

THE TRADITION AND TRAINING OF ORCHESTRAL HORN PLAYERS
AT THE PARIS CONSERVATORY (1795-1903)

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Table of Contents

List of Musical Examples	v
List of Figures.....	viii
Part I: Background and Overview	
Chapter 1: Premise and Comparison Criteria	1
Chapter 2: The Development of the Paris Conservatory	3
Chapter 3: History and Development of the Horn.....	7
Chapter 4: Horn Professors of the Paris Conservatory 1795-1906.....	16
Chapter 5: Hand Horn Overview	25
Notes on Notation	28
Hand stopping chart.....	29
Part II: Musical Comparisons	
Chapter 6: Duvernoy & Spontini.....	30
Chapter 7: Dauprat & Berlioz.....	40
Chapter 8: Gallay & Bellini.....	54
Chapter 9: Dukas, Saint-Saëns & Ravel.....	61
Chapter 10: Conclusion	72
Bibliography	75

List of Examples

Example 1. Spontini, <i>La Vestale</i> , Overture to Act I, Presto assai agitato, mm. 230-233	34
Example 2. Spontini, <i>La Vestale</i> , Act II Scene 2, “ <i>Toi que j’implore</i> ”, Larghetto espressivo, mm. 5-16.....	35
Example 3a. Duvernoy, <i>4^{eme} Divertissement</i> , Cantabile, mm. 2-10	36
Example 3b. Duvernoy, <i>4^{eme} Divertissement</i> , <i>Cantabile</i> , mm. 2-10, rewritten for horn in C.....	37
Example 4. Duvernoy, <i>4^{eme} Divertissement</i> , Allegretto, mm. 122-125.....	38
Example 5. Duvernoy, <i>4^{eme} Divertissement</i> , Allegretto, mm. 135-146.....	38
Example 6. Duvernoy, <i>4^{eme} Divertissement</i> , Allegretto, mm. 104-112.....	39
Example 7. Berlioz, <i>Symphonie fantastique</i> , “ <i>Un bal</i> ”, Allegro non troppo, mm. 256-264	47
Example 8. Berlioz, <i>Symphonie fantastique</i> , “ <i>Rêveries, Passions</i> ”, Largo, mm. 54-55	48
Example 9. Berlioz, <i>Symphonie fantastique</i> , “ <i>Songe d’une nuit du Sabbat</i> ”, Allegro, un peu retenu, mm. 348-355	48
Example 10. Berlioz, <i>Symphonie fantastique</i> , “ <i>Rêveries, Passions</i> ”, Allegro agitato e appassionato assai, mm. 133-142	49
Example 11. Berlioz, <i>Symphonie fantastique</i> , “ <i>Rêveries, Passions</i> ”, Largo, mm. 24-28	49
Example 12. Dauprat, Solo de second cor, Op. 12, Allegro maestoso, mm. 74-80.....	50

Example 13. Dauprat, Solo de premier cor, Op. 12, Poco adagio, mm. 115-129.....	51
Example 14. Dauprat, Solo de premier cor, Op. 12, Allegro poco vivace, mm. 18-23.....	51
Example 15. Bellini, <i>I Capuleti</i> , Act I Sinfonia, mm. 13-21	56
Example 16. Bellini, <i>I Capuleti</i> , Act I, No. 4, “ <i>Oh Quante Volte</i> ”, mm. 5-18.....	56
Example 17. Gallay, 12 ^{eme} Solo, Allegro moderato, mm. 101-106	58
Example 18. Gallay, 9 ^e Solo, Un poco piu ritenuto, mm. 135-150	58
Example 19. Gallay, 12 ^{eme} Solo, Largamente, mm. 119-122	59
Example 20. Gallay, 9 ^e Solo, Allegro moderato, mm. 219-255.....	59
Example 21. Ravel, <i>Pavane pour une infante defunte</i> , Lent, mm. 1-11	63
Example 22. Saint-Saëns, Symphony No. 3, II, Allegro, stringendo, mm. 631-64.....	64
Example 23. Saint-Saëns, Symphony No. 3, I, Allegro moderato, mm. 252-253.....	64
Example 24. Saint-Saëns, Symphony No. 3, II, Allegro, mm. 413-419.....	65
Example 25. Saint-Saëns, Symphony No. 3, I, Allegro moderato, mm. 249-253	65
Example 26. Saint-Saëns, Symphony No. 3, II, Allegro, mm. 438-440.....	65
Example 27. Saint-Saëns, Symphony No. 3, I, Allegro moderato, mm. 67-68	65
Example 28. Saint-Saëns, Symphony No. 3, I, Allegro moderato, mm. 254-267	66
Example 29. Saint-Saëns, Symphony No. 3, I, Poco adagio, mm. 366-377	66
Example 30. Dukas, <i>The Sorcerer’s Apprentice</i> , Vif, mm. 778-811	67
Example 31. Dukas, <i>The Sorcerer’s Apprentice</i> , Assez lent, mm. 20-22	68

Example 32. Dukas, <i>The Sorcerer's Apprentice</i> , Vif, mm. 23-32	68
Example 33. Dukas, <i>Villanelle</i> , Très modéré, mm. 10-31	69
Example 34. Dukas, <i>Villanelle</i> , Très vif, mm. 159-168.....	70
Example 35. Dukas, <i>Villanelle</i> , Très vif, mm. 209-225.....	70

List of Figures

1. Ranges of the Three Genres of Horn	11
2. Labelling of Octaves.....	28
3. Hand Positions for the main range of the horn, F crook.....	29

Part I: Background and Overview

Chapter 1: Premise and Comparison Criteria

Many of the most important works for solo horn were written as examination pieces for the Paris Conservatory. Since the Conservatory's inception in 1795, a new piece has been composed almost every year for graduating students to perform, with an inadequate performance resulting in dismissal from the class. Until 1903 these pieces were written for the natural horn, despite of the availability of the valve horn beginning in the 1830s. During this period, the majority of the horn *morceaux de concours*, as the exam pieces were known, were composed by the professors of the horn for their own students. These professors were all professional musicians, pedagogues, and composers, and therefore had a strong knowledge of what was required of a working horn player. In principle, the culminating exam piece was intended to be a summation of the entire education at the Conservatory, and needed to represent these skills, ensuring that graduates were ready for jobs in the orchestras of France. This paper will consider four distinct time periods within the hand horn era at the Conservatory, and compare each of the four chosen *morceaux de concours* with a representative, contemporaneous, piece (or pieces) from the orchestral or operatic repertoire. Connections between the composer and the Conservatory are discussed, and pedagogical writing that is relevant to a composer's use of the horn is also explored. Each orchestral piece is studied to determine the technical requirements made of the horn players. Biographies of the composers are given to show the importance of the piece chosen, as well as the influence of the composer on future horn writing. The solos are then examined to see if the composer made similar

demands, in order to answer the following questions: Did these composers, of the same time period, make the same demands on the horn? Did the Paris Conservatory curriculum as represented by the *morceaux de concours* prepare the students for a professional playing career?

In preparation for the second section, the first section of this paper provides historical background about the Paris Conservatory, biographies of the professors and information about the instruments they performed on and wrote for. This includes a brief tutor on the hand horn for those unfamiliar with its difficulties and abilities, as well as a “handering” chart showing the standard hand positions for the three octave chromatic scale. The criteria for comparison between solos and orchestral and operatic repertoire are also outlined in the first part within the discussion of the hand horn.

The *morceaux de concours* discussed in this document were chosen because they are representative of the most prolific, virtuosic, and well-known players, composers, and pedagogues of the Paris Conservatory. The exception to this, Paul Dukas, represents the era when the professors were no longer providing the *morceaux de concours*, and professional composers were commissioned to write solos for the horn class. Dukas’ *Villanelle* bridges the hand horn era and the valved horn era, marking a new phase in horn pedagogy in Paris. The orchestral and operatic pieces are chosen from the standard repertoire of the day, by composers who are known to have contact with the Paris Conservatory. Often these composers knew the horn professors at the conservatory, and wrote specifically for a premier performance in Paris.

Chapter 2: The Development of the Paris Conservatory

The first music conservatories were in Italy. They grew out of an orphanage system created in the early 1600s that trained singers for church services and other private and public ceremonies. Music instruction provided by the church focused on training musicians for church life, mostly in choral music, allowed only male students, and did not provide a standardized education. Eventually these orphanages needed more income, and began to enroll students who could pay tuition, creating two different classes of student.¹ In the late 1700s church music schools died out and this left room for the growth of the conservatory.²

The conservatory system was a reaction to a general dissatisfaction with the way that music was being taught by the church. As the separation of church and state became more complete and the church was deemed incompetent at training musicians, and as more music was required for public life and at court, the government decided to provide music education. The new government-run conservatories were secular, and in response to the growing demand for public concerts and the growth of court opera companies beginning in the late 17th and early 18th centuries, the conservatories focused on training musicians for these jobs.

The first French public conservatory was the *École Royale de Chant et de Déclamation*, which was founded in 1783. Its goal was to train opera singers, and the

¹ Susan J. Rekwart. "The Horn at the Paris Conservatoire and its *Morceaux de Concours* to 1996" (master's thesis, University of North Texas, 1997), 2.

² William Weber, et al. "Conservatories." *Grove Music Online*. *Oxford Music Online*. Oxford University Press, accessed March 1, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/41225>.

school was fully funded by the government. It was small, with only 15 students enrolled, and was attacked for its apparent extravagance and incompetent teaching.³ In 1792, a school for the training of military musicians was established, also supported by the government. The students were chosen from the sons of citizens serving in the Garde Nationale, and were auditioned for admission. The students had general musical training and were expected to perform at public and military events.⁴ These two schools merged and became the Institut National de Musique in 1795. Soon after the combination of the two music schools, a plan was put in place for the organization of the Institut. The number of professors and students increased, the classes were formalized, and the name was changed to the Conservatoire National de Musique et de Déclamation. The curriculum was carefully prescribed. Students entered the conservatory between the ages of 8 and 13, and studied solfège, vocal and instrumental performance, music theory and history, and the accompaniment of singers.⁵ Examinations were given regularly by the professors and inspectors. It was for the final year-end examinations, held in the form of a contest, that the famous *morceaux de concours* were written. The first contest for graduating students was held in 1797 for both solo and chamber instruments, and this tradition has continued almost uninterrupted to the present day.

From the very beginning, the Paris Conservatory educated the best orchestral players in France. Dedicated both to practical training and to preserving the French

³ Rekward, "The Horn at the Paris Conservatoire", 4.

⁴ Ibid., 5.

⁵ Ibid., 7.

musical tradition, the Paris Conservatory included not only a school but also an instrument museum, and score and book library. It was also unofficially intended to weaken the German influence on the French music scene, especially in opera, and to this end it was a great champion of French teachers, composers and performers. The Paris Conservatory presented public concerts featuring the students, and these were an important part of Paris life.

The 1800s were a time of political upheaval in France, and this effected the funding and the educational philosophy. The school went through dramatic changes in enrollment, suspended the *morceaux de concours* between 1816 and 1818, and was even briefly renamed the École Royale du Chant in 1816. Another result of the turmoil was the restructuring of the very optimistic staffing at the conservatory, and professors Buch and Kenn were let go, while Domnich and Duvernoy remained. The conservatory survived these changes and the name was changed back to the Conservatoire National de Musique et de Déclamation in the 1830's.⁶ Eventually the Paris Conservatory grew into a national system that included over 60 associated schools throughout France.⁷ As other educational institutions in France improved, the influence of the Paris Conservatory waned somewhat, but its influence on French musicians and musical life during the 19th and 20th centuries cannot be overstated. Many pedagogical works written by professors at the Conservatory are still relevant and widely-used, many standard recital pieces come from

⁶ Rekward, "The Horn at the Paris Conservatoire", 11.

⁷ Weber, "Conservatories."

the exam repertoire, and the conservatory style of education itself, developed in Paris, has spread worldwide.

Chapter 3: History and Development of the Horn

According to R. Morley-Pegge, “It was in the course of the 16th century that the primitive bugle-horn underwent the first of the transformations that were to lead it gradually away from the raucous din of the Satanic host to the position of the most refined and poetical voice in the symphony orchestra.”⁸ Until this time the horn played simple calls during the hunt. It was considered a hunting instrument, not a musical instrument. The harmonic series is the set of open notes that can be played on a tube of a particular length, and as the length of the tube changes, so do the pitches. The notes of the harmonic series get closer together the higher you go in the series, and the notes do not become stepwise until the fourth octave. On a short horn, that fourth octave is unplayable, so the instrument is basically limited to doh, mi, and sol. On a longer horn, the fourth octave is playable, so the style of playing can be more melodic, using scalar passages. The main component of the change from hunting to musical instrument was to make the horn in a closed coil shape. This coiling up of the horn allowed for and led to the lengthening of the instrument, making it longer, lower in pitch, and easier to handle. Once the instrument was longer, there were more pitches available, as the player had more access to the range where the notes are closer together. The old hunting calls used the few available notes and relied on rhythmic variety to differentiate the signals, while the new hunting calls were more melodic. It was this new French style of horn playing that impressed the Austrian nobleman Count Franz Anton von Spork when he visited France in 1680. He had two of his attendants, Wenzel Sweda and Peter Röllig, trained to play the

⁸ R. Morley-Pegge, *The French Horn: Some Notes on the Evolution of the Instrument and of its Technique*, 2nd ed. (London: W. W. Norton & Company Inc, 1973), 11.

horn before he left France, and they in turn taught others, thus spreading the French style of playing to Austria and beyond. In France these updated hunting horns were known as “les cors a plusieurs tours”. Francesco Cavalli (1602-1676) and Jean-Baptiste Lully (1632-1687) used this horn in their scores in 1639 and 1664 respectively, and these are the first instances of the horn appearing in the orchestra.⁹ In these scores, horns were used to depict hunting scenes and did not usually play with the other instruments of the orchestra. Horns were not fully incorporated into the orchestra until the beginning of the 18th century. The first piece to use horns as part of the orchestra was Reinhard Kaiser’s opera *Octavia* in 1705. Although horns were used occasionally in France (often players imported from Germany), the Paris Opera did not employ a horn section on a regular basis until 1759.

Before crooks were invented, horns were restricted to one key in the orchestra, since each instrument was the length for a particular key. By the 1760s crooks and couplers were in common use. Crooks and couplers are pieces of tubing separate from the body of the horn. A set of crooks (conical pieces of tubing) and couplers (cylindrical pieces of tubing that fit into a crook) is built so that each crook (or crook and coupler) adds the appropriate length of tubing to the body of the horn to allow the player to change the length of the body of the horn to a particular key. Provided there was enough time to change crooks between passages, the player could then play in different keys. Each individual crook had an effect on the timbre of the horn, and this became a very important element of horn playing. In the 1750’s Joseph Hampel (1710-1771) of Dresden developed

⁹ Morley-Pegge, *The French Horn*, 13.

and began teaching a technique whereby the right hand is used in the bell to alter the pitches available, referred to as hand stopping. The hand stopping technique allowed players to play notes that would naturally be out of tune in tune, and to play notes that were not a part of the harmonic series, most notably to fill in the missing notes of the middle register. This allowed the horn to play melodies in the middle register, which has a less piercing sound than the high register, where the melodic lines would previously have been played. Additionally, placing the hand in the bell has a dramatic effect on the tone of the horn, giving it a dark, slightly covered sound, rather than the bright sound that was characteristic of the hunting horn. These were important steps toward establishing the horn's permanent place in the orchestra.

The technique of placing the hand in the bell led to another development, since players disliked the fact that different crook and coupler combinations changed the distance between the mouthpiece and the bell in each key. Hampel and horn maker Johann Werner created the "Inventionshorn", which had a fixed mouthpiece and the crooks in the center of the horn. The "tenon-and-socket" connection between the crooks and the body of the horn was finicky, and this horn design was not durable.¹⁰ Further improvements to this horn included making the crook connection with a slide, and the maker Raoux continued this progress by lengthening and crossing the tubing where the crooks were mounted for extra strength. His horn was designed for the concert soloist, and included only the solo crooks of G, F, E, E flat and D, which made it unsuitable for orchestral playing. It became known as the "cor-solo", and this horn was used by many of

¹⁰ Morley-Pegge, *The French Horn*, 21.

the well known horn virtuosi, including Punto, Palsa, Turrschmidt, Dauprat, and Gallay.¹¹ Using the hand in the bell changed the timbre of all of the notes, and this came to be appreciated for its musicality. The timbral variety that came from the combination of open and stopped notes became a distinctive feature of horn playing. Composers including Mozart, Haydn, Beethoven and Weber made use of stopped notes for expressive purposes in both solo and orchestral writing, and this became idiomatic of classical writing for the horn.¹² The varied colors of different crooks were also valued. In orchestras, horn players used the “cor d’orchestre”, a counterpart to the cor-solo, which had a body that took terminal (attached at the mouthpiece rather than in the center of the horn) crooks in all keys, and was therefore able to play in all keys. As a final development, horns were fitted with tuning slides during this period, making them fully functional. The cor-solo and cor d’orchestre represent the final stage in the development of the natural horn, and are the instruments that were used and taught at the Paris Conservatory from 1795-1903.

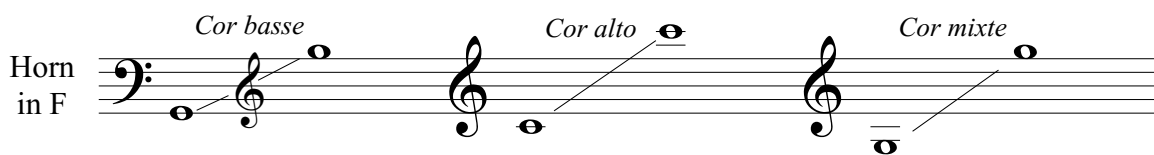
As horns were added to orchestral scores, they usually came in pairs. Players were identified as either high, (*cor alto*), or low, (*cor basse*), hornists, based on the belief that the range of the horn was too wide to be mastered by one player. Horn writing at the time was also dictated by the physics of the instrument. Because hand stopping allowed for melodies in the middle and upper registers, but still left some unmanageable gaps in the

¹¹ Morley-Pegge, *The French Horn*, 22.

¹² Renato Meucci and Gabriele Rocchetti. "Horn." *Grove Music Online*. Oxford Music Online. Oxford University Press, accessed February 16, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/13353>

low register, the music written for the high part tended to be more scalar, while the low part was often full of long leaps, arpeggios and alberti-style bass patterns. Duvernoy started the move away from this division, by naming and specializing in a new middle category, known as *cor mixte*. The range of a *cor mixte* covered the middle of the horn range, eliminating both the extreme high and the extreme low range.

Figure 1: Ranges of the three genres of horn, based on the F crook.¹³



Many solos were written within this range, which is not surprising, since it covers the range where the horn arguably sounds the best, with the most uniform tone. *Cor mixte* players also preferred the typical solo crooks of F, E, E flat and D, even if the piece was in a different key, further limiting the range used,. Duvernoy preferred to transpose even if it necessitated extensive hand stopping, rather than change crooks. While there are differences in timbre between the solo crooks, they lie close enough together that the differences are limited. This caused critics to argue that these players were “masters of none”, and that the solos performed by Duvernoy and Gallay, while beautiful and technically perfect, were somewhat dull by virtue of always covering the same range.¹⁴

The unique sound of the natural horn was highly valued in France, and the players were exceptional, which explains why the hand horn was played at the Paris Conservaory

¹³ Morley-Pegge, *The French Horn*, 96

¹⁴ Birchard Coar, *A Critical Study of the Nineteenth Century Hand Horn Virtuosi in France*. (DeKalb, IL: 1952), 145.

for 85 years after the first valves were patented. Heinrich Stölzel and Friedrich Blühmel took out the first patent in 1818¹⁵ for valved horn, fitted with two spring controlled valves, but it was not immediately successful. The hand horn was “much esteemed as a solo instrument, and in their early imperfect state valves affected adversely not only the tone but the sureness of attack as well.”¹⁶ As valves were taken up by band players and some soloists, orchestral players resisted. The valved horn in F had a dark, rich sound, but lost the bright colors of the higher crooks, the even darker sonorities of the lower crooks, and the variety of sounds due to the hand stopping. Horn players were disinclined to give up the broader timbral palette of the natural horn, and the appreciation that the public had for the skills of a talented hand horn player.¹⁷

Because orchestral players were required to play in many keys, unlike soloists, there was interest in a quick and light way to accomplish all of the necessary crook changes without carrying around a full set of crooks. In Germany, this led to the invention and adoption of Stölzel’s two valved horn. Stölzel stated that his goal for the valve was to allow the horn to function as a fully chromatic instrument, playing all pitches in the range of the horn with an open sound, and not using hand stopping at all.¹⁸ In France, it led to the creation of the omnitonic horn, which could include one of a variety of mechanical devices which allowed the user to quickly but not instantaneously

¹⁵ Morley-Pegge, *The French Horn*, 32.

¹⁶ *Ibid.*, 26.

¹⁷ Meucci and Rocchetti, "Horn."

¹⁸ John Ericson, “Why was the Valve Invented?”, horn articles online, http://www.public.asu.edu/~jgerics/why_valve.htm, accessed March 19, 2015.

switch between several keys. Although the crook changes were faster than the prior manual method, they were not instantaneous like a valve.¹⁹ Stölzel's horn was improved by Meifred and Labbaye, and Meifred's two rotary valve version was built in 1827 by Halary. The valves were tubular, not square, a main tuning slide was added that could take "cor-solo"-type crooks, and each valve loop got a tuning slide.²⁰ In 1830 the double-piston valve was invented and improved, and these were popular in Germany for a time, though they are now only used in Vienna. Riedl patented the rotary valve in 1832²¹, and this is the mechanism that has become the most common on modern horns. In 1839, Perinet perfected the present day piston valve in France, and this system was extremely common on horns for quite some time.²² A player adopting the use of valves had two choices. He could use the valves as a quick method for changing crooks, and otherwise play as if using a hand horn, or he could use the valves to play all of the pitches, hand stopping only when indicated by the composer.

Although many inventors had been experimenting with them long before, it was the early 20th century when double horns were somewhat standardized and used. The typical double horn has slides for both an F horn and a B flat (alto) horn, with a valve to change between them. In 1898 Fritz Kruspe (1862-1909) and Friedrich Adolf Gumbert (1841-1906) put the first modern style double horn on the market. It was tweaked in 1900 by Kruspe by replacing the mechanism that changed between the two horns with a single

¹⁹ Morley-Pegge, *The French Horn*, 56.

²⁰ *Ibid.*, 33.

²¹ Meucci and Rocchetti, "Horn."

²² Morley-Pegge, *The French Horn*, 48.

valve. The Paris Conservatory was at this time teaching the hand horn, still three years away from adopting the traditional French-style horn, much like the one that first appeared in 1912, patented by D. J. Blaikley. This instrument, (after Blaikley) was a compensating instrument, with piston valves, a smaller bore than the German horns, and an ascending third valve.²³ By the second half of the 20th century horn makers were working on descant horns, triple horns and other configurations for horn designs.

France and the Paris Conservatory were notably resistant to valved horns. French horn players were so virtuosic on the hand horn that they may have felt that the valved horn was beneath them, and made it too easy to play the horn. Gaspare Spontini (1774-1851) sent a large number of valved instruments from Berlin to Paris, some of which went to Dauprat as early as 1823,²⁴ but they did not convince Dauprat (who considered it a completely different instrument) to switch to or teach the valved horn. There was a valved horn class at the Paris Conservatory from 1833-1864, taught by Meifred, who also published the first method solely for the valved horn in 1840.²⁵ The valved horn class and the hand horn class were made up of completely distinct players - they were considered two different instruments. When Meifred retired, the valved horn class was discontinued.

Eventually the advantages to low horn players, who had the more difficult notes to hand stop in the middle and low register, won over the orchestral players to the valve

²³ Morley-Pegge, *The French Horn*, 51.

²⁴ Meucci and Rocchetti, "Horn."

²⁵ Morley-Pegge, *The French Horn*, 51.

horn, which became an accepted instrument everywhere. This took the longest in France. The hand horn class at the Conservatory existed until 1903, even though Brémond reestablished the valved horn class in 1897.²⁶ By this time, most players outside of the Conservatory had been using valve horns for quite some time. Compositions from the late 19th century show the influence of the Conservatory: many composers wrote hand horn parts long after valves were in wide use, possibly to ensure that they would be accepted in France by the prominent players, many of whom were affiliated with the Conservatory.

²⁶ Morley-Pegge, *The French Horn*, 56.

Chapter 4: Horn Professors of the Paris Conservatory 1795 - 1906

Antoine Buch²⁷ (exact dates unknown)

Buch was a sergeant in the French national guard band. He was professor of the first class of horns at the Institut National de Musique in Paris from 1795-1802 and a composer with the Grand Opéra of Paris,²⁸ but left the conservatory when political changes caused a reduction in teaching staff.

Jean-Joseph Kenn²⁹ (1757-?)

Kenn was born in Germany and moved to Paris in 1782. He was a *cor basse* who performed with the Paris Opera from 1788-1802. After joining the band of the national guard in 1791, Kenn was hired at the Paris Conservatory in 1795. Like many of the original professors, he was let go when the teaching staff was reduced in 1802. Kenn wrote a variety of chamber music for horns and some duos for horn and clarinet, and he taught Dauprat.

²⁷ Rekward, *The Horn at the Paris Conservatoire*, 41.

²⁸ <http://www.corno.de/shop/Chamber-music/Quartet/Quartet-40/rom288.html>, accessed March 10, 2015.

²⁹ Coar, *A Critical Study*, 145-146.

Henri Domnich³⁰ (1767-1844)

Domnich mastered the horn at an early age, and spent his childhood and teen years working in chapels and court orchestras. He came to Paris in 1783, where he spent two years studying with Punto. He played often at the Concert Spirituel, was a member of the Opera orchestra from 1787-1791, joined the National Guard band in 1793, and was second horn at the Theatre Feydeou starting in 1799. Domnich was appointed professor of *cor basse* in 1795, and taught until his retirement in 1817. He wrote the first definitive horn method in 1805, which is still a valuable teaching tool for the hand horn, and gives a clear picture of the French school of horn playing at the time. Domnich was critical of the *cor mixte*, and his method describes the necessity of blending open and stopped notes, as well as the goal of a singing style of playing. Domnich either studied with Hampel or heard first-hand from Punto about the experiments that led to hand stopping, and his is the earliest and most complete written description. Domnich wrote concerti, etudes and romances.³¹

Frédéric Duvernoy³² (1765-1838)

Duvernoy was a self-taught horn player and composer. By 1788 he was a soloist with the Concert Spirituel. He joined the band of the National Guard and the Opera Comique in 1790, and was appointed professor at the Conservatory upon its formation, at

³⁰ Ibid., 144.

³¹ Horace Fitzpatrick and Thomas Hiebert. "Domnich, Heinrich." *Grove Music Online. Oxford Music Online*. Oxford University Press, accessed March 10, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/07979>.

³² Coar, *A Critical Study*, 144-145.

the same time as Kenn, Buch, and Domnich. Duvernoy joined the Opéra orchestra in 1796 and became the solo horn there in 1799. He was also appointed first horn with the Chapelle Musique, a position he held until 1830. He retired from the Opéra in 1816 and the Conservatory in 1817. Duvernoy published his *Méthode pour le cor* in 1803, which was “far in advance of anything of the kind published previously”.³³ Duvernoy was known for being a proponent of the idea of the *cor mixte*, a style of playing the horn that limited the range to the middle of the *cor alto* and *cor basse* ranges. Duvernoy was a prolific composer of music for the horn in the form of concerti, chamber music with strings, music for horns together, and music for horn with piano. Many of his pieces were used for final examinations at the conservatory, and one of these is discussed in Chapter 6.

Louis-François Dauprat³⁴ (1781-1868)

Dauprat was born in Paris in 1781, and grew up singing in the choir at Notre Dame. He entered the Conservatory (then called the Institut National de Musique) as a horn student of Kenn, where he won the first *premier prix* ever given for horn at the Conservatory. He was soon proficient enough to perform in several army bands, which he did until he returned to Paris in 1801 to play at the Théâtre Montansier and various other orchestras. Dauprat taught unpaid lessons at the Conservatory and took composition lessons there until he was appointed to the Paris Opéra in 1808. In 1816, he became the

³³ Morley-Pegge, 156.

³⁴ Coar, *A Critical Study*, 147-150.

horn professor at the Paris Conservatory, where he taught until his retirement in 1842. His students include Meifred and Gallay. He was a member of the royal band under Louis XVIII and Charles X. In 1828, he was one of the founders of the Société des Concerts du Conservatoire, and he was first horn with this organization until 1841. From 1832 until 1842, he was *cor basse* in Louis-Philippe's chapel, after which he retired from public musical life altogether.

Dauprat was a timid performer in spite of his great skill, and had high standards; eventually he would only perform music that he himself had composed. He studied composition with Catel and Gossec, and later with Reicha. This experience is obvious in his compositions, which represent a high point in the writing for wind instruments in general and horns in particular. Dauprat wrote extensively for solo horns and for horn ensembles. These include duos, quartets and sextets, notably for horns in different keys, making full use of the different timbres of the horn, and challenging the players to play in non-tonic keys. He also wrote one of the most comprehensive horn tutors in existence: *Method for Cor Alto and Cor Basse*, which includes instructions for the students from beginner to the advanced. In addition to hundreds of exercises, advice on breathing and phrasing, and a complete chart showing hand positions for each note on each crook, there is also a section of advice for composers outlining what the horn is capable of, and how it can best be used in solo and orchestral work. Throughout the method Dauprat places much emphasis on the development of good musicianship and taste.

Dauprat was adamant that the horn section maintain the labels of *cor alto* and *cor basse*, and he argues that the two players were different but equal, not arranged in a

hierarchy as the terms “first” and “second” horn suggest. (Nonetheless, the solos selected for study in this paper are labelled “Solo de premier cor” and “Solo de second cor”.) This may be because he himself was a *cor basse*, and in spite of his advocacy, these terms were never widely used. Dauprat was opposed to valves, probably at least in part because the instruments he had access to had not yet developed to the point of working better than a hand horn. In spite of his preference for the hand horn, he did support Meifred both in his pursuit of a better valved horn, and in his teaching of and writing about the new instrument.

Jacques-François Gallay³⁵ (1795-1864)

Gallay began playing the horn at 12 and commenced his musical career shortly thereafter at the age of 14. Being from a remote area in France, however, he was unsure how to pursue further studies. In 1820, he was finally convinced to go to Paris and the Paris Conservatory, where he studied with Dauprat. After his first year of study, Gallay won first prize in the solo competition, and went on to a performing career with various ensembles in Paris, including the Théâtre Italien. He was appointed to the chamber ensemble of King Louis-Philippe in 1832, before succeeding Dauprat as horn professor at the Conservatory in 1842, where he taught until his death in 1864.

Gallay wrote many compositions for the Paris Conservatory horn examinations, and contributed other works to the horn solo and chamber repertoire. His etudes, in many ways much more difficult than his solo writing, are interesting, relevant, and still used

³⁵ Coar, *A Critical Study*, 152-154.

today. He also wrote a horn method, published in 1845,³⁶ as was required of all professors. Gallay was known for having a “beautiful and equal quality of tone”,³⁷ which may have been due to his personal preference for keeping the open notes quite open, allowing the stopped notes to be more open as well. This contrasted with Dauprat's style of playing, with all notes somewhat stopped to help match the timbres.³⁸ Gallay was also a virtuosic player, with excellent technique, as is evident from the presence of many technical passages in his pieces. He was one of the first composers to write and perform entire passages of stopped notes, and he seems also to have been a proponent of the *cor mixte* style of horn playing, resulting in a somewhat limited use of the extreme high and extreme low ranges of the horn in his compositions. During the time of his tenure at the Paris Conservatory, Gallay's influence helped lead to a noticeable increase in the use of stopped notes by other composers, but he was unable to prevent the introduction of the valved horn to the orchestra. It is likely that the hand horn kept its honoured place in France for so long in large part due to Gallay, the last great hand horn virtuoso.

Pierre-Joseph-Émile Meifred (1791-1867)

Morley-Pegge calls Meifred the “French protagonist of the valve horn.”³⁹ Meifred entered the Conservatory to study with Dauprat in 1815, and also studied composition with Reicha. He won the *premier prix* in 1818, and began his playing career in the

³⁶ Ibid., 107.

³⁷ Ibid., 150.

³⁸ Coar, *A Critical Study*, 92.

³⁹ Morley-Pegge, *The French Horn*, 31.

Théâtre Royal Italien, moving after three years to the Opera orchestra, where he stayed until 1850. Meifred was a co-founder of the Société des Concerts du Conservatoire, and at the Société's first concert in 1828 he premiered his *Premier Solo* for horn and piano on valved horn, the instrument that he helped create with Labbaye. It was later improved by his student Halary, and won a silver medal at the Paris Industrial Exhibition.⁴⁰ Meifred was hired to teach the valved horn at the Conservatory in 1833, and his class was offered in tandem with the hand horn class until his retirement in 1864. In 1841, Meifred wrote "Méthode pour le Cor Chromatique ou a Pistons", the first important tutor for valved horn. It omits all introductory information on tone production and other horn basics, while referring the student to Dauprat's method for these details.⁴¹ Meifred's method involves using both the valves and the hand, and tries to maintain the varied colors and exact intonation achieved by hand stopping, while using the valves for notes that are not available or sonorous on the hand horn. Meifred's horn had only two valves, so some hand stopping was still necessary to play a full chromatic scale. The method provides detailed fingering and hand stopping charts that vary depending on the key and the context; the choice of stopped or open notes may be influenced by melodic direction, chromatic and enharmonic relationships and dynamic considerations.⁴² In particular, the player was instructed to use the hand for precise leading tone intonation. Meifred created

⁴⁰ Morley-Pegge, *The French Horn*, 33.

⁴¹ Coar, *A Critical Study*, 118

⁴² Jeffrey Snedeker "Hand or Valve (or both): Horn Teaching, Technique, and Technology at the Paris Conservatoire, ca 1840-1903", (Actes du colloque Paris: un laboratoire d'idées, facture et répertoire des cuivres entre 1840 et 1930) Historic Brass Society, 2007, 207 http://www.citedelamusique.fr/pdf/insti/recherche/colloques_factures/snedeker_180_191.pdf, accessed March 11, 2015

a hybrid approach “that both conservatives and progressives could live with”,⁴³ and in this way the valve horn was accepted for a time at the Conservatory, and generally in France. It was used especially for the *cor basse* to provide options for low notes.

As a composer, Meifred wrote almost all of the *morceaux de concours* performed on valve horn in the 19th century. Meifred also wrote a guide to the horn for young composers, a history of the evolution of the valve, and some music criticism.⁴⁴ Notable students include Halary, Lefebvre, and Cugnot. After his retirement, the valved horn class was cancelled at the Conservatory, and not reinstated until 1897 under Brémond.

Jean-Baptiste-Victor Mohr⁴⁵ (1823-1891)

Mohr studied at the Paris Conservatory under Gallay, and won the first prize in horn in 1847. He was appointed director of the Grande Société d’Harmonie in 1845. He performed with the Opéra orchestra from 1853-1883, and also played with the Concerts Padeloup and the Société des Concerts. He taught hand horn at the Conservatory from 1864-1891. His students included Brémond, Chaussier, and Vuillermoz.

François Brémond⁴⁶ (1844-1925)

From a young age, Brémond lived with his uncle, Joseph Rousselot, who played solo horn at the Opera. Brémond studied with Mohr at the Conservatory and won the

⁴³ Snedeker, “Hand or Valve”.

⁴⁴ Morley-Pegge, *The French Horn*, 160.

⁴⁵ *Ibid.*, 101, and Coar, *A Critical Study*, 157-8.

⁴⁶ Morley-Pegge, *The French Horn*, 165-6.

premier prix in 1869, after only one year of study. He spent some time playing, singing, and teaching outside Paris before returning to Paris in 1875 to play first horn at the Opéra Populaire, the Concerts du Chatelet, and in 1877, the Opéra National Lyrique. In 1878 he became principal horn at the Société des Concerts (until 1898) and at the Opéra Comique, where he played principal until 1898 before moving to second horn to finish his playing career. He taught at the Conservatory from 1891 until 1922. Brémond was a hand horn player, but he became a proponent of the valve horn, which he introduced into classes and exams in 1897, where it slowly gained acceptance. In 1903, it was declared the official instrument of the horn class at the Conservatory. He viewed the valve horn in the same way that Meifred did, and to this end he was still in favour of using the hand. He influenced Massenet to write an obligato in his opera *Manon* for horn crooked in F#, because on this crook it lies very well for the hand. He had a number of teaching quirks, enumerated by his student Morley-Pegge, including recommending that all students use the left hand in the bell, advocating mustaches for horn players, and advising strongly against smoking and fried foods. His list of compositions is relatively short, but includes some contest solos and exercises borrowed and revised from Dauprat and others.⁴⁷

⁴⁷ Jeffrey L. Snedeker. "Brémond, François." *Grove Music Online. Oxford Music Online.* Oxford University Press, accessed March 11, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/03927>.

Chapter 5: The Hand Horn - An overview

Most of the music that will be discussed in this paper was written for the natural horn, which presents its own unique challenges to the player. These challenges, outlined below, form the basis for the comparison that follows between the examination solos and the orchestral and operatic pieces. Modern horns are almost always pitched in F. No matter the key or range, therefore, the player is using the same instrument and has an aural and physical association with the pitches. A hand horn player, however, changes crooks depending on the key of the piece, or even within the piece, and so, contending with an ever-shifting instrument, does not have as firm a “feel” for the pitches. And, as Dauprat shows in the chart in his method, the hand positions for pitches vary slightly from crook to crook, so every note on every crook presents a different challenge.⁴⁸ Each hand position has a different effect on how notes respond. Even without any particular technical challenges, every note presents its own special difficulty. This is overcome by careful ear training and a great deal of practice on each crook.

Classical music most often uses natural horns in the tonic, dominant, or relative major (of a minor key) of the key of the piece. As a result, the most common tones, stepwise patterns, and leaps in horn parts come from the scales starting on the first, fourth, fifth and sixth scale degrees of the key. Chromatic notes were unusual in Mozart and Haydn, for example. As hand stopping technique improved, composers and players of the 19th century began to use other, more difficult scales. Leaps on the horn, especially

⁴⁸ Louis François Dauprat, ed. Viola Roth. *Method for Cor Alto and Cor Basse*. (Bloomington, IN: Birdalone Music, 1994), 464-5.

large intervals, can be treacherous. On the hand horn this is compounded by the likelihood of starting or ending on a stopped note.

The range of the hand horn is potentially very large since each crook can cover a range of more than three octaves. The cumulative range of the crooks from B flat alto to B flat basso is not exactly a full octave greater, since the highest notes are not really available on the highest crooks, and the lowest notes are not typically used on the lowest crooks. Still, the range is very large and that is certainly part of the explanation for the division between players of the *cor alto* and the *cor basse*. Along with range often goes endurance; a piece that has a high tessitura can be very tiring, and a piece that is on a high crook is tiring even more quickly. Endurance is something that is quite different when considering solos and orchestral pieces. Orchestral horn parts often have a great deal of rest, and this is even more true when the part has to leave enough time to change crooks when the key changes. Solos tend to be in one key, or at least on one crook, and therefore do not need to leave time for crook changes. By definition, the soloist is the most interesting part of a solo, so there is little reason to leave the horn out of the writing, while there are so many more options in an orchestra that the work can be spread around. Since endurance is not really comparable between these two types of compositions it will not be addressed in this paper.

Moving the entire right hand is more cumbersome than simply depressing a valve, which makes speed of the notes a greater consideration on natural horn. Moreover, one cannot slur cleanly between all of the notes on the hand horn. Moving the hand in the bell in one direction or the other causes the pitch to change continuously, as a glissando. The

hand cannot move quickly enough from an open note to a stopped note, or from a stopped note to an open note, to avoid a glissando, so to make a clean slur the change to the stopped note must be tongued.

Hand horns are smaller than most modern valved horns, which affects both the color and the projection of the sound. Balance with the woodwind section is generally less of an issue, whereas balance with the brass section might be more difficult. The difference in timbre between the crooks could also cause blend issues, as the high crooks have a quite bright sound, whereas the low crooks are dark and potentially muddy. Articulation and speed of attack vary greatly from crook to crook.

When the key of the music matches the key of the crook, the music appears written in the key of C major. This combination requires the smallest possible amount of hand stopping. Several of the pieces studied are written for horns in a key other than the tonic of the piece. This results in more stopped notes overall, and stopped notes in more awkward places in the phrases, as will be demonstrated in Chapter 6. Some players and composers felt that this created a more interesting sound palette; while it does provide variety, it also certainly increases the difficulty of the hand stopping.

Additionally, hand stopping makes the sound significantly quieter, and aside from matching timbre, sometimes these notes had to be able to match the volume and color of open notes. The inherent quiet of a stopped note can be used to make a diminuendo when moving from open to stopped, but it can also make it difficult to crescendo or match open notes at loud dynamics. Compromises were made to even up the sound. A player could keep the hand quite open for the open notes, therefore closing the hand less on the

stopped notes, or alternatively, the stopped notes could be played completely stopped, allowing the open notes to be relatively more covered as well. Neither method was perfect from a sound and technique standpoint.

Finally, the open notes available in the low range on the hand horn are sparse, and filling in the missing pitches requires great delicacy. Low stopped pitches do not speak quickly, project, or center well, which is why knowledgeable composers used them sparingly, but also why they appear in the Paris Conservatory exam pieces to test the skills of the students.

Notes on Notation

Unless otherwise indicated, references are to written pitches, not sounding pitches. If the crook is not specified, F horn is assumed. Octaves are labelled according to the Helmholtz system, shown below. When hand positions are shown they are added by the author according to Duvernoy, shown in Figure 3.

Figure 2. Labelling of Octaves

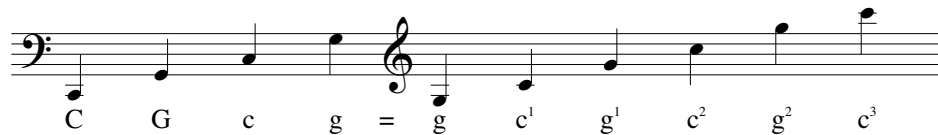


Figure 3. Hand positions for the range of the horn, F crook.⁴⁹

The figure displays six staves of musical notation, alternating between bass and treble clefs. Each staff contains six notes, with symbols above them indicating hand positions. The symbols are: a circle (normal position), a circle with a fraction (partially closed), and a plus sign (fully closed). The notes are: G2 (bass), A2 (bass), B2 (bass), C3 (bass), D3 (bass), E3 (bass); G3 (treble), A3 (treble), B3 (treble), C4 (treble), D4 (treble), E4 (treble); G4 (treble), A4 (treble), B4 (treble), C5 (treble), D5 (treble), E5 (treble); G5 (treble), A5 (treble), B5 (treble), C6 (treble), D6 (treble), E6 (treble); G6 (treble), A6 (treble), B6 (treble), C7 (treble), D7 (treble), E7 (treble); G7 (treble), A7 (treble), B7 (treble), C8 (treble), D8 (treble), E8 (treble).

Hand Positions:

- ∅ fully open, hand entirely out of the bell
- hand in the normal position inside the bell
- $\frac{1}{3}$ 1/3 closed
- $\frac{2}{3}$ 2/3 closed
- +

⁴⁹ Frédéric Duvernoy. *Méthode pour le cor*. (Paris: 1803), 22-23.

Part II
Chapter 6: Duvernoy & Spontini
Gaspare Spontini, *La Vestale* (1807)
Act II scene 2 aria, “*Toi que j’implore*”
Examples from the Overture
Frédéric Duvernoy, *Divertissement 4*

Gaspare Spontini (1774-1851) spent most of his life in Paris and Berlin. He was an important figure in French opera, contributing over 20 works to the genre, in spite of being unusually dedicated to his compositions; Spontini often spent several years on one opera.⁵⁰ His principal influence was Mozart, but he was also influenced by Paisiello, Cimarosa, Cherubini and Méhul. There is a break in style between the works written in Italy and those written in Paris. Spontini used compositional methods that had been used before, but combined them in new ways, resulting in a multinational style.⁵¹ In Paris, Spontini wrote in a style that was influenced by Gluck but updated for a contemporary audience. There is more melodrama, grander spectacle, more varied and greater use of orchestral timbres and forces, and more emphasis on matching the melodic writing to the text.⁵² Based on these advancements toward a Romantic style of composition, Spontini functions as a bridge composer between Gluck and Wagner, and he inspired Berlioz along the way.⁵³

⁵⁰Anselm Gerhard. "Spontini, Gaspare." *Grove Music Online. Oxford Music Online.* Oxford University Press, accessed April 3, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/26454>.

⁵¹ Gerhard, "Spontini, Gaspare."

⁵² en.wikipedia.org/wiki/Gaspare_Spontini, accessed May 8, 2015.

⁵³ hberlioz.com/Predecessors/spontini.htm

Spontini moved to Paris in 1803 and held several court positions before composing his most famous and best received opera, *La Vestale*, in 1807. He was subsequently named director of the Paris Opera, though it is said that he was temperamental and difficult to work with, which may explain why he did not stay in Paris longer. He became conductor of the Berlin Court Opera in 1819, but had difficulty there due to championing his own Italian-style compositions over the German style of composers such as Weber.⁵⁴ Spontini “showed a progressive outlook on opera as an ideal art form, one that was not fully accepted until Wagner’s time, with claims to an absolute artistic value: an approach to his art that is not easy to reconcile with the office of court composer.”⁵⁵ He was composing at a level that rose above his position.

Spontini wrote a solo obligato in *La Vestale* specifically to be played by Frédéric Duvernoy (1765-1838), one of the preeminent soloists of the time. Critics were dismissive of Duvernoy due to his identification as a *cor mixte*, but the compositions by Duvernoy and the music that was written for him demonstrate that he had all the technique required of a horn soloist. His playing stood out for the exceptional tone quality, musicality and execution. As a teacher, he focused on both technique and musicality, and for this, his method is considered the first of its kind. In spite of his preference for the *cor mixte* range, Duvernoy insists in his method that students choose either the first horn or second horn category. However, his exercises are generally limited to the *cor mixte* range.

⁵⁴ Michael Kennedy, *The Concise Oxford Dictionary of Music* (Oxford: Oxford University Press, 1980), 615.

⁵⁵ Gerhard, "Spontini, Gaspare."

His method was the first to provide hand positions for a chromatic scale over the entire range of the horn, and to talk, albeit briefly, about the musical and artistic development of the student.⁵⁶ It includes pages of technical passages showing optimal articulation patterns. The method is unique for its emphasis on musicality, and several points make clear the approach that Duvernoy took to tone, stopped notes, and expression. At the beginning of the Second Part Duvernoy gives his theory on hand stopping: “The notes which are played without putting the hand in the bell are naturally louder and more sonorous than those for which it is necessary to stop the bell; it is therefore necessary, to avoid this drawback, to restrain the strong pitches in order to be able to hear the weak ones, and to try to subtly give equality to all the notes.”⁵⁷ Technique serves music when he writes about trills, stating: “Trills must be played much more slowly when they appear in slow pieces than in Allegro pieces, etc..”⁵⁸ And finally, “It is not the most difficult notes which are the most pleasant on the horn; it is nevertheless quite necessary to know them; but a pure and simple melody played with expression, good technique, and good taste: that’s what one should dedicate oneself to.”⁵⁹

Duvernoy composed a great deal of music for the horn, including concerti, chamber music, and works for horn ensemble. According to Dauprat, he also contributed to many ballets and operas while he was a member of the orchestra. “Most of the horn solos composed for the ballets or the divertimenti of grand opera are by Frédéric

⁵⁶ Frédéric Duvernoy. *Méthode pour le cor*. (Paris: 1803), 97.

⁵⁷ *Ibid.*, 14.

⁵⁸ *Ibid.*, 26.

⁵⁹ *Ibid.*, 27.

Duvernoy”.⁶⁰ Dauprat asserts that “[s]ince Duvernoy has been at the Opéra in the capacity of solo horn, the domain of the horn in dance pieces has been extended owing to the player’s skillfulness. Solos of various characters, duos for horn and harp, and concertante pieces for various string and wind instruments have been as skillfully inserted into dance pieces as they have been skillfully performed.”⁶¹ As principal horn of the Opera, he had to play all of the difficult solos, but he could choose what else to play, playing as much or as little as he wanted. “He had quite a high profile, as evidenced from the bill announcing the première of Spontini’s *La vestale* in 1807: Duvernoy’s full name in larger capital letters appears above all others on the cast list, whereas Spontini’s name is nowhere to be found.”⁶²

Spontini wrote for natural horns in his opera *La Vestale*. There are four orchestra parts as well as one solo horn part for the aria in Act II Scene 2, *Larghetto espressivo, Toi que j’implore*. There is no instance of five horns playing at once. In fact it is rare for there to be more than two horns at a time, so it is possible that Duvernoy played one of the section horn parts. However, his sole official responsibility at the Opera was to play the solos, so it is also possible that he played nothing but the Act II solo. The opera begins with the first pair of horns in D and the second pair in F and changing to D, and the trumpets often double the horn parts. There is a long hunting section in the overture which is dominated by the horns. The section horns do not play anything outside the

⁶⁰ Dauprat, *Méthode*, 417.

⁶¹ *Ibid.*, 463.

⁶² Reginald Morley-Pegge, et al. "Duvernoy, Frédéric Nicolas." *Grove Music Online. Oxford Music Online*. Oxford University Press, accessed April 3, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/08436>.

ordinary realm of horn writing, a sample of which is shown in Example 1. They are used frequently throughout the opera, and play a prominent role in fanfares and hunting-style movements. None of the writing is unusually demanding. (See Example 1.)

Example 1. Spontini, *La Vestale*, Overture to Act I, Presto assai agitato, mm. 230-233

The image shows a musical score for two horn parts. The top staff is labeled 'Horns 1 & 2 in D' and the bottom staff is labeled 'Horns 3 & 4 in D'. Both staves are in treble clef and 2/4 time. The music consists of four measures. The first measure has a dynamic marking of *ff* and features a series of chords. The second measure has a dynamic marking of *sf* and features a series of chords. The third measure has a dynamic marking of *sf* and features a series of chords. The fourth measure has a dynamic marking of *sf* and features a series of chords. The notes are primarily quarter and eighth notes, with some chords.

The aria in Act II uses three horns, with two section horns in E flat, and the solo written specifically for Duvernoy. The section horns play a standard harmonic role, playing horn fifths. (see m. 9-10) Spontini wrote the solo for Duvernoy, who preferred to play everything on the F crook, whether it matched the key or not. Duvernoy felt that playing all music on the F crook led to a wider variety of colors, and it certainly leads to more hand stopping and on different notes. The solo aria is in the sounding key of E flat. Spontini notated the part in mezzo-soprano clef, which is the clef that makes the music appear in concert pitch while allowing Duvernoy to read it on F crook as if it was in treble clef in two flats. This mismatch results in many more stopped notes than usual, which is what Duvernoy wanted, and he elected to play everything quite closed to match the open and closed timbres as much as possible.

Measures 5-16 are representative of Spontini's horn writing. The section horns play in a style not advanced from Mozart or Haydn, while the solo is as advanced as anything written in the 19th century.

Example 2. Spontini, *La Vestale*, Act II Scene 2, “*Toi que j’implore*”, Larghetto

espressivo, mm. 5-16, hand positions added mm. 5-8

The image displays a musical score for three horn parts. The top staff is for the Solo Horn, the middle for 2 Horns in E-flat, and the bottom for another 2 Horns in E-flat. The Solo Horn part features a complex melodic line with many slurs and articulation marks above it, including symbols like 1/3, 2/3, and various plus and circle signs. The 2 Horns parts provide harmonic support with chords and some melodic fragments. The Solo Horn part includes a 'Soli' section starting in the third measure of the bottom system. The key signature is B-flat major (two flats), and the time signature is 6/8.

The solo horn plays duets with the solo clarinet (as in m. 5-16, Example 2), sometimes doubles the strings (m. 49-53), and also plays a harmonic line with the voice (m. 22-26), demonstrating the full flexibility of the horn as a blending instrument. The writing is very florid, and the articulation is marked all slurred, which would result in many glissandi, which no horn player would do. Duvernoy also writes this way, putting slurs where they cannot be played, and it can be assumed that both composers are showing the desired result rather than the method of execution. The Spontini solo includes many scales based in written B flat (E flat concert), and chromatic passages that require very precise hand stopping. There are some leaps that, while not especially wide, start from or go to stopped

notes (m. 9) There are some grace notes combined with thirty-second notes that outline a turn figure, although they are not notated as turns (m. 7 and m. 11), as well as a half-step trill. Half-step trills in this range are essentially impossible, since the first time two adjacent notes are open a semi-tone apart is f sharp². The trill notated in measure 12 (shown with an asterisk) is from d¹ to e flat¹ (a¹ to b flat¹ for f horn), which moves between a 2/3 stopped note and a fully open note. Both notes would require some approximation to achieve a trill that sounds correct. The horn would not be likely to overbalance the singer, since the use of a crook that does not correspond with the key of the music means that the horn part contains many stopped notes - a total of 27 stopped notes in the first 15 measures. The orchestration is quite transparent, so even though there are many stopped notes, the horn would have no trouble projecting over the strings and woodwinds. It is clear from Spontini's writing that he knew both what was idiomatic for orchestral horns as well as what was possible for soloists, and he made full use of both.

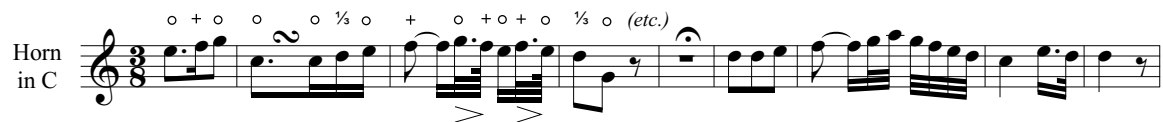
Duvernoy's *Divertissement No 4* for horn in F and piano demonstrates many of Duvernoy's theories about horn playing. It is written for the natural horn in F, but is in the written key of G. It is written in four sections: a *cantabile* introduction, an Allegro section in written G major (sounding C major), an Allegretto in written G minor (sounding G minor), and an expanded return of the Allegro section.

Example 3a. Duvernoy, *4^{eme} Divertissement*, Cantabile, mm. 2-10, as written for horn in F, hand positions added

Horn in F

The only lyrical section is the opening introduction, and the rest of the piece is quite technical. The range covers just over two octaves, from written f# to g² for F horn, sitting squarely in the range of a *cor mixte*. The *Divertissement* has many phrases that begin on stopped notes, and these are by choice - Duvernoy could have written the piece for a crook that matched the key, and the color of the piece would be completely different.

Example 3b. Duvernoy, *4^{eme} Divertissement, Cantabile*, mm. 2-10, rewritten for horn in C, hand positions added



To demonstrate how much extra hand stopping is caused by using the F crook, Example 3b shows what the opening phrase (Example 3a) would look like on the tonic crook of C. There are many fewer stopped notes, and they are all in the usual places in the middle of the phrase between open notes, rather than at the beginning and end of the phrases. However, the C crook is not a typical solo crook, and would put much of the writing out of *cor mixte* range. Using the C crook also results in more extreme changes of color, since most of the notes are either open or completely stopped. The F crook has the effect of making most of the notes somewhat stopped, with more gradual hand position changes between the pitches, resulting in a more even, covered, sound.

Example 4. Duvernoy, *4^{eme} Divertissement*, Allegretto, mm. 122-125, hand positions added

Musical notation for Example 4: Horn in F, 2/4 time, measures 122-125. The notation includes dynamic markings *fz* and *f*, and hand position symbols: $\frac{3}{8}$, \emptyset , \circ , $\frac{1}{8}$, \circ , \emptyset , \circ , $+$, \circ , $+$, \circ , $+$, $+$.

There is some very intricate hand stopping required in the allegretto movement. (See Example 4.) This piece overall has more instances of c sharp ¹, d¹ and f¹ than any other piece studied, and these pitches, which are fully stopped, are among the most difficult to play centered and in tune. There is technique that is similar to and more challenging than the Spontini solo throughout the piece, for example, in Example 5.

Example 5. Duvernoy, *4^{eme} Divertissement*, Allegretto, mm. 136-146

Musical notation for Example 5: Horn in F, 2/4 time, measures 136-146. The notation includes dynamic marking *f* and multiple triplet markings.

There is only one trill, and one ornament in the entire piece. However, there are many triplets which at the quick tempo require similarl challenging hand stopping to Spontini’s ornaments. Duvernoy writes some chromatic passages that are in the same range as Spontini, and would prepare a player for the same challenge in the Spontini solo

(see Example 5). There are also passages with intervals similar to those found in the *La Vestale* solo, with the same difficulties resulting from stopped notes. (Example 6)

Example 6. Duvernoy, *4^{eme} Divertissement*, Allegretto, mm. 105-112



There is no skill missing from Duvernoy's *Divertissement* that would be required of Spontini's orchestral horn player with the possible exception of range. The orchestral parts do not go out of the normal horn range, but there is an instance of horn in A playing a written a², so a command of the high register is required. This is higher than the Duvernoy solo goes, and could indicate that range is a missing element in the training of Duvernoy's students. The *Divertissement* is a challenging and varied piece. There is lyrical playing, fast hand technique, arpeggios, chromatic notes, and varied intervals. The music is in a different key from the crook. The virtuosity required to play this solo would well prepare a student to perform both the solo and the orchestral parts in Spontini's *La Vestale*.

Chapter 7: Dauprat & Berlioz

Louis-François Dauprat, *Deux Solos et un duo pour premier et second cor op 12* (1818)

1. “Solo de second cor” cor en Ré
2. “Solo de premier cor” cor en Sol
3. “Duo pour premier et second cor”

Hector Berlioz, *Symphonie fantastique, Op. 14* (1830-1)

Louis-François Dauprat (1781-1868) has been discussed in detail earlier in this paper, but his *Method for Cor Alto and Cor Basse* warrants extra consideration. His method gives an idea of the meticulous attention to detail that Dauprat brought to his composition, and it presumably also had a great deal of influence on the horn writing of Berlioz.

While Dauprat was an exceptional horn player and musician, he made his mark through teaching and composition. His works for solo horn and piano and for horn ensembles serve as examples for composers who wish to understand the capabilities and limitations of the hand horn. His method of 1824 provides more explicit instruction, with the third section titled “For Young Composers: Instructions on the horn and its different crooks or interchangeable parts, on the resources of the instrument and the way they may be used in solos and in simple and obligato accompaniment both of the voice and of other instruments, and in music for several horns, whether unaccompanied or within the orchestra.”⁶³ This part of the method does indeed cover everything he mentions, in great detail, and with relevant examples, in order to “leave out nothing that might be relevant.”⁶⁴

⁶³ Dauprat, *Method*, 369.

⁶⁴ *Ibid.*, 370.

Dauprat was clearly a traditionalist, in that he wrote this hand horn treatise at a time when valves were being developed and used and accepted, and he is conservative in his advice to composers about how to use the horn. He advises against using the horn unnecessarily, to add to the “noise”⁶⁵ of a piece, but also has no patience for composers who use the horn in such a way that it has no chance of being heard. Dauprat defines factitious notes as “those...that cannot be played without closing the bell to some degree with the hand; and ‘natural’ notes, those that are produced open, that is to say, without the help of the hand.”⁶⁶ He points out that the factitious notes are particularly difficult to make project, so these are to be avoided within full orchestrations. He strongly advises against using the high crooks for extended periods, so as not to tire the player “mercilessly”, and gives some examples that merit his approval from scores by Gluck and Haydn. He states that composers must always make it clear whether the C and Bb crooks are alto or basso. Otherwise the lazy player will make the easiest choice, and the difference in timbre between the highest and lowest crooks is vast, possibly ruining the composer’s desired effect.

Dauprat writes about the superior effect of using sections of horns in different keys, giving a richer sound and also minimizing the overlap of factitious notes within the horn section. This is as true in his opinion when writing for two horns as for writing for six, as evidenced in his ensemble pieces. In fact, Dauprat suggests that even pieces that are written for a section of horns all in one key could be better presented if one or more

⁶⁵ Dauprat, *Method*, 370.

⁶⁶ *Ibid.*, 376.

of the players chose a different crook and transposed. (He notes that the educated composer should do this himself, but it is presented as an option for the players if the composer did not take the opportunity.) The interest that comes from using different crooks also makes the horn timbre difficult to characterize: “‘The horn,’ says J. J. Rousseau, ‘is sonorous, majestic, and suited to expressions of grandeur.’ The character of an instrument evidently derives from its timbre, but in the case of the horn, this timbre is modified by the different crooks. Therefore, it is difficult to be precise or even to generalize about the character of the horn.”⁶⁷

The method includes a great deal of discussion of the abilities of the *cor alto* compared to that of the *cor basse*, and of the poor results achieved when the ideal range of each “genre” is exceeded. Dauprat gives charts of the ranges on each crook for each genre, and also gives examples of how to approach very high and very low notes for best results. The terms *cor alto* and *cor basse* were quite controversial at the time of writing. It seems very likely that Dauprat was in favour of this system of labelling as opposed to calling the players “first” horn and “second” horn due to his status as a *cor basse*, which sounds more complimentary than “second horn”.

Composers can write for the hand horn without taking the stopped notes into account, but there is no guarantee of a satisfactory performance. A skilled composer plays to the skills of the instrument whenever possible by knowing the effects of stopped notes and when and how to use them to best effect. Dauprat contends that factitious notes should not be lingered upon and therefore are best used in passagework at a quick tempo.

⁶⁷ Dauprat, *Method*, 371.

He gives many instructions on how to use the factitious notes, for example: “One should not end on the factitious notes F, F#, and A, nor attack them without preparation. These notes would be ineffectual and uselessly tiring to the player if used otherwise than in entrances of the sort mentioned above.”⁶⁸ He also addresses the natural notes: “The B flat is in tune only as the fourth note in the subdominant scale or as the dissonance of a diminished fifth, minor seventh, or diminished seventh. In all other contexts it sounds too low, and must be used only in a *forte*. The player is advised that opening the bell wider and tightening the lips are means by which one raises the pitch.”⁶⁹

Dauprat advises restraint in writing for the horn, so that the composer will not be disappointed with the results. One can see evidence of this restraint in the compositions of Dauprat and his students, and even in the writing of Anton Reicha, with whom he studied composition. Dauprat used most of the high and low crooks for his solos and ensemble pieces, but wrote shorter pieces for the higher crooks and used the extreme high range with care to avoid tiring the player. Dauprat states that Reicha’s horn trios make such excellent use of the instrument that they could almost have been written by an expert horn player.⁷⁰ Dauprat was not the most innovative composer for the horn, but his pieces are well-crafted and satisfying to perform. While this approach would never have brought us to the place horn playing is now, it may have minimized the number of horn parts that are difficult without the end reward of sounding good.

⁶⁸ Dauprat, *Method*, 378. Note: F, F# and A = f², f#² and a².

⁶⁹ *Ibid.*, 378.

⁷⁰ *Ibid.*, 436.

Hector Berlioz (1803-1869) moved to Paris in 1821 to study medicine, but instead ended up studying composition with professors Jean François Le Sueur and Reicha of the Paris Conservatory. He won the Prix de Rome in 1830, the same year that he composed his *Symphonie fantastique*, which was premiered at the Paris Conservatory in December of 1830.⁷¹ He became librarian there in 1839. Berlioz wrote his *Treatise on Instrumentation* in 1848, and it has been used by composers ever since. His section on the hand horn remains relevant with the resurgent interest in period performance, although Richard Strauss calls it completely outdated in his editorial notes to the revised edition of 1948. The section that Berlioz wrote regarding the value of using horns in different keys is indebted to Dauprat. Berlioz, like Dauprat, considers the valve horn a separate instrument, and the two instruments have separate sections in the *Treatise*. He also makes mention of the effect of the mouthpiece and the comfort of a player within a certain range, with a vague reference to the “genres” of horn players: “some horn players who use a wide mouthpiece and are mainly experienced in playing the lower tones cannot produce the higher ones; others who use a narrow mouthpiece are only accustomed to playing higher tones.”⁷² Berlioz, like Dauprat, was comfortable with the distinction between the two types of horn players and advocated writing for them in a way that best suits their skills.

⁷¹ Hugh Macdonald. "Berlioz, Hector." *Grove Music Online. Oxford Music Online*. Oxford University Press, accessed March 18, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/51424pg2>.

⁷² Hector Berlioz and Richard Strauss, *Treatise on Instrumentation* trans. Theodore Front (1948; repr., New York, NY: Dover Publications, 1991), 247.

The orchestration “rules” that Berlioz states in his treatise are very similar to those that Dauprat wrote about in his method. Berlioz advises combining horns on different crooks to achieve a goal of no more than one stopped note per chord (except for effect). He describes in detail the different timbres of each different crook, and gives examples of their uses. Composers are instructed to prepare stopped notes carefully, paying close attention to the quality of the sound compared to the surrounding notes, and Berlioz indicates that the relatively lower volume of a stopped note means that the composer should consider whether it will be heard in the orchestration and context.⁷³ He recommends that a horn part not move from one stopped note to another, and he carefully outlines which open notes are good, both high and low, and in what context.⁷⁴ Although Berlioz is known for being a master orchestrator, he still chose to write for the natural horn; this could be due to his knowledge and appreciation of the variety of timbres available through different crooks and hand technique. Later, Berlioz realized that the valved horn was becoming more standard and revised the horn parts, specifying that some sections should be played as if without valves, and these are marked *sans cylindres*. The beginning of the fourth movement of *Symphonie fantastique* is a clear example of Berlioz wanting the hand horn sound, and he writes in the score: “Faites les sons bouchés avec la main sans employer les cylindres.” (Make the stopped sounds with the hand without using the valves.) He seems to have embraced the ability of the valved horn to play any note stopped or open, and wrote some passages in the revised edition with

⁷³ Berlioz, *Treatise on Instrumentation*, 247-259.

⁷⁴ *Ibid.*, 248.

stopped notes that can only be achieved on the valved horn. For example, in the fifth movement, both the second horn and the fourth horn have a written c^1 , an open note, marked “bouché avec les cylindres”. The treatise advises composers to indicate which notes should be stopped, rather than leaving the choice up to the performer.⁷⁵ Berlioz scholar Hugh MacDonald writes that Berlioz was “the first to put forward the view that is now universal but was then revolutionarily new: that music should be performed according to the taste of the composer and not the taste of the conductor or audience, that it should be enshrined in its own period and not brought up to date.”⁷⁶ The *Symphonie fantastique* is a snapshot of the state of the instruments of the orchestra at exactly the time that Berlioz wrote it. Brass instruments were undergoing exciting technical advancements at the time the *Symphonie fantastique* was written, but Berlioz appreciated all of the instruments available at the time for their individual contributions to orchestral sound. He was forward thinking, his horn writing bridges the transition from hand horn to valved horn, and he was very influential in bringing new instruments into the orchestra. This is one of the first important scores that required valved brass, and yet it also includes parts for ophicleides and natural trumpets. A modern performance of the piece loses much of the color and interest that Berlioz wrote into it by glossing over the “crucial tension between new and old”⁷⁷ that comes from a brand new piece incorporating both new and old instruments.

⁷⁵ Berlioz, *Treatise on Instrumentation*, 260.

⁷⁶ John Eliot Gardiner, liner notes to *Berlioz: Symphonie Fantastique*, John Eliot Gardiner and Orchestre Révolutionnaire et Romantique, (Philips 434 402-2, CD, 1993), 4

⁷⁷ *Ibid.*, 1.

Berlioz wrote *Symphonie fantastique* for a section of four horns in different keys. Typically they are arranged with the first pair of horns in one key and the second pair in another. The exception comes in the third movement, and includes a mid-movement crook change. The horn keys in each movement are as follows:

- Movement I: E flat, E flat, C basso, C basso
- Movement II: E, E, C basso, C basso
- Movement III: F, F, E flat changing to F, C basso
- Movement IV: B flat basso, B flat basso, E flat, E flat
- Movement V: E flat, E flat, C basso, C basso

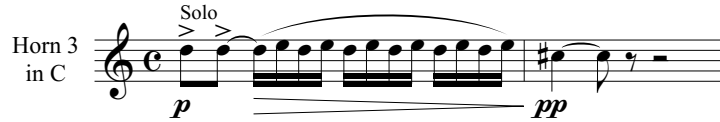
Nothing in *Symphonie fantastique* is as virtuosic as the solo in *La Vestale*, although there are occasional passages that require some degree of technical facility. This example (Example 7) from the second movement is one of the most difficult in the piece due to speed and hand stopping, and it is doubled in the first and second horns.

Example 7. Berlioz, *Symphonie fantastique*, “*Un bal*”, Allegro non troppo, mm. 257-264



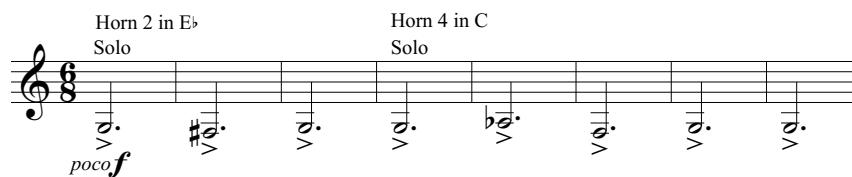
The third and fourth horns have limited technically-demanding passages, and the solo from the first movement (Example 8) is about as difficult as the third horn part gets. This passage may appear trivial, but it is exposed and achieving a controlled oscillation between open pitches on the hand horn is more difficult than it looks. It requires a high level of finesse on valved horn, and even more so on natural horn, especially when the diminuendo throughout is taken into account.

Example 8. Berlioz, *Symphonie fantastique*, “*Rêveries, Passions*”, Largo, mm. 54-55



There are low stopped notes, and Berlioz is careful to prepare them from an open note and often reinforces the horns with the lower strings. In Example 9 the cello and bass sections are playing the same notes as the second and fourth horns. The horns are in two different keys, and the only open pitch in this passage is g. These notes work well when approached from the open g, and the forte dynamic helps with stability and projection. The second horn pitches are not available on the C crook (they would be written g and f#), and the fourth horn pitches are not good on the E flat crook (they would be written e, f and d), which is why the part is divided between the two horns.

Example 9. Berlioz, *Symphonie fantastique*, “*Songe d’une nuit du Sabbat*”, Allegro, un peu retenu, mm. 348-355



Berlioz does not write many middle-range stopped notes unless they are part of a scalar melody, surrounded by open notes. He is adept at combining crooks in keys that allow the pairs to play in similar ranges but to have different open pitches available, and exploits this both melodically and harmonically. When using the horn as a melodic instrument, as in Example 9, Berlioz can divide up the notes and distribute them to the crook that is best suited to playing the required pitches. In his harmonic writing, Berlioz

can influence the color of a chord by choosing the number of stopped and open notes.

(See Example 10.)

Example 10. Berlioz, *Symphonie fantastique*, “*Rêveries, Passions*”, Allegro agitato e appassionato assai, mm. 133-142, hand positions added

The musical score for Example 10 consists of two staves: Horns 1 & 2 in E \flat and Horns 3 & 4 in C. The music is in 2/4 time and spans measures 133 to 142. The dynamics are marked as *ffp*, *fp*, *pp*, *ff*, *dim.*, and *ff*. Hand positions are indicated by circles with numbers 1, 2, or 3, representing stopped notes. The score shows a sequence of chords with varying dynamics and hand positions, illustrating the use of stopped notes to create a wider range of sounds.

Berlioz also uses the dynamics along with the hand position to create an even wider range of sounds. Sometimes he reinforces the dynamics with the hand position, for instance enhancing a diminuendo by using more stopped notes on the quieter chords. (See Example 10.) In this example he ignores his own advice and has up to three stopped notes per chord, and this makes the dynamic difference between forte and piano even more dramatic.

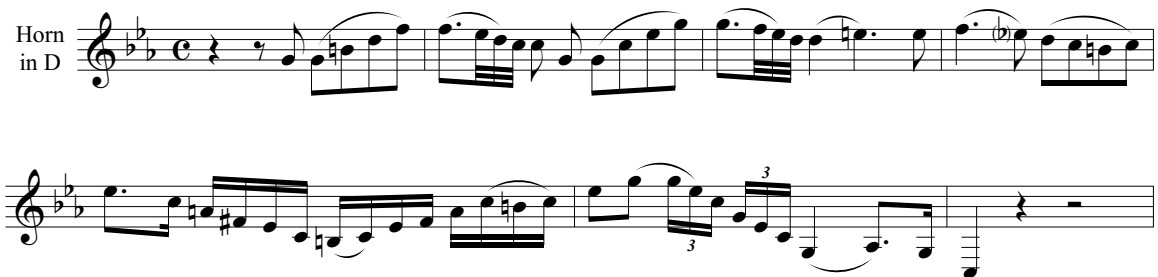
Example 11. Berlioz, *Symphonie fantastique*, “*Rêveries, Passions*”, Largo, mm. 24-28

The musical score for Example 11 is for Horn 1 in E \flat , measures 24-28. It is marked as a solo and features dynamic markings of *pp*, *sf*, and *p*. Hand positions are indicated by circles with numbers 1, 2, or 3, representing stopped notes. The score shows a sequence of notes with varying dynamics and hand positions, illustrating the use of stopped notes to create a wider range of sounds.

An excellent example of Berlioz working with the natural tendencies of the instrument is found in the first movement, where the melody starts quietly on a stopped note, crescendos to a sforzato on an open note (c²), and makes a diminuendo back to a stopped note (f¹). (See Example 11.)

In Dauprat's solos, both the high and low player must have excellent technique for the quick scales, frequent arpeggios and intricate hand stopping. The Op. 12 second horn solo covers the full range from written c to c³, and goes above the *cor basse* range (g²) in eight separate instances. The most chromatic playing occurs in the middle Adagio section, and here the melody covers a very wide range, from c (m. 80) to b flat² (m. 71, not shown) as well as some delicate hand stopping. (See Example 12.)

Example 12. Dauprat, Solo de second cor, Op. 12, Adagio, mm. 74-80



The Solo de premier cor has an introductory adagio section followed by three movements: Allegro poco vivace, Poco adagio, and Tempo primo allegro. The first horn solo is written for horn in G, and while it sounds higher than the second horn solo in D, it goes above g² only six times. Dauprat demonstrates his awareness of the endurance issues associated with the higher crooks and is careful not to tire the player unnecessarily. This solo never goes below b, but does make extensive use of the middle register; there is a prominent, fully stopped, forte d¹ (shown with an asterisk) in the Adagio movement, in the midst of some very intricate hand stopping. (See Example 13.)

Example 13. Dauprat, Solo de premier cor, Op. 12, Poco adagio, mm. 115-129

The image shows three staves of musical notation for Horn in G. The first staff is in 3/4 time and features a trill (tr) on the first note, followed by a triplet of eighth notes, and another triplet of eighth notes. The second staff continues with a slur over a series of notes, ending with a fermata (Fermé) and a forte (f) dynamic. The third staff begins with a trill (tr) on the first note, followed by a triplet of eighth notes, and a forte (f) dynamic. There is also an asterisk (*) above a note in the third staff.

Both solos have phrases that begin on stopped notes. The *cor alto* solo also has instances of slurs written that would have to be tongued to avoid glissandi when moving between stopped and open notes. (m. 18-22). In Example 14 the only slurs that can be played without tonguing are between e^2 and d^2 , and d^2 and c^2 .

Example 14. Dauprat, Solo de premier cor, Op. 12, Allegro poco vivace, mm. 18-23

The image shows a single staff of musical notation for Horn in G. It begins with a trill (tr) on the first note, followed by a series of slurs over eighth and sixteenth notes.

Both pieces require trills at the ends of phrases as well as in the middle of phrases as melodic embellishment. The high solo and the low solo both contain turns in fast movements as well as slow movements. Aside from the range, the two solos make similar demands; both solos are in the key that matches the crook and move away from the tonic. As a result both solos require hand stopping in melodic writing with prominent middle range stopped notes and some phrases that use a significant number of stopped notes, most notably in examples 12 and 13.

Dauprat included a duet for first and second horns in his Op. 12, and the first horn is again in G while the second horn plays in D. The music is in G and D, and works through modulations between these keys. Although this duet was not used as an examination piece, it is evident that Dauprat was aware of the skills required to play in a section of horns in different keys. The different crooks mean that the players would have to work to match timbre and intonation. Because the two crooks are different this is important preparation for playing an orchestral piece by Berlioz.

Neither piece has many dynamics written, leaving most of these decisions to the performer. It seems counterintuitive that a composer as particular as Dauprat about color and crook would leave other important musical decisions up to the player. One can assume that the player would make decisions based on what worked and sounded the best on the horn depending on speed and amounts of hand stopping, working with the natural tendencies of the instrument, but there is always the possibility that the player would take the easier and not necessarily more musical route.

Dauprat and Berlioz had similar approaches to writing for horns. They were both thoughtful composers, who were interested in making the instruments sound their best at all times and in taking advantage of the wide variety of sounds available. The horn writing in *Symphonie fantastique* is by turns lyrical, technical, delicate, brash, high, low, loud, and soft, and makes effective use of stopped notes. Dauprat covers these skills in his solos, although it takes two pieces to cover the entire range of the horn, just as it takes the whole section of four horns to cover it in *Symphonie fantastique*. The duet movement makes each player perform in a key that does not match the crook, and work through

modulations between the keys of the crooks. He writes melodic sections that require complex hand stopping and fast articulated technical sections, and uses the high range for both first and second horns and the low range of the second horn. A Paris Conservatory horn student would have been very well prepared for an orchestral career.

Chapter 8: Gallay & Bellini

Jacques-François Gallay, *9th Solo for Horn and Piano, Op. 39,*

12th Solo for Horn and Piano, Op. 55

Vincenzo Bellini, *I Capuleti e i Montecchi*, (1830)

Act I aria *Oh Quante Volte*,

Examples from the beginning of Act 1

By the time Jacques-François Gallay (1795-1864) was professor of hand horn at the Conservatory, a number of comprehensive methods for the horn had been written, and there was general agreement about how to play the horn. Gallay wrote his own complete *Méthode pour le cor* in 1845, reiterating many accepted ideas about playing the horn, but he differed from his teacher, Dauprat, on a few key issues. For example, he was in favour of the terminology “first” and “second” horn, rather than “high” and “low” (as advocated by Dauprat,)⁷⁸ perhaps because Gallay was a “first” horn player. Gallay used many of his own melodies, duets, and exercises to teach the horn. He was adamant that students not attempt the extreme low and extreme high notes until they could play all the notes leading to the top and bottom of the range with a strong embouchure. Another notable difference from Dauprat is his approach to lip trills. Gallay advocates using only the tongue to oscillate between notes, and states that the player should not move his lips at all to change the notes.⁷⁹ Gallay also used and taught a more open hand position in the bell. Rather than restraining the strong pitches to balance things out, as favored by Duvernoy and most other methods, Gallay suggests that beginning with a more open hand position allows the player to make the closed notes less stopped, contributing to a more overall

⁷⁸ Coar, *A Critical Study*, 89.

⁷⁹ Ibid., 93 and Morley-Pegge, *The French Horn*, 100

open sound.⁸⁰ Gallyay advises the student on matters of musical expression, and focusses especially on the potential of the stopped notes, either on their own or when mixed with open notes. He wrote entire passages of stopped notes in solos, and was convinced by the reaction to his performances of these pieces that they were more than acceptable to the audience, and that he had therefore added a new dimension to the potential of the horn.

Vincenzo Bellini (1801-1835) was born into a musical family and had a wide variety of musical experiences in both composition and performance early in life. He enrolled at the Naples conservatory in 1819 on a scholarship, and studied with the generally conservative professors there, while also being exposed to the more contemporary style of composers such as Rossini. Fame came to Bellini when he accepted an invitation to compose for Milan's *Teatro alla Scala*. There, he met his most frequent librettist, Felice Romani, and wrote most of his best-known works, including *Norma* and *La sonnambula*. These works are still performed today.

Bellini wrote *I Capuleti e i Montecchi* in 1830 during a period when he travelled to England and France working on foreign performances of his operas, and he spent much of 1833-1834 in Paris. He premiered *I puritani* at the Théâtre Italien, where Gallyay was the principal horn, in 1835, and was working toward a contract at the Opera, when he died.

Most of the horn writing in *I Capuleti* is classical. The four horns are either in two pairs in two keys, or all in the same key. They generally play "horn fifths," padding, or fanfares. There is a prominent part in the Sinfonia for four horns in D, in a hunting style,

⁸⁰ Jacques François Gallyay, *Méthode pour le cor*, (Paris: 1845), 8.

but it still consists of traditional almost entirely open-note horn intervals, known as horn fifths. (Example 15) Stopped notes are used in a completely conventional manner, and nothing is out of the ordinary realm of traditional classical horn playing.

Example 15. Bellini, *I Capuleti*, Act I Sinfonia, mm. 13-21

1 & 3
Horns in D
2 & 4

However, the horn writing changes style in the Act I aria “*Oh Quante Volte*”. The aria is introduced by a solo in the first horn, playing the E flat crook in the written key of C major (sounding E flat), a very common solo horn crook and key. (See Example 16.)

Example 16. Bellini, *I Capuleti*, Act I, No. 4, “*Oh Quante Volte*”, mm. 6-18

Horn
in Eb
p espress.

*

3 3

The melody is lyrical and vocal, building in intensity to a fermata and cadenza that leads to the soprano entry. The same passage returns partway through the aria and functions as an obligato under the soprano solo. The end is slightly varied, and the horn ends on a fermata rather than continuing with the cadenza, leaving the soprano to finish the aria.

The interaction between horn and soprano is very similar to that in the *La Vestale* aria.

Bellini's solo horn part has a few chromatic notes, and lies in the best register of the horn (written g^1 to a^2). The stopped notes are in expressive places (for example the downbeat d sharp² appoggiatura on m. 13, resolving to e^2 on beat three) and do not interfere with the balance of the melody. There is a leap to a stopped f^2 (indicated with an asterisk), but it comes in measure 12, when the key is well established, so while the minor seventh is a large leap to a stopped note, the player has context for what the pitch sounds like. Gallay's writings suggest that he would have played this whole passage quite open and therefore would not have had to stop the f^2 very much to play it in tune. There is both an a flat² and an a^2 at the end of the cadenza, and with an open hand position, the a^2 could be played stopped while the a flat² could be played open.

Gallay performed at the Théâtre Italien regularly, and was well versed in operatic-style playing. It is likely that he played the solo in Bellini's *I Capuleti* when it premiered in Paris. Gallay wrote a number of solos for horn and piano, mostly for the solo crooks F and E flat. The 9th Solo, Op. 39, is for horn in F, and the 12th Solo, Op. 55, is for horn in E flat. Solos written for these crooks have the advantage of being comfortable to play while keeping the solo horn tone and projecting well. His early solos tended to be quite simple melodically and made straight-forward use of the stopped notes, diatonically and as chromatic passing or non-harmonic tones. Solos 9 and 12 were written well into Gallay's composing career, and show some sophistication in terms of the amount of hand stopping, use of minor and other related keys, and melodic expression. By the 9th Solo he wrote a melody that is comprised almost entirely of stopped notes.

Gallay generally matched the key of the piece to the key of the crook. For passages like the one in Solo #12 (Example 17), the keys match, which allows for a mostly open sound and quick passage-work. When the crook matches the key, the music appears in written C major.

Example 17. Gallay, 12^{eme} Solo, Allegro moderato, mm. 101-106



One exception is the middle section of Solo #9, which modulates from written G major (dominant of the horn crooked in F) to written B major, which makes the following melody almost entirely stopped. There are only ten instances of an open note in the entire sixteen measures shown in Example 18. Rather than a melody based in written C major, where the main notes are open, the change of key results in the main notes of the melody being stopped.

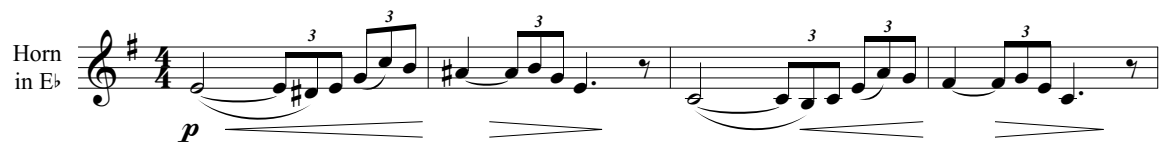
Example 18. Gallay, 9^e Solo, Un poco piu ritenuto, mm. 135-150 (open notes shown)



Solo #12 is crooked in E flat, and begins in written c minor. It modulates to the written key of e minor partway through, adding a complexity to both the harmonic

language and the horn sound of the piece. A modulation like this has the effect of changing the location of the stopped notes to different scale degrees of the tonality, adding to the variety of timbres, thereby creating interest and contrast between the sections. (See Example 19.)

Example 19. Gally, 12^{eme} Solo, Largamente, mm. 119-122



He often matches the dynamic to the hand position, writing soft dynamics for more closed passages, and keeping the louder dynamics for the mostly open sections, and in this way he uses the tendencies of the horn to emphasize the contrast between open and stopped sounds.

Example 20. Gally, 9^e Solo, Allegro moderato, mm. 219-255, hand positions added



It is interesting that none of these solos goes above a written a², barely out of the range of a *cor mixte*. Although Gally was a *cor alto*, perhaps he believed that he had created enough interest through timbral variety by use of the stopped notes to combat the homogeneity that came from sticking to the range of a *cor mixte*.

The two Gally solos chosen demonstrate the breadth of skills required for a hand horn player of the period. Each piece makes extensive use of chromatic passages, ornamentation, and quick scales and arpeggios. Occasionally, the music modulates to a key that requires almost continuous hand stopping, using the covered timbre as a contrast.

The slow sections generally contain the most chromatic notes, as well as many stopped notes on strong beats. These sections are also where the mid to low range stopped notes generally occur. The quick sections tend to be flashy and virtuosic, full of fast scales and sequences, fewer chromatic notes, and less stopping below g¹. While matching the dynamic to the natural tendencies of the horn does not challenge the player, it does demonstrate an understanding of the instrument on the part of the composer. Although the fast movements are more impressive-sounding, the slower sections often contain delicate hand-stopping passages that require great precision of tone, articulation and pitch. The Bellini solo contains a cadenza, and Gally ends the first movement of his Solo #12 with a cadenza, which covers most of the range of the instrument. Like the Bellini cadenza, Gally writes in free time and includes chromatic pitches, and these similarities result in excellent preparation for the Bellini cadenza.

The demands of the Gally solos certainly exceed those that Bellini makes in *I Capuleti*. The skills demanded by Gally in terms of scalar passages, chromatic notes, intervals, hand technique, and playing out of the tonic of the crook are far beyond those required for the solo of the Bellini opera, which itself is among the more difficult passages for horn of the time. There is no doubt that a player who could perform Gally's *morceaux de concours* would be well prepared for the opera solos and orchestral parts he would be likely to encounter on the job.

Chapter 9: Dukas, Saint-Saëns & Ravel

Ravel, *Pavane* (1910)

Saint-Saëns, Symphony No. 3 “Organ”, Op. 78, (1886)

Dukas, *The Sorcerer’s Apprentice* (1897)

Dukas, *Villanelle* (1906)

Maurice Ravel (1875-1937) was born outside of Paris but grew up in the city. His family encouraged his musical interests and he had piano and harmony lessons from an early age. Ravel had a tense relationship with the Conservatory; he was a student on piano and won first prize in 1891, but was dismissed from his classes in 1895, presumably for not making enough progress.⁸¹ He later reentered the Conservatory to study composition with Fauré and counterpoint with Gédalge, but in spite of composing some major works during his studies, he was dismissed from the composition class in 1900 without winning any prizes. Ravel was an open-minded and curious musician with an interest in all types of music and literature, and this made him a poor fit for the Conservatory education.⁸² He left the Conservatory for good in 1903, the same year that the valve horn replaced the hand horn as the principal instrument for horn players there.

Camille Saint-Saëns (1835-1921) began studying the piano at age three. He studied organ at the Paris Conservatory beginning in 1848, and he won the *premier prix* in 1851. He also studied composition, orchestration, accompaniment and voice. Saint-Saëns was a strong advocate for music from all eras, including Bach, Handel, Mozart,

⁸¹ Barbara L. Kelly. "Ravel, Maurice." *Grove Music Online. Oxford Music Online*. Oxford University Press, accessed March 31, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/52145>.

⁸² *Ibid.*

Schumann, and Wagner. His wide interests made him an interesting and inspiring teacher.⁸³

Paul Dukas (1865-1935) was born and died in Paris. He studied at the Paris Conservatory from 1882-9, and won second prize in the Prix de Rome in 1888. He was professor of composition at the Conservatory from 1928. Dukas studied composition with Guiraud, and together with Saint-Saëns, completed an opera left unfinished by Guiraud.⁸⁴ He was also a careful and respected music critic, and his writing showed that he was attuned to the ways that contemporary culture and music was changing. His first review was of Wagner's *Ring* in London in 1892.⁸⁵ Dukas was not a particularly prolific composer, and he destroyed any pieces that did not meet his high standards.

Ravel's *Pavane pour une infante défunte* was written in 1910, and is an orchestration of a piano piece. It is one of the last pieces written for hand horns. "His fascination with the past and with the exotic resulted in music of a distinctively French sensibility and refinement."⁸⁶ The piece opens with a deceptively simple and beautiful melody in the first horn, accompanied by the second horn, and some very precise hand-stopping is required to keep the melody smooth and the timbres matched. The second part

⁸³ Sabina Teller Ratner, et al. "Saint-Saëns, Camille." *Grove Music Online. Oxford Music Online*. Oxford University Press, accessed February 24, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/24335>.

⁸⁴ Kennedy, *The Concise Oxford Dictionary of Music*, 191

⁸⁵ Manuela Schwartz and G.W. Hopkins. "Dukas, Paul." *Grove Music Online. Oxford Music Online*. Oxford University Press, accessed February 24, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/08282>.

⁸⁶ Barbara L. Kelly. "Ravel, Maurice." *Grove Music Online. Oxford Music Online*. Oxford University Press, accessed March 31, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/52145>.

has some low stopped notes, including several instances of e flat¹ and b. (See Example 21.)

Example 21. Ravel, *Pavane pour une infante défunte*, Lent, mm. 1-11

The image shows a musical score for Horns 1 & 2 in G. The top staff is labeled 'Horns 1 & 2 in G' and features a melodic line with various ornaments (circles and pluses) above it. The bottom staff shows a more complex melodic line with similar ornaments. Dynamic markings include *pp* and *ppp* *expressif*. The score is in 3/4 time and consists of 11 measures.

Saint-Saëns' Third Symphony was commissioned by the Philharmonic Society in 1886.⁸⁷ He wrote the piece for four horns, with horns 1 and 2 using natural horns, and horns 3 and 4 using valve horns. The natural horn parts move through the keys of C basso, E, and E flat, and consist of harmonic padding, fanfares, which generally would not have challenged a player a century earlier. The valve horn parts are in F throughout and are vastly different. The valve horn parts play melodies with various sections of the orchestra, solos, chromatic passages, and high range notes. The natural horn parts sit lower as they spend most of the piece in a lower key, and there are passages where the first two horns play a lead role because they can play the required notes. The four horns are used together at the end of the piece, where the first and third, and the second and fourth, play in unison (Example 22). The two pairs of horn parts will be evaluated separately.

⁸⁷ Sabina Teller Ratner, et al. "Saint-Saëns, Camille." *Grove Music Online*. Oxford Music Online. Oxford University Press, accessed February 24, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/24335>.

Example 22. Saint-Saëns, Symphony No. 3, II, Allegro, stringendo, mm. 631-640

The image shows a musical score for two horn parts. The top part is for Horns 1 & 2 in C, and the bottom part is for Horns 3 & 4 in F. Both parts start with a *ff* dynamic marking. The Horns 1 & 2 part features a series of chords and a melodic line with staccato articulation. The Horns 3 & 4 part features a series of chords and a melodic line with staccato articulation. The score concludes with a *ff* dynamic marking and a staccato articulation.

In the first two horn parts, there are several examples of quick tonguing and the occasional larger leap (Example 23).

Example 23. Saint-Saëns, Symphony No. 3, I, Allegro moderato, mm. 252-253

The image shows a musical score for Horns 1 & 2 in C. The score is in 8/8 time and features a series of chords and a melodic line with staccato articulation. The score concludes with a *ff* dynamic marking and a staccato articulation.

Infrequently, phrases begin with a stopped note. The second horn has some long, quiet, low notes: a written g, and a written C on C basso crook, but there is nothing very high in either part. First horn goes up to g^2 , second horn goes up to a^2 . Most of the melodies are found in the valved horn parts, but the second horn plays a melody at the beginning of the second movement, in unison with the bassoon, because it is crooked in E flat, which is the crook that best matches the notes. The most interesting part in the first two horn parts is a prominent melody (Example 24), and although it is melodic material and rather quick, there is nothing difficult about it from a hand-stopping perspective.

Example 24. Saint-Saëns, Symphony No. 3, II, Allegro, mm. 413-419

Musical notation for Horns 1 & 2 in C, 4/4 time. The passage begins with a forte (*f*) dynamic and a first overtone (*à 2*) marking. The melody consists of eighth and quarter notes, with some chords and rests.

The third and fourth horn parts also require occasional quick, tongued leaps (Example 25).

Example 25. Saint-Saëns, Symphony No. 3, I, Allegro moderato, mm. 249-253

Musical notation for Horns 3 & 4 in F, 6/8 time. The passage features a fortissimo (*ff*) dynamic and a first overtone (*à 2*) marking. The texture is dense with sixteenth-note patterns.

They also play more in the high range. Third horn goes the highest, to an *a*² and *b flat*². Fourth horn is sustained in the high register as well, up to an *a*², perhaps showing a shift toward use of *cor mixte*. The A major passage in horn 3 (Example 26) is a clear example of the valve horn providing a completely different color to a passage, since a written A major arpeggio on hand horn would be almost entirely stopped.

Example 26. Saint-Saëns, Symphony No. 3, II, Allegro, mm. 438-440

Musical notation for Horn 3 in F, C major. The passage features a mezzo-forte (*mf*) dynamic. The melody is a chromatic arpeggio: C4, D4, E4, F4, G4, A4, B4, C5.

There are many chromatic passages that would have been playable on hand horn, but are much more easily handled with valves.

Example 27. Saint-Saëns, Symphony No. 3, I, Allegro moderato, mm. 67-68

Musical notation for Horns 3 & 4 in F, 6/8 time. The passage features a mezzo-forte (*mf*) dynamic and a forte (*f*) dynamic. The melody is a chromatic arpeggio: F3, G3, A3, B3, C4, D4, E4, F4.

Both valve horn parts have numerous melodic passages, often doubled in other instruments, but occasionally solo. Because of the valves, Saint-Saëns is able to use the horn on wide-ranging melodies that use both the middle and upper register, keeping the timbre uniform throughout (Examples 28 and 29).

Example 28. Saint-Saëns, Symphony No. 3, I, Allegro moderato, mm. 254-267

Horns
3 & 4
in F

à 2
sempre ff

fff

Example 29. Saint-Saëns, Symphony No. 3, I, Poco adagio, mm. 366-377

Horn 3
in F

p *poco cresc.*

p

Saint-Saëns also has the third horn play an *a*¹ stopped (II, m.453), demonstrating an attachment to all of the available colors.

Dukas' *Sorcerer's Apprentice* makes much more use of the technique available on the valve horn. All four horn parts have agile fingering and tonguing, sometimes in four separate parts, most often in two pairs. Some passages would have been all but impossible without the use of valves (Example 30).

Example 30. Dukas, The Sorcerer's Apprentice, Vif, mm. 778-811

1 & 3
Horns in F
2 & 4

ff ouverts

ff très marqué

à 4

In the opening of the piece, the first horn plays a phrase that echoes the flute, and Dukas calls for the echo horn effect, and he gives fingering instructions: “*prenez le doigté un demi-ton au dessus*” (finger the note a semi-tone higher) (Example 31). Echo horn is a technique that is similar to hand stopping. The effect is achieved by having the hand cover the bell to the point where the sound is muffled but not completely closed. Each note is played with the hand in this position, and it causes the notes to be approximately a semi-tone lower than fingered. As it does on the hand horn, having the hand in this mostly-closed position makes the fingering and pitch irregular, and also causes the horn to respond in a very different way. Dukas’ instructions to finger a semi-tone higher only work for certain hand and bell combinations (depending on the size of the hand and the size of the bell), and many players have to work out personal fingerings for a passage such as this.

Example 31. Dukas, The Sorcerer's Apprentice, Assez lent, mm. 20-22

Horn 1
in F

Solo

pp sons d'écho (prenez le doigté un ½ ton au dessus)

Dukas also writes for stopped horn, *fortissimo*. (Example 32) On the valved horn, stopped notes are played with the hand in the fully closed position. This hand position causes the pitch to rise by a semi-tone, so the player fingers all notes down one semi-tone, unless a player's hand and bell combination requires different fingering.

Example 32. Dukas, The Sorcerer's Apprentice, Vif, mm. 23-32

Horns
1 & 2
in F

Bouchés *ff*

sf dim. *p*

Dukas wrote the exam piece for the horn class of the Paris Conservatory in 1903, *Villanelle*, and incorporated substantial sections for both hand horn and valve horn. This was appropriate for a time when players at the Conservatory were finally making the transition to valves, even while the hand horn was still being taught. This piece represents the last exam for the hand horn class, and after 1903 the school taught only valve horn. The piece does not allow time between sections to switch horns, so presumably the player would be using a valve horn throughout, ignoring the valves for the opening and penultimate sections.

The *Villanelle* covers the required technique for both hand horn and valve horn. The opening section is quite similar to that of Ravel's Pavane. They cover the same

range, and both require clean legato playing. The first hand horn section is in the written key of C major, with several chromatic passages requiring a great deal of hand-stopping. (See Example 33.)

Example 33. Dukas, *Villanelle*, Très modéré, mm. 10-31

The articulation is marked legato, with some chromatic scales, and both of these elements contribute to the difficulty, as the hand changes from open to closed and closed to open need to be tongued for a clean pitch change. The second hand-horn section, found near the end of the piece, has the only trill in the piece. There are some small leaps to stopped notes. The tessitura stays in the middle and high range of the horn, and avoids the most difficult pitches to hand stop; there are no instances of d^1 or f^1 in the hand horn sections. The dynamic range goes from pianissimo to forte, and the sections with the most stopped notes are also the quietest. The hand horn section covers the basics of hand horn playing, as seems appropriate for a horn class making the transition to valves.

The section for valved horn, which is the majority of the piece, covers a three-octave range, with low melodies, agile articulation, the full dynamic range, and a flourish of arpeggios to finish the piece on a high C. Dukas also requires the player to use the

echo horn technique, as found and described in *The Sorcerer's Apprentice*. The echo horn section is much more extensive in *Villanelle*, and it requires a great deal of dynamic control from the player when the passages shifts from echo horn to open and the dynamic decreases to pianissimo. This is a rare example of the dynamic working against the horn, which naturally gets louder when adjusting the hand from echo position. (See Example 34.)

Example 34. Dukas, *Villanelle*, Très vif, mm. 159-168

The tune itself cycles through a few different scales, so the fingers are fully tested.

The tonguing is quick and the range is wide. (Example 35)

Example 35. Dukas, *Villanelle*, Très vif, mm. 209-225

There are also quick slurred passages, both scalar and disjunct, throughout the piece. The piece does not have many rests, and while it covers the whole range the tessitura is generally high. There are many more long, sustained melodies in the Saint-Saëns

symphony than the valve horn section of the Dukas exam piece, but the solo is certainly taxing enough to test a player's endurance.

The *Villanelle* certainly covers any technical requirements that Ravel's *Pavane*, Saint-Saëns' Third Symphony, and Dukas' *The Sorcerer's Apprentice* present. The hand horn section, while not as extensive as a Duvernoy, Dauprat or Gallay solo, prepares a player for the solo in the Ravel, and is more than adequate for covering the first two horn parts of the Saint-Saëns "Organ" Symphony. The valve horn section of *Villanelle* presents similar difficulties to the third and fourth parts in the symphony and to *The Sorcerer's Apprentice*.

Chapter 10: Conclusion

The professors at the Conservatory during the hand horn era had a clear idea of the level of proficiency required to be a professional horn player, since they were all performers as well as teachers. The solos that they wrote or commissioned were intended to evaluate the success of the education program. Generally speaking, the challenges of the solos studied meet or exceed the difficulties presented by the representative orchestral repertoire of the time. The Conservatory examination solos are more likely to work against the natural dynamic tendencies of the instrument than the representative orchestral pieces, forcing the player to have a wider dynamic range available to achieve the desired results, which is necessary for performance in an orchestral situation. The only skill not clearly covered by the *morceaux de concours* is range. The only solo studied that covers the entire range of the instrument is *Villanelle*, which seems fitting as players moved away from the designations of *cor alto* and *cor basse* toward the modern approach of learning the whole range of the F horn. The orchestral pieces often exceed the range of the solos, especially if high or low crooks are used. The final hand horn examination piece required the students to have a working knowledge of the hand horn even as the Conservatory made the transition to valved horns, and this familiarity would have been very useful for the new “extended” techniques of stopped and echo horn required on the valved horn. The area where the solos of Duvernoy, Dauprat and Gallay clearly outstrip the orchestral writing is hand technique. The hand stopping skills demanded by the *morceaux de concours* far exceed those required by a section player of the period by a significant amount. The orchestral solos of Spontini and Bellini were

much more advanced than their section writing, but from a hand-stopping perspective were still less sophisticated than the contemporaneous *morceaux de concours*. Perhaps composers come closer to the limits on range because they are easily quantified and described. Conversely, exploiting the full potential of hand stopping requires an intimate knowledge of the instrument, because the limits are more subjective and nuanced. Composers who were knowledgeable about the horn and its players often made the best use of the horn, and wrote parts that rather than being only difficult, were idiomatic and well-suited to the instrument.

If almost any phrase of any *morceaux de concours* were written in an orchestral work, it would likely be the most difficult horn solo in the piece. The fact that horn professors push students to be technically over-prepared serves the players well; a student typically has much more time to practice solo pieces than a professional has while working, so it makes sense for a program to be thorough about covering and exceeding all possible skills while there is less time pressure. Obviously, orchestral playing involves more factors that are beyond the player's control than solo playing, such as the horn section, the rest of the orchestra, the conductor, and soloists. The player has so much other information to process that it is advisable to have surplus technique. Having the necessary playing technique mastered allows the player to focus on the other skills involved in orchestral playing.

The professors at the Paris Conservatory contributed to the development of horn playing through their performances, their compositions, and their method books. The level of hand horn playing reached a Golden Age due to their unwavering advocacy of

the instrument. Many beautiful and challenging pieces of horn writing were created for and by these professors, and horn players can be forever grateful to the conservatory system that allowed these great players to become pedagogues and composers, and to pass along their knowledge to the horn players of the future. Certainly the instrument needed these refined players and composers to take its position as “the most refined and poetical voice in the symphony orchestra.”⁸⁸

⁸⁸ Morley-Pegge, *The French Horn*, 11.

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