



Academy of Music and Drama

An Exploration of Tone and Vibrato on the Flute in relation to the French Flute School of the Early Twentieth Century

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Abstract

Keywords: Flute, Vibrato, French Flute School, *Madrigal*, *Carmen*, Orchestral Excerpts, Orchestral Flute Playing, Flute Technique, Flute Sound.

Developing and improving sound quality on the flute is one of the fundamental areas of study for all flautists and vibrato is a key issue with regards to this. The flautists associated with the French Flute School mark a turning point in the history of flute playing and through studying historical recordings it is possible to hear the legacy they left behind. This thesis combines a study of these recordings with my own experimentations of vibrato and sound and results in three of my own recordings of the works discussed, (Gaubert's *Madrigal*; "Entr'acte" to Act III of Bizet's *Carmen*; and an excerpt from Brahms' *Symphony No. 4*) with detailed considerations about both the process and the result.

Contents

Introduction	4
1. A Brief History of the Development of Modern Flute Vibrato	6
1.1 The French Flute School	7
2. Gaubert <i>Madrigal</i> : An exploration of tone and vibrato in light of Gaubert's interpretation	9
2.1 Background.....	9
2.2 Analysis of Gaubert's playing	10
2.3 Analysis of my own interpretations	15
3. "Entr'acte" to Act III of Bizet's <i>Carmen</i> : An exploration of tone and vibrato in light of <i>Opéra-Comique</i> recording.....	17
3.1 Background.....	17
3.2 Analysis of the 1928 recording.....	17
3.3 Analysis of my own recordings.....	19
4. Other repertoire that benefits from this study: Brahms <i>Symphony No. 4</i> in E minor, 4 th Movement.....	21
4.1 My Recordings of Brahms <i>Symphony No. 4</i> , 4 th Movement	21
4.2 Practicing Method	22
4.3 Result.....	23
5. Conclusion	24
Bibliography	26

Recordings

Audio 1 – Initial recording of myself playing Gaubert’s *Madrigal* prior to any study of the recording made by Gaubert

Audio 2 – An experimental version of Gaubert’s *Madrigal* with more variation in the use of and speed of the vibrato I use

Audio 3 – A final version of Gaubert’s *Madrigal* after studying the French School attitudes and the recording made by Gaubert himself

Audio 4 – Initial recording of the “Entr’acte” to Act III of Bizet’s *Carmen* excerpt, before any study of the 1928 *Orchestre et Chœurs de l’opéra-Comique* version

Audio 5 – An experimental version of the *Carmen* excerpt using continuous vibrato

Audio 6 – A final version of the *Carmen* excerpt after studying the 1928 *Orchestre et Chœurs de l’opéra-Comique* version and making my own variations in the use of vibrato

Audio 7 – A version of the flute excerpt from the 4th movement of Brahms’ *Symphony No. 4* with no variation in the use of vibrato, only dynamic nuances

Audio 8 – A recording demonstrating my practicing methods for this excerpt

Audio 9 – A final version of this excerpt after practicing in the manner demonstrated in the previous recording, varying vibrato to aid the dynamic nuances

Introduction

During my daily flute practice much of my focus is on improving my tone and vibrato, working to achieve different colours and depths in my sound in order to create more contrast between different pieces and excerpts. This has become even more of a focus for me in my second year of study for my Masters degree and has definitely been the biggest challenge in my playing to date. Many of the exercises I have been using to address this issue are composed by flautists associated with the French School and Pairs Conservatoire in the late nineteenth and early twentieth century, including those found in the Taffanel & Gaubert *Méthode Complète de Flûte* (1923)¹ and Marcel Moyse's numerous etudes and methods. What is now referred to as the 'French Flute School' and the attitudes associated with it originated in the style of playing associated with 'Claude-Paul Taffanel (1844-1908) and his pupils at the Paris Conservatoire at the turn of the twentieth century',² and was most notable for its innovative attitudes towards sound, including a 'preoccupation with tone'.³ By studying this aspect of flute playing I wish to expand my tools for expression, enabling me to enrich my sound quality and draw inspiration from the school of flautists who instigated the search for 'homogeneity of tone throughout the three octaves and...fullness of sonority'.⁴

The overall purpose of this thesis is to explore sound and vibrato in my flute playing, relating it to the ideas prevalent in the flautists associated with the French Flute School in order to provide me with a wider range of inspiration to create contrast in my own interpretations of pieces and excerpts. I wish to explore how my attitudes to tone and vibrato differ to the ideas prevalent in the playing of the flautists associated with the French Flute School through studying a variety of recordings made by flautists teaching and studying at the Paris Conservatoire in the early twentieth century. *The Flute on Record, 1902-1940* is an invaluable collection of a variety of flute recordings made approximately one hundred years ago, including those by French flautists.⁵ After listening to this CD I was inspired to compare some of these versions with my own interpretations in order to assess how my attitudes to tone and vibrato differ to those of flautists playing at the beginning of the twentieth century. I believed it would be of great benefit to my own playing to study and explore the attitudes prevalent at the turn of the twentieth century, broadening my knowledge of both solo and orchestral repertoire.

I have recorded myself performing an initial interpretation of Gaubert's *Madrigal*, to assess how I would approach repertoire from this period without any prior knowledge or study of

¹ Taffanel, Paul, and Gaubert Philippe. *Méthode Complète de Flûte*. Paris: Alphonse Leduc, 1923.

² Ardal Powell, *The Flute*, Yale University Press, Yale, 2002, 208.

³ Powell, *The Flute*, 208.

⁴ Claude Dorgeuille, *The French Flute School 1860-1950*, trans. Edward Blakeman, Tony Bingham, London, 1986, 49.

⁵ *The Flute on Record: 1902-1940*, Folkers & Powell FP001, New York, 2002, compact disc.

the attitudes of the French School. I have also produced a second recording of myself playing the piece in order to compare how I can incorporate elements from the French School style with my own. I have used a similar method in my approach to the 1928 recording of the performance of the *Entr'acte* to Act III from Bizet's *Carmen*, recorded by the *Orchestre et Chœurs de l'opéra-Comique* under conductor Élie Cohen.⁶ This is a piece often required as an orchestral excerpt in auditions for flute jobs with a huge variety of professional orchestras, so it is a key piece of repertoire for me to be studying. Like with Gaubert's *Madrigal*, I have made an initial recording of myself playing this excerpt by Bizet, in an interpretation made without any prior study of the French School attitudes or the recording made by the *Orchestre et Chœurs de l'opéra-Comique* in 1928. I then analysed this recording and the tone quality and interpretative ideas used by the flautist, and made a second recording of myself playing the excerpt, noting what differences I have made and what it has enabled me to learn and understand with reference to my sound and use of vibrato.

In addition to a strong focus on tone quality, diversification of repertoire was another key issue for flautists in the Paris Conservatoire at the turn of the twentieth century, with many praising Taffanel for 'purifying the solo flute repertoire'.⁷ By exploring the repertoire through my own playing I will address the issue of how I can alter my tone and vibrato for different pieces and excerpts in order to create more character in my playing and to assimilate my ideas to the attitudes of Taffanel, Gaubert and the other great flautists of the French School.

There are many invaluable sources regarding historical information about the French Flute School; most relevant for my work was Claude Dorgeuille's *The French Flute School 1860-1950* (1986) and Ardal Powell's *The Flute* (2002). For more detailed information about the development of the flute before the twentieth century, Maria Bania's dissertation "*Sweetenings*" and "*Babylonish Gabble*": *Flute Vibrato and Articulation of Fast Passages in the 18th and 19th Centuries* (2008) is one of the sources that gives intricate detail about historical performance practice on the flute in the whole of Europe, including vibrato methods, and there are many other flautists who have performed and recorded themselves and their study methods. This thesis differs in that it is a flautist's investigation into the use of vibrato and sound through listening, playing and recording. The result is documented in sound files, in addition to detailed comments.

⁶ Élie Cohen and Orchestre et Chœurs de l'opéra-Comique, *Carmen*, Malibran Music, 1928.

⁷ Dorgeuille, *The French Flute School 1860-1950*, 14.

1. A Brief History of the Development of Modern Flute Vibrato

In *The Simple Flute*, published in 2002, Debost states that one of the main purposes of vibrato is 'to animate the tone',⁸ and 'should almost always be used'⁹ on notes of varying length. This is the widely accepted view in flute playing today, but historical evidence suggests that at the turn of the twentieth century reception of vibrato was a much debated issue. Marcel Moysé (1889-1984) provided a particularly unreceptive account against the use of vibrato by flautists: 'Vibrato? It was worse than cholera. Young vibrato partisans were referred to as criminals. Judgements were final with no appeal. It was ruthless.'¹⁰ This highlights the prevalent attitude to vibrato at the turn of the twentieth century, and demonstrates how revolutionary the subsequent ideas presented by the emerging French Flute School were. Despite obviously being aware of the seriously negative reactions to the use of continuous vibrato in flute playing, Moysé's own sound has been described as even more revolutionary than that of his three teachers, Taffanel, Gaubert and Adolphe Hennebains (1862-1914). Alfred Cortot, an accompanist in Taffanel's flute class in 1906, specifically commented on the 'emotional language'¹¹ of Moysé's flute playing, with 'colour-mixtures previously unheard'¹² and a resonance 'like the human voice, rather than any other instrument'.¹³ More detailed analysis of Moysé's vibrato in particular is found in the subsequent section of this thesis, but here it is sufficient to say that all flautists associated with the French Flute School, beginning with Taffanel, presented innovative attitudes towards vibrato and tone quality in their flute playing, compared to the style of playing in previous centuries.

Philips claims that the use of vibrato 'as an enhancing of tone [on wind instruments] as opposed to an ornament, was unknown until its development by flautists of the Paris Conservatoire at the very end of the nineteenth century'.¹⁴ Prior to the use of continuous vibrato by the French School, vibrato had been used as an ornament, something that is preserved today in many historically informed performances of early music.

During the nineteenth century the use of vibrato and tone quality in general became much more of a national phenomenon in France, Germany and England respectively.¹⁵ In 1838, Victor Coche presented a paper to the Paris Conservatoire entitled *A Critical Examination of the comparison between the ordinary flute and the Boehm flute*, in which he highlighted

⁸ Michel Debost, *The Simple Flute: From A to Z*, Oxford University Press, Oxford, 2002, 261.

⁹ Debost, *The Simple Flute*, 262.

¹⁰ Maria Bania, "Sweetenings" and "Babylonish Gabble": *Flute Vibrato and Articulation of Fast Passages in the 18th and 19th Centuries*, ArtMonitor University of Gothenburg, Gothenburg, 2008, 115.

¹¹ Alfred Cortot, cited in Dorgeuille, *The French Flute School 1860-1950*, 48.

¹² Alfred Cortot, cited in Dorgeuille, *The French Flute School 1860-1950*, 48.

¹³ Alfred Cortot, cited in Dorgeuille, *The French Flute School 1860-1950*, 48.

¹⁴ Powell, *The Flute*, 220.

¹⁵ Bania, "Sweetenings" and "Babylonish Gabble", 63.

problems with the traditional six-keyed flute, including uneven tone, difficult fingering and poor intonation.¹⁶ Gradually, the ring-keyed Boehm flute gained popularity, especially after Louis Dorus imposed it at the Paris Conservatoire in 1860.¹⁷ Bavarian Theobald Boehm's (1794-1881), newly developed scheme with the fourteen sound-holes 'gives perfection of tune, equality of tone throughout [and] increase of power because of the enlargement of the holes'.¹⁸ Under Dorus, Louis Lot (1807-1896) became official supplier of Boehm flutes to the Paris Conservatoire, and his silver flute became a 'defining characteristic of Parisian flute-playing'.¹⁹

1.1 The French Flute School

It was at the turn of the twentieth century in France that flute vibrato became integrated with quality of sound,²⁰ a statement which is supported by Louis Fleury, a student of Taffanel, who states that an 'almost imperceptible *vibrato*'²¹ is used in the 'search for tone'.²² Marcel Moyse studied with Adolphe Hennebains (1862-1914) in addition to both Taffanel and Gaubert, and the similarity between both Gaubert and Moyse's playing in particular is very striking. The recording of Moyse playing an arrangement of 'The Swan' from Saint-Saëns's *Carnival of the Animals* (1886) for flute and piano²³ really shows off his deep, continuous vibrato, which directly compares to Gaubert's own sound in his 1919 recording of *Madrigal*²⁴ (see below for more detailed analysis of this work and recording).

Despite there being no recordings of Taffanel's flute playing there are notes and discussions from his students making reference to his attitudes and to his sound quality. Student Georges Barrère (1876-1944) stated that Taffanel reputedly rejected the use of 'endless vibrato'.²⁵ However, from Hennebains' description of Taffanel speaking to his students about the use of vibrato or expression, he stated that 'these notes...seemed to come from within himself. One had the impression that they came directly from the heart or soul'.²⁶ The fact that Taffanel was freely speaking to his students about the use of vibrato as a means of expression demonstrates that he himself is likely to have played with some continuous vibrato.

¹⁶ Dorgeuille, *The French Flute School 1860-1950*, 14.

¹⁷ Dorgeuille, *The French Flute School 1860-1950*, 14.

¹⁸ T. Lea Southgate, "The Evolution of the Flute." *Proceedings of the Musical Association*, no. 34 (1907): 170.

¹⁹ Powell, *The Flute*, 215.

²⁰ Bania, "Sweetenings" and "Babylonish Gabble", 115.

²¹ Bania, "Sweetenings" and "Babylonish Gabble", 113.

²² Bania, "Sweetenings" and "Babylonish Gabble", 113.

²³ Moyse, Marcel. *Carnival of the Animals "The Swan,"* n.d. <https://www.youtube.com/watch?v=louIrF4NZVo>.

²⁴ *The Flute on Record, 1902-1940*. CD. FP001. New York: Folkers & Powell, 2002, Track 10.

²⁵ Byrne, "Tooters and Tutors: Flute Performance Practice Derived from Pedagogical Treatises of the Paris Conservatoire 1838-1927", 314, quoted in Bania, "Sweetenings" and "Babylonish Gabble", 113.

²⁶ Moyse, "The Unsolvable problem: Considerations on Flute Vibrato" *Woodwind Magazine* 7 (1950), quoted in Bania, "Sweetenings" and "Babylonish Gabble", 113.

Moyse gives a particularly detailed insight into his thought process regarding his use of vibrato as a means of expression and enhancement of the music. He insists that a 'vibrato appropriate to the general sense of the phrase, intensified on certain notes or passages, suppressed and discreet on others, according to the fluctuations of the said phrase, is as necessary to the interpretation as that employed judiciously by a good actor to convey a poem...'²⁷ He also comments on what he coins the 'resistance' of wind players to the use of vibrato 50 years earlier, admitting that at the time it was fully justified, but due to the increasingly expressive role of the flute in twentieth century music it was necessary to adjust the tone accordingly, in this case through the use of vibrato.²⁸

A later article, 'Expression Unconfined', written by French flautist Georges Barrère in 1944 presents the other extreme; by the middle of the twentieth century it is clear that he is concerned that vibrato has come to be accepted as the only way of playing, that music with a permanent vibrato is 'bound to win' and will 'cater to the masses'.²⁹ This is certainly coherent with attitudes today; before studying historical attitudes to flute vibrato, I would 'automatically' play every piece of music with predominantly continuous vibrato, without necessarily giving much thought to which, if any, notes or phrases should be played with more or less vibrato. Now, I realise that it is extremely important to carefully consider the musicality of each phrase, and how my use of vibrato is going to affect the portrayal of the music.

²⁷ Dorgeuille, *The French Flute School 1860-1950*, 101.

²⁸ Dorgeuille, *The French Flute School 1860-1950*, 101-102.

²⁹ Georges Barrères. "Expression Unconfined." *The Musical Quarterly* 30, no. 2 (April 1944): 193.

2. Gaubert *Madrigal*: An exploration of tone and vibrato in light of Gaubert's interpretation

2.1 Background

In addition to his work as both a flautist and conductor, Philippe Gaubert (1879-1941) was also a prolific composer of numerous works for flute.³⁰ Gaubert was a pupil of Taffanel for four years and also maintained a strong artistic relationship with Maurice Ravel (1875-1937),³¹ but is perhaps best remembered today for his *Méthode complète de Flûte* (Paris, 1923) completed in collaboration with Taffanel. Striving for a 'beautiful tone'³² was one of the key characteristics of the French School of flautists and Gaubert, professor at the Paris Conservatoire from 1920-1931, was no exception. Gaubert proclaimed that 'the breath is the soul of the flute; in other words, it is the fundamental point in the art of playing',³³ and this is evident through not just the recordings made by Gaubert himself but also by the music he composed for flute. *Madrigal* (1908) contains very long, *legato* phrases which present a challenge to the flautist with regards to breathing and offer opportunities to experiment with the use of vibrato.

Madrigal is one of Gaubert's earlier works for flute and piano; composed four years prior to the popular *Fantasia* (1912) and four years after his first *Flute Sonata* (1904) which was subsequently revised in 1917, suggesting perhaps that Gaubert felt a need to reflect a change in his compositional maturity. *Madrigal* shows striking similarities to César Franck's *Violin Sonata* in A major (1886), in particular the first movement '*Allegretto ben moderato*

Sonata in A Major

Allegretto ben moderato

The image shows a musical score for the first four bars of César Franck's Violin Sonata in A Major. The score is for Violin and Piano. The tempo is 'Allegretto ben moderato'. The key signature is A major (two sharps) and the time signature is 3/8. The piano part is marked 'pp'. The violin part has a melodic line with slurs. The piano part has a harmonic accompaniment with slurs. Below the piano part, there are four red annotations: V^o, V⁹₄, V^o, and V⁹₄.

Ex. 1 César Franck, Violin Sonata in A Major, *Allegretto ben moderato*, bars 1-4.

³⁰ Edward Blakeman. "Gaubert, Philippe." *Oxford Music Online*. Accessed May 15, 2016.

³¹ Powell, *The Flute*, 221.

³² Dorgeuille, *The French Flute School*, 49.

³³ Dorgeuille, *The French Flute School*, 44.

Moderato'.³⁴ The four bar piano introduction in Gaubert's *Madrigal* is remarkably similar to the opening four bars of Franck's *Violin Sonata*; a lilting piano melody is present in both, as is the use of chromatic harmony (see the harmonic analysis in Ex. 1). The first four bars of Franck's *Violin Sonata* contains just one ninth chord alternating between root position and second inversion (Ex. 1); Gaubert begins *Madrigal* with a ninth chord resolving to a diatonic D major chord (Ex. 2), thus extending the idea set out originally by Franck in 1886.



Ex. 2 Philippe Gaubert, *Madrigal*, 1908, bars 1-4.

2.2 Analysis of Gaubert's playing

Gaubert's own performance of this piece was recorded in 1919 in Paris³⁵ and has been transferred by Susan Nelson, who states in the sleeve notes that 'filtering and equalisation were minimised to preserve as much of the instrumental sound as possible'.³⁶ Whilst we are obviously playing on different instruments, it should be noted that the flute Gaubert is playing and my own are not so different as to cause a problem when making a comparison of sound quality and use of vibrato. The only obvious hindrance is the sound quality of the recording; having been made in 1919 it is not surprising to hear that the recording transferred by Nelson is not crystal clear, however it is perfectly adequate for me to use in this comparison. Gaubert's recording was made at a time when the use of the Boehm silver flute was becoming more and more common practice and the tone quality he uses was becoming more established. This way of playing was the beginning of how we play now; therefore it is not a problem to make a comparison of sound and vibrato between a recording made on an early twentieth century flute and my own.

It is evident from listening to the recording that Gaubert plays with a very fast, intense vibrato. It is present almost continuously, and starts from the very beginning of the note,

³⁴ César Franck, *Violin Sonata in A Major*, New York: G. Schirmer Inc., 1915.

³⁵ *The Flute on Record, 1902-1940*, CD, FP001, Folkers & Powell, New York, 2002, Track 10.

³⁶ *The Flute on Record, 1902-1940*, CD, FP001, Folkers & Powell, New York, 2002, Sleeve Notes.

and in most cases lasts the entire note value. The first significant change in the use of vibrato comes in bar 22 on the first and second beats (Ex. 3).

The image displays three systems of musical notation for Philippe Gaubert's *Madrigal*, 1908, bars 19-27. The notation is in G major and 3/4 time. The first system shows the beginning of the phrase with a fast vibrato. The second system is marked 'Più mosso' and 'p', showing a change in tempo and dynamics. The third system is marked 'a Tempo' and 'p', showing a return to the original tempo and dynamics. The score includes a vocal line and a piano accompaniment with triplets and slurs.

Ex. 3 Philippe Gaubert, *Madrigal*, 1908, bars 19-27.

This note marks the end of the first section, with a surprising change of harmony; the first chord in the cadential progression is a dominant seventh, which sounds very much like a preparation for a perfect cadence in A major. However, instead the harmony shifts to the relative minor, F# minor. Gaubert begins the first note of bar 22, the final note of the phrase, with no vibrato, which comes as a surprise after the fast continuous vibrato that was used thus far. Over the two beats of this minim Gaubert develops the sound and adds very slow vibrato towards the end of the note. This is the opposite of what I would normally consider doing when playing the final note of a phrase; my aim would be to begin the note with some vibrato and then phrase off by reducing the vibrato, in some cases to nothing. The technique employed by Gaubert here works by creating a stark contrast in sound quality

to what he used in the previous section, and the lack of vibrato at the beginning of the 'A' in bar 22 really highlights the shift in harmony to the relative minor.

In the section following this, marked *Piú mosso*, Gaubert uses faster and lighter vibrato, most likely in order to help to convey the change in character of the music; the result is a more playful and vibrant sound. In contrast to the end of the phrase at bar 22, the end of this phrase stays in a major key (E major) and the final note continues to be played with vibrato as no contrast is demanded by the harmonic writing.

The image displays a musical score for Philippe Gaubert's *Madrigal*, 1908, specifically bars 37-45. The score is written for voice and piano. It is in the key of E major and 3/4 time. The score is organized into three systems of staves. The first system shows a melodic line in the upper voice and piano accompaniment. The second system includes markings for 'rit.' and 'a Tempo' in both the upper and lower voices. The third system continues the melodic and piano parts, ending with a 'mf' dynamic marking.

Ex. 4 Philippe Gaubert, *Madrigal*, 1908, bars 37-45.

From bar 38 (Ex. 4) the writing for flute moves up in pitch, with *legato*, melodic lines predominantly in the second and third octaves of the instrument. Here, Gaubert's tone quality changes significantly; in the passage from bar 38-45 (see Ex. 4) the vibrato is even more intense and is present on almost every note, even through the unmarked *stringendo* semiquaver passages in bars 39 and 45. Despite the very fast and intense vibrato that Gaubert uses in these passages, the overall effect is good; the character is very light and the contrast in tone colour between the low register in the previous section, and the third octave from bar 38 is great. I would not normally consider playing very fast semiquaver passages with very fast vibrato; in fact I would most often aim to keep the tone colour very even rather than thinking about colouring every individual note. However, after listening to Gaubert's technique here, I believe I could add more contrast to my playing by taking more care with *every* note in the piece, not only thinking about my tone quality and vibrato for very long notes, but also for the short ones. This sounds like an obvious statement, but it is easy to develop an overall 'good' sound that works in all registers, and to forget about creating contrast and character on every note, however short.

In the upbeat to bar 62 the melody first heard in the opening phrases in the flute returns (Ex. 5), but this time, the conflict in tonality between dorian mode on A and G major, set up in the very opening bars of the piece reaches new heights; in bar 64 the melody in the flute is altered to include an F natural instead of F sharp, which outlines the natural form of the A minor scale. Gaubert adds emphasise to this interesting harmonic change by altering his sound; he plays each quaver very *marcato* and with no vibrato. The articulation in his recording is also different to that which is marked in the score; he begins by slurring the first four notes of the bar, but each note in the second half of the bar is clearly articulated with the tongue, which again adds emphasis.

The first system of the musical score consists of two staves. The upper staff is a vocal line in treble clef, starting with a half note G4, followed by quarter notes A4, B4, and C5, then a half note B4, and ending with a quarter note G4. The lower staff is a piano accompaniment in bass clef, featuring a series of triplets of eighth notes: G3-A3-B3, A3-B3-C4, B3-C4-D4, and C4-B3-A3. The key signature has one sharp (F#) and the time signature is common time (C).

The second system continues the piece. The vocal line begins with a whole rest, followed by a half note G4 marked with a piano (*p*) dynamic. The piano accompaniment continues with triplets of eighth notes: G3-A3-B3, A3-B3-C4, B3-C4-D4, and C4-B3-A3. A mezzo-forte (*mf*) dynamic marking appears over the first triplet. The system concludes with a quarter note G4 in the vocal line and a half note G3 in the piano accompaniment.

The third system shows a more complex vocal line. It starts with a half note G4, followed by quarter notes A4, B4, and C5, then a half note B4. The piano accompaniment features a melodic flourish in the vocal line: a sixteenth note G4, followed by a sixteenth note A4, then a sixteenth note B4, and a sixteenth note C5, all beamed together. The piano accompaniment consists of chords and single notes, with a mezzo-forte (*mf*) dynamic marking and a piano (*p*) dynamic marking. The system ends with a quarter note G4 in the vocal line and a half note G3 in the piano accompaniment.

The fourth system concludes the piece. The vocal line starts with a half note G4, followed by quarter notes A4, B4, and C5, then a half note B4, and ends with a quarter note G4 marked with a pianissimo (*pp*) dynamic. The piano accompaniment features a melodic flourish in the vocal line: a sixteenth note G4, followed by a sixteenth note A4, then a sixteenth note B4, and a sixteenth note C5, all beamed together. The piano accompaniment consists of chords and single notes, with a pianissimo (*pp*) dynamic marking. The system ends with a quarter note G4 in the vocal line and a half note G3 in the piano accompaniment.

Ex. 5 Philippe Gaubert, *Madrigal*, 1908, bars 58-73.

2.3 Analysis of my own interpretations

I have included three recordings of myself playing this piece:

- **Audio 1** – Initial recording of myself playing Gaubert's *Madrigal* prior to any study of the recording made by Gaubert
- **Audio 2** – An experimental version of Gaubert's *Madrigal* with more variation in the use of and speed of the vibrato I use
- **Audio 3** – A final version of Gaubert's *Madrigal* after studying the French School attitudes and the 1919 recording made by Gaubert himself

To begin my interpretation of this work, I made a recording of myself playing Gaubert's *Madrigal*, approaching the piece with no detailed knowledge of the French School attitudes and ideas (Audio 1). My aim in this initial recording was to assess how I would interpret Gaubert's writing with little prior knowledge of contemporary recordings and attitudes. After listening back to the recording, I observed that I make use of almost continuous vibrato in my playing and I aim for both tone and vibrato to be even across the range of the flute, which for the most part is achieved. Vibrato is used to enhance the overall sound throughout the range, rather than as colouration of individual notes within a phrase. From bar 22, marked *Piú mosso*, the character changes from the gentle, lyrical writing heard thus far to a lighter, more dance-like melody (see Ex. 3). Here, the tone in my recording gets lighter and the vibrato slightly faster in order to portray a different character through my playing. Increasing the speed of the vibrato enhances the sprightly character created through the introduction of spread chords in the piano accompaniment. Overall, this is an effective recording and interpretation of the work, but more contrast could be created through changing the tone colour and use of vibrato, which I hope to achieve through studying Gaubert's own recording, as well as more general French School attitudes.

In my second recording (Audio 2), I have tried to create more contrast in my sound quality through varying the use and speed of the vibrato I use. In the 1919 recording Gaubert makes use of extremely fast vibrato in some places. I have tried to take inspiration from the variety he achieves and have used contrasting vibrato to create different colours and characters throughout the piece. At the beginning of this recording the quality of my sound is disturbed by the focus on trying to play with continuous vibrato; the sound lacks depth particularly around the lower end of the middle register. The experimental nature of Audio 2 is audible; it is not a version I would be comfortable performing as the use of vibrato sounds too forced in places and too fast for my taste. However this was a very useful exercise and inspired me to make one final recording of this piece, making use of some ideas from the experimental version heard in Audio 2, as well as Gaubert's own version from 1919. This resulted in the recording heard in Audio 3.

After experimenting with faster and more continuous vibrato in Audio 2, my aim in the final recording was to play more comfortably and in a more relaxed manner whilst still retaining some of the inspiration from Gaubert's 1919 performance and my own practice. The sound is audibly much more relaxed and the vibrato is still present without sounding forced. In comparison to the first recording of this piece I made (Audio 1) the vibrato is a lot more continuous, particularly on the quaver and semiquaver passages.

Throughout this piece there are certain phrases that lend themselves to a quasi-echo effect. One such example is the phrase beginning with the upbeat to bar 28; this two bar section is repeated again in bar 30, but the harmonic writing is significant. The interval between the upbeat to bar 28 and the first beat of bar 28 is a minor third, (G# – B), but when this is repeated two bars later the beginning interval is a major third (Ab – C) (Ex. 6).

The image shows a musical score for Philippe Gaubert's *Madrigal*, 1908, bars 25-30. The score is in G major and 3/4 time. It features a vocal line and a piano accompaniment. The piano part includes triplets and a quasi-echo effect. Dynamics include 'a Tempo', 'p', and 'pp'.

Ex. 6 Philippe Gaubert, *Madrigal*, 1908, bars 25-30.

In order to emphasise this through my sound quality I tried to play the beginning of the phrase with continuous vibrato, as before, but for the repetition with the major third I removed the vibrato completely, and played the two bars without. This is similar to Gaubert's interpretation of the minim in bar 22; removing the vibrato completely really accentuates an interesting change of harmony.

Overall it is evident that challenging myself to change the way I think about my use of vibrato in a piece can produce interesting results and having the opportunity to experiment with inspiration from the composer himself performing the work is extremely valuable.

3. “Entr’acte” to Act III of Bizet’s *Carmen*: An exploration of tone and vibrato in light of *Opéra-Comique* recording

3.1 Background

The opera *Carmen* was completed by Georges Bizet (1838-1875) in 1875, and was premiered in the same year by the *Opéra-Comique* in Paris. The premiere of this opera shocked the audience, with his music being denounced as ‘wholly lacking in the spontaneity and melodic fertility of...‘inspired’ masters.’³⁷ Despite this, the scandalous subject matter actually ensured its continuation at the *Opéra-Comique*, with rumours quickly spreading that no more immoral subject had ever been staged there before.³⁸ In the present day, *Carmen* is one of the most popular operas to be staged, and various arias and excerpts have gained immense popularity and fame, something that Bizet may have found difficult, if not impossible, to imagine after reading the initial reviews among critics of the premiere.

One of the most famous excerpts from the opera is the “Entr’acte” to Act III, which includes one of the core orchestral repertoire solos for flute now required to be played and studied as an orchestral excerpt by flautists auditioning for most jobs and positions. It is an excerpt with a very lyrical character, perfect for demonstrating a flautist’s tone quality and dynamic control across a wide range of the flute. Below (Ex. 7) is a copy of the flute excerpt, presented as it is normally sent to flautists attending a job audition for an orchestra.

3.2 Analysis of the 1928 recording

The *Orchestre et Chœurs de l’opéra-Comique* made a recording of Bizet’s *Carmen* in 1928 under conductor Élie Cohen,³⁹ including the “Entr’acte” to Act III. By listening to the tone qualities of the flautist in this excerpt there is no doubt that in this recording it is being played by someone directly influenced or involved with the French School. The flautist in the recording is not credited, but it is likely to be Marcel Moyse who is known to have played with the orchestra on occasion at this time and took part in many recording sessions. The vibrato is fast and continuous and the sound has a very sweet and expressive quality to it, perfectly exemplifying ‘the brightness and richness [of tone quality] associated with the French School later in the century’.⁴⁰

Compared to the recording of Philippe Gaubert playing *Madrigal* for flute & piano, in which the vibrato was very fast and intense, the flautist in this recording manages to produce a sound which although rich, is still light and delicate. One of the fundamental characteristics

³⁷ John W. Klein, “Bizet’s Admirers and Detractors.” *Music & Letters* 19, no. 4 (1938): 408.

³⁸ Klein, “Bizet’s Admirers and Detractors”, 408.

³⁹ Élie Cohen and Orchestre et Chœurs de l’opéra-Comique, *Carmen*, Malibran Music, 1928.

⁴⁰ Philip, *Early Recordings and Musical Style*, 112.

of the French Flute School sound was believed to be the ability to ‘produce tones of lightness, sweetness and brilliance rather than emphasis or strength’,⁴¹ qualities which are illustrated in the tone of this particular recording.

Carmen

3. Akt 1. Bild
Vorspiel

Georges Bizet

Allegretto quasi Andantino [♩ = 60-72]

Solo

pp dolcissimo

① *ppp*

② *p* *p cresc.*

mf dim. *pp dim.* *pp smorz.*

Ex. 7. Georges Bizet, *Carmen*, “Entr’acte” to Act III, 1875, excerpt from current audition repertoire for Gothenburg Symphony Orchestra (2017).

The dynamic marking of *pianissimo* in the opening phrase of the flute solo (Ex. 7) is disregarded in this recording; the tone quality and *dolcissimo* character are more important. From the very beginning of every note the flautist plays with continuous vibrato, which in my opinion disrupts the phrasing somewhat; each note is placed very deliberately, with a very fast and continuous vibrato. Phrasing does seem to take more importance at the end of bar 12 into bar 13; the end of the main flute solo, before the duet with the clarinet.⁴² Here there is a *ritardando* and *diminuendo* and the vibrato becomes much slower, which helps to finish the phrase.

Despite this, overall the focus of the player appears to be on the sound quality of each individual note, rather than the phrase as a whole. The lack of variation in the colour of the sound gives the impression of a lack of phrasing; any dynamic variation is hindered by the exact use of the same vibrato on every note. Despite this, the use of continuous vibrato on

⁴¹ Powell, *The Flute*, 223.

⁴² It may be beneficial to also look at the full score for this “Entr’acte”, which is easily accessible online and can be found at <http://petrucci.mus.auth.gr/imglnks/usimg/f/f3/IMSLP30416-PMLP15769-Bizet-CarmenFScfp2.pdf>.

the three final entries of the first flute is more successful, perhaps due to the shorter phrase length.

3.3 Analysis of my own recordings

I have included three recordings of myself playing this excerpt:

- **Audio 4** – Initial recording of the excerpt, before any study of the 1928 *Orchestre et Chœurs de l'opéra-Comique* version
- **Audio 5** – An experimental version of the excerpt using continuous vibrato
- **Audio 6** – A final version of the excerpt after studying the 1928 *Orchestre et Chœurs de l'opéra-Comique* version and making my own variations in the use of vibrato

In the first version of this excerpt, Audio 4, I play with almost continuous vibrato, especially on the notes with long values, but like with the initial recording of Gaubert's *Madrigal* (Audio 1) the shorter notes sometimes lack vibrato completely or start with very little or none at all. The first notable time this occurs is in bar 4 on the triplet figure; all three notes in the triplet are played with no vibrato. As I discovered when experimenting with the vibrato in Gaubert's *Madrigal*, this is not a technique I intended to use, but when I play I do not think about using continuous vibrato on *every* single note, just as an overall effect. The outcome therefore is that some notes, especially in faster rhythms, are played with little vibrato or none at all, and this can be heard in my playing throughout this excerpt.

After studying the 1928 *Orchestre et Chœurs de l'opéra-Comique* version under Élie Cohen and discovering how much vibrato the flautist plays with in that particular recording, I decided to undertake an experiment and to record myself playing this excerpt with continuous vibrato on *every* note (Audio 5). I found this a very tiring way to play and like with the 1928 recording, the phrasing is less obvious to the listener than when there were more variations in the use of vibrato. It was difficult to achieve as many nuances within the *piano* or *pianissimo* dynamic markings, whilst still maintaining the continuous vibrato. Trying to make this recording has highlighted to me the necessity to be able to have the option to play with continuous vibrato, perhaps not for a whole excerpt like the *Carmen* "Entr'acte", but for certain shorter passages within an excerpt or piece and this is something that I feel I should work on in my practice time. In comparison to the 1928 recording, my vibrato is very slow and even more deliberate in character, which makes the phrasing even more indeterminable and is perhaps why it felt so difficult to maintain the musical line whilst playing. This was a good method to try, but it does not help the aesthetic of the excerpt. After discovering this, I returned to the practice room to try to create a more comfortable version whilst still pushing myself to use continuous vibrato on every note. This resulted in my final version of the excerpt, Audio 6.

My final goal was to complete a version of this excerpt that combined some ideas with regards to the use of vibrato that I had gained from studying the 1928 recording as well as

my own ideas prior to any of this study (Audio 6). In this recording the vibrato is more subtle than that used in the 1928 recording; in general it is much slower and it does not interrupt the flow of the phrase. Compared to my initial recording of this excerpt (Audio 4) there are fewer notes that lack vibrato completely, but I did not force myself to play every single note with continuous vibrato, as in the experimental version heard in Audio 5. In the initial recording of this excerpt (Audio 4) many notes began with little to no vibrato and I developed the vibrato as I continued to play the note; in Audio 6, I have tried to eliminate this and begin every note with vibrato, if I desire that note to be played with vibrato. This technique creates a much more successful overall effect; the phrasing is clear and is not hindered by too much vibrato or by an unnecessary lack of vibrato on some notes, and the dynamic nuances are more obvious due to the ability to vary the vibrato within a comfortable range.

4. Other repertoire that benefits from this study: Brahms *Symphony No. 4* in E minor, 4th Movement

It is not only the interpretations of repertoire from nineteenth and twentieth century France that can benefit from this study. Researching and learning about the attitudes towards tone and vibrato held by the flautists associated with the Paris Conservatoire at the turn of the twentieth century has made me change my approach to not only playing French repertoire and excerpts from that period, but all the music that I play. One of the prevalent themes in my flute lessons and practice in the second year of my Masters was trying to work on the ability to create more contrast in my sound quality through varying the use of vibrato within a piece, which tied in very well with my research for this thesis. This in turn should improve my ability to create more colours within my sound for all the repertoire I was studying, not just excerpts and pieces from twentieth century France.

4.1 My Recordings of Brahms *Symphony No. 4*, 4th Movement

One flute excerpt that lent itself to a very meticulous method of study with regards to vibrato was the passage in the fourth movement of Brahms' *Symphony No. 4* in E minor (Ex. 8).

Brahms, Op. 98. SYMPHONIE N^o IV. E moll. Flöte I.

2

The image shows a musical score for Flute I, Brahms Symphony No. 4, 4th movement, Excerpt 8. The score is in E minor, 2/2 time, and features a solo section marked 'p espressivo' and 'poco cresc.'. The score is written on three staves. The first staff begins with a 'Solo' marking and a tempo marking of '♩ = ♩'. The second staff continues the melody with various dynamics and articulations. The third staff concludes the excerpt with a final measure marked with a '2'.

Ex. 8. Johannes Brahms, *Symphony No. 4* in E minor, 4th movement, 1885, excerpt from current audition repertoire for Gothenburg Symphony Orchestra (2017).

I have made three recordings of this excerpt:

- **Audio 7** – A version of this excerpt with no variation in the use of vibrato, only dynamic nuances
- **Audio 8** – A recording demonstrating my practicing methods for this excerpt
- **Audio 9** – A final version of this excerpt after practicing in the manner demonstrated in the previous recording, varying vibrato to aid the dynamic nuances

4.2 Practicing Method

Upon analysing this excerpt, it is notable that there is very clear phrasing in the music. This is marked by the composer in the score, but it is also audible in musical line. Each phrase, despite varying in length, has a comparable shape; the phrase begins in softer dynamic, swells to the middle before dying away. This is not purely a reference to dynamic nuance; the musical shape and harmonic progressions support this. In order to fully convey this clear phrasing and dynamic contrast it is necessary not just to start *piano*, *crescendo* gradually to the middle of the phrase before making a *diminuendo* to phrase off. After studying both the Gaubert recording of *Madrigal* and the 1928 *Orchestre et Chœurs de l'opéra-Comique* recording of Bizet's *Carmen* and making the recordings of these pieces afterwards, I was well equipped to experiment with the use of vibrato here in this excerpt. Making good use of the dynamic markings would be effective to an extent, but to create an even more musical and expressive performance of this excerpt, it is necessary to vary the use of vibrato to support the dynamic changes and phrasing.

To support this theory, I have made a recording of myself playing this excerpt purely with dynamic nuance, without changing my use of vibrato at all (Audio 7). I play with continuous vibrato for the entire excerpt and I am happy with the overall quality of my sound. However, although there is some dynamic nuance in this recording, the contrast is not huge and the phrasing is slightly lost. To improve this, during my audition preparation for this piece I played each note very slowly and thought about exactly how much vibrato I wanted on each one in order to convey the way the phrase is moving and progressing each time. The nuances seen in the excerpt above should not only be expressed through dynamic fluctuation; my aim was to convey these through my use of vibrato.

Audio 8 is a recording of my practice method for this excerpt, experimenting with the use of vibrato to improve the dynamic fluctuation. Each phrase in this excerpt begins with little to no vibrato and gradually builds until the height of the phrase, the note with the most vibrato and then recedes until the phrase finishes with no vibrato. For example, from the beginning of the excerpt:



Ex. 9. Johannes Brahms, *Symphony No. 4* in E minor, 4th movement, 1885, excerpt from current audition repertoire for Gothenburg Symphony Orchestra (2017), bar 1.

The first note, E, is played with no vibrato. The following note, D#, also begins with no vibrato, but the sound develops throughout this note, and by the time the next E is played there is a small amount of vibrato in the sound. The vibrato continues to develop on this note, before the F# is played. This F# marks the high point of this phrase, and therefore has

the most vibrato, to add weight and emphasis to this phrasing. There is a very quick reduction in the amount of vibrato in the sound as soon the following note (G) is played. In order to end the phrase well and to help convey the *diminuendo*, throughout this note the use of vibrato diminishes, until the note ends with no vibrato.

Audio 8 continues in this fashion. The longer phrases are played with the same principle, beginning and ending with no vibrato, but the sound and vibrato develops more gradually over the entire phrase to the highest point and back down again, following the dynamic line. Practicing in this manner with a very free and slow tempo allows time to think in detail about the exact colour of every note in the excerpt, which in turn improves the overall flow and direction of the excerpt. Even in a slow tempo, compared to the version heard in Audio 7 with no change in the use of vibrato, the version in Audio 8 is much more musical; the dynamic fluctuations are more obvious, despite there being no effort to play louder or quieter on my part.

4.3 Result

After practicing and recording the excerpt in this free tempo and liking the outcome both in my mental impression of the excerpt and the physical result in the sound, the biggest challenge was to speed this process up and play the excerpt in tempo, whilst still retaining the successfully planned out changes in vibrato. My final recording of this excerpt (Audio 9) was made after practicing this method for some time. The excerpt is in tempo and contains much more audible dynamic fluctuation than the initial recording I made which lacked contrast in the vibrato (Audio 7). Due to the increase in tempo, the beginning of each phrase still does not always sound like it has no vibrato; this is something I would like to continue to practice to achieve even greater contrast. However, the phrase endings in this final recording are very successful; each phrase ends very quietly and tails off with no vibrato, exactly as I practiced it in Audio 8. This results in a very musical performance of this excerpt; instead of sounding like a string of individual notes, the phrases flow and the notes evolve gradually with the addition of vibrato and slowly diminish as the vibrato dies away and the phrase comes to an end.

This excerpt from the fourth movement of Brahms' *Symphony No. 4* is just one of the pieces in the flute repertoire that benefits from this study on vibrato. It has inspired me to continue to try and improve both my sound and musical interpretation of pieces and excerpts from all periods and styles by varying my vibrato use, which was motivated by studying the French School flautist's use of vibrato in their own repertoire.

5. Conclusion

The fundamental outcome of this thesis is in the production of three newly inspired recordings of the three pieces studied in detail above. Before carrying out the studies of the French Flute School's attitudes towards sound and vibrato and learning how much variation flautists can produce in their sound by varying the use of vibrato in particular, it was not something I thought about so often when studying a piece or excerpt. More often than not, I would just play every piece or excerpt with predominantly continuous vibrato and despite being satisfied with my sound quality, I now feel much better equipped to produce more colours in my sound and more contrast both dynamically and stylistically.

The biggest surprise whilst making the recordings and studying my sound was the realisation that I often played very fast passages with no vibrato at all. This was most evident in the recording I made of Gaubert's *Madrigal*, but is a trait I unknowingly used in almost every piece or excerpt I performed that contained faster passages and was also evident in my initial recording of the *Carmen* except in chapter 3. The study of the recording of Gaubert himself performing *Madrigal* and the discovery that he in fact played with very fast vibrato on each semiquaver in the fast passages enabled me to begin to experiment with my own use of vibrato. Despite not wanting to replicate Gaubert's vibrato use (for my taste it was too fast and dominated the sound too much) trying to make these recordings highlighted to me the necessity to be able to have the option to make use of faster vibrato or more continuous vibrato in fast passages. Perhaps I will never want to play the whole of the *Entr'acte* to Act III of Bizet's *Carmen* with very fast, continuous vibrato on every single note, but I should have the ability to do this for certain shorter passages within an excerpt of a piece and this is something that I feel I have greatly benefitted from studying intensively for this thesis and something that I can continue to develop in my playing.

The inspiration for this thesis predominantly came from having the opportunity to be able to listen to these incredibly important flautists associated with the French Flute School actually perform repertoire that we continue to play today, more than one hundred years later. It was incredibly useful to be able to listen to these recordings to gain direct inspiration for my own versions of the same pieces, even if there were some things in the interpretation that I disagreed with. In fact, these things that I found disturbing to listen to, such as the use of very fast vibrato, were fundamental to me learning something new. The experimental versions that I made of these three pieces, although not necessarily being to my taste or being versions that I would like to perform, were the building blocks that enabled me to create something new in the final recordings. Without pushing myself to try new ideas and experiment with my use of vibrato I would not have achieved anything different to my initial recordings of these

pieces. To be able to compare my own playing to that of a legendary historical flautist such as Philippe Gaubert or Marcel Moyse is hugely rewarding and in the future I will definitely continue to listen carefully to other players for inspiration and for new ways of practicing and performing.

The biggest struggle in writing this thesis came from ensuring that it was always presented from the perspective of a performer, and entirely relevant to pure practicalities of playing the flute. Prior to my Masters degree studies in Gothenburg, all of my academic studies were purely focused on musicology; I was very comfortable analysing historical works and discussing musicological matters in essay form, but writing from the perspective of a performer and always relating my research back to actually improving my playing on the flute was something new for me. Over the two years I managed to come to terms with this and by the time I finished writing it was a much easier task. This has been a hugely beneficial learning process for me; not only have I been able to improve my playing by discovering new ways to create more variety in my flute sound, I have also discovered the ability to think in more detail about practical ways to improve my playing.

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