94 Exercises in the cornet methods of Forestier and Arban methods generally do not exceed high A. Infrequently, their range extends to high C. On the other hand, the trumpet, as demonstrated in many of the clarino parts of Baroque literature and in the “lead” trumpet parts of big band literature, can play well into the octave above high C retaining its characteristic brilliance and power, limited only by the physical means of the player. When Dauverné’s trumpet method appeared, the high clarino parts of the Baroque had yet to be revived in

93 Franquin, Méthode complète, 11.
94 Saint-Jacome includes in his method six measures of high notes “not to be abused,” extending up to (written) F above high C. Saint-Jacome, Grand Method, 87); Herbert L. Clarke lists the theoretical range of the cornet as extending up to written double high C. Herbert Clarke, Elementary Studies (New York: Carl Fisher, 1936), 53.
performance (and it would be another century before trumpeters attempted them once again on natural instruments). Therefore, his exercises generally stop at written G on top of the treble staff. However, Dauverné does include a series of thirty exercises on “high notes” (*notes sur-aiguës*), but only as a challenge for practice—extreme training to facilitate performance in the ordinary range of the instrument. At any rate, a large gap remained between the technique developed in the classic cornet texts and that expected of a professional trumpet player by the beginning of the twentieth century. As Walter M. Smith wrote in the Preface to his *Top Tones for the Trumpeter: 30 Modern Etudes*,

> It is a fact that the average player, even after attaining a splendid degree of efficiency with Arban’s, St. Jacome’s, and other methods and studies, is nevertheless completely exhausted by the demands made upon him when he first enters the field of professional playing—and particularly so by the somewhat appalling use of the upper register of the instrument, and not, I may add, simply the upper register as found in most of the methods, but the notes from high C up, which are found in modern orchestral compositions scattered about with the greatest freedom.

With Franquin’s method, a novel emphasis on high range development becomes integral to the instruction. Exercises of all types regularly ascend to written high C beginning with the second (intermediate) part. By its third part, the warm-up *(préparation)* sequences and virtually all of the exercises (when transposed as suggested) extend at least to high C. Like the trumpet method of Dauverné, Franquin includes a

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95 It should be reiterated here that Dauverné suggests practicing his exercises with all different keyed tuning crooks, several of which would sound above concert pitch. For example, in playing his exercises on E-flat trumpet, the written G would yield a concert B-flat.

96 Dauverné’s exercises “For familiarity with the extreme high notes of the Trumpet” (*Pour se familiariser avec les notes sur-aiguës de la Trompette*) extend to written high C, to be practiced only on natural trumpet with low (Ab to B) and medium (C to Eb) crooks. Dauverné, *Méthode*, 132.

special series of exercises designed to develop the high range, which he suggests be
practiced on C trumpet as well as trumpet in B-flat or A. Whereas Dauverné’s high range
exercises, after a few lines of long tones, merely extend the range of his usual scale and
arpeggio patterns in moving eighth and sixteenth notes, Franquin’s favor longer note
values (mostly quarters) for the high notes—especially those above high C. This may be
a reflection of the goals of their respective exercises. Dauverné, as mentioned above,
gives such exercises only as extreme training to facilitate execution in the ordinary
playing range. Franquin, on the other hand, develops this type of high register agility and
familiarity with nearly all the exercises of the advanced, third part of his Méthode
complète—not just those in the specially-dedicated series. This special series aims to
develop stamina and accuracy sufficient to meet the demands of actual performance in
the high range, in accordance with his Principles of Study. To this end, he also includes
a set of long tones for D trumpet, specifying rests within the set of “several measures,”
“several minutes,” and “five or ten minutes.”

Even more fundamental than the development of endurance exercises specifically
pertaining to the high range, Franquin seems to have pioneered the application of
uninterrupted strings of long tones (sons filés) toward improving endurance. As with the

98 Franquin intersperses pedal tones (notes below the practical range of the instrument) among his
high range exercises, foreshadowing the many American range development systems of the late-
twentieth century to do so, such as James Stamp’s well-known Warm-ups and Studies (Bulle,
Switzerland: B.I.M., 1981). However, Franquin includes them merely to promote and maintain
lip flexibility, as a counterbalance to the strength building work in the high register. He does not
accord them—in themselves—any special powers toward development of the high register.
Similarly, Franquin introduces the practice of “bending” (exercise consisting of lipping a note
down to the pitch one semitone lower), but only in the context of learning to play low C# in tune.
Franquin, Méthode complète, 19.

99 Ibid., 20.
study of emissions, he took a concept developed by the Principal Authors in their beginning exercises, and applied it to advanced players as well.\textsuperscript{100} Practice of isolated long tones has traditionally been associated with developing beauty of sound and increasing dynamic range and control. Franquin’s innovation in this type of exercise—later expanded and systematized by Francis Bodet, Carmine Caruso, and others in physically-oriented methods—comes with the removal of breath marks or rests between the notes, and the simple instruction in the case of “imprecise, impure, or imperfect [note] emissions,” to “breathe without separating the mouthpiece from the lips.” This type of practice accustoms the muscles of the face and lips to bearing the load of mouthpiece pressure for progressively longer periods without ceasing to vibrate. Franquin cautions, “a substantial period of rest should be taken, sufficient for the lips to recover completely from their preceding effort, anytime the lips cease to respond directly.” He also warns, “the lips should never be bruised (\textit{meurtries}) or even pressed strongly.”\textsuperscript{101} Essentially, Franquin transformed the study of long tones into “musical calisthenics.”\textsuperscript{102}

D. \textbf{Articulation, Sound, and “Tonguing in the Sound.”} Dauverné, Forestier, Arban, and Saint-Jacome all conceive of the attack as an (unvoiced) utterance of the syllable “tu”. This syllable appears in their discussions of sound production, indicated above or below the notes of their first exercises. In French, the vowel in this case has the

\textsuperscript{100} Franquin, \textit{Méthode complète}, 122.
\textsuperscript{101} Ibid., 122.
\textsuperscript{102} The author borrowed this descriptive phrase from the title of Carmine Caruso’s \textit{Musical Calisthenics for Brass} (Miami: Belwin, 1979).
same sound as the German “ü”—namely that produced with the tongue arched high in the back, as if pronouncing “tea” while the lips come forward to form an “o,” as in pronouncing “oh”. In his method, however, Franquin suggests use of the syllable “ta.” As in English, the pronunciation of the “ah” sound in “ta” has the effect of relaxing the back of the tongue and opening up the oral cavity. When applied to the trumpet, this has the effect of darkening the sound. That the earlier authors preferred a brighter utterance for historical trumpets and the cornet makes perfect sense since it helps to focus the sound, compensating for these instruments’ natural tendency toward diffuseness. The modern piston-valved trumpet, on the other hand, tends to sound bright (especially, as will be discussed in the following chapter, the early modern French trumpets), a tendency that can be mitigated by adopting “ta” as the basic articulation. Similarly, for multiple tonguing, Franquin recommends “ta ka ta ka…” (double tonguing) and “ta ta ka ta ka…” (triple tonguing) whereas his Principal Authors suggest “tu ku tu ku…” and “tu tu ku tu ku ku…,” respectively.

Regarding articulation, the notion of “tonguing in the sound” (*coup de langue dans le son*) represents one of the defining elements of the modern French School of

103 Relative to the modern trumpet, the early valved trumpets (and natural trumpets) for which Dauverné created his method, being more or less twice as long as the modern trumpet, possess a relatively less “clear” or “bright” sound. Similarly, the cornet, owing to its conical bore, different bends, and proportions, sounds more diffuse than the trumpet even though of the same overall length.

104 With respect to multiple tonguing, Franquin, like Dauverné and Forestier, allows for the possibility of replacing “t” and “k” with the softer consonants “d” and “g,” respectively. Franquin suggests this substitution only in the case of extremely fast articulation, where speed makes the clearer, “correct” articulation impossible. Arban, alone among the Principal Authors, categorically forbids the use of the consonants “d” and “g” (because they articulate notes relatively poorly). Franquin theorizes that Arban had this luxury—to always use the clearer “t” and “k”—because, as a soloist, he alone set the tempo in performance, and never had to “bend to circumstances” as the member of an orchestra. Franquin, *Méthode complète*, 235.
classical trumpet pedagogy and performance. All of the Principal Authors, with the exception of Dauverné, refer to it by name in their method books.105 The elegance of delivery it permits came as a great revelation to trumpet players outside of France, as recordings of Maurice André, one of the technique’s greatest practitioners, first began to circulate widely. The basic concept, that of fusing tongued notes together without any (glottal or diaphragmatic) interruption in the sound or airstream, has been present in the French tradition of brass pedagogy at least since the publication of Heinrich Domnich’s 1807 Méthode de premier et de second cor.106

Franquin devotes a page of explanation and exercises in the first part of his method to this technique, which he calls “Détachés in the sound or détaché slurs” (Détachés dans le son ou liés détachés).107 He explains the concept in a similar manner to his predecessors, but substitutes the syllable “ta” for their “du”.108 After this introduction to the concept, he includes this articulation in his subsequent sets of response exercises. But Franquin also makes—for the first time in the literature—the critical association of this technique with speed and agility rather than just lyrical playing. For example, an exercise on “Détaché in the sound or tonguing in the sound” (Détaché dans le son ou coup de langue dans le son) later in the book consists exclusively of flowing sixteenth notes (in an Andante 9/8) tracing out two voices separated by large intervallic

105 Arban’s appends this illustrative name to his explanation of the articulation notated by “dots, over which there is a slur.” The designation has been omitted in the English translations currently published. Arban, Grande Méthode, 5; Saint-Jacome calls the technique “portato or tonguing [sic] on the sound.” Saint-Jacome, Grand Method, 110.
106 Domnich, Méthode, 3 – 4.
107 Franquin, Méthode complète, 84.
108 For this type of tonguing—and only this type of tonguing—does Arban permit the syllable “du” instead of “tu.” Arban, Grande Méthode, 5.
leaps. Similarly, exercises featuring long strings of rapid sixteenth notes appear marked “Well articulated but without dryness” (Bien attaqué mais sans sécheresse) or “Single tongued, not too dry” (En coup de langue simple, pas trop sec) as a reminder that fast notes should be connected. Although not essential to cornet playing, the modern trumpet demands this technique for the articulation of rapidly moving notes with any degree of accuracy, lightness, and elegance: the natural trumpet, even more so.

In the text preceding his exercises on multiple tonguing, Franquin stresses the necessity, for rapid articulation, of tonguing gently and connecting the notes together. He goes on to write that multiple tonguing “is a kind of tonguing in the sound.” For this reason, unlike Arban or Saint-Jacome, Franquin allows for the replacement of the consonants “ta” and “ka” with the less cumbersome “da” and “ga” in tempos “so fast that the correct pronunciation would be impossible to achieve.” One of the members of the legendary trumpet section of the Chicago Symphony under Fritz Reiner, Rudolph Nashan, credits his having had the “fastest tongue in the Midwest” to this very concept of “tonguing on the tone.” His teacher at the New England Conservatory, Georges Mager,

109 Franquin, Méthode complète, 211.
110 Ibid., 213, 219.
111 In this respect, with the natural trumpet, the instrument itself teaches “tonguing on the sound” by sheer force of necessity. The modern trumpet deceptively presents some of the facility of the cornet with respect to tonguing at slower speeds in the middle register, but as tempo increases—especially in extremes of register—the difficulty reveals itself.
112 « C’est une manière de coup de langue dans le son. » Franquin, Méthode complète, 229.
113 « tellement vifs que la prononciation correcte soit impossible à réaliser. » Ibid., 235; Forestier also permits this substitution, but with no recognition that it helps to facilitate maximum speed for multiple tonguing—only that it can be useful “when desiring to render it more gently.” Forestier Grande Méthode, 3:166.
taught him the technique—including use of the substitute syllables “da” and “ga” as first elaborated in the Franquin Méthode complète in the context of speed. 114

E. Harmonics and Flexibility. As compared with the trumpet, the conical bore of the cornet better masks the reality that the player holds in hand not one chromatic instrument, but several natural instruments, soldered together, and accessible by depressing the valves in seven combinations (positions). Practically speaking, the cornet presents little danger in performance of notes accidentally slipping or cracking to an undesired harmonic. This remains true except at the very top of its range, which, as discussed above, receives little use. At the same time, the conical bore of the cornet naturally facilitates flexibility (the ease with which one can pass from note to note over an interval) as compared to the cylindrical bore of the trumpet.

This being the case, the authors of nineteenth-century cornet methods devote relatively little space to exercises on harmonics—the variation of harmonics without recourse to the valves. The fact that the authors of the first cornet methods all began their studies on other (natural, valveless) brass instruments may also come to bear here. As students, they would have mastered negotiating harmonics without valves early on, and probably would have associated the value of this skill more with the learning and performance of the old-fashioned, natural instruments than with modern, valved instruments. For example, Arban’s (cornet) method presents six pages of harmonic flexibility exercises (pages 42 – 47), for the most part written-out transpositions of a few

distinct melodic formulas. These are generally confined to movement between adjacent harmonics over the interval of a third—their goal being the rapid alteration between two adjacent harmonics commonly referred to as the “lip trill”. Coordination of the fingers, tongue, (and ear) seems to have been of more importance to the authors of these cornet methods. Accordingly, they emphasize this type of practice in their many tonguing and arpeggio exercises.

Franquin offers flexibility exercises similar to those found in Arban’s method book, under the heading “Slurs for lip flexibility” (Liés pour la souplesse des lèvres). But unlike Arban, Forestier or Saint-Jacome, many of Franquin’s arpeggio exercises force the student to navigate among harmonics over a broad range, without—or with minimal—recourse to the valves. In this way, Franquin specifically promotes facility on each of the seven “natural trumpets” contained within the modern trumpet, not just mastery of intervals and fingerings. In the third, advanced part of the method, the seven series on arpeggios contain hundreds of such exercises (if the player transposes the dozens of models to all the keys indicated). About half of the twenty exercises in Franquin’s first series on arpeggios actually come directly from the natural trumpet method of Dauverné.

Franquin develops additional harmonic permutations in many of the remaining arpeggio exercises. Often, he indicates the use of alternate enharmonic

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115 As explained by pedagogue Earl Irons and others, the misnomer “lip trill” confuses cause with effect. The up-and-down movement of the back of the tongue—akin to changing vowel sounds—actually drives the change of pitch. (The size of the opening between the lips varies minutely in sympathy with this change.) Earl Irons, Twenty-Seven Groups of Exercises for Cornet and Trumpet, (San Antonio: Southern Music, 1966), 3.

116 Franquin, Méthode complète, 139.

fingerings, even when ordinary fingerings would facilitate execution (at least in terms of intonation and accuracy, if not speed). These exercises explore not only the narrowly-placed adjacent harmonics of the middle and upper registers, but also patterns of harmonics spreading into the low range, and non-adjacent harmonics. As such, these exercises develop proficiency in the manipulation of the harmonics available with each fingering over the entire range of the instrument. Mastery of this skill has proven essential in gaining the accuracy and agility that can be elusive on the trumpet. Perhaps as a result of the relative scarcity of the Franquin method book in this country—and to address this shortcoming in the ubiquitous Arban method—numerous books of “flexibility studies” emphasizing various patterns on the harmonic series, came to exist outside of France during the course of the twentieth century.118

F. TRUMPET REPERTOIRE. If any further proof were needed that Franquin designed his method book primarily with the trumpeter in mind, it comes at the end of the book. Franquin included several entire pieces (those also published by Enoch & Compagnie) and long excerpts (those published by other houses) from the modern trumpet solo repertoire. He represented all but one of the competition pieces from the Paris Conservatory commissioned for trumpet during his tenure (up to the time of the method’s

118 The standard books of flexibility studies include those by Max Schlossberg, Charles Colin, and Earl Irons, to name a few; Forestier’s method contains several harmonic exercises (approximately the same quantity as Arban), but unlike Arban’s, some of his contain large leaps and byzantine patterns as well. The end of Forestier’s twenty-first study has as its goal “tongue independence” (l’independencia de la langue, 103), and several series of exercises in the last third of his method develop similar technique, under the heading “Exercises for the fingers and tongue.” Forestier, Grande Méthode, 3:191.
publication). With their inclusion, Franquin clearly hoped to demonstrate the musical capabilities of the modern trumpet. He also gave the ambitious student the means to prepare for entry (and eventual success) at the Conservatory. The versions of the works as printed in the Méthode complète have special interest to modern trumpeters. Some of these works have entered the standard repertoire. Those that have not stand as interesting discoveries. They all appear with Franquin’s suggestions for alternate fingerings, and in some cases (in particular, the Légende de Larmor of Alexandre Georges) with minor corrections and additions to the musical text. These additions or corrections cannot be found in any other extant source.

When one looks closely at the Practical Part of the Méthode complète de trompette moderne, de cornet à pistons et de bugle, it becomes clear that—at its heart this book is a modern trumpet method. As such, it represents the first of its kind, tailored specifically to the demands of the small, valved trumpet. The exercises, like the advice and instruction in the Theoretical Part, certainly can be applied to the cornet and the flugelhorn, and have great relevance to their study. However, the method book as a whole, and the Practical Part in particular, displays a trumpet-specific quality absent from the French school since the publication of the Dauverné method. For example, the practice of response exercises can be useful for the

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119 He also includes excerpts from two of the cornet contest pieces from this period. Franquin, Méthode complète, 320, 322.
120 Such pieces as the Georges Alary Morceau de Concours, the Joseph-Guy Ropartz Andante et Allegro, and the Georges Enesco Légende still feature prominently in contests, recitals and recordings.
cornet and flugelhorn, but because these instruments tend to perform within a limited tessitura, and because of advantages afforded by their conical bore, they demand much less work in this domain. \footnote{Franquin attributes the relative difficulty of *pp* sound production (*émission*) on the trumpet to the clarity (*clarté*) and brilliance (*éclat*) of its timbre—a result of its tubing, which has a cylindrical bore as opposed to the conical bore of the cornet. Franquin, “La Trompette et le cornet,” 1637.} Similarly, Franquin’s *Méthode complète* places great emphasis on the development of sight transposition skills, up to the interval of a tritone, which cornet and flugelhorn literature calls for very infrequently. By the late nineteenth century these instruments had been adopted, for the most part, in the standard key of B-flat. \footnote{French composers continued to write a small amount of literature for cornets pitched in A and C (concert pitch) into the early twentieth century. It may be assumed that performers generally played these works on instruments pitched in these keys—or on properly-equipped cornets converted to A or C by means of quick-change valves and/or extendable crooks or shanks—therefore precluding the need to transpose.} The development of the high register, primarily the domain of the trumpet, has little place in a method conceived for the cornet and flugelhorn. The same can be said of Franquin’s conceptions of syllables for articulation, tonguing on the sound for increased speed and agility, and harmonic series practice for overall technical development—not to mention his choices of sample repertoire. These elements of the Practical Part betray the book’s bias as a modern trumpet method. They merit special acknowledgement for their innovation, and make Franquin’s *Méthode complète* particularly relevant to trumpet study today. More importantly, recognizing them can help the modern trumpet player and teacher to put the many excellent technique and method books originally conceived for cornet to more effective use.
V. CONCLUSION. At the time of its publication, Merri Franquin’s *Méthode complète de trompette moderne, de cornet à pistons et de bugle* represented the culmination of a centuries-long tradition of successful trumpet pedagogy and performance. In composing his method, Franquin drew on the three best methods for trumpet and cornet available to him, all of which arose in the fertile milieu of the Paris Conservatory during the nineteenth century. In addition to its many intrinsic merits, Franquin’s book can thus serve as a user’s manual for these earlier methods as well, thanks to its detailed explanations. Many of his novel ideas can be applied to their exercises, as well, expanding their utility. Franquin also added novel pedagogical approaches, created and developed exercises, and generally updated the material in these methods to meet the demands of early twentieth-century trumpet performance. This makes his work uniquely comprehensive among the many books available for modern trumpet study. Above all, Franquin’s *Méthode* acknowledged for the first time the importance of continued daily practice of the very most fundamental aspects of playing—particularly response and sound production—at all levels of achievement, for the beginning student and the seasoned professional. Its Principles of Study present the first—and arguably, most complete—written formulation of the basic tenets of modern brass playing and pedagogy. Merri Franquin’s students soon spread his *Méthode complète* across Europe, and his method throughout the world. The book may never be adopted as widely as the more generally accessible Arban *Grande Méthode* because of the demands it places on range,

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124 This tradition can be traced back at least as far as the eighteenth century, if one takes into account Dauverné’s grandfather, who played the trumpet (the sounds of which “roused him from the crib”), and uncle and first teacher, David Buhl, the “trumpeter par excellence” of his time. Dauverné, *Méthode*, 7.
technique, and sight transposition skills. But this does nothing to diminish its value to the ambitious student or professional for whom Franquin intended it.

Delineating the historical influence of Franquin’s *Méthode complète* in the United States, beyond acting as a sort of beneficent *éminence grise* of trumpet pedagogy, could be more problematic. Along with the response exercises, propagated in print by the similar attack exercises of Shuebruk and Farkas, most of the ideas contained in its *Principles of Study* seem to have gained currency in this country. The striking similarity of many of the fundamental tenets of the American orchestral school of trumpet performance, in particular, to those first propagated by Merri Franquin, would appear to be more than just coincidence. Yet the origins of these precepts in the United States may or may not actually be traceable to Franquin himself.\(^\text{125}\)

It would be natural to suppose that Franquin’s ideas spread in this country via the teachings of the many notable French trumpet players to perform as members of the Boston Symphony Orchestra. The tenure of George Mager, who served on the faculty of the New England Conservatory, could be particularly relevant in this respect. The performance and teaching of his illustrious students—in particular Adolph Herseth and Roger Voisin over the course of their long careers—has had an immeasurable impact on trumpet performance in this country. But when such students came to study with Mager, they had largely progressed beyond working out of method books in their lessons.

\(^{125}\) Particularly, if Richard Shuebruk indeed gained inspiration from Franquin as it would seem, the exact mechanism of transmission—when, where, and how he became familiar with Franquin’s ideas—remains open to question.
Instead, they prepared études (notably, those of Théo Charlier) and orchestral excerpts. And of the Paris Conservatory graduates who came to dominate the trumpet section of the Boston Symphony Orchestra under conductors Pierre Monteux and Serge Koussevitzky, only Gustave Perret (1er prix de trompette, 1908) actually received his prize from the trumpet class of Merri Franquin. The rest obtained their prizes on cornet, from the studios of Joseph Mellet or his successor Alexandre Petit.

However, before coming to Boston they each remained active in Paris for roughly a decade after obtaining their prizes. In addition to their time spent as students at the Paris Conservatory, this would certainly have provided ample opportunity for the reception of Franquin’s method. They had the time and the exposure necessary to absorb his Principles of Study. If not through direct study from his Méthode complète, this could have transpired either through private lessons with the master himself or professional association with his many successful students. For example, in the years before the First World War, Georges Mager played Principal Cornet in the Touche Concert Series (Concerts Touche) “and often played at the Grand Palais sitting next to [Franquin’s star former pupil and eventual successor] Eugène Foveau.” Another possible conduit for

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126 Rudolf Nashan, telephone interview.
127 Douglas Yeo conveniently charts the chronology of their entry into the BSO. Douglas Yeo, “Trumpet Players of the Boston Symphony,” 20.
128 According to Roger Voisin, his father (and first teacher) knew Franquin (René Voisin, 1er prix d’excellence, cornet, 1916). Roger Voisin owned a copy of Franquin’s Méthode complète. Roger Voisin, Interview; René Voisin and Marcel Lafosse, who both graduated about a decade later than George Mager and Eugène Foveau, may have had occasion to study with privately with Foveau. They almost definitely performed with him.
129 Harry Herforth, “A Tribute to Georges Mager (1885 – 1930),” International Trumpet Guild Journal 10, no. 2 (December, 1985): 14; Foveau and Mager had previously studied cornet together as classmates at the Paris Conservatory. The year prior to receiving his 1er prix de
Franquin’s basic ideas into mainstream of American trumpet playing comes with Vincent Cichowicz. His teacher Renold Schilke studied in Paris with Foveau. Even if the impact of Franquin’s method has been limited in this country so far mainly to the propagation of the precepts in his Principles of Study by former students and their colleagues, with the entry of the work into the public domain and its imminent republication and translation into English, the method as a whole soon stands to emerge from behind the scenes, gaining the wider currency that it has merited now for a century.

*trompette*, Eugène Foveau received 1st* prix de cornet* (1906), the very same year that Georges Mager received his. Both studied in the cornet class under Joseph Mellet.

130 H.M. Lewis, “Renold Schilke: Master Player, Craftsman, and Teacher,” *International Trumpet Guild Newsletter* 6, no. 3 (May 1980): 7; Closing this intriguing loop, Cichowicz’s well-known set of “flow studies” came to be highly regarded by (Foveau student) Pierre Thibaud, who incorporated them into his books *Daily Routine and Vocalises for the Advanced Trumpeter* and *Method for the Advanced Trumpeter*, (Montrose, CA: Balquhidder, 2002).
CHAPTER 4
TOWARD AN IMPROVED TRUMPET

Throughout history, musicians and instrument manufactures have sought to improve the musical instruments that serve as the tools of the trade. Some of these changes responded to changing aesthetic demands, such as equipping instruments with steel strings to allow them to generate greater carrying power for performance in large formations and large venues. Other changes, such as the progressive addition of holes and keys to woodwind instruments—and the introduction of valves to brass instruments—although certainly related to changes in musical aesthetics, resulted from more purely technical concerns. Such changes rendered these instruments easier to play and improved their technical capabilities, but did little to change their sound. In adding supplemental valves to the standard three-valve system on brass instruments, Merri Franquin sought to effect this type of fundamental technological advance in the manufacture of brass instruments.

Brass instruments require at least seven distinct positions—total lengths of vibrating air column—in order to play chromatically throughout their range. Each position permits the production of a harmonic series comparable to that of a natural instrument of corresponding length. Theoretically, their fundamental tonalities descending by half-steps through a tritone from first to seventh position, the harmonic series produced by each position possesses identical intervallic content. The largest interval between adjacent playable harmonics of the natural instrument (as well as each
of the seven positions) spans a perfect fifth.\(^1\) Thus the seven positions provide all six semitones necessary to bridge this interval in half-step increments. Ascending in register, the remaining—increasingly smaller—intervals between successive harmonics can be similarly subdivided by half step. But an entire tritone of descending half-steps can be produced with the seven positions beginning with any “open” (first position) harmonic. As a result, an increasing number of redundant (alternate) fingerings duplicating notes otherwise playable by higher harmonics of lower positions occur with ascending range.

I. THE PROBLEM. Standard three-valve brass instruments play sharp when the player uses the valves in combination.\(^2\) If the nominal tonalities associated with successive positions are to be separated by equal semitones, the total length of the air column, descending progressively, should increase each time by a factor of \(\sqrt[12]{\frac{2}{1}}\). This means that the additional length of tubing required to achieve a drop of one equal semitone becomes progressively greater with each successive position.\(^3\)

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\(^1\) In practice, the fundamental tends to be difficult to produce in tune, and sounds dull in timbre. The nominal pitch of a brass instrument therefore comes from its lowest practicable first-position note: the second harmonic, one octave above the (theoretical) fundamental. The next higher, third, harmonic comes a perfect fifth above the second. This pattern holds for any given position.

\(^2\) As will be discussed below in connection with Théo Charlier, since the advent of the mobile valve slide in 1900, manufacturers generally cut the third valve slide to be longer than its theoretically correct length, permitting notes played with the combination of the second and third valves to be played in tune without adjustment of the slide. This advancement appears to date to 1900, and Théo Charlier’s collaboration with the Belgian manufacturer Mahillon. Théo Charlier, *36 Études transcendantes pour trompette, cornet à pistons ou bugle Sib* (Paris: Buffet-Crampon, 1926), 13, 15.

\(^3\) To lower the pitch of a resonating body such as a brass instrument by one octave, its length must increase by a factor of two. Therefore to lower the pitch by one semitone (defined in equal temperament as one-twelfth of an octave), the length must increase by a factor that, if multiplied by itself twelve times in succession, would produce this same doubling in length: \(2^{1/12}\). An obvious solution to the inherent tuning difficulties of brass instruments might be to manufacture
On a trombone, the slide mechanism easily allows the distance between adjacent positions to become progressively larger as the player descends. The problem arises on a non-compensating valved instrument. A proportional lengthening of the tubing between successive positions cannot be produced, because the length of tubing associated with each valve remains fixed, when used singly or in combination. To a certain extent, the pitch of a trumpet or cornet can be raised (or lowered) for a given tone by narrowing (or widening) its bore at a nodal point corresponding to the end of a standing wave at that particular harmonic. But this type of harmonic manipulation can be incorporated in instrument manufacture only very judiciously, since it tends to affect the tone color adversely.  

As a result, a well-made instrument plays most “open” notes (those that require no valves to be depressed—first position) very well in tune, as well as most of those whose fingering requires the use of only one valve. Depressing the second valve alone (second position) lowers the nominal pitch of the instrument by exactly one semitone. Depressing the first valve alone (third position) lowers the pitch of the instrument by exactly one whole tone. But used in conjunction, the combination of the first and second valves (fourth position) does not add quite enough tubing to lower the pitch one and one-half
steps. To allow fourth position to sound in tune solely by virtue of the valves, the length of tubing added by the first and/or the second valve would have to be longer—making all the notes played with these valves singly (second and third positions) sound flat. Modern manufacturers ordinarily cut the third valve slide to be slightly longer than its theoretically correct length, to permit in-tune production of the notes produced by a combination of the second and third valves (fifth position). Therefore, in this system, positions one through five can produce their respective nominal pitches perfectly in tune, with the exception of the fourth, which must be lowered slightly by some other means. However, the notes produced by the combination of the first and third valves (sixth position) and all the valves together (seventh position) sound exceedingly sharp. The sixth, and particularly seventh, positions can be brought into tune by lipping, but only at great expense with respect to tone quality and facility.

Intonation aside, there exist a few other major problems with the three-valve system. These can be remedied to varying degrees by training, but not completely overcome. The first stems from the physiology of the human hand. Fingerings involving the third piston (fifth, sixth, and seventh positions), operated by the fourth (ring) finger, can be awkward, especially since the pistons of valved instruments require a relatively long “throw” (range of motion) as compared to the pivoting keys of woodwind or keyboard instruments. So-called “forked fingerings,” moving between the positions using the third finger and one or both of the first two, can be particularly unwieldy. This mechanical awkwardness, especially in the low register, can be debilitating when added to a problem common to many notes on three-valved brass instruments: bad whole tone
trills. Franquin, who categorized all the semitone and whole tone trills throughout the normal playing range in his method book, put these particular trills under his third category, “defective and difficult in terms of fingering (défectueux et difficiles au point de vue du doigté).” Also, he characterized whole tone trills in the high range, beginning from E5 as the first note and continuing chromatically upwards, as “all difficult (tous difficiles).” These same difficulties can extend to any rapid passage involving these problematic intervals. Finally, the positions involving combinations of valves, generally avoidable in the high register as the result of the converging upper harmonics of the first few positions, have been associated with difficult response. Franquin grouped the notes A5 and G#/Ab5 in this category.

This basic problem with the three-piston valve system—that of its inability to provide adequate additional lengths of tubing to the vibrating air column for notes requiring a combination of valves—and the attendant difficulties of execution, largely determine what key of trumpet a performer will choose to play a given work. These

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5 Many authors have recognized the difficulty of whole tone trills on the trumpet and cornet, including Arban, “The only trill which is really [tolerable] (supportable) is that in half tones;” and Herbert L. Clarke, “On account of the difficulty of producing the whole tone trill on the cornet it is often played in an irregular and clumsy manner.” Jean-Baptiste Arban, *Arban’s Complete Conservatory Method for Trumpet* (New York: Carl Fisher, 1936), 90; Herbert Clarke, *Technical Studies* (New York: Carl Fisher, 1934), 14.


7 Ibid., 275.

8 Merri Franquin, “La Trompette et le cornet,” *Encyclopédie de la musique et dictionnaire du Conservatoire* Part III, vol. II, ed. Albert Lavignac and Lionel de la Laurencie (Paris: Delagrave, c. 1925), 1637; Although Franquin offered this opinion with respect to earlier instruments, that these two high notes feature prominently in standard orchestral audition excerpts (commonly played on C trumpet) such as the opening to Tchaikovsky’s *Fourth Symphony*, the posthorn solo from Mahler’s *Third Symphony*, Claude Debussy’s *Fêtes* (*Nocturnes*), and the Ballerina’s dance from *Petrouchka*, the opening of Mahler’s *Fifth Symphony*, etc. would seem to support Franquin’s judgment with respect to modern instruments as well.
types of issues often result in trumpeters choosing to perform pieces on instruments in
keys other than that for which they were written. As a first consideration, players choose
the instrument by range—i.e., which instrument can play all the notes of the work. For
this reason, tone color often becomes the secondary consideration. Beyond this, players
further narrow their choice of instrument by determining which one best balances these
concerns while avoiding, to the degree possible, use of the fifth through seventh
positions. Thus, even to the present day, the trumpeter must employ instruments in a
variety of keys. In comparison to the largest modern trumpets, in C and B-flat, most of
these present inferior intonation, timbre, and projection, possessing only the particular
advantage of facility of execution.

II. ARBAN AND COMPENSATING VALVE SYSTEMS. As early as 1848, Jean-Baptiste Arban
demonstrated a new cornet valve configuration devised by Adolphe Sax in an attempt to
compensate for the tuning problems inherent in the standard, three-valve system. During
the 1880’s he entered a fruitful collaboration with the engineer L. Bouvet. Together,
Arban and Bouvet pioneered a three-valve double instrument. Today, hornists often
play double instruments pitched in F and B-flat. For horns, the double system does not
address intonation issues, in particular, but rather it serves to aid accuracy in the upper
register. Arban conceived his system, however, expressly to improve his instrument’s

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10 The modern “double horn” comes with a double valve section, though both “horns” share the
same mouthpipe, finger keys, and bell. The basic three valve fingering system remains. An
additional (fourth) valve serves as a switch between the two instruments. Players generally use
intonation. In fact, a three-valve instrument, lacking a fourth “change valve” could not function independently in both C and A. Thus the C side of the instrument produced the first four positions; the A side the remaining three.

The first two pistons of the C/A instrument each came equipped with double sets of channels and valve slides. When depressed singly, they routed the air through an upper set of slides identical to those on a standard three-valve system. The third piston acted as a master valve that, when depressed, rerouted the air column through a completely new and separate path along the bottom portion of the first two valves—the A instrument. When depressed, the double valves diverted the air running through this lower path through an additional set of valve slides, of appropriate length to produce fifth and sixth positions perfectly in tune.\(^1\) Conveniently, this meant that third valve alone, as on the standard system, could serve as an alternate fourth position—but perfectly in tune—and that the remainder of the positions retained their conventional fingerings. The problem still remained, however, that seventh position (played with all three valves depressed) would sound slightly sharp—the length of the secondary valve slides on the first and second pistons, as well that of the tubing of the third valve, being fixed to the appropriate length for fifth and sixth positions. In practice, even partly corrected, seventh position would no longer pose a significant obstacle to good intonation. The deviation (sharpness) of its nominal tonality from the equal-tempered scale would be reduced from

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the F horn for the low and lower-middle registers, reserving the (smaller) B-flat side of the instrument for upper-middle and higher notes.

\(^1\) Lessen and Smith, “A New Compensating Valve System,” 52.
one-half a semitone (uncorrected) to one-tenth a semitone.\(^\text{12}\) Furthermore, only F#/Gb3 and C#/Db4 require deployment of seventh position, making it the least used on the instrument. Arban felt confident enough about his improved system that he implemented it in his cornet class at the Paris Conservatory. Nevertheless, he felt compelled to continue his quest for “perfect intonation” (\textit{la justesse absolue}).\(^\text{13}\)

Still collaborating with Bouvet, Arban manufactured a four-valve double cornet in 1887, and another version, designed to simplify the fingering, the following year.\(^\text{14}\) These late instruments were true double cornets in C/A, their fourth valve serving as a change valve to switch between the smaller and larger sides of the cornet. As such, Arban’s cornets should not be considered compensating instruments, strictly speaking, since the correction factor did not add itself automatically with the conventional fingerings. Nevertheless, this type of instrument could provide exactly the correct length of tubing necessary for each of the seven positions. Additionally, it would provide alternate fingerings to correct out-of-tune harmonics, extend the low range of the

\(^{12}\) Lessen and Smith, “A New Compensating Valve System,” 55.

\(^{13}\) Deeming his system successful and worthy of being brought to the attention of French composers and the musical establishment in general, Arban sent a letter to the Minister of Public Instruction and Fine Arts recommending the empanelment of a committee of experts to evaluate it and publicize their supposed endorsement. The approximate date of the letter can be established by the short tenure of its addressee, (Clement) Armand Fallières, as Minister of Public Instruction and Fine Arts. Fallières served as Minister of Public Instruction and Fine Arts from 1883 – 1885 (and as President of the French Republic from 1906 – 1913). Since Arban writes of the “\textit{nouvel Cornet Arban},” the letter apparently refers to his compensating system of 1884, designed with Bouvet and described above. In the postscript to the letter, Arban explains that he has altruistically chosen to forgo taking out a patent on his new system, to allow all manufacturers to profit freely from the invention. Arban in an undated letter to Monsieur [(Clement) Armand] Fallières, Minister of Public Instruction and Fine Arts, in the faculty file (dossier de professeur) of Jean-Baptiste Arban, Paris Conservatory Archive Collection, No. AJ\(^3\) 84, 7f, French National Archives, Paris, France.

instrument to concert D#/Eb3, and present new possibilities for “scordatura” tunings, produced by lengthening the valve slides of the A instrument, that could further extend its low range or facilitate transposition. Arban’s death in April of 1889 ruined whatever chances for success and widespread adoption this instrument may have had. Between the fall of 1887 and the spring of 1889, only one premier prix emerged from the cornet class at the Paris conservatory—the only Arban student who likely would have mastered the four-valve system. Under Arban’s successor, the cornet class reverted to playing the standard three-valve system.

In 1874, David Blaikley, an engineer and production manager at the English firm Boosey and Hawkes, developed the only compensating system still widespread today. It has been applied with success to tenor brass instruments. Unlike the three-valve Arban-Bouvet system, the Blaikley system maintains the path of the vibrating air column through the customary slides on the first two valves even when the player depresses the third valve. However, the third valve slide itself channels through the bottom of the first two pistons, in such a way that when used alone, the path of its slide passes straight through them. But when used in conjunction with one or more of the first two pistons, its path diverts through small corrective slides that add the necessary lengths of compensating tubing. In its three-valve form, the Blaikley system presents the same shortcoming as the three-valve Arban-Bouvet system: it cannot fully compensate seventh

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16 Bate and Tarr. "Valve (i)."
position, since fifth and sixth positions necessarily determine the maximum lengths of the corrective loops. In the four-valve Blaikley system, popular on euphoniums, the additional (fourth) valve lowers the nominal pitch of the instrument by two-and-one-half tones. Its slide (not that of the third valve) travels through the bottoms of the other pistons where it becomes diverted through corrective addenda as they lower. This way, the problematic sixth and seventh positions can be played with fourth valve alone and with a combination of the second and fourth valves, respectively.\(^\text{18}\) The four-valve Blaikley system, as applied to the euphonium, brings the additional advantage of providing an extended low range descending, in tune, chromatically down to its pedal C (C\(^2\)). Despite its popularity, this system has been associated with excessive “stuffiness” or air resistance as compared to non-compensating instruments, even on tenor and bass instruments.\(^\text{19}\) Thus one would expect Blaikley system trumpets or cornets—on which the corrective tubing would be particularly small and tightly bent relative to the bore size—to present even greater resistance.\(^\text{20}\)

As attractive as the idea of a fully compensating instrument may be in theory, in practice it may not work, and may not be necessary. Trumpets and cornets present a complex interior geometry that combines elements of cylindrical and conical tubing, with

\(^{18}\) Lessen and Smith, “A New Compensating Valve System,” 52 – 53.


\(^{20}\) A recent innovation by mechanical engineer and amateur trumpeter Martin Lessen, patented in 1991, may improve these problems by incorporating the corrective addenda internally within the first two pistons, by virtue of convoluted valve channels. Such trumpets, to date, have not gone into production commercially. Lessen and Smith, “A New Compensating Valve System,” 54 – 55.
further discontinuities added by their various joints, the mouthpiece, and the bell. As a result, their harmonics do not correspond exactly to those of either a cylindrical or conical bore tube, and therefore do not align precisely with the regular intervallic pattern theoretically produced by a conical tube with a closed end. Thus, even if a compensating instrument brings the nominal pitches of each position perfectly into tune relative to one another, the higher harmonics each position produces could still be out of tune. And paradoxically—particularly in the case of the trumpet—a compensating system might cause the lowest notes played with fifth and sixth positions (G3 and F#/Gb3) to sound flat. Even on non-compensating instruments, these notes tend to lie slightly low, the degree of flatness depending on the particular combination of player, instrument, and mouthpiece. Thus on the trumpet, a compensating system would in practice only serve to improve the pitch of D4 (sixth position) and C#/Db4 (seventh position). And while a compensating system that preserves the conventional fingerings for all positions requires no reeducation period for the player, it does nothing to address the physical awkwardness of the positions requiring the fourth finger. Finally, a system that relies on a double instrument in a lower key, while addressing all these problems, does nothing to improve facility in upper register, and may in practice be detrimental to it.

III. Merri Franquin and the Ascending Valve. Merri Franquin used the novel expedient of a single ascending piston valve added to the conventional three-valve configuration to invent a partially-double system that, contrary to Arban’s, exploited a higher tonality. Just as a valve can be constructed to reroute the air column through an
additional length of tubing when depressed, the connection can be reversed. A valve can be assembled in such a way that the ordinary course of the airway it controls includes a length of tubing that the valve removes from the airway when depressed. Ascending systems—if not ascending valves—had been widely used prior to Franquin’s invention. The first chromatic trumpets and bugles, mentioned in the *Précis historiques* of Dauverné’s method (and later, in Franquin’s *Encyclopédie* article), relied on an ascending system of keys not unlike those of a woodwind instrument, in which depressing keys raised the nominal pitch of the instrument.21 Also, the “independent valve” system devised by Adolphe Sax in 1852 relied exclusively on (six) ascending piston valves.22

Franquin undertook his first attempt at an ascending fourth valve trumpet around 1888—the year that Arban produced his improved four-valve cornet—in conjunction with the French manufacturer Millereau. “Although constituting a great advancement…,” (un grand progrès, in Franquin’s words), this prototype remained “incomplete.” He performed on the new trumpet in his Principal posts with both the Colonne Concert Series (concerts Colonne) and the orchestra of the Paris Opera. Apparently pleased with its intonation, he eventually abandoned it because it did not “entirely satisfy him in terms of tone (sonorité), a defect common to all new systems when first produced.”23 In his encyclopedia article Franquin chronicles, “towards 1912, the idea came to him to make a new attempt and to suggest its fabrication to the company

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Jérome Thibouville-Lamy, which succeeded in giving complete satisfaction.”24 With the aid of the patent counsel and engineering firm of M. Armengaud, Jr., Thibouville-Lamy et Compagnie requested a French patent for the invention of the ascending valve, applicable to all brass instruments, on January 2, 1913.25 The French National Office of Industrial Property issued the patent on March 19 of the same year. The same office published patent number 452.822 for the “Additional ascending piston intended to raise the fundamental key of a piston-valve instrument,” on May 23, 1913. (Reproduced with English translation in Appendix 2.)

As stated in the patent, the additional valve not only served to raise the key of the instrument by one step (thus bringing the advantages in the high range of a smaller instrument with respect to note accuracy), it also provided the following benefits:

Easy production of two rather thankless high notes—the A, which is played with the first and second pistons, and the A-flat, with the second and third pistons. Thanks to this fourth piston, the A is played open [none of the three main valves depressed—only the fourth] and the A-flat is played with the second and fourth pistons; the fourth replacing the third.


25 As worded in the descriptive title, the patent targeted all “piston [valve] musical instruments.” The first four lines of the patent specifically list “trumpets, cornets, trombones, saxhorns, etc….” French Patent No. 452.822
On three piston instruments, the low C-sharp and D are always too high, however with the fourth piston they can be played absolutely in tune.\textsuperscript{26}

To these benefits, one might add that the whole tone ascending fourth valve eliminates having to use the awkward sixth and seventh positions for all but the lowest two notes of the instrument: G3, and F#/Gb3. It reduces the need for fifth position as well, rendering it necessary only in the cases of G#/Ab3 and low D#/Eb4. This system also facilitates some of the most difficult whole tone trills by allowing the player to enjoy the relative ease associated with playing them a whole tone lower. Like Arban, Franquin did not intend the fourth piston of his system to serve primarily as a quick-change valve (in this case, to D). He designed the instrument as pictured in the patent to be a C trumpet—a concert pitch instrument. But equipped with his ascending valve system, it overcame the tuning difficulties, awkward trills and fingerings normally associated with that instrument. As produced, this instrument used the very same bell as the popular Thibouville-Lamy three-valve C trumpets. It maintained the characteristic beauty of sound, and easy response, associated with those instruments.\textsuperscript{27} Despite being primarily a C trumpet, by shortening the length of the valve slides appropriately and keeping the fourth valve depressed continuously, it could also serve as a D trumpet for pieces written for that instrument, or for extended passages in D.

\textsuperscript{26} French National Office of Industrial Property, XVII.—Industrial Arts, 4.—Music, Patent No. 452.822, \textit{Piston supplémentaire ascendant destiné à remonter la tonalité fondamentale des instruments de musique à piston} (23 May 1913), 2, lines 17 – 27.

\textsuperscript{27} Voisin and Gaar, \textit{A Users Manual for the Four Valve C/D Trumpet}, 1; Thibouville-Lamy catalogue description (Appendix 4).
Franquin’s system presented the special advantage that a trumpet so-equipped could still be played as a conventional C trumpet by only using the three traditional valves. Use of the extra ascending valve remained optional. This might allow a player to adopt the new system gradually, full exploitation of which (like any new fingering system) might take a player adept at the conventional system six months to master. With time and practice a player might go on to develop fluency with the myriad new possibilities for alternate fingerings such an instrument offers, applying them to difficult technical passages for greater facility.

IV. The Fifth Valve. Like Arban after the creation of his three-valve double instrument, Franquin seemed almost obsessively determined not only to improve, but to perfect his new invention. Defying advice from his technical collaborator at Thibouville-Lamy, A.E. Acoulon, that “he was foolish to break his neck” for such minor improvement, Franquin decided to further elaborate his system. His wish to further improve his new system grew in particular from his desire to offer “backward compatibility” with respect to the literature of the older trumpets, to borrow a concept from twenty-first century technological parlance. Franquin sought to bridge the void created with the adoption of small trumpets between their lowest playable note (written F#/Gb3) and the low notes called for by older literature, especially that of turn-of-the-

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30 That within fifty years trumpet players would once again begin to take up the natural trumpet, as part of the burgeoning early music movement in whose formative stages he participated in the 1880’s, would no doubt have come as quite a shock to Franquin.
century composers who wrote for large, valved trumpets in F and Eb. In particular, the small trumpet’s inability to play the low Eb (Eb3) of Victor Alphonse Duvernoy’s Sérénade (1906), and to a lesser degree that of Camille Saint-Saëns’ Septuor (1880), frustrated Franquin.31 “Thus this progress had to be completed.”32 He took advantage of the “regrettable leisure” caused by the outbreak of the First World War to research and develop a new prototype.33

The fruit of his labor came in 1916, with the production of a five-valve trumpet. Thibouville-Lamy & Cie applied for the patent, again with the help of counsel-engineer Armengaud, Jr., on January 17, 1916, and again covering all “piston [valve] musical instruments.”34 Evidently delayed by the war and its aftermath, the French government did not issue the patent until March 14, 1921. Patent number 521.761 was published on July 19, 1921, this time formally crediting “M.J.B. Franquin” as the source of the invention.35 (Reproduced with English translation in Appendix 3.)

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31 Franquin admits the possibility of transposing the low Eb of the Saint-Saëns up one octave. To do so in the Duvernoy would produce a “disastrous effect.” Merri Franquin, “La Trompette et le cornet,” 1614; Franquin performed these works frequently, along with the septets by Vincent D’Indy (Third Suite in D, 1886) and Gabriel Pierné (Pastorale variée, c.1893), in concerts throughout Paris such as those for the literary and artistic societies Cercle Volney and Cercle Militaire, and across Europe. Gaston Andrieu, “Merri Franquin, 1848 – 1934,” published obituary of unknown origin, photocopy in the collection of the author.


33 Ibid.; The leisure to which he refers must have been the result principally in a slackening of performance obligations (remarkable, as he would have been in his mid-sixties), and possibly in private instruction, since teaching continued uninterrupted at the Paris Conservatory—despite the departure of many students following the start of the war. Hugon-Roydor, ed., Annuaire Officiel du Conservatoire National de Musique et de Déclamation, (Paris: Maurice Sénart, 1919), 281.

34 This time, the first lines of the patent mention “piston [valve] musical instruments in general, and particularly… trumpets or cornets.” French National Office of Industrial Property, XVII.—Industrial Arts, 4.—Music, Patent No. 521.761, Perfectionnement dans les instruments de musique à pistons (19 July 1921), 1, lines 1 – 5.

35 Patent No. 521.761, 1, lines 1 – 2.
The new patent encompassed and superseded the patent for Franquin’s earlier four-valve system. The improvement it describes consisted “in part of the addition of one or preferably of two extra pistons… and in part in the particular disposition of this or of these extra pistons….” Immediately discernable on the patent’s attached diagram, this new arrangement placed the supplementary piston(s) in a direction perpendicular to the three ordinary pistons. This move aimed to “to divert the air column as little as possible from its normal course,” and—questionably—to render “their operation easy by allowing use of the thumbs.” As might be expected, one of these supplementary pistons, now operated by the right thumb, could behave identically to the ascending fourth valve of the 1912 design. The second additional piston, normally set to lower the pitch of the instrument by one and one-half tones and operated with the thumb of the left hand, accomplished Franquin’s goal of bridging the gap between the lowest note available with the conventional three-valve system and the lowest notes in the trumpet repertoire. In the hands of a player able to play “open” pedal C on both the C and D sides of the trumpet, this instrument, fully equipped with the ascending fourth valve and the descending fifth valve, could descend chromatically down to that note (C3). The complete five-valve system presents an even greater number of potential alternate fingerings than the four-valve.

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36 Patent No. 521.761, 1, lines 6 – 19.
37 Three valve instruments offer $2^3 = 8$ possible valve combinations, four-valve instruments offer $2^4 = 16$, and five-valve $2^5 = 32$. Thirty-two possible combinations, on an instrument basically only requiring seven distinct positions, presents a dizzying variety of options, particularly in the high range where the positions become increasingly redundant. In attempting to promote this instrument, Franquin and Thibouville-Lamy made the error of including fingering charts that list not only the useful fingerings, but an overwhelming number of possible alternate fingerings. Although most of these alternate fingerings would be of no practical use, some might be helpful.
Used as though equipped with quick-change mechanisms (by depressing one or more of the extra pistons continuously, with the lengths of the valve slides adjusted accordingly) the five-valve instrument could be played:

1. in C, initial key, all the pistons raised;
2. in D, the 4th piston depressed;
3. in B, the 4th and 5th pistons depressed;
4. in Bb, the 4th and 5th piston [depressed], the slide of the 5th lowered to two tones by means of a crook.
5. in A, the 5th [piston depressed], its slide not lengthened.
6. in Ab, the 5th [piston depressed], its slide pulled to two tones.

Close examination of the patent (lines 41 – 66) reveals an interesting provision intended for trumpets of military ensembles, and cornets: the addition of a solitary (perpendicular) fourth valve instead of the full system combining of ascending fourth valve with a descending fifth valve. When applied to trumpets or cornets pitched in B-flat, the proposed 1916 four-valve system would be ascending by whole tone, exactly like the fourth valve of the 1913 patent—but now operable with the right thumb. However, as conceived by Franquin for application to military trumpets or cornets in the key of C, the fourth valve would now be made descending by whole tone, with an extendable slide allowing an optional length of up to two whole tones. Still virtually unheard of today, applied to C trumpets such a modification would present many of the same advantages as the ascending fourth valve. By permitting the player to use fingerings conventionally associated with notes one whole step higher, the use of the sixth and seventh positions to varying the pitch, response, or timbre of a particular note, or to facilitate fingering in the context of a difficult run. This theme will be revisited, below, in a discussion of a later five-valve system used by trumpeter Armando Ghitalla.

Franquin, “La Trompette et le cornet,” 1613.
becomes completely unnecessary over the normal playing range of the instrument. Fifth position would still be required as a substitute for seventh position, in combination with the fourth valve, to produce F#/Gb3 and low C#/Db4. The descending whole tone fourth valve would simplify difficult trills in the low and middle registers—however it would offer no improvement in upper register trills. To a slightly lesser degree than with the ascending system, the descending fourth valve would also permit relatively easy emission of the high A and high A-flat, regarded by Franquin as particularly troublesome. These notes could be played with the second valve and first valve, respectively, each used singly in conjunction with the fourth valve. One of the most important advantages of an additional descending valve would be the ability to play the low notes sometimes encountered in literature written for larger, antique valved trumpets. Of particular advantage to the modern trumpet player, low F, appearing in the low trumpet parts of works by composers such as Richard Strauss who wrote for large trumpets in F, and often included as a trial in the excerpts of modern orchestral auditions, would be easily produced (on a C trumpet) with the tuning slide of the fourth valve set at its usual (whole tone) length. For such pieces as those by Duvernoy and Saint-Saëns mentioned above, or for Bizet’s Carmen, the slide of the fourth valve could be tuned to a length one and one-half or two steps to allow easy production of Eb3 with seventh or sixth position.

V. Reception of Franquin’s New Systems. With all of its apparent advantages, one might well wonder why Franquin’s ascending-valve system has not permanently replaced the traditional three-valve system. Applied to the trumpet, an instrument whose destiny
Franquin still seemed well-positioned to influence around 1916—at least in France—his improvements showed initial promise of taking hold. In his article “La Trompette et le cornet,” Franquin reports, “the five-piston trumpet system… was inaugurated at the public competition of the Paris Conservatory in 1917, 1918, 1919, [and] 1920 with great success.” All of his students who adopted the instrument won a premier prix “in two or three years of study.” The Conservatory chose the 1920 prize winner, Jacques Biscarat, to perform the competition piece for the public award ceremony, accompanied by the piece’s composer and former director of the Paris Conservatory, Théodore Dubois. This became the first time in the history of the Conservatory that this honor of publicly representing the prize winners of the Conservatory had been granted to a trumpet player. Roger Voisin has observed that trumpet players in France’s leading military ensemble, the Orchestre de la garde républicaine, adopted Franquin’s four-valve trumpets at around this time.

However, just when it seemed that Franquin’s ascending-valve trumpets had begun to take their place in the French musical world, they began to fall from favor among trumpet players in the capital:

Then, in 1920, with demobilization and the return of veterans into civil life, a formidable wave of opposition stopped the development of its expansion and intimidated youth who made use of this trumpet to the satisfaction of all—composers, orchestra conductors, and the public. The young people were afraid of being blacklisted, of which they felt threatened from the quarter of their elders, who were not equipped with this instrument.

40 Roger Voisin, interview by author, Boston, MA, February 8, 2007.
41 Puis, en 1920, lors de la démobilisation et du retour des anciens dans la vie civile, une vague formidable d’opposition a arrêté le développement de son expansion et intimidé les jeunes qui
Roger Voisin, whose father René received his premier prix d’excellence on cornet from the Paris Conservatory in 1916 and remained in the Paris area as a freelance trumpet and cornet player for another decade before coming to Boston, confirmed this situation, pointing out “there were no ‘steady gigs’ in Paris at this time, everyone freelanced.”\(^{42}\)

The more established players returning from war, trained and equipped only with the standard, three-valve instrument, must have felt professionally threatened by the younger players with more sophisticated equipment. According to Franquin’s collaborator Acoulon, they jealously referred to the Franquin system trumpet as a “…‘bathroom pipe’, …‘piston trombone’…[.] etc.”\(^{43}\)

Voisin explains:

…the people who came back from the 1914 war blackballed those trumpets, believe it or not, because, something absolutely unheard of—the year[s] that these trumpets were used at the Conservatoire—they took eight first prizes. They were thought to be a secret weapon, and the other people blackballed them. When these young people came out after the Conservatoire class and got to be in the business in Paris, they wouldn’t play with them. And so these trumpets absolutely went out of existence.\(^{44}\)
Although not mentioned by contemporary sources, or by Voisin, one must also assume that the machismo often associated with the trumpet playing had a role in the backlash against these instruments. The physicality of trumpet performance lends it an unquestionably athletic nature.\textsuperscript{45} Especially in the competitive fraternity of French trumpeters after the First World War, an improved trumpet designed to facilitate execution could have been seen as a crutch. Its use by a young player could have been taken as an attempt to mask deficiencies such as poor endurance or other faulty technique. Since any perceived weakness could be reason enough to hire another performer, trumpet players will go to great lengths in order to maintain an aura of physical superiority. For similar reasons, in the 1880’s, Xavier Teste—after becoming Principal Trumpet at the Paris Opera as the direct result of his successes elsewhere with the small piston-valve C trumpet—felt obliged to take up playing old-fashioned natural and large chromatic trumpets to “prove that he, too, could continue to play the antique trumpet” in response to hostility from the older members of the section.\textsuperscript{46}

The notion of conformity also presents itself in the idea that the use of Franquin’s ascending-valve trumpets by young trumpeters may have threatened older players. One’s choice of instrument, though merely a practical consideration on the surface, has artistic implications and, therefore, can present professional ramifications. The manufacture of an instrument helps to determine in no small part the nature of its sound. Seen this way, choice of instrument becomes an artistic choice on a par with such musical elements as

\textsuperscript{45} Like competitive sport, a large number or players vie for a very limited number of spots. Robert Osmun, interview by author, Arlington, MA, September 18, 2008.
\textsuperscript{46} Franquin, “La Trompette et le cornet,” 1611.
intonation, dynamics, phrasing, and articulation. Failure to conform to such nuances when performing with a section would be grounds for dismissal in favor of a player willing to do so. Similarly, failure to conform to a certain prevailing brand loyalty could bring the same result. And sound apart, the very choice of “different” equipment could in itself be seen by a more established player as an affront to that player’s artistic judgment. This could also result in hiring of a more amenable player, particularly in a freelance environment with no system of tenure or job security.

In their “Users Manual for the Four Valve C/D Trumpet,” Roger Voisin and Earl Gaar suggest that the death of “most of the prize winners” proficient on Franquin’s new system in the First World War presented another factor preventing Franquin’s instrument from being widely adopted. The Conservatory yearbook from 1919 contains a list of students who died serving the country, but only the names of those students whose families formally notified the Conservatory of their passing. Among those listed, only two (one cornetist and one trumpet player) might have been far enough along in their studies to become proficient on Franquin’s new instrument—but neither had obtained their prize. Voisin and Gaar, therefore, may have been referring to older conservatory alumni who had adopted Franquin’s system as professionals. Although difficult to verify, that René Voisin obtained his (cornet) prize in 1916 would have made him a classmate, rough contemporary, or colleague of most all the war dead who had been adept at Franquin’s system. It should be noted that not only older (pre-1912) trumpet alumni, but also some students who had received their prize on cornet from the classes of Mellet and

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Petit, came to adopt Thibouville-Lamy C trumpets with Merri Franquin’s ascending four-valve system. This lends particular weight to Voisin and Gaar’s assertions.

Even the best-designed instruments tend to gain widespread acceptance by professionals and amateurs alike only when championed by the most prominent players. In the United States, this can be seen in the twentieth century with the predominance of C trumpets manufactured by Vincent Bach. Although imperfect in terms of intonation, George Mager and the trumpet section of the Boston Symphony Orchestra endorsed them in the 1930’s, as did Adolph Herseth and the trumpet section of the Chicago Symphony. Around 1900, Thibouville-Lamy brass instruments became the most prestigious brand of trumpet in France, benefiting from a monopoly on sales to the Paris Conservatory and the French military. Surely Franquin’s choice of this manufacturer, and his dominance in French trumpet performance and pedagogy at the time played a major role in this. But Franquin’s pupil Eugène Fouveau became the (cornet) professor at the Paris Conservatory in 1925, after Franquin’s retirement. Fouveau “was attached to” the

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51 As noted above in the chapter entitled “The Quest for Accuracy,” the trumpet had begun to reassert its dominant position over the cornet in the classical repertoire by this time. It seems likely that students studied trumpet alongside the cornet in Foveau’s class, since by this time he mainly performed on trumpet. Eventually, during Foveau’s tenure at the Paris Conservatory, the classes became formally reorganized. Instead of one cornet class and one trumpet class, each of the two professors taught a mixed class combining trumpets and cornet students. By the time the author studied in Paris in the 1990’s, the prize offered in cornet had become little more than a means of allowing younger trumpet students—who had already earned a premier prix de trompette, but who desired to stay at the conservatory for further study—to remain enrolled while working toward a cornet prize. At the beginning of the twentieth century, when the trumpet had only recently begun to “reassert its place in the orchestra,” the situation may have been
larger manufacturer Couesnon, and promoted the use of their trumpets among his students.\textsuperscript{52} Around 1928, the Conservatory monopoly passed from Thibouville-Lamy to Couesnon.\textsuperscript{53} This corresponds roughly to the end of the period of Thibouville-Lamy C trumpet dominance as “the only trumpet played” in French “orchestras, symphonies, operas, etc.”\textsuperscript{54} According to Acoulon, the five-valve trumpet faced another marketing problem in that Franquin and Thibouville-Lamy introduced it to the public too soon after the four-valve version.\textsuperscript{55} Mechanically, the five-piston system had the additional disadvantage of potentially disrupting the embouchure—pulling the instrument away from the face slightly—with the use of the fourth and fifth pistons, owing to their horizontal configuration.\textsuperscript{56}

VI. \textsc{The Mobile Valve Slide}. Perhaps the biggest blow to the widespread success of Franquin’s system came from just beyond France’s border. One of the most fundamental advancements in trumpet design in the past century came with the adoption of mobile

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  \item somewhat reversed. Such young recipients of the \textit{premier prix de cornet} as Foveau (20 years old), Bodet (20 years old), and Porret (18 years old) remained at the Conservatory for additional study, receiving \textit{prix de trompette} before going on to pursue professional careers.
  \item Voisin and Gaar, \textit{A Users Manual for the Four Valve C/D Trumpet}, 2.
  \item Broiles, “The Acoulon Letters,” 16.
  \item \textit{Ibid}.
  \item \textit{Ibid}.
  \item For this reason, Thibouville-Lamy experimented, apparently after Franquin’s death, with a version of the five-valve using pistons placed after and below the conventional third valve, not unlike the four-valve version. Melvyn Broiles obtained this type of revised five-valve trumpet for use with the Metropolitan Opera Orchestra in 1963. \textit{Ibid}., 13.
\end{itemize}
valve slides.\textsuperscript{57} With this system, the player can extend a valve slide with one of the digits of the left hand while playing, by means of a ring soldered to the sleeve of the valve slide. This allows for real-time compensation of (sharp) notes played using the sixth and seventh positions. Today, players take this expedient for granted.

Yet, however apparent it may now seem, the advantages afforded by this solution would have been much less evident to trumpet players and manufacturers one hundred years ago. One must keep in mind that around 1900, large trumpets in E-flat and F had only recently begun to face obsolescence. Whatever their limitations in terms of note accuracy, because of their low fundamentals, all of the notes on these instruments above F\textsubscript{3} concert (large E-flat trumpet) or G\textsubscript{3} concert (large F trumpet)—i.e., the entire useful range—could be played without using sixth or seventh positions. Thus, mobile valve slides would have done little to improve these instruments, whose main shortcoming—poor accuracy—lay elsewhere.

Mobile valve slides probably seemed impractical at first on small trumpets, too. Because virtually all of these instruments were still designed to play in a variety of tonalities by means of different shanks, crooks, tuning slide extensions, and quick-change valves, their valve slides needed to be adjustable, to accommodate each configuration. But to be \textit{adjustable} (like the main tuning slide of a modern trumpet) these valve slides could not be \textit{mobile} (like the valve slides of a modern trumpet); otherwise their lengths

\textsuperscript{57} The importance of this advancement has never been fully appreciated in the literature on the instrument. Prior to the First World War, most of the leading manufacturers of piston-valve trumpets and cornets experimented with compensating systems. That this experimentation ceased suddenly—and why—seems to have gone largely unnoticed until now.
could not be fixed to correspond to the different tonalities of the instrument. The design of small trumpets at this point had reached an impasse. They were not yet truly chromatic, and so needed to be made adjustable to play in a variety of tonalities. But in order to be made adjustable, their valve slides could not be manipulated to produce the correct length of tubing for each position—which in turn limited their ability to play chromatically.

The basic structure of the first and third valve slides on early small trumpets differed from those on modern (2008) trumpets. On the instruments photographed for Franquin’s 1908 *Méthode complète*—none of which possess third-valve-slide finger rings or first-valve-slide thumb saddles—the sleeve (female) component of the slides attached directly to the valve casing. The sleeve, immobile, spanned nearly the full length of the slide. Only the U-shaped (male) component at the very end of the slide could be adjusted to tune the slide. This would be difficult to do while playing, without a system of levers. In 1910, Franquin’s colleague at the Paris Conservatory, cornet professor Alexandre Petit, patented just such a system for the cornet—which apparently no longer needed to accommodate multiple tonalities—that he called the slide “regulator.” In his

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58 To resolve this same issue today, modern trumpets that play in a variety of keys—such as tunable-bell D/E-flat trumpets—come equipped with multiple sets of (mobile) valve slides; one for each tonality.

59 On today’s trumpets, the male component of the upper branches of the first and third valve slides attach to the valve casing. This frees the external (female) component to slide, rendering the addition of a ring to control its movement trivial.
system, a ring moved by the index finger of the left hand extended the cornet’s first valve slide by means of a lever.\textsuperscript{60}

The innovation had actually come ten years earlier when Belgian trumpeter, composer, and pedagogue Théo Charlier patented his own, much simpler system. Though now more commonly associated with the third valve slide, if used singly, or both the first and third valve slides, in dual configuration, the mobile valve slide widely used on today’s piston valve trumpets closely resembles that described in his 36 \textit{Études Transcendantes}:

To obviate this problem [the failure of slides to compensate in length for the simultaneous use of multiple pistons], in 1900, the [manufacturing] house of Mahillon of Brussels, acceding to my request, produced the first mobile [valve] slide (this functioned with the aid of the thumb of the left hand). It moves as freely as the pistons and like them conforms to the finger movements in such a way that one can add to it, as needed, an appropriate length.

It thus regulates \textit{all the notes} played with the combination of the 1\textsuperscript{st} and 2\textsuperscript{nd}, 1\textsuperscript{st} 2\textsuperscript{nd} 3\textsuperscript{rd}, 1\textsuperscript{st} and 3\textsuperscript{rd} pistons, and is useful, moreover, to modify other out of tune notes as needed.

In addition, the [slide of] the 3\textsuperscript{rd} piston has undergone a modification such that all [notes played with the] combination of the 2\textsuperscript{nd} and 3\textsuperscript{rd} pistons are rendered viable; for example: \([Ab3, Eb4, Ab4, and Ab5]\). Thanks to these two ideas, the trumpet, which would have remained irremediably out of tune, has become a perfect instrument, with impeccable intonation.\textsuperscript{61}

\textsuperscript{60} Alexandre Petit, \textit{Grand Méthode complète de cornet à pistons, de bugle, trompette et d’instruments à pistons} (Paris: Gaudet, 1921), 18; Today, single “regulator” systems normally operate by means of a trigger pulled with the left thumb.

\textsuperscript{61} « Pour obvier à cette inconvénient, l’an 1900, la maison Mahillon de Bruxelles, accédant à ma demande, a rendu la premièreoulisse mobile (celle-ci fonctionne à l’aide du pouce de la main gauche). Elle est aussi docile que les pistons et obéit comme eux aux mouvements du doigt de telle sort qu’on peut lui donner, au fur et à mesure des besoins, un allongement approprié. Elle règle donc \textit{tous les sons} formés par les combinaison des 1\textsuperscript{er} et 2\textsuperscript{nd}, 1\textsuperscript{er} 2\textsuperscript{nd} 3\textsuperscript{rd}, 1\textsuperscript{er} et 3\textsuperscript{rd} pistons et est encore utile à modifier, selon les besoins d’autres sons défectueux. D’autre part, le 3\textsuperscript{rd} piston a subi une modification telle que toutes les combinaisons sont rendues possibles entre les 2\textsuperscript{nd} et 3\textsuperscript{rd} pistons ; par exemple : \([lab\grave{a}\, mi\grave{b}\, grave, lab\, aigue]\) grâce à ces deux arguments, la trompette qui serait restée irrémédiablement fausse est devenu un instrument parfait, à la justesse
Franquin knew of the mobile valve slide—and undoubtedly of the lever-activated system of his colleague Petit—before the patent of his first ascending-valve instrument. In his 1908 *Méthode complète*, he mentions the ring-controlled mobile valve slide in his instructions on tuning standard-configuration slides (which could not be fine-tuned while playing the instrument, and therefore needed to be tuned in advance along with the main tuning slide):

As for the low Db, it is useless to try to tune it by means of the slides, only a strong effort by the lips can do this, or the use of a ring permitting the lengthening of the 3rd slide.\(^6\)

However, he remained unconvinced of the merits of the ring-controlled mobile valve slide, writing (c. 1925):

People adopted, several years ago, a ring on the slide of the third piston. One places, in this ring, the little [sic] finger of the left hand, by

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which one can lengthen said slide without ceasing to play, and thus obtain low Db in tune. But this means can be employed but very rarely, when the note is isolated, or in slow tempos, or also when this note is the first or the last of a series.63

In this assessment, Franquin could be accused of a certain amount of hypocrisy, or at least narrow-mindedness, for his own adherence to the status quo and failure to appreciate a fundamental advance in trumpet design. It could have been that on some level, he felt jealous of the simple and elegant solution presented with the mobile valve slide. He and others before him had labored long and hard only to arrive at much more complicated solutions. Thus he may have been compelled to see only the defects of this simple system, and the advantages of his own.

The invention of the mobile valve slide did solve, by and large, the trumpet’s tuning problems, at least in passages allowing its use; however, it did nothing to address many of the more subtle flaws of the three-valve system—points Franquin’s system corrected. As evidence, one need merely observe that modern orchestral players and soloists still, in the twenty-first century, feel compelled to use instruments in a variety of keys to perform the standard repertoire, despite the prevalence of mobile valve slides. In particular, Franquin’s ascending valve system remains the only viable one to eliminate the need to use the problematic fifth, sixth, and seventh positions (at least in the middle

63 « On a adopté, il y a quelques années, un anneau à la coulisse du troisième piston. On introduit, dans cet anneau, le petit doigt de la main gauche au moyen duquel on peut allonger la dite coulisse sans cesser de jouer, et obtenir ainsi la justesse du ré b grave. Mais ce moyen ne peut s’employer que très rarement, lorsque la note est isolée, ou dans les mouvements lents, ou encore quand cette note est la première ou la dernière d’une série. » Franquin, “La Trompette et le cornet,” 1629; Franquin writes uncharitably about the mobile tuning slide. It has been the experience of the author that with some practice, the valve slides can be used frequently, and successfully in the midst of passages of moving eighth notes, in most situations. With respect to more rapid passages, one would have to concur with Franquin’s verdict.
and upper registers), while preserving the option to do so. Likewise, no other system to date permits such facility on trills and other figures incorporating whole tones, or serves to improve accuracy in the high range.

VII. THE REBIRTH OF THE MERRI FRANQUIN SYSTEM IN THE UNITED STATES.

As the son of a prominent French trumpet player, Roger Voisin became accustomed from a young age to playing whatever equipment his father “put in [his] hand.” He “grew up with that, so naturally… [his] material was… all French.” Apparently, René always “had it in the back of his mind to get [Roger] some of those four-valve trumpets that he had seen in Paris in 1920 that were developed by… Franquin.” In May, 1952, Charles Munch took the Boston Symphony Orchestra on a tour of Europe. While in France on this tour, Roger Voisin obtained two of these four-valve trumpets from the widows of men René had known when with the Orchestre de la garde républicaine who played these trumpets. At some point, Voisin also acquired a trumpet equipped with Franquin’s five-valve system, but unimpressed with its playing characteristics, deemed it a “museum piece.” Soon after obtaining the four-valve instruments, Roger Voisin passed one on to his homologue in the Philadelphia Orchestra,

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65 Bridget Carr, Archivist, Boston Symphony Orchestra, e-mail message to author, October 7, 2008.
66 Roger Voisin, interview by author, Boston, MA, February 8, 2007. These men may possibly have been [Auguste] Meriguet, [Henri] Harscoat, and [Arthur] Bailleul, whom Voisin mentioned in a published interview as “three people who had those trumpets… trumpet players during my father’s time, during 1914 – 1918.” Lewis, “Roger Voisin: An Orchestral Legend,” 6; The author used one of these four-valve trumpets, serial number 18307, for demonstration in the lecture/recital associated with this document. The other four-valve trumpet, serial number 18305 (generally regarded as having superior intonation), is referred to below.
Samuel Krauss. Krauss in turn presented the instrument to Vincent Bach, then the predominant American manufacturer of orchestral brass instruments, for examination. Apparently, both Voisin and Krauss hoped to induce Bach to construct a modern Bach C/D trumpet based on the Thibouville-Lamy original, but this never came to pass. The younger Voisin started to “bring out” his antique Thibouville-Lamy Franquin system four-valve trumpet with the Boston Symphony in 1956. Although Voisin preferred the sound of his main C trumpet, a modern Couesnon, he kept the Thibouville-Lamy four-valve for use on pieces in which he could benefit from the increased accuracy and facility it afforded. In 1994, Voisin and his former student Earl Gaar induced Los Angeles-based manufacturer Zigmund Kanstul to produce two replicas of Thibouville-Lamy four-valve trumpet serial number 18305.

Melvyn Broiles, Principal Trumpet of the Metropolitan Opera Orchestra and a personal friend of Roger Voisin, evidently impressed with his colleague’s ascending-valve trumpet, set about trying to acquire one of his own. In June of 1963, he sent a telegram to the Thibouville-Lamy company, expressing a desire to purchase an instrument like the trumpet bearing serial number 11941—a 1912 ascending 4-

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70 Copies of trumpet parts marked-up (probably in Earl Gaar’s hand) with fingerings for the four-valve instrument, with the User’s Manual include first trumpet parts to Tchaikovsky’s Fourth Symphony, Hindemith’s Symphonic Metamorphoses on themes by Weber, and Sibelius’s Symphony No. 2, among others. Roger Voisin used another “secret weapon,” a small bore (approximately 0.450 inches) Couesnon C trumpet, #6147, with a particularly small bell (4 inches in diameter), currently in the possession of former Voisin student, trumpeter Joseph Foley, whom Voisin told, “Go ahead! Try to miss a High C on this!” Joseph Foley, e-mail message to the author, 4 October 2008.
valve—and apparently inquiring about the five-valve model. A.E. Acoulon, now seventy-six years old and owner of the company, responded to Broiles on the 5th of June, in the first of a series of correspondence collectively known as “The Acoulon Letters,” that Broiles assembled in his unpublished typescript Trumpets Through Time. There remained one four-valve instrument, in E, on the premises. Acoulon also kept a 1916 five-valve C/D trumpet that he had re-purchased from the widow of the artist that used it, as a memento of his youthful collaboration with Franquin. The company had long since “abandoned manufacture of this instrument.” The five-valve, as it turned out, had been built—or rebuilt—differently from Franquin’s first drawing. Its supplemental valves no longer sat perpendicular to the three main valves, but next to the third valve and lower, as in the original four-valve design, so that they could be operated by the index and middle fingers of the left hand. According to Acoulon, this new setup served to avoid an “inconvenient” tendency of the perpendicular system to pull the instrument away from the lips with use of the valves. The four-valve E trumpet had a “very small bore,” and required a special mouthpiece. Wrote Acoulon, “no doubt you will easily find [a suitable mouthpiece] made by Vincent Bach, whom I know.”

Although the modified five-valve he acquired played with “great beauty and intonation,” Broiles found the “timbre of the tone” to be “below that of the accepted sound.” He explained:

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73 Ibid., 13; Cardoso, Ascending Trumpets, 11.
The problem that exists right now, is that the standard B flat trumpet has such a firm hold on the ears of all players and audiences, it is difficult to convince them of the advantages of the smaller bore tube and bells of the small high C trpt or D trpt…. My theory, is that Prof. Franquin’s theory is correct, but must be tried on a larger instrument with a larger bell.\footnote{Melvyn Broiles, November 4, 1963, letter to Jane Franquin (daughter of Merri), collection of the author; This notion of the changed aesthetic of the trumpet sound that rendered the old Thibouville-Lamy instruments inappropriate in the American orchestras of the 1960’s can be assumed to be the same that brought Roger Voisin, despite playing with an orchestra still noted at the time for its “French” sound under Munch, to rely on a modern Couesnon C trumpet as his main instrument.}

Despite apparent doubts about the instrument’s timbre, or perhaps hoping to find a better example of the instrument, Broiles contacted Merri Franquin’s daughter Jane in November of 1963, to attempt to purchase Franquin’s own five-valve instrument of the original, unaltered, 1916 design from her. She would not sell it for a price that Broiles could afford to spend on a trumpet at the time.\footnote{Broiles, November 4, 1963, letter to Jane Franquin.} Roger Voisin also discussed Franquin’s ascending four-valve system with William Vacchiano, Principal Trumpet of the New York Philharmonic. Vacchiano may have been interested by the potential advantages of Franquin’s system, but the thought of having to relearn fingerings put him off the idea completely.\footnote{As recalled by Voisin, the notion elicited an expletive from Vacchiano. Roger Voisin, interview by author, Boston, MA, February 8, 2007.} Even for an artist (and skilled transposer) on the order of Vacchiano, short of completely internalizing the fingerings for the four-valve system, the player would be obliged to transpose for D trumpet whenever using the fourth valve. This in and of itself presents no particular problem for a trumpet player adept at transposition. But having to move between this transposition and concert pitch, while simultaneously transposing at
sight a part written for trumpet in B-flat, E-flat, or F (for example) would be particularly confusing for anyone.

No modern manufacturers have tried to reproduce Franquin’s system on a large scale. The existing Thibouville-Lamy instruments could not be used as prototypes. With their relatively small bell and small bore, their sound—as noted by Broiles in 1964—no longer suits the demands of today’s large ensembles, leaving only a very small market for such instruments. Applying Franquin’s idea to equipment of modern dimensions would require extensive research and development, and might not prove cost-effective, since little demand currently exists for such instruments. Franquin required nearly twenty years of research and development in conjunction with the top French manufacturers of his day to create a satisfactory prototype. Honing the system doubtless required numerous reworkings of the basic plans, components, and tools. For example, for the successful 1912 version, Thibouville-Lamy designed the fourth piston to be shorter than those of the standard valves, so that it could be placed low enough on the instrument to allow operation—under the bell—with the index finger of the left hand, which holds the instrument, while not protruding below the other valves.78 No manufacturers currently produce such short piston valves. Also, the internal taper of the mouthpipe continues through the main tuning slide, which has a tapered bow. The upper leg of the main tuning slide of Thibouville-Lamy number 18307 has an internal diameter of 0.398 inches,

78 Cardoso, Ascending Trumpets, 12; Even with the shortened piston, it has been the experience of the author that very little room exists (between the trumpet bell and the fourth valve cap) for the insertion of the left index finger to operate it. On a larger bore instrument (with a proportionally larger bell), this piston configuration would not be viable.
while the lower leg has an internal diameter of 0.438 inches. Modern C trumpets customarily have the same internal diameter at both ends of the tuning slide.

In 1925, Vincent Bach purchased a four-piston bass trombone, designed in 1925, directly from Thibouville-Lamy. Therefore, Acoulon suggested that Broiles have Bach build him a replica of the Franquin system trumpet, writing, “he may have made some [of the four-piston trombones] himself, and certainly he is able to build a ‘5’ piston trumpet.” From what can be inferred of Broiles’ side of the subsequent correspondence in “The Acoulon Letters,” it would seem that Broiles did indeed ask Vincent Bach to manufacture a modern, large-bore version of the Franquin-system trumpet for him, but that Bach could not—probably since he had already sold his company “lock, stock, and barrel” to H. & A. Selmer in Elkhart, Indiana (1961). In response, Acoulon wrote, “I fear that the Selmer company will not invest money in a prototype, where Vincent Bach might have done it. Therefore nobody wants to take the risk either, and I am afraid that the idea of ‘mass production’ has crept in the minds of big fellow citizens.” With the success of modern, large bore instruments, he doubted any company would undertake the task:

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79 Approximate measurements taken by James Becker, Osmun Music, Inc., Arlington, MA, 26 November, 2008; The bow connecting the upper and lower legs of the tuning slide tapers gradually to accommodate their different diameters.
80 Modern, large-bore, piston-valved orchestral C trumpets normally have a 0.462-inch bore (measured at the second valve slide).
82 Ibid.
...And now the big idea is; why make an effort of this kind if current models and big bores are selling well?? The artists [view]point is completely obsolete in this case. I am sorry Vincent Bach cannot do what he’d like to do, …but I am convinced, that by himself, say when alone, he would have done it, ….and successfully, as I know him.\textsuperscript{85}

Acoulon’s assessment of the commercial viability of marketing a Franquin-system trumpet seems correct. In Franquin’s day, French manufacturers custom-built their instruments for professional players, who went into the shop and tried various combinations of components. As Voisin described the process, before the Second World War, (in France) professional players did not buy their instruments ready-made, but would visit the manufacturer to “assemble a trumpet” (\textit{monter une trompette}).\textsuperscript{86} Acoulon, explaining how this worked at the Thibouville-Lamy factory, notes, “The structures of trumpeters [are] not standard, so we always had various sets of lead-pipes to fit each player. The bell,… master part of the instrument, was never changed, and it took us days and days to perform the right one!”\textsuperscript{87}

This being the case, the marginal cost associated with further customizing instruments to include a fourth (or fourth and fifth) piston would be relatively small compared to the cost of assembling the basic instrument. In a mass-production situation, this model no longer holds. In fact, it probably costs less for the modern player to purchase two mass-produced, professional model instruments in different keys than to have a new double instrument custom built—which in any case (unless one happens to be Principal Trumpet of a major orchestra) no prominent manufacturer would be willing to

\textsuperscript{85} Broiles, “The Acoulon Letters,” 17. \\
\textsuperscript{86} Roger Voisin, interview by author, Boston, MA, February 8, 2007. \\
do for an individual player. At the same time, modern manufacturers have no particular incentive to revive and update Franquin’s system for mass production. The extremely small demand existing for such instruments would not offset the costs of research and development, unless the instruments were priced well above standard C and D trumpets. But this would tend to reinforce the prevailing tendency of players to continue to use separate (less expensive) trumpets pitched in C and D. Therefore, since Thibouville-Lamy stopped producing them following the First World War, players desiring ascending-valve trumpets have had to custom-assemble them from parts of existing instruments.

VIII. The Tottlephone. Voisin’s successor as Principal Trumpet of the Boston Symphony, Armando Ghitalla, became the first major performer to take up Franquin’s ascending valve system after Voisin’s retirement as Principal Trumpet. Having appreciated the benefits of this system firsthand while playing third trumpet to Voisin during the 1950’s and early 1960’s, Ghitalla adopted it quite naturally. Ghitalla, however, could not play such an instrument as the vintage Thibouville-Lamy instrument used by Voisin. The characteristically bright timbre of the small bore French instrument, although acceptable—arguably one of the signature elements of the Boston Symphony’s “French” sound—under the direction of Charles Munch, no longer seemed appropriate
(as pointed out by Broiles, above) by the mid-1960’s. Therefore, Ghitalla decided to apply Franquin’s system to modern, larger bore equipment.

Ghitalla, who played Vincent Bach trumpets at the time, decided to use his current setup as the basis for a new C/D ascending four-valve trumpet. He took his idea to the brass instrument and mouthpiece craftsman William Tottle, of the shop Tottle & Son, a few blocks from Symphony Hall in Boston. “After a suitable amount of grumbling, he built one….” As recalled by craftsman Robert Osmun, who worked at Tottle’s shop from about 1967 – 1975 (Ghitalla served as Principal Trumpet of the Boston Symphony from 1965 – 1978), Ghitalla played a Bach 238 bell—one of the largest bells available for Bach C trumpets. They used this bell on a Bach medium large bore C trumpet, C180ML, equipped with a full-length B-flat trumpet mouthpipe “probably a Bach 25,” as the basis for the new instrument. Normally a full-length B-flat trumpet mouthpipe—that is, as one might expect, longer than that for a C trumpet—cannot be used on a C instrument, let alone one whose mouthpipe must be short enough to be pitched in D. Without being cut substantially, a B-flat mouthpipe would not ordinarily allow enough room for a useful main tuning slide on a D trumpet.


The instrument Tottle built for Ghitalla, however, came equipped with a tunable bell, so the bend from the tuning slide could be soldered directly to the leadpipe. The longer mouthpipe had the particular advantage of improving the intonation of the C/D trumpet. Unlike the piston valve used for the fourth valve of Franquin’s Thibouville-Lamy instrument, the “Tottlephone” came equipped with a rotary valve. Tottle did not manufacture or purchase new rotary valves for these instruments, but scavenged them from “old single F horns” in his shop. Osmun estimates that Tottle only built around ten of these instruments, two or three of which he produced for Ghitalla. Around the same time, the New York City shop Giardinelli produced an unknown number of C/D trumpets with the Tottle configuration. In the early 1980’s, Schilke produced several large bore (ascending) four-valve trumpets, on which all four pistons were parallel to one another.

On the earliest Tottlephones, the ascending rotary valve attached toward the top of the would-be main tuning slide, its slide attached at a 45° angle from the axis of the mouthpipe. On later Tottlephones, the ascending rotary valve attached at the very end (middle) of the would-be tuning slide, its slide parallel to the mouthpipe. The rotary valve, on this system, operated by means of a lever with its hinge mounted on the third valve slide. Tottlephone advocate Wilfredo Cardoso, a student of Roger Voisin who also collaborated with Tottle to create his own unique design, listed the advantages of the rotary valve system as compared to Franquin’s ascending piston valve:

a) it is easier and simpler to make;
b) it is cheaper and in current production;
c) it has a better and shorter action;

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d) it is easier to install and of a more compact size than the conventional piston valve;
e) the tubing system is simpler and more direct with considerable advantages in the acoustical production. The use of a piston valve increases the number of bent slides, requires a greater number of [tubes] and offers more resistance. It changes the tone (smaller) and alters the timbre to a more brassy quality with a greater number of harmonics similar to those of a medium bore trumpet.\textsuperscript{94}

In the 1980 \textit{International Trumpet Guild Journal}, David Hickman presented step-by-step instructions on how to construct an ascending C/D trumpet, which—like the Tottlephone—used a rotary fourth valve.\textsuperscript{95} Since this particular configuration maintained a functioning main tuning slide (and a fixed bell), it required the excision of approximately two inches of tubing from the small end of the bell. Excepting trumpet players possessing an unused C trumpet of good enough quality to merit the effort, most would tend to avoid performing this type of elective surgery on a favored instrument, especially since the end results of the procedure cannot be guaranteed. And in maintaining the existing (short) C trumpet mouthpipe, the Hickman solution fails to address the inherent intonation problems commonly associated with it.

Armando Ghitalla continued to perform on an ascending-valve trumpet even after his retirement from the Boston Symphony. In 1979, the manufacturer Yamaha “wooed [him] away” from the Vincent Bach brand. Apparently unaware of the five-valve Franquin system, Ghitalla devised a similar system independently, working with Kenzo Kawasaki at Yamaha. On the Ghitalla-Yamaha five-valve instrument, the fifth valve

\textsuperscript{94} Cardoso, \textit{Ascending Trumpets}, 16.
added only one semitone, as opposed to the one and one-half tones added by the fifth valve on the Franquin system. Thus by pressing one or the other of the additional valves, or by using them in combination, the instrument could be made to function in B (natural), C, D-flat, and D. As with the Franquin system, the lengths of its regular valve slides worked primarily in conjunction with the C instrument. This system eliminated the need for fifth and seventh positions altogether, and sixth position for all but the lowest note.

At the same time, the semitone change of tonality might usefully allow the player to think more in terms of transposition, as opposed to completely internalizing a new set of fingerings in order to play the instrument. This would be applicable, in particular, to parts written in concert pitch. Ghitalla, for example, found this system particularly advantageous for passages in D-flat and G-flat in C trumpet literature, explaining, “For years I played the first two movements of the Tomasi Concerto on a D-flat/D trumpet using the 5-valve trumpet. All the difficult scale passages in the key of D-flat and G-flat were suddenly in just plain C and F.”

Like the Franquin system, Ghitalla’s five-valve system had thumb-operated fourth and fifth valves. But unlike the older system, the new fourth and fifth valves operated with rotary and not piston valves. Therefore, they benefited from all the advantages outlined above by Cardoso. In particular, the action of the rotary system would be easy enough to preclude the “inconvenient” tendency of Franquin’s five-valve system to pull the mouthpiece away from the player’s lips during use.

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97 Ibid., 12.
IX. CONCLUSION. The beginning of the twentieth century brought two major advancements to the trumpet’s piston valve system. Both improvements aimed to render the instrument perfectly chromatic, allowing the performer to use a single trumpet for all—or most all—the repertoire. The simple system of the mobile valve slide, invented by Théo Charlier in 1900, goes some way toward achieving this end. It also presents the special advantage of being easily adapted to virtually any modern trumpet, requiring only a minimum of modification, and no alteration of the instrument’s basic fingerings. Merri Franquin’s approach, perfected by 1912 with the first Thibouville-Lamy C/D trumpet, achieves the same—or better—results, with the additional advantages of improved accuracy and whole note trills. Moreover, Franquin’s system can easily be made to accommodate a mobile first valve slide, offering all the advantages of both systems. Franquin developed his innovation in the same vein as Arban’s double instruments, attempting to address the inadequacies of the three-piston system through the addition of supplemental valves. And like Arban’s systems, Franquin’s present the drawback of requiring specially-made instruments and a period of reeducation for the player to fully assimilate new fingerings. Franquin’s 1916 five-valve system extends the low range of the four-valve C/D trumpet, and presents even more potentially useful alternate fingerings and “scordatura” tunings, but at the price of even more complex mechanisms to assemble and fingerings to master. Since its initial disappearance in France after the First World War, Franquin’s ascending-valve system has not achieved widespread popularity, despite its prominent use in the Boston Symphony by Roger Voisin and, in
modified form, by his successor Armando Ghitalla. The reasons for this are probably less artistic than microeconomic. A trumpet combining the advantages of instruments in C and D presents obvious advantages to the classical performer. Yet with mass-production now the norm in brass instrument manufacturing, large manufacturers have little incentive to produce a combined C/D instrument when they sell two separate instruments pitched in these keys. The combined instrument would appeal only to a small number of players to begin with. And it would also require substantial research, development, and retooling in order to mass-produce to modern specifications. This would result in an elevated price that would further diminish the number of potential customers. As a result, custom-made instruments such as the Tottlephone or the Zigmund Kanstul replica have become the only way for modern players to enjoy the benefits of Franquin’s system. But such instruments come with a steep price, or in the case of the Tottlephone, the uncertain prospect of destroying a working trumpet in order to build the new one. At the same time, the very issues of conservatism, machismo, and conformity that hampered the initial acceptance of Franquin’s system have by no means disappeared in our time, and would confront any modern trumpeter hoping to adopt his system.
Nothing in particular to report for the competitions of these last three classes [cornet, trumpet and trombone], if not the evidently exaggerated enthusiasm of a public ever eager for some mishap to present itself with the appearance of the cornetists and the trumpeters—and which passes the time as it can when its hope is disappointed.\(^1\)

When Merri Franquin began teaching at the Paris Conservatory in 1894, he found himself at the head of “…a class [whose level] was the lowest of all and the laughing stock of the Conservatory.”\(^2\) Perhaps one of the most public forums for this derision was the end-of-the-year competition. Although the press showered most of their attention on the vocalists—Parisian musical society during the belle époque was very much focused on opera—reluctant critical attention was paid to the winds and brass.\(^3\) As Darcours’ observation cited above suggests, the brass competitions at the Paris Conservatory presented little of artistic interest during the nineteenth century. Franquin’s teaching

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\(^1\) « Rien de particulier à signaler dans le concours de ces trois dernières classes, si ce n’est l’enthousiasme évidemment exagéré du public qui s’attend toujours à voir surgir quelque incident à l’apparition des cornettistes et des trompettistes, et qui se distraint comme il peut quand son espoir est déçu. » Charles Darcours, “Conservatoire National de Musique et de Déclamation, Concours des Instruments à vent,” Le Figaro, 30 July 1891.


\(^3\) It may be surprising to the modern reader that any critical attention in the musical press—let alone the mainstream, popular press—be paid to end-of-the-year Conservatory competitions. Yet during this period and well into the twentieth century, music journals such as Art musical, Courrier musical, artistique et littéraire, Le Guide musical, and Le Ménestrel, and newspapers such as Le Figaro reported on the results of the competitions, giving particularly detailed accounts of the competitions for the vocalists and pianists.
vastly improved the level of the trumpet studio within two years. Yet, beyond the quality of the student performers, the musical depth of the trumpet contest repertoire before Franquin’s tenure left much to be desired. This changed in the final years of the nineteenth century as the Paris Conservatory began to commission new solo works for the competition from trained composers. A new type of trumpet contest literature emerged combining traditional bravura writing with elements of virtuosity and lyricism previously reserved for the cornet. At the same time, a more progressive musical aesthetic began to manifest itself in these works, one characterized by the inclusion of chromatic harmonies, minor modes, alternative scales, and key changes. As leader of the trumpet studio during this transitional period in the instrument’s history, Franquin promoted his agenda pertaining to the technique, equipment, and artistic/musical qualities of the instrument through the competition repertoire, resulting in an important body of belle époque music for trumpet and piano that remains largely unheard in concert today.

4 After the trumpet class produced no first-prize laureates and received no particular mention at the end of the 1894 – 95 academic year, in 1896 the critics heralded its arrival: “Just in time, here is an instrument—a superb brass—of resolute timbre! How often we have admired it in the Cantatas of Bach! The students of M. Franquin have been remarkable.”; « A la bonne heure, voici un instrument, un cuivre superbe, aux sonorités franches ! Ne l’avons-nous pas admiré souvent dans les cantates de Bach ! Les élèves de M. Franquin ont été remarquables. » Hugues Imbert, “Chronique de la Semaine : Paris, Concours publics du Conservatoire,” Le Guide Musical 42, nos. 33 – 34, (16 and 23 August 1896): 549.

I. FROM SOLOS DU PROFESSEUR TO SOLOS DE COMPOSITEUR. From the first trumpet competition at the Paris Conservatory in 1835 until the first overseen by Merri Franquin sixty years later, the faculty ordinarily composed the contest solos themselves. Instead of composing a new piece every time, they often reused works from previous years. François Dauverné composed about one dozen such solo works, which served for the thirty-five competitions held during his tenure (1833 – 1869). One of these seems to have been the theme and variations for large valved trumpet in E-flat that appears as the first of the “12 Études mélodiques” at the back of Dauverné’s Méthode pour la trompette. The version of the piece in the reprint edition currently available contains only the trumpet part, shorn of rests during accompanimental solo passages.6 For the most part Dauverné’s successor, Jules Cerclier, recycled Dauverné’s solos. He used his own work just six times in the contests during his twenty-five years as Professor of Trumpet (1869 – 1894).7 One new piece by trumpeter Charles Ferdinand Dubois, entitled L’éclatante-fantasie pour trompette chromatique appeared during this period (1891).

6 The exact number cannot be precisely established because the existing records from the period tend to use generic titles such as “Solo,” “Thème varié,” “Air varié,” and “Fantaisie,” without consistently specifying the key or other identifying features. Aside from the theme and variations mentioned above, a collection of six solos and an additional Polonaise seem to represent the extant competition repertoire composed by Dauverné. MacKay, “Trumpet and Cornet Concours,” 21 – 24; François Dauverné, Méthode pour la trompette (1857; repr., Paris: International Music Diffusion, 1991), 248 – 9.

7 Cerclier did not publish his competition solo(s). None appear in the collection of the French National Library. Listed in Conservatory records and contemporary reports as “Fantaisie” (1875) and “Solo” (1883, 1887, 1888, 1892, 1894) it could well be—the fantasy being a favored competition solo form—that Cerclier wrote only one competition piece. (According to Gillian MacKay, Dauverné authored the 1890 Morceau de Concours, erroneously attributed to Cerclier by Constant Pierre in the Conservatoire National... Documents historiques et administratifs.) MacKay, “Trumpet and Cornet Concours,” 27 – 29, 73.
Generally, the pre-Franquin trumpet competition repertoire lacks musical interest—or variety, at least—compared to the later repertoire. It seems especially retrograde when one considers the aesthetic and compositional changes that occurred in French music during this same period, spanning the compositional careers of Berlioz, Franck, Bizet, Massenet, Saint-Saëns, Fauré, and Debussy, to name a few. The trumpeters who wrote the competition music from 1835 – 1894 concerned themselves primarily with testing the students’ ability to execute idiomatic trumpet figures, rather than expression. Their works emphasized fanfare and military style: dotted rhythms, triplet figures, bursts of rapid single tonguing, and multiple tonguing on short groups of repeated notes (coup de langue de trompette). One can hear very little lyrical writing or passages requiring extended multiple tonguing technique in these works.

The singularly diatonic character of this music also seems striking, given that it was written for (nominally) chromatic instruments during a period of increasing experimentation with chromaticism in other genres. Aside from the occasional secondary dominant, diminished chord, or chromatic neighbor figure, it remains grounded firmly in a single major key—that of the nominal tonality of the trumpet. This probably resulted from a number of factors. Although music in general tended to display increasing harmonic variety over the course of the nineteenth century, French orchestral and operatic writing for trumpet tended to be much more conservative. Thus in writing harmonically grounded contest solos, these teacher-trumpet players prepared their

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9 At the time both idioms were reserved mainly for the cornet. Ibid.
10 As discussed in Chapter 2, in French orchestras, cornets replaced trumpets for the performance of the most demanding repertoire during the latter half of the nineteenth century.
students to play the type of music that they would most likely encounter as professional trumpeters without expending unnecessary pedagogical energy accustoming them to key changes and modulations. Since the trumpet professors Dauverné and Cerclier apparently never received training in composition, they would not have been predisposed to create pieces of greater harmonic sophistication. It could be, in the case of Cerclier, whose class produced only nine first prizes in the course of his twenty-five-year tenure, that the professor selected contest repertoire with the express aim of facilitating success in the competitions in an attempt to mask deficiencies in his studio—both his and his students’. Finally, the instruments themselves, the antique, large trumpets tuned in F and E-flat, presented a major obstacle to note accuracy and thus to updating the literature. On these instruments, increased demands in terms of technique, modulation, or non-major modes only exacerbated their inherent shortcomings.

This resulted in relatively bland contest repertoire, which—along with correspondingly underachieving students under professor Jules Cerclier—did not escape notice of the critics, as evidenced in this account of the 1894 competition from Le Figaro:

TRUMPET: Professor, M. Cerclier. Seven competitors; competition piece: a solo by the professor.

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11 In fairness to Cerclier, it should be pointed out that Jean-Baptiste Arban led the cornet class during most of Cerclier’s tenure, from 1869 – 1889 (with the exception of six years under the instructor Jacques Maury while Arban lived in Russia, 1875 – 1880). Arban’s renown as a performer and pedagogue probably attracted the best high brass students—such as Merri Franquin—to his cornet class. Constant Pierre, Le Conservatoire national de musique et de déclamation : documents historiques et administratifs, recueillis ou reconstitués par Constant Pierre, Sous-chef du Sécretariat, Lauréat de L’Institut. (Paris: Imprimerie Nationale, 1900), 436, 451, 650 – 1; At the same time, French cornetists played the better parts and enjoyed a greater number of professional performance opportunities since the cornet was equally welcome at the time in popular, military, dance, concert, and opera music—which in itself may well have left trumpet a distant second choice for many potential students.
The jury has been generous to the young trumpeters who, for their part, have not been stingy either, with clams, above all in the sight reading. It must be said that some played with a certain taste and a satisfying enough tone.\textsuperscript{12}

In 1896, the composer Alfred Bruneau (who later became the Inspector General of Musical Instruction for the Conservatory) complained in the same newspaper of the cornet competition piece, “the banality, the platitude, truly exceed the acceptable limits. And to this end, I must comment that, with but rare exceptions, the required pieces in the wind instrument classes are unworthy of being heard in a self-respecting conservatory.”\textsuperscript{13}

However, the situation soon changed for the wind and brass classes. The cornets and trumpets seem to have been slightly in advance of the other wind instruments with regard to receiving new contest repertoire.\textsuperscript{14} One might imagine that their evidently retrograde instructor-written works, lack of a suitable body of historical repertoire upon

\footnotesize{\textsuperscript{12}« TROMPETTE : Professeur, M. Cerclier. Sept concurrents ; morceau d’exécution : un solo du professeur. Le jury a été généreux envers les jeunes trompettistes qui, eux, n’ont pas non plus été avaries de couacs, surtout dans le déchiffrage. Il faut dire que plusieurs ont joué avec un certain goût et une assez satisfaisante sonorité. » Charles Darcours, “Concours du Conservatoire, Instruments à vent,” \textit{Le Figaro}, 1 August 1894.

\textsuperscript{13}« …La banalité, la platitude passent vraiment la mesure permise. Et à ce propos, je dois constater, qu’à de rares exceptions près, les morceaux imposés dans les cours d’instruments à vent sont indignes d’être entendus en un conservatoire qui se respecte. » Bruneau did, however, single out that year’s trumpet piece for mild praise: “Also M. Rougnon has wisely been commissioned to write for the trumpet players a concerto which, short of great originality, is at least carefully written.” « Aussi a-t-on sagement fait de commander à M. Rougnon pour les trompettistes un concerto qui, à défaut d’une grande originalité, est au moins soigneusement écrit. » Alfred Bruneau, “Concours du Conservatoire : Cor, cornet à pistons, trompette et trombone,” \textit{Le Figaro}, 1 August 1896; By 1919, Bruneau sat on the Conservatory’s Board of Overseers for Instruction (\textit{Conseil Supérieur d’Enseignement}) as the \textit{Inspecteur général de l’Enseignement musical}. Hugon-Roydor, ed., \textit{Annuaire Officiel du Conservatoire National de Musique et de Déclamation}, (Paris: Maurice Sénart, 1919), 9.

\textsuperscript{14}After nearly three decades of works written by cornetists, Emile Jonas, a Conservatory-trained composer, former solfège répétiteur, and former professor for the students Gymnase Musicale Militaire, wrote the cornet pieces for 1894 – 1896. But this represented a lateral move, at best: Jonas’ \textit{Deuxième fantaisie pour cornet à pistons} specifically provoked the critical rebuke cited in the previous footnote. Pierre, \textit{Le Conservatoire National}, 781.}
which to draw, and lack of high public expectations with regard to quality, made these
classes a good place to experiment with such reform. In a centralized system such as that
of the French National Conservatory, it appears unlikely that any single brass faculty
member would have had the political, administrative, and financial means at his disposal
to begin commissioning works independently.\(^{15}\) However the changes came about, they
were formalized under the administration of the new Conservatory Director. As critic
Hugues Imbert noted, “this year [1897], M. Théodore Dubois, judging quite rightly that it
was necessary to modify the somewhat outdated contest pieces, had solicited certain
composers to write special works for the wind instruments.”\(^{16}\)

Even Bruneau, after his fierce critique of the previous year’s repertoire, noticed the
improvement:

First let me say a word about the required pieces. These pieces, contrary
to the former practice, were [newly written and] unpublished…. I would
not know how to commend this innovation enough. Save M. [Gabriel]
Parès, a cornet specialist who left to his solo the traditional and somewhat

\(^{15}\) Nearly from its inception, the founders of the Paris Conservatory designed it to serve as the
apex of a “pyramidal” system, one whose teaching—from curriculum to specific pedagogical
works and repertoire—set the norms to be imposed in the music schools throughout the rest of the
Republic and its colonies, from cities to provincial towns. By the mid-nineteenth century the
conservatories of certain large French cities became official branches (succursales) of the
National (or Imperial, at certain points in its history) Conservatory in Paris. Emmanuel Hondré,
“La mise en place des premières succursales du conservatoire,” Anne Bograin and Yves Gérard,
Buchet/Chastel, 1996), 169 – 200; The present-day hierarchy—including Conservatoires
nationaux supérieurs (Paris and Lyon), Conservatoires à rayonnement régional , and
Conservatoires municipaux—still reflects this tradition of centralization on a national level.

\(^{16}\) « Cette année, M. Théodore Dubois, jugeant à très juste titre qu’il était nécessaire de modifier
les morceaux de concours, quelque peu surannés, avait prié certains compositeurs d’écrire des
pièces spéciales pour les instruments à vent. » Hugues Imbert, “Chronique de la Semaine : Paris,
(15 and 22 August 1897): 518; Dubois had been on the Conservatory faculty since 1871, and
may well have had a hand in the selection of colleagues such as Rougnon (and Jonas?) in the
arbitrary virtuosic allure to which we are accustomed, the authors of these pieces have tried to make the brass instruments sing as in the orchestra and have respected the poetry of their timbre, the character of their technique.\textsuperscript{17}

Public outcry over Maurice Ravel’s five failed attempts to win the \textit{prix de Rome} forced Théodore Dubois to resign as Director of the Conservatory in 1905.\textsuperscript{18} The spirit of reform ushered in with his successor Gabriel Fauré spread modernization of the contest repertoire to other instruments and to the classes for voice, and changed the kinds works chosen for public presentations, such as the novel choice in 1920 of a \textit{trumpet} laureate to perform at the public award ceremony.\textsuperscript{19}

The trumpet contest solos composed for Franquin’s class at the Paris Conservatory present a number of stylistic innovations.\textsuperscript{20} While many elements of traditionally idiomatic trumpet writing, such as signal figures, bravura style, and extended triplet “flourishes” remained, “the instrument was increasingly called upon to play music

\textsuperscript{17} « Je dirai d’abord un mot des morceaux imposés. Ces morceaux, contrairement à l’usage ancien, étaient inédits… Je ne saurais pas trop approuver cette innovation. Sauf M. Parès, un spécialiste du cor à pistons, qui a laissé à son solo l’allure de virtuosité traditionnelle et quelque peu arbitraire à laquelle nous sommes habitués, les auteurs de ces morceaux ont essayé de faire chanter les instruments de cuivre comme à l’orchestre et ont respecté la poésie de leur timbre, le caractère de leur mécanisme. » Alfred Bruneau, “Concours du Conservatoire : Cor, Cornet à pistons, trompette et trombone,” \textit{Le Figaro}, 1 August 1897.


\textsuperscript{20} Gillian MacKay details many of these in her dissertation “Trumpet and Cornet Concours Music at the Paris Conservatoire, 1835 – 1925: The Development of Styles and Roles.”
for trumpet, rather than trumpet music.” Some of this literature explores new (for the solo trumpet) forms and sounds new emotional/psychological states. Composers such as Alexandre Georges and Georges Enesco, with their respective *Légendes* (1904 and 1906), sought to evoke characters far removed from that commonly associated with the trumpet in the dreamy (*Rêveur*) muted endings to their pieces. At the other extreme of character, Henri Dallier juxtaposed common trumpet figures and circus/carnival music in his *Fête joyeuse* (1905), in seemingly self-conscious musical depiction of a boisterous turn-of-the-century fair (*fête foraine*).

Before 1900, the presence of a key signature in a piece for trumpet was a relative novelty. Yet flat-laden key signatures and scales in different modes and varieties began to appear, from (written) B-flat minor in Emile Pessard’s *Premier Solo* (1898) and C-sharp minor in Dallier’s *Fête joyeuse*, to chromatic runs in the Pessard and Enesco (1906) and whole tone scales in the Alexandre Georges’ *Légende de Larmor* (1904). The composers also employed chromatic harmony for the first time in solo trumpet music, including augmented triads and augmented sixth chords, in addition to more conventional major, minor, dominant seventh, and diminished chords. Long modulatory passages highlighted this more sophisticated harmonic language that extended moments of tonal ambiguity to French trumpet music. The introduction of Camille Erlanger’s *Solo*...

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22 Following the practice for natural trumpets, music composed for the large trumpets in F and E-flat tended, until shortly before 1900, to be written in the nominal key of the instrument. Even the contemporaneous theme and variation settings for cornet by Arban, although much more virtuosic and full of chromatic figurations, rarely present a key signature of more than one flat.
de trompette chromatique en fa (1901) presents the first such passage with shifting
tonalities in chromatic sequences.

With the exception of former Conservatory Director Théodore Dubois’ 1920
Fantaisie pour trompette chromatique, the outbreak of the First World War ended the
commission of new repertoire during Franquin’s tenure with Marc Delmas’ Choral et
variations pour trompette in 1914—essentially limiting the repertoire to belle époque.  
In all, nineteen new works written by seventeen different composers saw commission
during Franquin’s professorship.

II. CONTRIBUTIONS TO THE NEW CONTEST REPertoire: OVER AN apéro OR THROUGH A
KITCHEN WINDOW? Although the choice of composer for the contest piece fell mostly to
the Conservatory administration, and the musical content of the piece to the composer,
the instrumental professor nevertheless seems to have been allowed some input in the
process. Aside from a few intriguing scraps of existing correspondence between Merri
Franquin and composers responsible for the creation of some of the new contest
repertoire, the exact degree of the professor’s influence on its genesis remains unclear.
One can assume that level of professional and personal cordiality between the
instrumental professor and the composer largely determined the extent of the
collaboration, and perhaps whether such collaboration took place at all. Roger Voisin
speculated that the pieces were commissioned and discussed informally, over an

\[\text{23} \text{ Dubois’ piece, written toward the end of his long career and devoid of the Neoclassical or Jazz}
\text{ influences heard in later French solo trumpet repertoire, can arguably be best grouped with the}
\text{ other pre-War compositions in terms of its musical and aesthetic content.}
\text{24 MacKay, “Trumpet and Cornet Concours,” 33.}\]
Georges Enesco, composer of the 1906 trumpet contest piece, *Légende*, wrote the following note to Merri Franquin on one of his calling cards. The note seems to have been written much later than 1906, after Enesco achieved substantial renown as a violinist and composer, in apparent response to greetings delivered by the trumpet professor before a performance:

Dear Monsieur Franquin,

Useless to tell you how much it pleases me that you will be present. It has been an eternity since I could pass them [notes?] to you through the kitchen window...[.] it was so delightful back then...[.] well!![..] Certainly come shake my hand after the concert! With my most affectionate devotion,
Georges Enesco.

There exists other evidence to suggest that Enesco and Franquin worked (and lived?) in close proximity around the composition of *Légende*, such as the inclusion in Franquin’s 1908 *Méthode complète* of a reading and transposition exercise written by Enesco (p. 311). This could simply have arisen at the request of their mutual publisher, Enoch & Compagnie. However, it seems doubtful. In that case one might expect the inclusion of études and exercises by other composers published by Enoch, or perhaps the inclusion of Enesco pieces in other contemporaneous Enoch method books. More fascinating is this little trumpet melody—apparently offered to Franquin in honor of New Year’s Eve (31

\[26\] « Cher Monsieur Franquin, Inutile de vous dire combien cela me fera plaisir que vous y assistiez. Il y a des éternités de ne plus pouvoir les passer par la fenêtre de la cuisine.. c’était si charmant autrefois.. enfin !.. Venez donc me serrer la main après le concert ! Avec mon bien affectueux dévouement, Georges Enesco. » Photocopy (recto/verso) of an undated calling card containing the above message and signature, the front of which bears the imprint « Georges Enesco, Paris, 16 rue de Bruxelles », collection of the author.
A letter from Camille Erlanger (composer of the 1901 contest piece) to Merri Franquin reveals another interesting detail of collaboration in the trumpet contest repertoire, namely that Franquin’s daughter Jane served as the competition accompanist for his class:

Dear Monsieur,

I am altogether inexcusable: it has been over six weeks since I put two parts from my Solo pour Trompette aside; one for the incomparable master that you are, and the other for Mlle Franquin, who so extraordinarily accompanied your excellent students to victory; and both (the parts) express, by a dedication, all my gratitude and my admiration….

27 The photocopy reproduced here of this short Enesco manuscript was included in a collection of Franquin documents obtained by the author from Franquin’s niece.

28 « Cher Monsieur, Je suis tout à fait inexcusable : il y a plus de six semaines que j’ai mis deux morceaux de mon Solo pour Trompette, de côté ; l’un pour l’incomparable maître que vous êtes, et l’autre pour Mlle Franquin, qui accompagna si extraordinairement vos excellents élèves à la victoire ; et tous deux (les morceaux) vous exprimant, par une dédicace, toute ma reconnaissance et mon admiration. » Camille Erlanger to Merri Franquin, 23 October 1901, photocopy of letter manuscript, collection of the author.
Jane Franquin accompanied at least one other trumpet competition, that of 1920. She remained active as an accompanist and maintained a private studio in Paris until sometime after her father’s retirement in 1925. A gifted professional accompanist, it would not be unreasonable to assume that she played for many—if not most—of the competitions during her father’s tenure as a professor at the Conservatory. The tone of extreme deference and gratitude in Erlanger’s letter is also worth noting. That he seems to be thanking Merri Franquin for the chance to write the contest piece would confirm the notion that the professor had some role in the composer selection process.

The professor’s hand can be felt in some of the choices within the contest repertoire as well. Franquin made no secret of his preference for the small trumpet in C. Despite the reality that the major Parisian orchestras and opera companies had

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29 The review of the 1920 competition in *Le Figaro* states, “With much talent, Mlle Franquin took charge of the piano part.” « Avec beaucoup de talent, Mlle Franquin tint la partie de piano. » Antoine Banès, “Concours du Conservatoire : Concours de Cor, Cornet à pistons, Trompette et Trombone,” *Le Figaro* No. 178 (27 June 1920); correspondence between the author and Merri Franquin’s niece has established that the Mlle. Franquin in question is indeed the daughter of Merri. Letter to the author, 4 August 2008; Born in 1882, Jeanne Blanche (known as Jane) Franquin received a 1st accessit in the 1903 piano competition at the Paris Conservatory. Hugon-Roydor, ed., *Annuaire Officiel du Conservatoire National de Musique et de Déclamation*, (Paris: Maurice Sénart, 1919), 196; Along with the photocopy of a handwritten endorsement by Camille Saint-Saëns (« Je recommande tout particulièrement Mlle Franquin, [signed] C. Saint-Saëns. »), the author has been given original programs from recitals given by her studio in « Piano & Cours D’Accompagnement » at the Salle de Photographie (51, rue de Clichy), 29 May 1919, and at the Salle Gaveau in Paris, 30 January 1927.

30 Franquin’s article “La trompette et le cornet” presents a veritable diatribe against the F trumpet, in favor of the modern small trumpets in C (and B-flat). He includes the results of a 1900 questionnaire on the subject of trumpet preference sent by composer/conductor Gabriel Pierné to various Parisian composers and conductors, including many of the contest piece composers, and Parisian musical luminaries such as Edouard Colonne and Camille Saint-Saëns. The respondents favored the trumpet in C by a large margin, 21 to 6, over the F trumpet. Franquin singles out composer Charles Silver, who responded in favor of the large trumpets (comparing the C trumpet to “a sort of improved cornet”), placing his comment directly after a favorable review by Gabriel
barred the large antique instruments from their trumpet sections by 1891, the Conservatory insisted on their instruction until 1914. Writes Franquin:

> Of 45 students to leave the trumpet class with first prizes from 1896 to 1914, 15 obtained it playing the trumpet in F, and all the others were taught to play it, along with the crook trumpet (natural trumpet). None of them ever played the old-fashioned trumpets in orchestras.  

Not only resistance from within the Conservatory but apparently also from elderly trumpeters made “a hell of a life” for Franquin when it came to introducing instruction on the C trumpet. Merri Franquin apparently had to work hard to “induce” composers to write for C trumpet—“but he succeeded!”

George Alary’s *Morceau de concours*, Op. 57, the 1900 competition piece, became the first to be written for small C trumpet. Camille Erlanger (1901) and Max D’Ollone (1902) scored their solos for F trumpet, but not all of Franquin’s students may have performed them on that instrument. As reproduced in the back of Franquin’s *Méthode complète*, these solos come with an indicated transposition for performance on B-flat trumpet. The low concert F’s in these pieces, readily playable on the B-flat

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31 « Sur les 45 premier prix sortis de la classe de trompette, de 1896 à 1914, 15 l’ont obtenu en jouant de la trompette en fa, et tous les autres on appris à en jouer, ainsi que de la trompette à corps de rechange (trompette simple). Aucun d’eux n’a jamais joué de la trompette ancienne dans les orchestres. » Franquin, “La Trompette et le cornet,” 1614 – 1615. According to composer Paul Hillemacher, it was not the instructor but “the Conservatory” that had not yet “yielded to this reasoning” (ne s’est pas encore rendu à ce raisonnement) “and maintains the F trumpet in its classes.” Ibid.


33 Ibid., 15.
trumpet, lie just below the range of a modern C trumpet. Auguste Chapuis’ *Solo de trompette en fa*, however, written for the competition in 1899 and used again in 1909 and 1919, works nicely on the C trumpet (it only descends only to low G concert). Most—if not all—of the contestants probably performed the Chapuis on C trumpet in 1909. In 1919, participating trumpet students played it on Franquin’s five-valved C trumpet. Beginning with J. Guy Ropartz’s 1903 *Andante et Allegro*, composers wrote the final eleven contest solos composed during Franquin’s tenure for C trumpet.

Beyond the choice of C trumpet as the instrument of preference, many of Merri Franquin’s pedagogical preoccupations manifested themselves in the contest repertoire composed during his tenure. Increased use of soft entrances and lyrical passages in *p* and *pp* dynamics emphasized mastery of the gentle attack (*la pose du son*) and tonguing in the sound (*détachés dans le son*). Performance range extended upward to high concert B♭ with Emile Pessard’s *Premier solo* (1898), then to high C with Enesco’s *Légende* (1906). Prominent high concert A’s and Ab’s—viewed by Franquin as among the most unforgiving notes—tested accuracy in the Chapuis, the Dallier, and the Enesco, the only pieces to be used in the end-of-the-year competitions three times during Franquin’s tenure.

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34 These pieces can be played without range limitations on the Merri Franquin system five-valve C trumpet.
36 As this and most of the other contest solos from Franquin’s tenure became republished after the Second World War, editors transposed them for B-flat instruments, so that they could be played on the trumpets in that key popular in most countries outside of France, as well as on the cornet. Some of these works’ titles became truncated in these later editions, such as Chapuis’ *Solo de trompette en fa*, which, transposed for B-flat cornet or contralto (flugelhorn) by Alphonse Leduc & Cie. in 1952, is simply called “Solo.”
The Dallier also contains an awkward whole tone trill from C to D—although trills otherwise seem to be little-associated with the trumpet during this period. Extended passages of multiple tongued repeated notes—commonly associated with the cornet repertoire since Arban’s professorship—began to appear in the trumpet contest solos as early as 1891 with Ferdinand Dubois’ *L’éclatante-fantaisie pour trompette chromatique*. Beginning with Paul Rougnon’s *Deuxième solo pour trompette chromatique* (1896), extremely rapid double-tongued scalar passages began to appear. In most contexts, the speed and lyrical nature of such passages demands the *portato* double tonguing in the sound (*coup de langue dans le son*) cultivated by Franquin in his *Méthode complète*.

III. CONCLUSION. It would be careless to credit Merri Franquin alone with genesis of a new contest repertoire during his tenure as Professor of Trumpet at the Paris Conservatory. Although he clearly favored the changes that occurred and helped to bring them about, this could only have happened with the support of the National Conservatory administration. Fortunately, two of the (four) conservatory directors to serve during his tenure, Théodore Dubois and Gabriel Fauré, seemed to have had similar agendas with respect to modernizing the contest repertoire of the instrumental departments. Under

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37 Played on large F trumpet, the Chapuis contains several prominent second-space Ab’s—equivalently difficult on that instrument—in its introduction and middle sections. Played on C trumpet, the third solo entrance occurs on a sustained high Ab.  
38 The corresponding cornet literature is replete with trills, such as the well known solos by Arban, Jacques Maury’s *Troisième solo de concours* (1877), and Charles Silver’s *Scherzo pour cornet à pistons* (1901).  
Dubois, this resulted in professionalizing the composition of the competition pieces for trumpet, which before Franquin had been written mostly by the instructors themselves. Most of the composers of the new works were selected from among the faculty of the Conservatory, but Franquin seems to have had some input into the process, possibly resulting in commissions for non-faculty composers such as Camille Erlanger, Alexandre Georges, and Georges Enesco.

Although Franquin himself credits Jean-Baptiste Arban and his popularization of the C cornet with the eventual predominance of the C trumpet in France, without Merri Franquin’s preference for this instrument, his instruction of a large number of students on it, and the creation of a viable solo repertoire for it, the trumpet in B-flat would probably have been adopted as a modern replacement for the large F trumpet in France, as it was in Belgium, England, and Germany. At the same time, Franquin’s influence can be felt in the aesthetic profile and technical demands of the contest solo repertoire that appeared during his tenure. The presence of gentle attacks, soft dynamics, lyrical writing, elevated range, and virtuosic passagework seems to reflect the musical and pedagogical priorities of the professor.

As Professor of Trumpet at the Paris Conservatory, Franquin oversaw the commission of a large body of solo trumpet music during the belle époque to be used in the end-of-year competitions. Although one piece, George Enesco’s Légende, has remained part of the standard repertoire, many of these works have been more or less forgotten, especially in the United States. Others, such as J. Guy Ropartz’s Andante et Allegro and Georges Alary’s Morceau de Concours, perhaps now seen as quaintly
charming but lacking in sufficient technical challenges for the advanced player or professional, have been largely relegated to high school contest repertoire.\textsuperscript{41} Owing to the (otherwise enviable) practice of favoring newer and more technically challenging repertoire in the annual competitions at the National Conservatory in Paris, and the persistence of elements of the pyramidal structure that propagates similar priorities throughout the country, many of these works have become little-known in France as well, despite, for the most part, being readily available.

\textsuperscript{41} It probably comes as no coincidence that the better-known pieces—including those by Alary, Enesco, and Ropartz—were composed for C trumpet (as opposed to F trumpet) and used for competition at the Conservatory in years roughly corresponding to the student careers of Franquin’s successors, Eugène Foveau and Pierre-Joseph Vignal, as well as of members of first wave of French trumpeters in the Boston Symphony, Mager, Perret, and (René) Voisin.
Although trumpeters continue to adhere to many of Merri Franquin’s fundamental pedagogical and stylistic tenets, many of his later accomplishments, such as his *Méthode complète* and ascending valve system, have retained only limited currency. This may result in part from an accident of history whereby his immediate successors on the faculty of the Paris Conservatory—who might be supposed to act as the chief propagators of his legacy—had already passed through the institution as students before the completion of his method book and the development of his new trumpet system. Also, Franquin’s uncompromising nature—one of his greatest attributes as a musician, pedagogue, and innovator—may have undermined his immediate musical legacy.

His method book goes to unprecedented lengths with explanatory text, charts, and figures. It presents page after page of carefully elaborated—difficult—exercises, études, and repertoire. Unfortunately this comprehensiveness risks rendering it impenetrable to all but the most dedicated students and teachers. Surprisingly few will study the expansive explanations found in such a method. And not many students have the patience to diligently practice emission exercises and long tones interspersed with frequent rest, following Franquin’s instructions. Fewer still—limited by both range and sight transposition skills—have the wherewithal to transpose his exercises on scales, arpeggios, articulation, and velocity into the many keys suggested.
Similarly, Franquin was not content to simply improve the design of the trumpet by adding an ascending valve. Nor did he attempt to combine its advantages with those presented by the mobile valve slide. And although the addition of a fourth (ascending) valve seems to introduce sufficient complications to deter most trumpeters accustomed to the three-valve system from taking it up, Franquin attempted to further perfect his invention—before his initial innovation had taken hold—by developing a five-valve system. This more complex system provided only limited practical advantages over the initial improvement and introduced the glaring technical problem of jostling the instrument against the embouchure with its use. The impractical five-valve system largely eclipsed the more practical four-valve system in the popular consciousness—on account of its fanciful design and appearance—and as a result neither system was widely adopted, regardless of the real advantages presented by addition of the fourth ascending valve.

Franquin’s article “La Trompette et le cornet” represents a historically instructive example of his dogged persistence. Written around 1922, it has much more to tell us about the situation of these instruments at the end of the nineteenth century than at the beginning of the twentieth. Long after the move to small trumpets was a fait accompli, he felt the need to argue in their favor (and against their replacement in orchestras by cornets). Resistance to his five-valve system in 1920 seems to have rekindled his lingering feelings of resentment towards those who had stood in the way of progress thirty years earlier. He used the historical example of the rise to dominance of the small trumpet to make an argument in favor of his latest system, trying to establish it as the
logical next step in the evolution of the trumpet. In so doing, he felt obliged to carefully
document exactly how the shift to small trumpets in France had come to pass. This in
itself represents one of the principal contributions of his article. At the same time, one
can glimpse from Franquin’s apparent indignation with regard to those who had resisted
the shift to smaller instruments—from his inclusion of the results of Gabriel Pierné’s
questionnaire to composers and conductors, and from the recollections of the elderly
Acoulon—that Franquin was likely more than just an enthusiastic spectator in the move
to the use of small C trumpets. Unfortunately for Franquin, it seems probable that his
article’s implicit denigration of cornetists, and more importantly, of the few influential
composers who had continued to value the antique trumpet sound above the accuracy
afforded by smaller instruments, won Franquin few allies in the French music world.

Today, trumpet players can no longer afford to ignore Franquin’s contribution to
the art. Technical demands placed on instrumentalists have continued to increase, as
have expectations of audiences. The listening public, conditioned by exposure to a
surfeit of edited, pre-recorded music by the greatest practitioners of the art accumulated
throughout the last century, demands impeccable accuracy and technique. Instead of
gambling on newer methods that may contain only a fraction of what Franquin’s has to
offer—or that may provide no real advantage whatsoever—students would do well to
commit themselves to the study of his book. It contains under one cover virtually all of
the important pedagogical innovations of subsequent trumpet methods, but dosed and
reasoned, tried and tested in accordance with a great, time-proven tradition.
Likewise, Franquin’s quest to improve the design of the instrument should once again be taken up. Complacency clearly reigns when orchestral trumpet players seem content to perform on instruments whose harmonics are inherently out-of-tune, while instruments designed nearly a century ago had already overcome this problem. These same musicians should ask themselves if it makes sense to perform solo and chamber pieces on large-bore instruments designed to maintain a dark timbre when projecting at full-volume over a large symphony orchestra. When played quietly, in intimate settings, such instruments maintain little that is attractive in their timbre. It becomes fragile and thin; sound production becomes treacherous. At the same time, Franquin’s ascending valve system should no longer be ignored. As demonstrated by Roger Voisin, Armando Ghitalla, and others, it does much to improve the instrument. In a short-throw, rotary valve configuration on a trumpet also equipped with a mobile valve slide (a hybrid Charlier/Franquin/Tottle system), the trumpet gains unparalleled accuracy, facility, and versatility. As shown by Armando Ghitalla, even Franquin’s vision of combining supplemental ascending and descending valves becomes quite practical with rotary valves.

Melvyn Broiles wrote to Franquin’s daughter in 1963, “…Prof. Franquin [may well have] invented the trumpet of the future, 50 years too soon.” At present, one might extend this sentiment—with regard to his method book as well—to an entire century. The time has come to reassess Franquin’s place in the pantheon of great and innovative trumpeters. He was among the first to see the small C trumpet as a vehicle not just for

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Baroque music, but also for new music. As Principal Trumpet of the major French orchestras, an active chamber musician and soloist, and Trumpet Professor at the Paris Conservatory, he was uniquely positioned to promote the use of the small C trumpet. With this change of instrument and his attempts to perfect it, the creation of an important new method specifically for it, and by championing a new solo and chamber repertoire, Franquin did much to reinvent the trumpet as a virtuosic concert instrument at the beginning of the twentieth century. Proof of his success comes not only in the persistence of his ideas and innovations, and the continued use of the C trumpet in orchestras worldwide, but also in the degree to which the cornet—once the virtuosic king of the brass instruments—has been dethroned by the trumpet. Historians of music often privilege a given composer’s influence on the course of musical development. Occasionally, an instrumentalist can have this type of impact on the art, forever changing the way music is heard. Trumpeter Merri Franquin presents such a case.
APPENDIX 1

1908 COPY OF BIRTH CERTIFICATE

Extrait du Registre des Actes de Naissance
de la Commune de Langon (Tarn-et-Garonne)

Année 1847

Mairie de Langon, Arrondissement communal de Toulouse.
L’an mil huit cent quarante huit et le vingt quatrième
d’octobre à onze heures avant midi, par devant maire
Symphorien Perrier, maire, officier public de l’état civil
de la commune de Langon, canton de Salagou, département
du Tarn-et-Garonne, est soumis à la maire commune
Jean Baptiste Théodore Franquin, cultivateur, âgé de
vingt-sept ans et demi, demeurant et domicilié en cette dite
commune de Langon, lequel nous a présente un enfant
du sexe masculin né hier au dit Langon à l’heure de
midi dans la maison d’habitation située au quartier de
la machine de lui déclarant et de Thérèse Gérardin Perrier
sa épouse, âgée de vingt-quatre ans, sous profession, et à
qui il a déclaré vouloir donner les prénoms de Merri Jean
Baptiste. Les dites déclaration et présentation quites en
présence des citoyens Jean Baptiste Gouraud, âgé de
cent-sept ans et demi, domicilié, et Augustin Boucard, âgé
de vingt-sept ans, cultivateur, lesquels témoins choisis par
le déclarant, domicilié et demeurant au dit Langon,
ses parents ou alliés du nouveau né, ont signé avec
moi le présent acte de naissance, avec le pare-franquin
père après que lecture leur en a été faite.
Ont signé : Gouraud, Boucard, Franquin, père Jumier, maire,
Pour copie certifiée conforme.

Langon le 24 Octobre 1908.

Delivre sur papier libre pour service de retraites.

Le Maire.

[Stamp]
APPENDIX 2

1913 PATENT, FOLLOWED BY ENGLISH TRANSLATION

RÉPUBLIQUE FRANÇAISE.

OFFICE NATIONAL DE LA PROPRIÉTÉ INDUSTRIELLE.

BREVET D'INVENTION.

XVII. — Arts industriels.  
4. — Musique.  

Piston complémentaire ascendant destiné à remonter la tonalité fondamentale des instruments de musique à piston.

Société Thibouville-Lamy et Co résidant en France (Seine).

Demandé le 2 janvier 1913.  
Délivré le 19 mars 1913. — Publié le 23 mai 1913.

La présente invention a pour objet l'adjonction d'un piston complémentaire aux instruments à pistons, trompettes, cornets à pistons, trombones, saxhorns, etc. ayant pour but de permettre de remonter la tonalité fondamentale de l'instrument d'un ton; par exemple pour la trompette en ut en appuyant sur le piston complémentaire on remonte le son en ré; pour la trompette en dièse majeur on le remonte en ut et de même pour le cornet à piston en dièse majeur.

Ce quatrième piston intercalé sur la colonne d'air soit avant soit après les trois autres pistons ordinaires, laisse à la colonne d'air sa longueur normale, lorsqu'il n'est pas enfoncé et la racourcit de la longueur de sa coulisse lorsqu'on contrarie il est enfoncé et remonte ainsi la tonalité fondamentale de l'instrument.

Sur le dessin annexé est représentée une trompette en ut, fig. 1 en vue de côté.

La fig. 2 est une coupe faite par la ligne X-X fig. 1 montrant en plan la coulisse du quatrième piston.

La fig. 3 montre en élévation le piston supplémentaire de la colonne d'air et la coulisse sont représentés sur cette figure en traits mixtes.

Sur la colonne d'air a de la trompette est intercalé, avant les trois pistons b, c, d, et leur coulisse f, g, h le quatrième piston k avec sa coulisse k. Les orifices du quatrième piston k sont combinés avec les orifices du cylindre dans lequel il se déplace, de manière à laisser la coulisse dans le circuit de la colonne d'air, lorsque l'on est relevé, et à la supprimer, 35 lorsqu'il est baissé.

Dans ce but, le cylindre est interposé dans la colonne d'air a entre ses deux tronçons k et l'aboutissant à des niveaux légèrement différents se raccordant suivant deux directions à 40 près perpendiculaires. À gauche du tronçon k est placée la première branche m de la coulisse qui se raccorde au-dessous du tronçon k et dans le même plan, l'autre branche n de la coulisse se raccorde par en-dessous à une 45 hauteur un peu supérieure à celle du raccordement de la première branche et dans une direction faisant un angle obtus avec la direction du raccordement de la première branche.

Le piston auxiliaire, ainsi qu'il est représenté à part fig. 3 en élévation, est percé de trois conduits obliques a', b', c', aboutissant respectivement d'une part à trois orifices étagés et alignés o, p, q, et d'autre part aux orifices de gauche r, s et à l'orifice de droite t. 55

Les deux premiers conduits a', b' sont inclinés vers le bas et en sens inverse et le troisième conduit c' est incliné vers le haut.

Lorsque le piston est relevé, les orifices p, q viennent coincider avec les orifices par où 60 débouchent le tronçon k de la colonne d'air et la branche m de la coulisse dans le cylindre,

Prix du fascicule : 1 franc.
et les orifices $s$, $t$ coïncident respectivement avec les orifices du tronçon $l$ de la colonne d’air et de la branche $a$ de la coulisse, en sorte que la coulisse se trouve insérée dans la colonne d’air qui a sa longueur normale. Au contraire, lorsque le piston est enfoncé, le conduit a fait communiquer directement les tronçons $k$ et $l$ de la colonne d’air qui se trouve ainsi raccourcie de la longueur de la coulisse.

Cet agencement du piston a été donné qu’à titre d’exemple et il va sans dire qu’il pourrait être réalisé autrement.

En outre de l’avantage qu’offre ce quatrième piston de permettre de relever d’un ton la tonalité d’un instrument, il permet d’obtenir encore les autres avantages suivants :

L’émission facile de deux notes aiguës assez incompatibles le la qui se fait avec le premier et le deuxième pistons et le la bémol avec le deuxième et le troisième pistons. Grâce à ce quatrième piston, le la se fait à vide et le la bémol se fait avec le deuxième et le quatrième piston ; le quatrième a remplacé le troisième.

Dans les instruments à trois pistons, l’un dièse et le ré grave sont toujours trop hauts, au contraire avec le quatrième piston on les obtient absolument justes.

Résumé.

Piston supplémentaire ascendant destiné à remonter la tonalité fondamentale des instruments de musique, intercalé dans la colonne d’air, soit avant, soit après les pistons ordinaires et dont le raccordement à la colonne et à sa coulisse et la disposition des orifices sont combinés de manière que dans la position d’enfoncement le circuit de la coulisse est coupé pour raccourcir la colonne d’air et remonter ainsi la tonalité de l’instrument d’un ton, alors que dans la position de relèvement la colonne d’air a sa longueur normale.

SOCIÉTÉ J. THIBOUVILLE-LAMY et C°

PAR PROPRETÉ : 

ANNONCE GOURDINE.

Additional ascending piston intended to raise the fundamental key of piston-valve instruments.

Jérôme THIBOUVILLE-LAMY & Co. located in France (Seine).

Requested January 2, 1913.
Granted March 19, 1913. — Published May 23, 1913.

The present invention has as its objective the addition of an extra piston to piston-valve instruments—trumpets, cornets, trombones, saxhorns, etc.—with the aim of permitting the raising of the fundamental key of the instrument by one whole step. For example on the trumpet in C depressing the extra piston raises the key to D; on the trumpet in B-flat it raises to C, and the same with respect to the cornet in B-flat.

This fourth piston—inserted on the column of air either before or after the three other ordinary pistons—leaves the column of air at its normal length so long as it is not depressed, and shortens it by the length of its slide when, on the contrary, it is depressed and thus raises the fundamental key of the instrument.

On the attached diagram a trumpet in C is represented, fig. 1, as seen from the side. Fig. 2 is a cutaway at the line X—X (fig. 1) showing a plan view of the slide of the fourth piston.

Fig. 3 shows—in elevation—the extra piston, the tubing sections of the air column and the slide are represented on this figure by dot-dashed lines.

On the air column a of the trumpet, before the three pistons b, c, d, and their slides e, f, g, the fourth piston h is attached with its slide i. The openings of the fourth piston h are combined with the openings of its cylinder in such a way as to leave the slide in the circuit of the air column when raised, and to remove it, once it is depressed.

To this end, the cylinder is interposed in the air column a between its two tubing sections k and l, ending at slightly different levels, its slides tuning in approximately perpendicular directions. The first branch m of the slide, situated to the left of section k, tunes above section k and in the same plane, the other branch n of the slide tunes from below at a height slightly above that of the first branch and in a direction that makes an obtuse angle with the direction of the slide of the first branch.

The auxiliary piston, as shown separately in fig. 3 in elevation, is pierced by three oblique conduits a', b', c', ending respectively at three leveled and aligned openings a, p, q on one end, and on the other at left side openings r, s and at right side opening t.

The first two conduits a', b' are sloped downward in inverse directions and the third conduit c' is sloped upward. Once the piston is raised, openings p, q line up with the terminal openings of section k of the air column and branch m of the slide in the cylinder.

Price of reprint: 1 franc.
and the openings s, t coincide respectively with the openings of tubing section f of the air column and branch n of the slide, in such a way that the slide is added into the air column, which is of normal length. However, once the piston is pushed down, the conduit a' directly connects the tubing sections k and l of the air column, which is thus shortened by the length of the slide.

This arrangement of the piston is given only by way of example. It goes without saying that it could be set up otherwise. Besides the advantage offered by this fourth piston in permitting the raising of the key of the instrument by one step, it makes possible the following other advantages:

Easy production of two rather thankless high notes—the A, which is played with the first and second pistons and the A-flat, with the second and third pistons. Thanks to this fourth piston, the A is played open and the A-flat is played with the second and fourth pistons; the fourth replacing the third.

On three-piston instruments, the low C-sharp and D are always too high, however with the fourth piston they can be played absolutely in tune.

SUMMARY.

Additional ascending piston designed to raise the fundamental key of musical instruments, inserted in the air column either before or after the ordinary pistons, of which the main tuning slide and its slide and the disposition of the openings are combined in such as way that in the depressed position the circuit of the slide is cut off to shorten the column of air so raising the key of the instrument by one step, whereas in the un-pressed position the air column has its normal length.

J. THIBOUVILLE-LAMY AND C°.

By procuration: ARMENGAUD, Jr.

(English translation by the author.)

To purchase reprints, enquire at the NATIONAL PRESS, 87 rue Vieille-du-Temple, Paris (3rd).
Perfectionnement dans les instruments de musique à pistons.

Société Iléa THIBOUVILLE LAMY & Cie résidant en France (Seine).

Demandé le 17 janvier 1916, à 15h 51min, à Paris.
Délivré le 17 mars 1918. — Publié le 19 juillet 1919.

La présente invention, due à M. M. J. B. Franquin a pour objet un perfectionnement applicable aux instruments de musique à pistons en général, et plus particulièrement aux 5 trompettes ou cornets à piston.

Ce perfectionnement consiste d'une part dans l'adjonction d'un ou de préférence de deux pistons supplémentaires destinés à permettre, par allongement ou raccourcissement de la colonne vibrante, d'abaisser ou de remonter la tonalité fondamentale de l'instrument, et d'autre part dans la disposition particulière de ces pistons supplémentaires dans une direction perpendiculaire à celle des trois pistons habituels, dans le but de déterminer le moins possible la colonne d'air de sa voie normale, et de rendre leur manœuvre facile en permettant l'utilisation des pouces.

Les principaux avantages qui résultent de ce perfectionnement sont les suivants :
Justesse parfaite de toutes les notes sans exception ;
Suppression du danger des accidents
25 (couteaux) ;
Augmentation de l'étendue de l'échelle musicale dans le grave, de manière à ce qu'elle n'ait plus comme limite, comme déjà dans l'aigu, que celle des facultés humaines ;
Suppression de certaines difficultés de dièse dans les tonalités dièses.

En augmentant l'étendue de l'échelle musicale dans le grave, limitée avec le système à trois pistons au fa dièse, alors que dans la musique classique ou moderne on a écrit jusqu'au mi bémol et que les facultés humaines permettent de descendre jusqu'au ré et un peu plus difficilement jusqu'au contralto, le perfectionnement objet de l'invention répond à une nécessité impérieuse.

La description qui va suivre en regard du dessin annexé représentant à titre d'exemple une trompette en un perfectionnement, sera bien compréhensible les particularités et avantages de cette invention.

Les trois pistons a, b, c du système jusqu'ici en usage, ne subissent aucune modification dans leur disposition, et leurs coulisses d, e, f restent accordées de la même manière que précédemment. Le doigté reste 50 donc absolument le même tant que l'on n'utilise pas les pistons supplémentaires.

Ces pistons supplémentaires g, h sont disposés sur la colonne vibrante avant les trois pistons ordinaires, et dans une direction perpendiculaire à celle de ces trois pistons.

Le piston g est intercalé sur la coulisse d'accord i, et comporte lui-même une coulisse j. Il est calibré de manière à ce que 60 son enfoncement réduise la longueur de la colonne vibrante en supprimant le passage de l'air par sa coulisse, et provoque par suite une élévation de la tonalité de l'instru-
ment, dont la valeur déterminée par la lon-
gueur de la coulisse est rigoureusement égale
t à un ton.

Ce piston est actionné par le pouce de la
5 main droite par l'intermédiaire d'une tige k,
muni d'une touche, aboutissant légèrement
daussi du piston a.

L'utilisation de ce piston donne la sûreté
dans l'émission des notes sol dièse et la aigus
t les plus dangereuses, et la justesse au ré bémol
grave, de même qu'aux ré bécarres et au médium et aigu.

Le piston b est intercalé entre la coulisse
d'accord 3 et le piston c, et comporte une
coulisse l. Il est combiné de manière à ce
que son enfoncement augmente la longueur
de la colonne vibrante en permettant le pas-
sage de l'air dans sa coulisse, et provoque
par suite un abaissement de la tonalité de
30 l'instrument, dont la valeur déterminée par
la longueur de la coulisse est rigoureusement
egale à un ton et demi.

Ce piston est actionné directement avec le
pouce de la main gauche.
35 L'utilisation de ce piston donne l'étendue
illimitée de l'échelle musicale dans le grave, et
la justesse parfaite aux mi et aux la défectueux
dans tous les autres systèmes.

Dans l'extrême grave, alors que son usage
30 est forcément associé à l'usage des deux ou
trois autres pistons descendants a, b, c, la
longueur de sa coulisse exactement accordée
da ton et demi, serait théoriquement insuf-
sisante sans le concours d'un léger effort des
lèvres. Mais pour se dispenser même de ce
concours, oultre que l'on peut presque tou-
jours préparer la coulisse l à l'avance, un
anneau n y est fixé pour permettre son allon-
gement au moyen du petit doigt de la main
40 gauche, sans cesser de jouer.

Pour les trompettes des musiques mili-
taires, un seul piston supplémentaire fixé
à la coulisse d'accord et actionné par le pouce
de la main droite pourra suffire.

45 Grâce à sa disposition sur une partie mo-
bile, de l'instrument, il pourra s'adapter facili-
temment aux trompettes à trois pistons. Il sera
ascendant d'un ton si la trompette est en si
bémol, ou descendant d'un ton si la trompette
50 est en ut.

Pour les cornets à pistons, on pourra éga-
lement se contenter d'un seul piston supple-
mentaire actionné par le pouce de la main
gauge. Comme pour la trompette, ce piston
sera ascendant d'un ton sur le cornet en si 55
bémol, ou descendant d'un ton si le cornet est
en ut.

Dans les deux cas, trompette ou cornet,
on pourra si on le juge utile ou agréable,
donner à la coulisse du piston supplémen-
taire une longueur facultative de deux tons, au
moyen d'une crémallière.

On aura ainsi, en mains, un seul instru-
ment, le cornet ou la trompette en ut et en
50 si bémol, plus le ton de la, par l'allongement 65
de la coulisse.

Le système complet à cinq pistons per-
mettra de posséder avec un seul instrument
en ut, en outre de cet instrument :
1° Un instrument en ré par l'enfoncement 70
du piston g.
2° Un instrument en si bécarre par l'en-
foncement simultané des pistons g et h.
3° Un instrument en si bémol par l'enfoncement
simultané des pistons g et h et l'acc-
cord de la coulisse l à deux tons.
4° Un instrument en fa par l'enfoncement
du piston h et l'accord de sa coulisse l à un
ton et demi.

A l'instrument, on pourra joindre diffé-
rents accessoires, tels qu'un crochet ou an-
neau a fixé à la coulisse du piston c, pour
que le quatrième doigt de la main gauche
concour au maintien de l'instrument et des
pièces d'appui p et q pour les pouces, soit
85 pour faciliter leur action, soit pour fixer leur
position dans l'inaction.

RÉSUMÉ.

Cette invention a pour objet un perfec-
tonnement applicable aux instruments de 90
musique à pistons en général, et plus par-
ticulièrement aux trompettes ou cornets à
pistons, consistant d'une part dans l'adjonc-
tion d'un ou de préférence de deux pistons
supplémentaires munis de coulisées de lon-
gueur convenable destinées à permettre, par
l'allongement ou le raccourcissement de la
colonne vibrante, d'abaisser ou de remonter
la tonalité fondamentale de l'instrument, et
d'autre part dans la disposition particulière 100
de ce ou de ces pistons supplémentaires
dans une direction perpendiculaire à celle
des trois pistons habituels, dans le but de
MUSIQUE.

détourner le moins possible la colonne d'air | œuvre facile en permettant l'utilisation des
| de sa voie normale, et de rendre leur ma-
| pouces.

SOCIÉTÉ Jérome THIBOUILLE LAMY & C°.

Par procuration.

ARMENGOL jeune.

Pour la vente des facicules, s'adresser à l'IMPRIMERIE NATIONALE, 87, rue Vieille-du-Temple, Paris (3e).
Improvement in piston-valve musical instruments.

Jérôme THIBOUVILLE-LAMY & Co. located in France (Seine).

Granted March 14, 1921. — Published July 19, 1921.

The present invention due to Mr. M. J. B. Franquin has as its goal an improvement applicable to piston-valve instruments in general, and particularly to trumpets or cornets.

This improvement consists in part in the addition of one or preferably of two extra pistons designed to permit, by lengthening or shortening of the vibrating column, lowering or raising the fundamental key of the instrument, and in part in the particular disposition of this or of these extra pistons in a direction perpendicular to that of the three customary pistons, with the aim of diverting the air column as little as possible in use until now, and rendering their operation easy by allowing use of the thumbs.

The principal advantages that result from this improvement are the following:

Perfect intonation of all notes without exception;

Suppression of the risk of missed notes (couacs);

Augmentation of the range of the musical scale in the low register, in such a manner that its only limit—as is already the case in the high range—is the player’s physical capabilities;

Suppression of certain fingering difficulties in keys with sharps.

In augmenting the range of the musical scale in the low register, limited with the three-piston system to F-sharp, whereas in classical and modern music composers have written down to E-flat and human limitations permit descent down to D and a with a little more difficulty down to pedal C, the improvement sought by the invention responds to a pressing need.

The description which follows of the attached diagram representing by way of example an improved trumpet in C, will well convey the particularities and advantages of this invention.

The three pistons a, b, c of the system remain tuned in the same manner as previously. The fingerings remain, thus, absolutely the same so long as one does not use the extra pistons.

These extra pistons, g, h are positioned along the vibrating column before the three ordinary pistons, and in a direction perpendicular to that of these three pistons.

The piston g is inserted on the tuning slide i, and itself bears a slide j. It is combined in such a manner that its depression reduces the length of the vibrating column by suppressing the passage of air through its slide, thus raising the key of the instrument.

Price of reprint: 1 franc.
by an interval determined by the length of the slide, rigorously equal to one whole step.

This piston is operated by the thumb of the right hand by means of a shaft \( k \), equipped with a key, ending slightly above piston \( a \).

The use of this piston lends reliability to the production of the high notes G-sharp and A

\( \frac{5}{2} \) (the most unstable) and brings into tune low D-flat, as well as D-sharps and middle- and high-A’s.

Piston \( h \) is positioned between the tuning slide \( l \) and piston \( c \), and bears a slide \( i \). It is assembled in such a manner that its depression increases the length of the vibrating column by permitting the passage of air into its slide, causing a lowering of the key of the instrument, of which the interval determined by the length of the slide is rigorously equal to one and one-half steps.

This piston is operated directly with the thumb of the left hand.

The use of this piston allows unlimited range of the musical scale in the low register and perfect intonation for E’s and A’s, faulty in all other systems.

In the low register, as its use is necessarily associated with the use of two or three of the descending pistons \( a, b, c \), the length of its slide tuned exactly to one and one-half steps, would be theoretically insufficient without the aid of a slight effort from the lips. But to dispense with even this effort, notwithstanding that one can almost always pull out the slide \( l \) in advance, a ring \( n \) is attached there to permit its extension by the little finger of the left hand, while playing.

For military ensemble trumpets, only one additional piston [valve], attached to the tuning slide and operated by the thumb of the right hand, will suffice.

Owing to its placement on a [re]movable part of the instrument, it will be easily adaptable to trumpets with three pistons. It will be ascending by one [whole] step if the trumpet is in B-flat, or descending by one step if the trumpet is in C.

For cornets, only one additional piston will be necessary as well operated by the thumb of the left hand. As for the trumpet, this piston valve will be ascending by one [whole] step on the cornet in B-flat, or descending by one step if the cornet is in C.

In both cases, trumpet or cornet, if it seems useful or easier, one will be able to pull the slide of the supplemental piston to an optional length of two [whole] steps, by means of an extension crook.

The complete five-piston system will permit, with the possession of a single instrument in C, besides this instrument:

1\( ^{st} \) An instrument in D by depressing piston \( g \).

2\( ^{nd} \) An instrument in B-natural by the simultaneous use of pistons \( g \) and \( h \).

3\( ^{rd} \) An instrument in B-flat by the simultaneous depression of pistons \( g \) and \( h \) and the tuning slide \( l \) at two whole steps.

4\( ^{th} \) An instrument in A by depression of piston \( h \) and tuning its slide \( l \) to one and one-half steps.

To this instrument different accessories can be attached, such as a finger hook or ring \( o \) affixed to the slide of piston \( c \), so that the ring finger of the left hand aids in holding up the instrument, and thumb rests \( p \) and \( q \) either to facilitate the motion of the thumbs, or to maintain their position of rest if unused.

SUMMARY.

This invention has as its goal an improvement applicable to piston-valve musical instruments in general, and particularly to trumpets or cornets, consisting in part in the addition of one or preferably of two extra pistons equipped with adjustable-length slides designed to permit, by lengthening or shortening of the vibrating column, lowering or raising of the fundamental key of the instrument, and in part in the particular placement of this or of these extra pistons in a direction perpendicular to that of the three customary pistons, with the aim of...
diverting the air column as little as possible from its normal course, and rendering their operation easy by allowing use of the thumbs.

Jérome THIBOUVILLE LAMY & C°.
By procuration:
ARMENGAUD, Jr.

(English translation by the author.)

To purchase reprints, enquire at the NATIONAL PRESS, 87 rue Vielle-du-Temple, Paris (3rd).
NOUVELLE TROMPETTE D'HARMONIE

à 4 pistons (en Ut et Ré)

Modèle J. THIBOUVILLE-LAMY, système FRANQUIN

AVANTAGES

La nouvelle trompette à 4 pistons (le 4° ascendant) système FRANQUIN offre le grand avantage de réunir deux tonalités dans un seul instrument, sa construction fondamentale étant en Ut, et l'abaissement du 4° piston la mettant en Ré, sans rien changer au doigté ordinaire de la main droite. Le principal intérêt de ce perfectionnement est de rendre facile et sûre l'attaque des deux notes dangereuses qui deviennent par l'abaissement du 4° piston, et d'obtenir, avec une justesse parfaite, le qui, comme on sait, est extrêmement haut et, par conséquent, extrêmement difficile à rendre juste avec le système à 3 pistons.

En outre des œuvres entières (celles de Bach et de Haendel principalement), de la totalité de certains numéros d'autres œuvres que l'on a avantage à jouer intégralement avec le ton de Ré; beaucoup de passages, de traits ou d'attaques commencent ou finissent sur le La ou La♯ aigu.

La nouvelle trompette permet de les remplacer instantanément par Sol ou Fa♯ que l'on peut toujours attaquer franchement sans crainte de cesse, grâce à l'emploi du 4° piston qui met en mains deux instruments en un seul : une trompette en Ut et une trompette en Ré. Par ce système, tous les doigtés jugés difficiles sont aisément remplacés par les plus faciles. Ajoutons que cette modification n'altère nullement la beauté du timbre de la trompette, ni ne diminue la facilité des émissions, soit que l'on emploie ou non le 4° piston. Cette nouvelle trompette est certainement appelée à rendre les plus grands services aux artistes trompettistes, et principalement aux solistes des grands concerts, des grands théâtres et de tous les orchestres symphoniques.

7998 Nouvelle Trompette d’Harmonie en Ut à 4 pistons, et en Ré par l'abaissement du 4° piston :

<table>
<thead>
<tr>
<th>Métal</th>
<th>Cuivre</th>
<th>Nickelé</th>
<th>Argentée</th>
</tr>
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<td>1850 Fr.</td>
<td>2000 Fr.</td>
<td>2500 Fr.</td>
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Le guillochage augmente de 10 Fr.

(Voir Etuis pages 17 et 18)
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