

**An Interpretation of the Organ Symphonies of Louis Vierne (1870–1937)  
with Specific Reference to his *Méthode d’Orgue***

Lourens E Coetzee



*Thesis presented in partial fulfilment of the requirements for the degree Master  
of Music at Stellenbosch University*

Supervisor: Dr Mario Nell

Department of Music  
Faculty of Humanities  
March 2020

## **Declaration**

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

LE Coetzee

March 2020

## Acknowledgments

To my friends and family, especially my aunt, Sanet Lombard, and Marsha Bronkhorst, for their help and support through this study.

Dr Mario Nell for his guidance during my studies in both practical and this thesis.

Mr Lance J Phillip for help with numerous aspects.

Madame Liesbeth Schlumberger-Kurpershoek for my time in France and the honour of playing on the Cavaillé-Coll organ of *Église Réformée de l'Étoile à Paris*.

Lastly, to my God and Saviour...*Soli Deo Gloria!*

## Abstract

Louis Victor Jules Vierne (1870-1937), one of the most prominent French organists of the late 19th and early 20th centuries, composed six organ symphonies. The compositional process of these works spans most of the composer's creative period, and might also in this sense be considered a representation of a significant measure of his stylistic development.

Vierne made an important contribution to the artistic awareness and dissemination of the organ playing tradition introduced and taught by the Belgian organist Jaak Nikolaas Lemmens (1823-1881). While in Switzerland, Vierne began work on a treatise, the *Méthode d'Orgue*, which conveyed his ideas on organ playing. He did not live to finish it, and it remained unknown to the public until fifty years after his death. The unfinished method was published in 1987 by *Les Amis de l'Orgue*, and then translated into English in 1999 by Jian Guang Shi as part of his Doctoral dissertation at Rice University (Houston, Texas).

The *Méthode d'Orgue* specifically deals with Vierne's organ technique and performing methods. It contains a description of the organs to which he was accustomed, as well as studies in legato-like finger substitution, finger crossing in one hand, how to perform his music with "mathematical precision" (Shi 1999: 98), and numerous other aspects related to it. However, it seems that Vierne's treatise has remained relatively unknown, as there are no articles, dissertations or scholarly papers referring to it in recent years.

It is within the field of the performance practice of Vierne's works that the current study wishes to contribute with a new aspect of research. The aim is to use his treatise to investigate the composer's initial intentions within the context of their relationship to the French symphonic organ style and Lemmens' techniques, which had influenced the composer through Charles-Marie Widor's pedagogy. By referring to Vierne's *Troisième Symphonie pour Orgue*, Op. 31 as example, all the above-mentioned objectives will be drawn together in order to determine how they may inform and influence an interpretation of Vierne's method of organ playing and the performance of his works, also on organs of different stylistic periods.

## List of Figures

Figure 1: Vierne, Méthode d’Orgue, exercise no. 1.....	26
Figure 2: Vierne, Méthode d’Orgue, exercise no. 23.....	28
Figure 3: Vierne, Méthode d’Orgue, exercise no. 33.....	30
Figure 4: Vierne, Méthode d’Orgue, repeated notes (a) .....	34
Figure 5: Vierne, Méthode d’Orgue, repeated notes (b) .....	35
Figure 6: Vierne, Méthode d’Orgue, repeated notes (c) .....	35
Figure 7: Vierne, Méthode d’Orgue, repeated notes within musical context.....	35
Figure 8: Vierne, Méthode d’Orgue, staccato articulation.....	38
Figure 9: Vierne, I Allegro Maestoso, mm 70-72.....	45
Figure 10: Vierne, V Final, mm 257-261 .....	50
Figure 11: Vierne, IV Adagio, mm 73-74 .....	55
Figure 12: Vierne, I Allegro Maestoso, mm 48-51.....	56
Figure 13: Vierne, III Intermezzo, mm 8-11 .....	56
Figure 14: Vierne, V Final, mm 84-88.....	57
Figure 15: Vierne, I Allegro Maestoso, 84-86.....	58
Figure 16: Vierne, II Cantilène, mm 27-30 .....	58
Figure 17: Vierne, II Cantilène, mm 10-12 .....	58
Figure 18: Vierne, III Intermezzo, mm 39-44 .....	59
Figure 19: Vierne, IV Adagio, mm 2-6.....	59
Figure 20: Vierne, V Final, mm 262-263.....	60
Figure 21: Vierne, I Allegro Maestoso, mm 30-32.....	60
Figure 22: Vierne, II Cantilène, mm 54-55 .....	61
Figure 23: Vierne, II Cantilène, mm 67-69 .....	61
Figure 24: Vierne, V Final, mm 1-4.....	62
Figure 25: Vierne, V Final, mm 146-148.....	63
Figure 26: Vierne, V Final, mm 146-148 [adapted version] .....	64
Figure 27: Vierne, II Cantilène, mm 20-22 .....	64
Figure 28: Vierne, II Cantilène, mm 20-22 [adapted version] .....	65
Figure 29: Vierne, III Intermezzo, mm 19-20 .....	66
Figure 30: Vierne, III Intermezzo, mm 19-20 [adapted version].....	67
Figure 31: Vierne, I Allegro Maestoso, mm 5-8.....	67
Figure 32: Vierne, I Allegro Maestoso, mm 5-8 [adapted version].....	68

Figure 33: Vierne, V Final, mm 46-50.....	68
Figure 34: Vierne, II Cantilène (a), mm 13-22.....	70
Figure 35: Vierne, II Cantilène (b), mm 13-22.....	70
Figure 36: Vierne, II Cantilène (c), mm 13-22.....	71
Figure 37: Vierne, II Cantilène (d), mm 13-22.....	71
Figure 38: Vierne, IV Adagio, mm 70-74.....	72
Figure 39: Vierne, II Cantilène, mm 1-6.....	75
Figure 40: Vierne, II Cantilène, mm 13-16.....	76
Figure 41: Vierne, Intermezzo, mm 161-164.....	77
Figure 42: Vierne, IV Adagio, mm 1-4.....	77
Figure 43: Vierne, V Final, mm 247-250.....	78
Figure 44: Vierne, IV Adagio, mm 25-28.....	79
Figure 45: Vierne, IV Adagio, mm 28-32.....	79
Figure 46: Vierne, V Final, mm 1-4.....	80
Figure 47: Vierne, Allegro Maestoso, mm 141-143.....	81
Figure 48: Vierne, Allegro Maestoso, mm 169-172.....	81
Figure 49: Vierne, Adagio, mm 6-9.....	82
Figure 50: Vierne, I Allegro Maestoso, mm 42-45.....	83
Figure 51: Vierne, I Allegro Maestoso, mm 42-45 [adapted version].....	83
Figure 52: Vierne, Cantilène, mm 27-29.....	84
Figure 53: Vierne, II Cantilène, mm 27-29 [adapted version].....	84
Figure 54: Vierne, V Final, mm 6-15.....	85
Figure 55: Vierne, V Final, mm 1-5.....	86

## Table of Contents

<b>1. Introduction.....</b>	<b>1</b>
1.1 <i>Background to and Motivation for the Study</i> .....	2
1.2 <i>Research Questions</i> .....	3
1.3 <i>Objectives</i> .....	3
1.4 <i>Methodology</i> .....	4
<b>2. Biographical Sketch .....</b>	<b>6</b>
<b>3. The Influence of Jaak Nikolaas Lemmens’ Organ Tradition.....</b>	<b>10</b>
<b>4. Vierne’s <i>Méthode d’Orgue</i> as Representative of his Aesthetics Concerning Organ Playing .....</b>	<b>17</b>
<i>Chapter 1: The Instrument</i> .....	18
<i>Chapter 2: Playing of the Manual Keyboard</i> .....	19
4.1 <i>Techniques for Achieving Legato Touch</i> .....	23
4.1.1 <i>Substitution</i> .....	24
4.1.2 <i>Glissando</i> .....	27
4.1.3 <i>Finger Crossing</i> .....	28
4.2 <i>Articulation</i> .....	30
4.2.1 <i>Repeated Notes</i> .....	33
4.2.2 <i>Detached Chords</i> .....	37
4.2.3 <i>Staccato</i> .....	38
<b>5. Interpretational Information Towards the Performance of Vierne’s Organ Symphonies.....</b>	<b>41</b>
5.1. <i>The Symphonic Organ of Cavaillé-Coll</i> .....	42
5.2. <i>Registration</i> .....	43
5.3. <i>Stylistic Influences on Vierne’s Performance Style</i> .....	51
5.4. <i>Touch and Articulation</i> .....	52
5.4.2 <i>Articulation</i> .....	62
5.4.4 <i>Staccato and Portamento</i> .....	65
5.5 <i>Accentuation of Phrases</i> .....	69
5.6 <i>Tempo</i> .....	72

<i>5.7 Rhythmic Theories and Rubato</i> .....	73
<i>5.8 The Use of Slurs</i> .....	78
<i>5.9 Pianistic Techniques and Chordal Structures</i> .....	80
<i>5.10</i> .....	<i>Chorale Playing</i>
81	
<i>5.11</i> .....	<i>Symphonic Interpretations</i>
82	
<b>6. Conclusion</b> .....	<b>88</b>
<b>Addendum A</b> .....	<b>90</b>
<b>Addendum B</b> .....	<b>92</b>
<b>Bibliography</b> .....	<b>94</b>

# 1. Introduction

Louis Victor Jules Vierne (1870-1937) is considered one of the most prominent French organists of the late 19th and early 20th centuries. As organist of the Notre Dame Cathedral in Paris and composer of numerous organ works, Vierne secured for himself a place as one of the great organ masters of all time.

Vierne's six organ symphonies (written between 1899 and 1930) in a way reflect the monumental architecture of the Notre Dame, as does its symphonic Cavallé-Coll organ<sup>1</sup> "with its velvety and refined principal registers, sonorous reeds, and broad and full mixtures that exhibits gigantic orchestral sound qualities" (Vierne 1996). The compositional process of these works spans most of the composer's creative period, and might also in this sense be considered a significant representation of his stylistic development.

Vierne made an important contribution to the artistic awareness and dissemination of the organ playing tradition introduced and taught by the Belgian organist Jaak Nikolaas Lemmens (1823-1881). While in Switzerland, recovering from eye operations<sup>2</sup>, Vierne began work on a treatise, *Méthode d'Orgue* (Organ Method) which would convey his ideas on organ playing: this included studies ranging from beginner pieces to those suitable for advanced students. Unfortunately he did not live to finish it, and it remained unknown to the public until fifty years after his death. The unfinished method was published in 1987 by *Les Amis de l'Orgue*, and then translated into English in 1999 by Jian Guang Shi as part of his Doctoral dissertation at Rice University (Houston, Texas). Vierne's treatise can also be seen as evidence of his desire to keep alive the tradition of organ playing as learned from his own teachers César Franck (1822-1890) and Charles-Marie Widor (1844-1937) (Shi 1999: 69).

---

<sup>1</sup> Aristide Cavallé-Coll brought about a revolution in the organ building traditions by creating a 'new' type of instrument, with an orchestral sound and through which the organist had more freedom over dynamic changes and timbre possibilities (Handel 2013: 1).

<sup>2</sup> Vierne was born almost blind, but could distinguish between shapes that he used to orientate himself. In 1915 he suffered a severe attack of glaucoma that forced him to undergo a 'new' kind of eye operation in Switzerland. Unfortunately these operations and treatment did not help to cure his eyesight and he was left totally blind (Shi 1999: 46).

## 1.1 Background to and Motivation for the Study

My interest in French Romantic organ music, and specifically the performance practice of Louis Vierne's works, has led me to investigate this topic in more detail. Many organists are unaware of the specific characteristics of the organs for which Vierne composed as well as the performance traditions of his time. One can easily fall into the trap of being guided by existing recordings that are often dangerously close to 'personal' transcriptions of the musical text by the composer. This prompted me to investigate different available sources that might inform an interpretation and performance of the composer's organ pieces, specifically the symphonic works.

In my initial research I came across his unfinished treatise, the *Méthode d'Orgue*. This treatise specifically deals with Vierne's technique and performing methods. It contains a description of the organs to which he was accustomed, as well as studies in legato finger substitution, cross fingering in one hand, indications on how to perform his music with "mathematical precision" (Shi 1999: 98), and numerous other aspects. Vierne gave very specific instructions to his students on articulation: for example, he stated that he wanted "a mathematical articulation, repeated notes at half of their duration" (*ibid.*).

It seems that Vierne's treatise has remained relatively unknown, despite it being translated into English in 1999, as there are no articles, dissertations or scholarly papers which refer to it in recent years. I have found no evidence in concert program notes or recordings of any mention of the treatise being consulted as a guideline for Vierne's performance practice. For example, neither Martin Jean (Vierne 2005) nor Ben van Oosten (Vierne 1996), two prominent performing artists who have recorded Vierne's organ symphonies, mention the treatise as having guided their performances, despite the fact that both supply extensive notes to the works in the accompanying booklets.

It is within the field of the performance practice of Vierne's works that the current study wishes to contribute with a new aspect of research. The aim is to use his treatise to investigate the composer's original intentions within the context of their relation to the French symphonic organ style and

Lemmens' technique, which influenced the composer through Charles-Marie Widor's pedagogy. As each organ is unique in terms of its disposition and the acoustic space in which it is housed, it is of great importance that the performer makes informed choices in order to support his/her interpretation. The conclusions by the researcher will thus be formulated in a manner which may be applied by the performer on instruments of building different styles.

## 1.2 Research Questions

In which ways can Vierne's *Méthode d'Orgue* provide interpretational information for the performance of his organ symphonies (and further organ works)?

In answering this question, it is important to also investigate the following secondary questions:

- What was the influence of other existing methods on Vierne's own method?
- How does Vierne's *Méthode d'Orgue* relate to the method of Lemmens, to which he was accustomed through the teachings of Widor?
- How was Vierne influenced by the teachings of César Franck at the Paris Conservatory?
- How did Vierne's personal circumstances and the organs he was accustomed to influence his performance style?
- How do all the above mentioned concerns manifest themselves in an interpretation of Vierne's method of playing the organ, and how can they be applied on organs of different styles?

## 1.3 Objectives

The main objective of this study is to investigate how Vierne's *Méthode d'Orgue* provides interpretational information towards the performance of his organ works, with specific reference to his organ symphonies. A secondary objective is to demonstrate the influence of other pre-

existing methods on the composer's own, with specific reference and attention to the method of Lemmens with which Vierne was familiar through his teacher, Widor. Another secondary objective is the investigation of the influence of Vierne's own personal circumstances, as well as the influence of the development of the French symphonic organs on his symphonies and other organ works. Although Vierne only had one year of tuition with Franck at the Paris Conservatory, Franck's harmonic style and especially his improvisational skills had a significant influence on Vierne's own style. This influence will also be taken into account in the research process, seeing as this factor has been researched thoroughly in previous studies.

All the above-mentioned objectives will be drawn together in order to determine how they may inform an interpretation of Vierne's method of organ playing and the performance of his works on organs of all different stylistic periods.

## **1.4 Methodology**

The research will commence with a biographical background of Vierne, with specific focus on aspects that might have influenced his compositional style. In this regard, attention will be given to the most influential composers, teachers and other important persons in his life, as well as to a determining physical factor such as his poor eyesight.

The main format of the research will be non-empirical, relying on conceptual analysis. Mouton (2001: 175-176) states that conceptual analysis is "...the meaning of words or concepts through clarification and elaboration of the different dimensions of meaning". This will entail an in-depth analysis of his unfinished treatise, the *Méthode d'Orgue*, with reference and comparison to the contents of other widely used methods, for example, Harold Gleason's *Method of Organ Playing* (1988), George Ritchie and George Stauffer's *Organ Technique: Modern and Early* (1992), as well as Kimberly Marshall in *The Cambridge Companion to the Organ* (2004). This will lead to possible interpretational recommendations to the performer through a search for an as faithful as

possible execution of the composer's indications of registration, touch, tempo choice, character, texture, timbre, and of other aspects of performance.

Mouton (2001: 176) provides specific design types to help with research of a non-empirical nature. One of these research designs follows the tradition of analytical philosophy. Guy Longworth (2016) states that the term analytical philosophy is "...used to describe philosophy that proceeds via analysis – broadly, by seeking to understand the composition of its subject matter (or concepts of that subject matter) out of simple (or simpler) components". To this end I will employ a philosophical method of analysing the works of Vierne through his *Méthode d'Orgue* with the intention of providing deeper insight into his stylistic ideals and performance practice.

## 2. Biographical Sketch

Louis Victor Jules Vierne was born on 8 October 1870 in the town of Poitiers, France. He was the son of Henri-Etienne Vierne, editor of *Le Journal de la Vienne*, and Marie-Joséphine Gervais-Vierne. Due to his poor eyesight, which would subsequently lead to his complete blindness, Vierne's parents raised him in an over-protective environment. Doctors diagnosed him with congenital cataracts of the eyes, an inoperable condition at the time (Shi 1999: 2).

In Paris, Vierne met his uncle Charles Colin (1832-1881), a professor of oboe at the Paris Conservatory, and organist of the church of Saint-Denis-du-Saint-Sacrement in Paris. Colin introduced the young Vierne to the music of the Classical masters such as W.A. Mozart (1756 – 1791) and L. van Beethoven (1770–1827), and encouraged that he be given musical training (Kang 2017: 3). At the age of six, Vierne started piano lessons with his aunt Gosset Colin who, due to his poor eyesight, also taught him braille notation. At the age of seven he received an iridectomy<sup>3</sup> operation which partially restored his sight, enabling him to distinguish between people and move around on his own (Lee 2016: 3).

In 1881, aged eleven, Charles Colin introduced Vierne to the organ at Saint-Denis-du-Saint-Sacrement, showed him how to utilize the instrument and also demonstrated improvisation. He also encouraged Vierne's parents to take him to the Basilica of Sainte-Clotilde to hear César Franck improvise. Franck's improvisations during the service left an indelible impression on the young Vierne. He found the music's "theme so unfamiliar yet so attractive" and further reacted by saying that "such rich harmonies, such subtle designs, the intense life of all the parts stupefied me" (in Shi 1999: 5). However, he also found that "at the same time certain harmonies caused me a certain uneasiness which was nevertheless pleasant" (*ibid.*).

In October of 1881 Vierne entered the *Institution Nationale des Jeunes Aveugles* where he continued his piano studies with Henri Specht (Meixner 2017: 1). In 1886 he commenced organ

---

<sup>3</sup> A medical procedure then newly developed, which replaced the lens over the iris with an artificial lens (Aprahamian 1970: 430).

lessons with Louis Lebel (1831-1888), a graduate of that institution. Lebel taught his students the organ method of Lemmens, the *École d'Orgue*, using only the exercises for pedal, as he expected the students to already be acquainted with the manual technique. In his exams of 1887, Vierne earned first prizes for both organ and composition (Lee 2016: 3).

In 1890 Vierne commenced his studies at the Paris Conservatory, eager to start lessons with Franck. Unfortunately, Franck died shortly after he entered the Conservatory, and Charles-Marie Widor, regarded as the most brilliant student of Lemmens (Near 2011: 201), became the new organ professor. With Widor came a new method of teaching and organ playing. Where Franck rather focused on improvisation, Widor stressed the importance of technique and performance of other repertoire rather than only improvisation (Kang 2017: 3; Lee 2016: 4).

Widor taught the repertoire with attention to the smallest detail and had the students work through Lemmens' organ method in its entirety. Thanks to his pedagogy, Widor gifted a new generation of virtuoso organists to the musical life of France (Lee 2016: 4). In 1894 Vierne was officially appointed as Widor's teaching assistant at the Conservatory, and during his time in this post he too influenced future organists and composers such as Joseph Bonnet (1884-1944) and Marcel Dupré (1886-1971) (Kang 2017: 6; Shi 1999: 20).

Vierne wrote his *Première Symphonie pour Orgue*, Op. 14, which he dedicated to Alexandre Guilmant (1837–1911), in the summer of 1889. He took his inspiration from both Franck's *Grande Pièce Symphonique* Op.17 and Widor's ten organ symphonies, while also expanding the tonal colour and harmonic language contained within them. This is also the only symphony by Vierne which consists of six movements, as symphonies number two through six each have only five movements (Svetkova 2013: 5; Shi 1999: 31). In 1900 the organist of Notre Dame, Eugène Sergent (1829-1900), fell ill due to stomach cancer, and Vierne took up the substitute post. After the death of Sergent a few weeks later, the Cathedral received ninety-eight applications for his post, and the jury unanimously chose Vierne as the new incumbent. This appointment marked the apex of Vierne's career as an organist and composer, and would bring him great fame. Vierne wrote his remaining organ symphonies under the inspiration of the five-manual Cavaillé-Coll instrument of the Notre Dame (Meixner 2017: 2; Lee 2016: 4).

In 1911 Guilmant resigned from the Conservatory and, although he expressed his sincere wish that Vierne succeed him as organ professor, the Conservatory instead decided to appoint Eugène Gigout (1844-1925) in his place. Disappointed with this decision, Vierne resigned from his post as assistant and accepted Vincent D'Indy's (1851-1931) offer to become an organ professor at the *Schola Cantorum de Paris*. Vierne would be part of the faculty there until 1934 and in fact, certain organ students in Gigout's Conservatory class sought Vierne's advice at the *Schola Cantorum*. The most notable of these was Maurice Duruflé (1902-1986) who, after finishing his studies at the Conservatory, still remained Vierne's private student (Kang 2017: 7). It was during 1911 that Vierne composed his sombre *Troisième Symphonie pour Orgue*, Op. 31 at the summer home of the Dupré family in Saint-Valéry-en-Caux. It was the young Dupré to whom Vierne dedicated this symphony. Dupré premiered the work in the following year (1912) at the Salle Gaveau (Vierne 2005; Shi 1999: 42). In the summer of 1914 at La Rochelle, Vierne wrote his *Quatrième Symphonie pour Orgue*, Op. 32, just as the First World War hostilities commenced. It was in this work that Vierne began experimenting with cyclic form, which he later employed to an even greater extent in the fifth and sixth symphonies. Op. 32 was dedicated to William C. Carl<sup>4</sup> (1865-1936), and the premiere took place in January 1923. The performer was the blind organist André Marchal<sup>5</sup> (1894-1980) (Vierne 2012; Shi 1999: 46).

Tragedy struck in 1915 when Vierne suffered from glaucoma attacks which led to the first of many eye surgeries in Switzerland (Kang 2017: 9; Meixner 2017: 2). While recuperating in Switzerland, Vierne did not compose any new works, but started working on an organ treatise which would form his unpublished *Méthode d'Orgue*. The work was originally commissioned to be a reworking of Lemmens' *École d'Orgue*, but Vierne finally opted for writing a new treatise on organ playing with Lemmens's teachings forming its basis.

---

<sup>4</sup> Carl was an organ student of Guilmant. He founded the Guilmant Organ School in New Jersey which became an important organ school in the USA (Entriken 2013).

<sup>5</sup> Marchal was a French organist known for his contribution to the revival of Baroque music by playing the music of J.S. Bach in a highly articulated fashion, with transparent registration, rather than using the then usual legato and thick Romantic registration (The Diapason 2010).

From 1921 to 1929 Vierne travelled both within Europe and abroad, giving recitals to re-establish his reputation as a virtuoso performer, improviser and composer (Shi 1999: 49-50). It was during this time, in 1925, that he composed his *Cinquième Symphonie pour Orgue*, Op. 47, dedicated to Joseph Bonnet, who gave its premiere four years later (Shi 1999: 50).

Vierne's tour of America in 1927, which lasted ten weeks, was the most successful of all his tours abroad. The repertoire included works of J.S. Bach (1685–1750) and excerpts from Widor's organ symphonies, as well as the first performance of Vierne's own *Pièces de Fantaisie*. He also improvised on themes given to him by the audience. Three years after this tour, Vierne composed his final symphony, the *Sixième Symphonie pour Orgue*, Op. 59, during the summer of 1930, while in Menton. This symphony was dedicated to Lynnwood Farnam<sup>6</sup> (1885-1930) and first performed by Maurice Duruflé in 1934 at the on the then newly restored Cavallé-Coll organ (Vierne 2005; Shi 1999: 54).

The last three years of Vierne's life became increasingly difficult with the deterioration of his health and depression which led him to stop composing. On the evening of 2 June 1937, Vierne died at the console of the Notre Dame organ while giving his 1750<sup>th</sup> public recital. He was about to improvise on the *Salve Regina* when he had a cerebral haemorrhage and his foot landed on the low E of the pedalboard (Kang 2017: 9; Lee 2016; Predota 2015). He became one of the leading organ figures in France who taught the Lemmens technique, and contributed to the symphonic organ literature which displayed the peculiarly vast sound qualities and capabilities of the Cavallé-Coll instruments.

---

<sup>6</sup> Farnam was a virtuoso American organist who gave over 500 organ recitals in his short life of 45 years. He was also a sought after organ teacher at the Curtis Institute of Music, of which he became the director in 1927 (St. Julien 2002).

### 3. The Influence of Jaak Nikolaas Lemmens' Organ Tradition

Jaak Nikolaas Lemmens<sup>7</sup>, famous in his time as a brilliant performer on the organ, piano, and harmonium, was a Belgian pedagogue and contrapuntalist. Carol A. Weitner (1991: 8) also refers to him as an important transitional figure between the Classical and Romantic periods, specifically in the organ genre and its style of playing. Lemmens' compositions are rooted in the style of earlier masters such as J.S. Bach, but also exhibit the Romantic influences of his own era. He played his debut organ recital in Paris in 1852 at the church of Saint Vincent de Paul (Peterson 1999: 51). This brought about a revolution in organ performance amongst his Parisian peers, as they were astounded by both his technique (especially his pedal technique) and his remarkable legato style of playing – commentators referred to it as serious yet graceful (*style sévère*) (Peterson 1999: 51). César Franck followed Lemmens' performances with close attention, always in admiration of the Belgian organist's technique and legato touch (Peterson 1999: 51).

Lemmens' main ambition was to raise the standard of music in the Catholic Church services, especially in Belgium and France, as well as to 'reform' the technique of organists in general (Weitner 1991: 28). He started this reform in 1850 by publishing regular booklets (*livraisons*) which dealt mainly with aspects of legato touch<sup>8</sup> and general organ technique. These booklets were called the *Nouveau Journal d'Orgue à l'usage des organistes du culte catholique*<sup>9</sup> which translates as the "New organ journal for use by organists in the Catholic worship"<sup>10</sup>. The *Nouveau Journal* appeared as a series of booklets over two years, twelve in 1850 and six in 1851. His further

---

<sup>7</sup> It is interesting to note that Lemmens was known by this spelling and is also indicated as such on his birth certificate; however, in accordance to tradition, the inscription on his tombstone is spelt in the Latin form of Jacobus Nicolaus.

<sup>8</sup> Lemmens' main concern with organ technique was the *legato* style of playing in both the hands and feet. This is clarified in depth in Weitner (1995: 63–65), where a comparative study of the organ methods of Lemmens, Marcel Dupré and Harold Gleason (1892–1980) is done.

<sup>9</sup> From here on referred to as *Nouveau Journal*.

<sup>10</sup> The publishing of Lemmens' *Nouveau Journal* was received quite enthusiastically, receiving wide praise from the music critics of the time. One of these was Maurice Bourges (1812–1881), who praised Lemmens' *École d'Orgue* for its thorough teaching of technique, and Lemmens' repertoire for being "definitely not improvised, superficial pieces without depth", but rather "meaningful compositions conceived with depth" and "maturely thought out" (Weitner 1991: 54, 55).

intention was to provide appropriate and varied repertoire for organists to use during the Catholic service (Weitner 1991: 23).

The booklets initially focussed on manual technique, but later progressed to incorporating pedal technique as well. Finally, Lemmens combined these two booklets into exercises for manual and pedal playing. He approached the technique of legato touch by providing his own explanatory notes and exercises as demonstrations. In addition, he included organ pieces for the Catholic service which were based on plainchant, wherein this legato technique was also employed (Peterson 1995: 64; Weitner 1991: 52). William Peterson (1995: 65) provides a thorough description of the information contained in the booklets which can be summarized as follows:

<i>Livraisons</i> (Booklets)	Contents
1 & 2	<ul style="list-style-type: none"> <li>- Explanatory notes on manual technique</li> <li>- 24 Pieces</li> <li>- 6 Miscellaneous Pieces</li> <li>- <i>Fugue sur le Lauda Sion</i></li> <li>- 25 <i>Préludes</i></li> </ul>
3	<ul style="list-style-type: none"> <li>- 8 Pieces for manuals</li> </ul>
4, 5 & 6	<ul style="list-style-type: none"> <li>- Mass settings and Motets</li> </ul>
7	<ul style="list-style-type: none"> <li>- Explanatory notes on the accompaniment of plainchant by Lemmens</li> <li>- Examples of plainchant accompaniment</li> <li>- 2 <i>Sorties</i></li> <li>- 1 <i>Prélude</i></li> </ul>
8	<ul style="list-style-type: none"> <li>- Instruction in pedal technique</li> <li>- Scales for the pedal</li> <li>- Exercises for pedal alone</li> <li>- 6 <i>Petits trios très faciles</i> (6 very easy little trios)</li> </ul>
9, 10, 11 & 12	<ul style="list-style-type: none"> <li>- 13 Pieces, ranging in difficulty, for the communion service.</li> <li>- 48 Modulation examples</li> <li>- Motets</li> </ul>

The second year's booklets (1851) contain more pieces for use in the Catholic Church than that of the first year, and some also included indications for pedalling (Peterson 1995: 65). These booklets of the *Nouveau Journal* became the basis for Lemmens' *École d'Orgue*, which he published in 1862. Therein, Lemmens omitted the plainchant accompaniment and made minor revisions to

some of the repertoire from the booklets, by changing certain melodies (Peterson 1995: 65). These changes were made to improve the instruction, since he drew on his years of experience as an organ teacher and pedagogue, using the basis of the *École d'Orgue* to teach his own students (Peterson 1995: 68; Weitner 1991: 25).

The *École d'Orgue* is divided into two parts. The first deals with manual technique, including various exercises and organ works drawn from the entire repertoire of the 19 booklets of the *Nouveau Journal* (preludes, fugues, sorties and trios). In part two, the focus is on pedal technique, which Lemmens based mostly on his eighth booklet of the *Nouveau Journal*. He rejected the habit of only playing with the left foot,<sup>11</sup> emphasizing instead the importance of using both feet in attaining a legato touch. He also underlined that the usage of the technique of alternate toes, and toe-heel created a smooth connection between consecutive notes (Peterson 1995: 68). The pedal method of the *École d'Orgue* was considered “the best” and “most complete” (Weitner 1991: 54) since Adolf Hesse’s (1808–1863) *Kleine Pedalschule*<sup>12</sup> which is referred to as the “Post-Bach tradition” by Peterson (1995: 65; Weitner 1991: 14, 56).

One can discern from Lemmens’ preface to the *École d'Orgue* his preoccupation with the importance of legato touch – this is especially borne out in the comments that specifically pertain to fingering. The exercises within the *École d'Orgue* are extensive and incorporate multiple variations. Weitner (1991: 63-65) summarizes them as follows:

---

<sup>11</sup> The pedal division of the French Classical organ was underdeveloped compared to its German counterparts. The pedals of the French Classical organ consisted only a compass of about an octave, and was mainly employed to play the *cantus firmus* with one foot. The German organs’ pedals consisted of a larger compass, slightly over two octaves, which they used for much more complicated basslines played by both feet. The advanced playing on the French instruments was mainly concentrated on the manual divisions, which also consisted of a larger variety of registers and timbres (Dubois 2005).

<sup>12</sup> Hesse and Lemmens were both known as exceptional performers and pedagogues. Both wrote organ methods, but Hesse’s *Kleine Pedalschule* only deals with pedal technique, while Lemmens’ also includes manual technique (Weitner 1991: 14).

## Part I: Manual playing

Chapter		Area of focus	Exercises
A	Remarks on fingering		
B	Manual exercises	<b>1. Finger substitution</b>	<b>a.</b> Single notes (2) <b>b.</b> 3rds and 6ths: double (4) <b>c.</b> Syncopated 6ths: 2 parts (1) <b>d.</b> Common notes: quadruple (1) <b>e.</b> One hand for another (1) <b>f.</b> Syncopated 6ths: 4 parts (1)
		<b>2. Glissando</b>	<b>a.</b> Black key to white key: $\frac{1}{2}$ step (2) <b>b.</b> Two or more notes (4) <b>c.</b> Thumb Glissando: <ul style="list-style-type: none"> <li><b>i.</b> White key to white key (1)</li> <li><b>ii.</b> Octaves (2)</li> <li><b>iii.</b> Chromatic scales (1)</li> <li><b>iv.</b> Chromatic scales in octaves (1)</li> </ul>
		<b>3. Unusual finger crossings (1)</b>	
C	Manual studies	<b>1.</b> Fingered pieces <b>2.</b> 20 Un-fingered pieces <b>3.</b> 7 Assorted pieces	
D	Exercises in circular modulations	<b>1.</b> 48 Modulations (C major to all major keys and vice-versa) <b>2.</b> 12 Practical modulations (to or from G major)	

E	Repertoire	<b>1.</b> 10 Pieces <b>2.</b> 13 Assorted pieces	<b>All works by Lemmens</b>
---	------------	---	-----------------------------

Part II: School of pedal playing

Chapter		Area of focus	Exercises
A	Remarks		
B	Exercises	<b>1.</b> Alternate toes on white keys (12)	
E		<b>2.</b> Scales	<b>a.</b> major: 1 octave (12) <b>b.</b> melodic minor: 1 octave (12)
		<b>3.</b> Glissando	<b>a.</b> black key to white key (1) <b>b.</b> gliding heel forward and backward (1)
		<b>4.</b> Substitution	<b>a.</b> one foot for another on same note (1) <b>b.</b> heel-toe and toe-heel: same foot (1)
		<b>5.</b> Arpeggios (1)	
		<b>6.</b> Pedal trills: slow, fast, both feet (1)	
		<b>7.</b> Double pedal (more than one note in both feet): a – 2nds, 3rds and 4ths	
		<b>8.</b> Exercises: single notes, including chromatic scales (10)	

		<b>9. Exercises in octaves</b>	<b>a.</b> 2nds, 3rds, ½steps and mixed (4) <b>b.</b> chromatic scale in octaves (1) <b>c.</b> assorted exercises: mixed intervals (5)
		<b>10. Studies for manuals and pedal</b>	<b>a.</b> 6 short and very easy trios <b>b.</b> 2 canons at the octave <b>c.</b> 1 trio <b>d.</b> Repertoire (by Lemmens): 26 assorted pieces

*(the number in parenthesis is the amount of exercises given)*

It was this modern and unique style of Lemmens' organ playing that both Guilmant and Widor found appealing (Peterson 1995: 63, 68). Peterson (1995: 68) suggests that, being a pianist himself, Lemmens' legato playing was also influenced by his pianistic technique<sup>13</sup>.

The influence of the German technique of legato touch on Lemmens is not limited to Hesse, but was also derived from other organ methods used around Germany at the time of his studies. Lemmens may well have been familiar with these methods, as he regularly travelled around Germany to hear other organists perform. Besides Hesse, two other important figures in the German organ school also wrote their own treatises on organ playing, emphasizing the cultivation of the legato touch: the *Orgelschule* by Johann Gottlob Werner (1719–1781) and the *Praktische Orgelschule* by Johann Christian Heinrich Rinck (1770–1846). Both were translated into French and were well-known among French organists (Peterson 1995: 76).

As Lemmens' *Nouveau Journal* became the basis for his *École d'Orgue*, the *École d'Orgue* became the basis for Vierne's *Méthode d'Orgue*. Lemmens' *École d'Orgue* retains its importance to this day, as it became the basis for many organ treatises written in later years, such as those

<sup>13</sup> A 'pianistic technique' refers in this instance specifically to the *legato* touch of the piano playing reinforced by the use of the sustain pedal, which enhances flowing and uninterrupted melodic lines, and avoids unnecessary accentuations in a polyphonic texture.

of Dupré<sup>14</sup>. It also formed the basis of the teaching methods of Widor and Guilmant<sup>15</sup>, and was later adopted by numerous Conservatories in both Paris and as far as Madrid (Peterson 1995: 63; Weitner 1991: 56).

The importance and popularity of the *École d'Orgue* is further demonstrated by the fact that numerous re-editions of the method were published between 1862 and 1924. These editions were mainly in French and German, but the work was later also translated into English (date unknown) by W.T. Best (Weitner 1991: 49). Other treatises also based on Lemmens' *École d'Orgue* are Roger E. Davis' *The Organist's Manual* (1985), Harold Gleason's *Method of Organ Playing* (1988), and *Organ Technique: Modern and Early* (1992) by George Ritchie and George Stauffer.

It is without a doubt that Lemmens contributed a great deal to the development of organ technique, and specifically to the concern with legato touch as it is understood today. Weitner (1991) states that the “monumental nature of Lemmens's accomplishments in three areas – teaching, performing, and composing – have been enumerated in various articles”, and gives Lemmens credit for founding an entirely new school of organ playing (Weitner 1991: 154). Flor Peeters (1903-1986), Belgian organist and pedagogue, acknowledges the originality of the *École d'Orgue*, and implies that Lemmens was the first to employ an “exact legato touch” (*ibid.*) of playing. It is due to the pedagogy of Lemmens and its subsequent dissemination by his pupils, that French organists were able to expand the boundaries of organ technique. Weitner concludes that, although the *École d'Orgue* may no longer possess complete practical value compared to the method books we possess today, its importance in the history of organ technique is unquestionable, since it produced technically advanced and skilful organists in Paris such as Dupré and Duruflé, to name but two of the greatest (Weitner 1991: 28, 48, 52, 157).

---

<sup>14</sup> Dupré was known for his exceptional technique, already from his youth, when he played his first organ recital at the age of ten (Thistlewaith 2004: 276). Dupré wrote treatises on Gregorian accompaniment (1937) and *Improvisation at the Organ* (1952). These two form an important basis for Catholic Church organists in performing their duties. The *79 Chorales*, Op. 28 (1960), is also an important pedagogical source, since it is aimed at providing a preparatory study towards the Chorale Preludes of J.S. Bach, and is as such still widely used today.

<sup>15</sup> It is due to the influence of Cavaillé-Coll that both Guilmant and Widor studied with Lemmens. Cavaillé-Coll saw Lemmens as the future of serious organ music, a performer who would bring forth his organs' full potential and possible technical feats (Weitner 1991: 36).

## 4. Vierne's *Méthode d'Orgue* as Representative of his Aesthetics Concerning Organ Playing

Vierne's musical education coincided with the development of Cavaillé-Coll's symphonic organs, which expanded the compass of the pedalboard and thus led to a new style of playing, especially on the pedals.<sup>16</sup> As stated previously, Vierne was influenced by Lemmens' method through the teachings of Widor. The emphasis on legato touch became more important Vierne as to composers and performers alike after hearing Lemmens perform in the *style sévère*.

During Vierne's time in Switzerland (1916-1918) he did not compose any new organ works, but began work on a treatise conveying his ideas on organ playing:

Vierne's aesthetics concerning organ and organ playing were most explicitly given in a treatise which he began during the First World War but never finished in his lifetime and remained unknown to the public until fifty years after his death (Shi 1999: Abstract).

The treatise was first published by *La Société des Amis de l'Orgue* in 1987 to commemorate Vierne's death fifty years earlier. Thanks to the work of Shi, who translated Vierne's *Méthode d'Orgue* as part of his doctoral dissertation *Louis Vierne and his unfinished Méthode d'Orgue*, we now possess an English translation of the treatise.

Vierne's method was initially conceived as a response to a request by Durand Music Publishers, who were interested in republishing the method of Lemmens. However, Vierne soon changed course, following instead his cousin's advice, and began writing an organ method which conveyed his own ideas and aesthetics about organ playing. Although this project was never finished, the remaining material conveys a clear picture of Vierne's technique and style of playing. Shi states that:

It does not matter if the work is unfinished, what we can read there already brings us many elements of ideas of Louis Vierne, and our thirst for original information is found partly satisfied (Shi 1999: 97).

---

<sup>16</sup> Refer to *The Symphonic organ of Cavaillé-Coll* in Chapter 5.

The content of Vierne's treatise spans not only organ technique, but also the instrument itself. After his concert tours in England and America, and having experienced especially the American organs, Vierne also felt the need to further evolve the Cavallé-Coll instruments by employing the use of free combinations and swell boxes not only limited to the *Récit*, but to the other manuals as well. Vierne suggested that the combination pedals should be easily accessible to the feet, and electric "motor-driven" bellows should be installed (*ibid.*).

Vierne's idea was to write this treatise in four chapters consisting of:

1. Summary of the evolution of the Organ
2. Technique of the Manual Keyboard
3. Technique of the Pedal
4. The Art of Registration

In the *Méthode d'Orgue*'s first chapter, Vierne writes about the organ itself. He explains the instrument in detail by dealing with the console, keyboards, registers and combination pedals, the organ-case, as well as the bellows.

In the second chapter, Playing of the Manual Keyboards, Vierne employs and explains the keyboard technique of playing the organ. Its subdivisions include the position of the organist at the console and techniques of acquiring legato touch. Under this heading, different techniques of achieving legato touch are discussed, including the substitution of fingers, glissando, and finger-crossing. Lastly, Vierne deals with articulation, which includes instruction on playing repeated notes, detached chords and staccato.

The third and fourth chapters were, however, not completed.

## **Chapter 1: The Instrument**

Vierne begins this chapter by describing the console as a "piece of oak furniture" (Shi 1999: 102) where the keyboards, registers and combination pedals are situated, mentioning that there are three main positions where the console may be placed in relation to the organ case. He also

discusses the different aspects of the console itself in detail, featuring the keyboards, registers and combination pedals, as well as the bellows.

Vierne discusses the order of the keyboards by introducing the different divisions (a typical organ consisting of three manuals) as the *Grand Orgue*, *Positif*, and the *Récit*, each of which have their own tonal qualities and effects, and which can be played separately or in combination with each other. The stops which correspond to each of the manuals are situated in rows to the left and right of the applicable manual (Shi 1999: 105). The registers each consist of a different timbre with its name derived from other instruments or the voice, for example, the *Oboe* or the *Voix Humaine*.

Vierne only briefly discusses the case as the decorated part of the organ which houses the pipes, bellows, and the mechanical aspects which convey the production of the organ to sound from the console to the pipes. He further describes the bellows as one of the most important parts of the organ, since it is the ‘lungs’ of the organ, and like a good singer, the organ “needs a strong and solid pair of lungs to produce a good sound” (Shi 1999: 117, 118).

## **Chapter 2: Playing of the Manual Keyboard**

### **Position of the Organist**

In terms of basic technique, Vierne wrote that “every unjustifiable movement is harmful, because it amounts to a waste of time and energy” (Laukvik 2010: 39). When playing the music of Vierne, the hand should always be prepared to stretch out in order to reach, for example, octaves or densely voiced chords. This ability for the hand and fingers to reach sideways, forms a fundamental basis of virtuosity. A hand that is flexible, where the fingers can move laterally with ease, becomes a technical necessity.

The final aim should be a relaxed body with a centralized point of gravity. Since it is not frequently possible to balance or support the body with the feet when playing, the body weight needs to be fully transferred to the organ bench. Vierne gives a detailed description of the posture of the organist in his *Méthode d’Orgue*, since it is an important factor in playing and has great influence on the ease and mobility of the organist (Laukvik 2010: 39).

He states as follows:

[The] organist should sit in the front and in the exact center of his manual keyboards: the torso straight, without affection or stiffness. The bench should be placed at a suitable distance so that the performer can reach the keyboards easily, without making an effort which can be harmful to the suppleness of movements (Shi 1999: 120).

Vierne suggests that the feet should rest above the pedals, ready to play. He disagrees with the common practice<sup>17</sup> of resting the feet on the beam of the bench or on the pedal controlling the swell box. He is of opinion that it causes unnecessary movement and is also visually unpleasant. The playing and registering of the organ should also be precise and quick, and without any tension (*ibid.*).

The organ methods of Kimberly Marshall (2004), Ritchie & Stauffer (1992), Peter Hurford (1989), and Harold Gleason (1988), also stress the importance of a relaxed position of the body while seated at the middle of the console, thus supporting Vierne's recommendation. These above mentioned methods also underline the fact that the back (or spine) should be straight but not stiff, so as not to cause tension in the back or shoulder muscles. Gleason states that this relaxed position will "...develop the physical control which is essential for technical precision, ease of performance, and rapid progress" (Gleason 1988: 61). Hurford also stresses the importance of a good posture and, like Vierne, recommends that the spine be erect but not stiff (Hurford 1989: 41).

Both Hurford and Gleason are in agreement with Vierne that the correct height of the bench is also an important part of organ playing, and that the feet should fall under the knees, with the toes in front of the black keys, the toes and heels touching the surface of the pedals (Hurford 1989: 44; Gleason 1988: 61). Laukvik (2010: 19) supports the above-mentioned "relaxed position" of the organist, and states that the support of the body should be anchored in the pelvis area. He states that "such a technique [not only] satisfies the demands of the whole body" but fulfils the recurrent requirement in advanced repertoire for "very physically demanding sitting positions and movement (*ibid.*).

---

<sup>17</sup> Vierne states in his *Méthode d'Orgue* that the standard practice when the pedals are not played is to support "the feet, either on the metallic bar which surmounts the combination pedals by some organ-builders, or in the rear, on the bar which often serves to strengthen the bench, or on the pedals manipulating the *boîtes expressives*" (Shi 1999: 120).

Vierne gives no recommendation concerning the height of the organ bench, but his opinion can be implied in his statement that the feet should rest above the pedals. If the bench is too high, it will result in an uncomfortable position of the body hanging forward (Laukvik 2010: 19). Laukvik discusses the position of the bench in detail since it has a considerable influence on both body posture and effectiveness of playing:

If the distance between the bench and the keyboard is too great, the player is forced to sit on the front edge of the bench. In this case, the secure posture suggested above is not achieved, and the result is that the player automatically supports himself by the manuals. In so doing freedom of finger movement is severely restricted. If the bench is too close to the keyboard that the player has to sit right at the back of the bench, then his legs cannot move freely (*ibid.*).

Marshall (2004: 94) states that both the hands and feet should be “poised lightly, as if floating, upon the keys and pedals”. She also suggests that the organist should remain at the centre of the bench, without sliding while playing, with the upper body leaning slightly forward to reach the manual keyboards, while still maintaining relaxed shoulders. This position is supported by Widor:

A good organist sits well-balanced on the bench, leaning a little towards the keyboard. He never rests his feet on the frame of the pedalboard but lets them brush naturally against the pedal keys, as if the heels and knees were glued together. A sense of security and accuracy will never be attained without practicing like this: legs together, feet always in contact with each other (Laukvik 2010: 39).

In contrast to Vierne, both Hurford and Gleason advise players to rest the right foot on the swell pedal when not playing the pedals (Hurford 1989: 41; Gleason 1988: 61). Marshall believes that the support should come from the pelvic bones which will enable the organist to use his limbs freely without tension, and the correct posture be “achieved by finding the right alignment between the body parts so that there is no unnecessary muscular strain” (Marshall 2004: 94). This view is also supported by Abby Whiteside<sup>18</sup> (1881-1956) who states that the support should come from the contraction and relaxation of the muscles in the pelvic area, which gives the necessary support to the torso, arms and buttocks which she sees as a unity<sup>19</sup>

---

<sup>18</sup> Whiteside was an American piano pedagogue who specifically paid attention to body posture and its influence on performance at a keyboard instrument.

<sup>19</sup> This source (Uszler 1991) concerns piano technique, but can be applied to keyboard technique in general. It also supports Vierne’s opinion on body position, stating that the position of the performer should be relaxed.

(Uszler 1991: 346). All these methods do indeed support Vierne's viewpoints on the sitting position of the organist, and his insistence that a good posture is necessary to play with ease, allowing for accuracy and technical fluency.

### **Legato**

In accordance with the section of Vierne's organ method which deals with the importance of legato playing, most organ methods, those detailed in this chapter thus far, as well as Roger Davis' *The Organist's Manual* (1986), begin by teaching legato on the organ with its different techniques, such as finger substitution, glissando, and finger-crossing.

Vierne relates his instructions to piano technique when he states that the same posture should be adopted for the hands as when playing the piano, with the wrist and elbow in a straight line. He further recommends that, when playing the manual keyboards, one should use the same attack as a *mezzo forte* touch at the piano, the finger responding rapidly and to the bottom of the key. This is due to the fact that if the attack is forced, it will cause unnecessary mechanical sounds, whilst a weak attack will result in unclear sound production and poor rhythmical playing (Shi 1999: 121).

Vierne believes that a difference in attack on the manual keyboard will create different timbres:

It is a serious mistake to believe that touch makes no difference on the organ because the sound always comes out the same. First, the touch on the organ, as well as on all the other keyboard instruments, as far as its duration and emission, is an absolutely individual manifestation of will. The same instrument played by two artists with different touches does not sound the same way for well-trained ears (*ibid.*).

Regarding the position of the hands on the manual keyboards, Gleason states that the hand should be placed parallel to the manual keyboard with the longest fingers curved in such a manner that they are in line with the shortest. He further states that the fingers should always remain in contact with the keys, and that the elbow should be parallel with the hand, but the knuckles slightly raised (Gleason 1988: 61). Marshall agrees with this technical approach, but also quotes from Guillaume-Gabriel Nivers' (1632–1714) *Livre d'Orgue* that to play with ease is owed to a comfortable position which allows mobility (Marshall 2004: 94).

Marianne Uszler's *The Well-Tempered Keyboard Teacher* (1991), which discusses different piano methodologies and techniques, supports Vierne's advice on the use of piano technique as a guide to playing on the organ's manual keyboards. Vierne's remark on the effect of weak- and forced attacks on sound and rhythm is supported by the pianistic technique of 'weight technique'. The methods of Heinrich Neuhaus (*The Art of Piano Playing*, 1993), Józef Gát (*The Technique of Piano Playing*, 1958), and William S. Newman (*The Pianist's Problems*, 1956)<sup>20</sup> support the theory that different and controlled attacks with differing weights ('weight technique') do have an important influence on the sound production and quality the instrument brings forth (Uszler 1991: 347, 350, 351). Laukvik also supports the important role of the piano and its technique, as "in the 19<sup>th</sup> century the piano was for the most organists the primary practice instrument, [thus] piano technique exercised a strong influence on organ playing" (Laukvik 2010: 13).

#### 4.1 Techniques for Achieving Legato Touch

Vierne starts his chapter on keyboard method with legato touch and states that "the current style in organ music is that of polyphony in which each sound of the same part must be linked hermetically to its neighbor: the normal playing of the instrument is therefore the connective playing (*jeu lié*) or legato" (Shi 1999: 122). This 'current style' refers to the legato style became an increasingly important technique employed in organ playing advocated by Lemmens in his *École d'Orgue*, subsequently taught by his students Widor and Guilmant, and which had a crucial influence in 19<sup>th</sup> century performance practice.

This legato style was also made easier on Cavaillé-Coll's organs, which enlarged and modified the pedalboard and key action of the manuals.<sup>21</sup> Cavaillé-Coll also enhanced and added timbres to the organ, allowing for a more symphonic style, inspired by an orchestral sound ideal. Sandra P. Rosenblum states that the music of the late 1800s, which increasingly used long phrases and *cantabile* lines, intrinsically advocated legato playing (Rosenblum 1997:35).

---

<sup>20</sup> These pedagogues and performers in their own right, with their respective methods on piano playing, are highly regarded by Uszler (1991) in her discussion of piano technique and posture. Her work can also be applied to other keyboard instruments.

<sup>21</sup> Due to the nature of the mechanical organ, its action was quite stiff, thus requiring more energy and force to depress the keys. When Cavaillé-Coll combined the mechanical action with a pneumatic one (called the Barker system), it allowed for easier depression of the keys.

Gleason states that one of the organ's most characteristic styles of playing is the legato touch, and also refers to the binding or connecting of the notes to one another without breaks in the sound: "The ideal legato produces a singing line with a continuous flow of sound, vital and plastic" (Gleason 1988: 49). Ritchie and Stauffer state that Lemmens' ideal legato was inspired by Gregorian chant, which also support the singing line mentioned by Gleason (Ritchie & Stauffer 1992: 1). It is, however, also of importance for the organist to know when not to play legato, to such an extent that phrases and themes of the music do not become dull, lacking articulation and logical clarity (Pinkevicius 2017).

Hurford refers to legato touch as the organ's best asset, since the instrument produces a sustained sound. He describes this in terms of vocal speech, in that the legato touch is achieved by overlaying the consonants of the pipes by placing the vowels next to each other (Hurford 1989: 58). Lemmens' *École d'Orgue* is seen as the inspiration and culmination of legato touch, and organists who are trained in this method play remarkably accurate and with ease (Ritchie & Stauffer 1992: 2).

Vierne addresses various techniques such as finger substitution, glissando and finger crossing to achieve legato touch. This is similar to the method books of Ritchie and Stauffer (1992), Gleason (1988), and Davis (1986) as demonstrated in a comparative study of organ methods by Soo Jin Kim (2002). These same techniques are also discussed in Marshall (2004) and Hurford (1989).

### **4.1.1 Substitution**

To achieve a legato line in all the voice parts and not just the melodic part, organists should employ a technique known as 'substitution'. Vierne explains substitution as a technique which "...consists of changing fingers on the same note, without any discontinuity in the emission of sound" (Shi 1999: 122). This helps the organist overcome the limitations of having only five fingers in each hand, and create a smooth legato line in all the parts without interruptions:

The substituting finger should replace the other without the eye's being able to discern the effort of achieving this artifice which should remain natural. For

obtaining the degree of suppleness and the desirable ability in the flawless practice of substitution... (*ibid.*).

Marshall states that the ‘modern legato’ is defined by a continuous sound, and careful planning of fingering is needed to attain legato in the long melodic lines of Romantic and contemporary music. One of the practices employed is substitution, which requires one finger to take over a depressed key from another without a break in sound (Marshall 2004: 104). Marshall echoes Vierne’s viewpoint when she states that, for the organist to attain this technique, he should be able to perform it “quickly, with as little movement as possible, to prepare the necessary finger immediately to depress the next key. A simple scale can be practiced in many ways to gain experience in substituting fingers” (*ibid.*).

Gleason is of the opinion that substitution of all types of fingering are especially useful in Romantic and contemporary music (Gleason 1988: 69). His instructions are even more detailed and suggest that “substitution on single notes should be made by placing the shorter finger under the longer one” and “immediately prepare the proper finger on the next key” (Gleason 1988: 70). His exercises are similar to those of Vierne in that he also gives substitution on a single note, in thirds and sixths, and last-mentioned intervals within a chromatic scale. He further advises that the player practice the substitution of the fingers rhythmically (Gleason 1988: 71). Ritchie and Stauffer agree, stating that finger substitution is one of the most useful techniques for an organist to acquire an adequate legato touch. They further opine that great control over the key should be exercised and that the substitution of the fingers should be undertaken systematically (Ritchie & Stauffer 1992: 16).

Vierne (Shi 1999: 123) starts with simple substitution (one note being substituted), with the following exercise to develop this skill in both ascending and descending lines:

Figure 1: Vierne, *Méthode d'Orgue*, exercise no. 1

He supports this exercise by explaining that “...it is necessary to practice [...] very slowly and hands separately at first, and to acquire careful control of the motion which necessitates this study” (*ibid.*).

The same exercise is given multiple times, but with different fingerings so that all the fingers can be exercised and co-ordination in different combinations:

Exercise	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10
Right hand	2-1	3-2	4-3	5-4	3-1	4-1	5-1	4-2	5-2	5-3
Left hand	4-5	3-4	2-3	1-2	3-5	2-5	1-5	2-4	2-5	3-5

Vierne also recommends the following when practicing these exercises:

It is recommended that in the beginning of the study of substitution, one practices the replacement of the finger in some measurable rhythm with the attacks by both the substituting finger and the finger being substituted (*ibid.*).

A chromatic exercise incorporating both an ascending and a descending line is also included which should be repeated with all the fingerings that were used in the previous exercise. Vierne then progresses to substitution in major and chromatic thirds as well as major and chromatic sixths. Triads and chords that are substituted from one hand to the other are also given as exercises. In total there are 20 different exercises for substitution in Vierne’s method.

### 4.1.2 Glissando

Another technique that aids the attainment of the legato touch is the use of finger glissando. This is the sliding of the fingers in two possible ways: the first describes the sliding from a black key to its neighbouring white key with any of the five fingers, and the second the sliding from a white key to its neighbouring white key with the thumb. Vierne stresses the importance of suppleness in the hands and fingers, and the adequate pressure of the attack in order to perfect the glissando technique:

For sliding from a black key to a white key and, by supple and rapid movement, to descend on the white key without any discontinuity of pressure. The motion must be practiced so that the two notes are connected perfectly well and clean. If the pressure is too strong at the moment of the sliding, the sound of the first key will blur with that of its neighbor. On the contrary, if the pressure is accidentally insufficient or ceases, there will be a break between the two notes. The glissando must be practiced very slowly and without any tension, seeking for precision in suppleness (Shi 1990: 135).

To achieve a legato touch between two neighbouring white notes, the thumb plays the first key in its normal position. The neighbouring key is then approached by lifting the wrist slightly in an upward direction, bringing the first phalanx<sup>22</sup> of the thumb into contact with the key. The second key is then depressed while the first key is lifted simultaneously (*ibid.*). Vierne states that the achievement of this technique is dependent on “the continuity of pressure; the clarity is the result of precision in the motion of raising the wrist” (*ibid.*).

The technique of glissando is usually practiced with an ascending motion for the right hand, and descending motion in the left hand. However, the reverse is also possible by using a contrary technique which Vierne demonstrates in the exercises. He adds the following comment on the glissando technique to be found in the subsequent exercises:

It is possible to slide two, three, and even four black keys to white keys situated both immediately below or above these black keys: this is called double, triple, and quadruple glissandi (Shi 1999: 136).

---

<sup>22</sup> Phalanges are the smaller bones within the fingers, whose independence enables the finger to bend inwards.

Figure 2: Vierne, *Méthode d'Orgue*, exercise no. 23

No. 23

The musical score for exercise No. 23 consists of two staves, Treble and Bass clef. The Treble staff begins with a '6' above the first measure. Fingerings are indicated by numbers 1-5 above notes. Glissando markings are shown as horizontal lines above notes. The Bass staff also has fingerings and glissando markings. The exercise is divided into four measures, each with a double bar line at the end.

Marshall describes this glissando technique as a sliding from a black key to a white key with the same finger. Although it is generally the thumb that is employed for this technique, other fingers are also often used. It is rare that the glissando technique will be used from a white key to a neighbouring white key, but is sometimes employed using the tip of the thumb together with an upward motion of the wrist, to facilitate the action (Marshall 2004: 105).

Gleason (1988: 75) defines the term glissando as “with gliding motion”. In contrast with Marshall, he states that the white key to white key glissando is not common practice (Marshall 2004: 105). Gleason (*ibid.*) includes this technique as part of his exercises:

- 1 *Finger glissando*: The sliding of the finger (or thumb) off a black key to the adjacent white key above or below it. This may occur with one note or with two or more notes at once.
- 2 *Thumb glissando*: The sliding and tipping of the thumb in going from one white key to next white or black key.

Ritchie and Stauffer describe the term glissando as an Italianization of the French verb “*glisser*” which means to “slide” or “glide”. To master the glissando technique, it is important for the student to understand the motion involved by the finger and wrist: “The motion should be made with the finger alone; the arm and the wrist are inactive” (Ritchie and Stauffer 1992: 29).

### 4.1.3 Finger Crossing

Finger crossing is the technique which involves the crossing of fingers over or under each other without breaking the continuity in sound, thus enhancing a continuous legato line. Finger crossing of the thumb, however, is limited to crossing under the fingers. Vierne mentions that the latter technique is especially helpful in rapid passages where one is not able to use finger

substitution. With the exception of the thumb, all the fingers can cross in upward and downward directions (Shi 1999: 144).

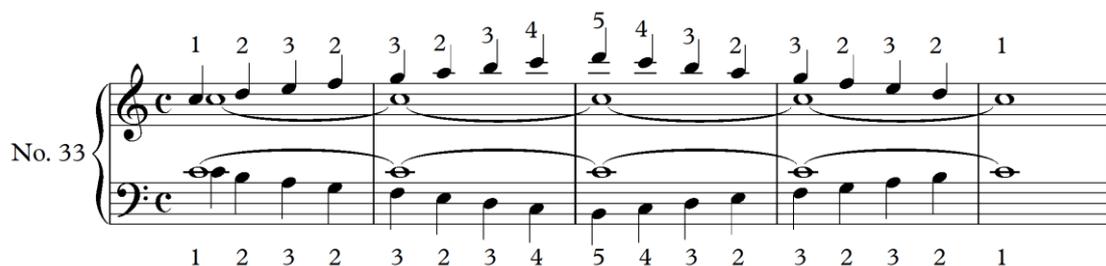
Vierne again stresses the importance of suppleness in the hand, for finger crossing may cause the hand to contort in uncomfortable positions, which should absolutely be avoided. To achieve this comfort, Vierne advises the player first to practice the movement of the hand by holding the thumb depressed on a key, and then to play the other fingers separately. Once this is achieved without changing the natural relaxed position of the hand, the player will move on to the exercises provided in his treatise with attention to the following:

It is obvious that this technical challenge requires slow and careful practice: because, at first, finger crossing seems awkward and unnatural in both directions. However, if one practices the following exercises carefully, by breaking down slowly and clearly the motion of a passage, one will be successful, in a relatively short time, in performing these exercises with ease and with a perfectly natural position. It is necessary to practice this fingering without any tension, to cross gently rather than to move abruptly in crossing the finger. Once the finger is passed, one should immediately prepare the remaining fingers on the following keys which they are to play (Shi 1999: 144).

In a supporting note on finger crossing, Vierne states that the old notion of avoiding the use of the thumb on black keys was no longer in practice, and that therefore the thumb could indeed be employed. As an exercise, he encourages the student to play all the scales by using, for each one, the standard fingering setting of C major (Shi 1999: 145).

Finger crossing is another useful way of attaining a legato touch and avoiding unnecessary finger substitution. The technique of finger crossing is, however, not a new one, as it was already widely employed in the Baroque period. J.S. Bach himself started using all the fingers equally and effectively in combination with finger crossing, in order to perform any difficult passages with great ease. Lemmens only furthered this technique by using it to enable an uninterrupted legato touch (Swinkin 2007: 2; Gleason, 1988: 79). The same remark is made by Ritchie and Stauffer:

Finger crossing is perhaps the most versatile of the special legato techniques. It can be used to avoid unnecessary finger substitutions and glissandos and to play fast passages smoothly. It is often essential for the legato execution of parallel thirds (Ritchie & Stauffer 1992: 36).

Figure 3: Vierne, *Méthode d'Orgue*, exercise no. 33

## 4.2 Articulation

In Vierne’s introductory notes he states that, in order to play music in an intelligible manner, we cannot only play in the legato style, but also need to employ various types of articulation such as repeated notes, detached chords, and staccato or even continuous *détaché* (non-legato) playing. Vierne’s precise style of articulation is examined in this chapter. He writes that “no interpretation of musical texts would be intelligible without a precise, meticulous, and thorough study of these means of sound emission” (Shi 1999: 148).

The focus on articulation is placed here mainly on the duration of the sound played in relation to the value of a specific note and the note that follows. Creating music in good taste will depend on the accuracy of the performance of the musical text given within the field of articulation. Vierne mentions that specific rules in the application of articulation do not always apply, and it remains the responsibility of the performer to choose the correct approach for any given articulation within the score, in relation to the musical themes and phrasing (Shi 1999: 148).

Ritchie and Stauffer provide an informative description of articulation. They describe how different types of articulation are possible on the organ, and why they are applied differently than on other instruments:

Articulation is the art of creating musical emphasis by varying the duration of note values. Articulation is an especially important aspect of organ playing, for the performer works under certain expressive “restrictions” not found on most other instruments. Literal dynamic accentuation of individual notes is not possible on the organ, for no matter how much force is used to depress an organ key, the tone will sound at a single volume level. Notes cannot be highlighted

by sudden *sforzandos* or *pianissimos*, as they are, for example, in the piano music of Beethoven (Ritchie & Stauffer 1992: 53).

Unlike the piano, where subtle accentuations are possible by increased pressure on the key, the pressure of attack on the organ keys does not have an influence on the dynamic level, since the sound of the pipes is controlled mechanically. To make changes in accentuation, the use of silence is employed. By delaying the sound of a specific note, one creates the illusion of accentuation. Marshall explains that:

[p]receding a note with silence or delaying a note rhythmically makes it stand out more vividly than others. While lengthening a note relative to others makes it sound stronger. The skilful use of silence and sound enables the organist to create the impression of upbeats and downbeats within a musical phrase (Marshall 2004: 96).

Vierne also describes accentuation by lengthening or delaying the specific note in relation to its musical context. Marshall (2004: 97) elaborates by explaining that ‘good’ and ‘bad’<sup>23</sup> notes are found within measures, phrases or beats that are subdivided. Successive notes should not be played equally, but a note or notes within stronger beats should be lengthened, while a note or notes within weaker beats should be shortened in relation to their importance. However, the beat itself should stay intact. This technique is known as the hierarchy of beats, which was first discussed by George Muffat (1653–1704) in his *Florigung Secundum* (1698):

Good notes are those that seem naturally to give the ear a little repose. Such notes are longer, those that come on the beat or essential subdivisions of measures, those that have a dot after them, and (among equal small notes) those that are odd-numbered and are ordinarily played down-bow. The bad notes are all the others, which like passing notes, do not satisfy the ear so well, and leave after them a desire to go on (*ibid.*).

This hierarchy of beats also applies to the subdivision of a semibreve (four quavers) and the crotchet (four semi-quavers). Marshall also states that articulation of musical phrases can be compared to the phrases of spoken language where consonants and vowels are found:

Each note is like a syllable: its attack resembles a consonant, while its duration is a vowel sound. Just as notes are organised according to beats, syllables are grouped together as words, and both words and musical beats constitute larger structures known as phrases. To be intelligible, language is accentuated by

---

<sup>23</sup> The ‘good’ and ‘bad’ notes to which Marshall refers, are those within the beat hierarchy of the musical theme. This can also be described as metrically ‘more important’ or ‘less important’ notes.

syllables with differing degrees of stress, just as the notes in a musical phrase must be articulated according to their meter (*ibid.*)

It is vital for organists to experiment with different durations of successive notes and develop a fine ear, in order to adapt accentuation to every unique acoustical space, as this is what creates a defined and musical interpretation of organ music (Marshall 2004: 98).

Gleason (1988: 54) defines articulation as a clarification of the music to the listener while conveying the musical ideas of the composer. He states that articulation is the manner in which individual notes are treated: they are either slurred, dotted, or separated in the context of the melodic, rhythmic, or thematic material within a phrase.

Gleason lists three techniques of creating accents on the organ:

- 1 Detach the note before an accent. If the notes before a note to be accented are played non-legato or staccato (half value), slightly lengthen the value of the rest before the accented note. Do not shorten the value of the note.
- 2 Stress the accented note. Stress (*agogic*) accents are achieved by holding the note to be accented a little longer than the note before and after the accented note. The stress accent marks a slight deviation from the strict tempo and finds its principal application in the molding of a melodic line and inner phrase.
- 3 Delay the accented note. In a passage leading to an accented note, the previous notes may be increasingly emphasized so that a slight delay before the accented note becomes a part of the whole phrase or section (Gleason 1988: 91).

Hurford, in his book *Making Music on the Organ* (1989), discusses articulation in thorough detail, using different types of touch, time and silence to create accents. This relates to Vierne's different approaches to articulation and its application with 'mathematical' precision.

Hurford identifies different types of accentuation, and places them in three categories:

1. *Varying the comparative duration of notes in relation to each other while playing in strict time. This is the principal Baroque method*<sup>24</sup> of

---

<sup>24</sup> Though this is a Baroque principle, the same technique is also generally applicable in Romantic music to accentuate more important notes. This is especially pertinent in organ technique since a note cannot be stressed through finger pressure as on the piano.

- accentuation by means of minuscule silences, and of shaping musical lines through the subtle use of *touch* to create light and shade.
2. *Varying the duration of notes within each pulse (or beat)* so that attention is drawn to certain notes in particular, rather than to their neighbours (*agogic accentuation*, or *unequal notes*).
  3. *Flexing the duration of consecutive pulses in an extended musical phrase*, within a disciplined time concept (*rubato*) (Hurford 1989: 54, 55).

Hurford also states that silences together with touch can also be used to create intelligent articulation or “clean projection of consonants” (Hurford 1989: 55). He uses silences in two ways:

1. to allow the consonant of the following note to be fully projected; this involves the purest and most subtle form of *détaché* touch, and is used to ‘point’ stressed notes;
2. as a *silence d’articulation* taken from the note preceding a musical figure; this is the equivalent of a breath taken by a woodwind player, and is the nearest approach that Baroque musical line makes to phrasing (*ibid.*)

In accordance with above-mentioned agogic use of articulation, Laukvik is also of the opinion that the attack on the key does have a degree of influence on the articulation by the way the opening of the pipe is controlled, provided one possesses an organ with tracker action:

Pipe speech is influenced to some extent by how the key is depressed (or struck), assuming that we are using a sensitive and not too heavy tracker action.

Pressing the key down slowly produces, as can be physically proved, a swelling of the tone without much accent; a quick strike on the other hand produces quite a clear accent, because of an audible initial speech, created by the intensification of certain overtones (Laukvik 2010: 23).

#### 4.2.1 Repeated Notes

Vierne’s approach to repeated notes is generally the principle that the first note loses half its value, “...that is to say that two quarter notes are to be executed as an eighth note followed by an eighth rest and a quarter note...” (Shi 1999: 148). He applies the same principle when two eighth- or sixteenth notes are found in a passage (*ibid.*).

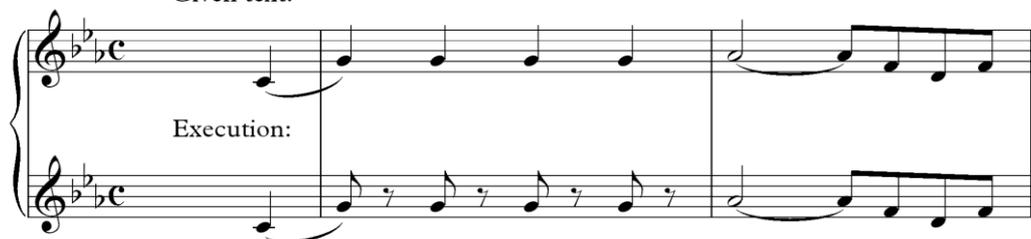
When performing repeated notes, the player will refer back to the principle of beat hierarchy, as discussed above by Marshall, where the lengthening and shortening of the specific repeated notes are determined by the beat on which they fall and the metrical or rhythmical context wherein in they occur.

Gleason does not discuss repeated notes in detail in his organ method, but does provide exercises, and the way they should be executed. He applies the same principle of repeated notes as Vierne describes. Gleason also states that the duration of sound of a note will, however, be influenced by the tempo of the piece and the context wherein it occurs in relation to the phrase structure. For repeated notes in a faster tempo, the note will sound for half of its value, whereas repeated notes in slower passages will be shortened by a fourth or eighth of its value (Gleason 1988: 84–85). The same advice is given by Pinkevicius (2017), where he states that “repeated notes should be shortened by half of their value if the note could be divided in half (duple meter) [...] and shorten the quarter notes by playing eighth notes and have eighth note rests.”

Vierne provides the following examples of a given text and its execution is provided:

Figure 4: Vierne, *Méthode d’Orgue*, repeated notes (a)

Given text:

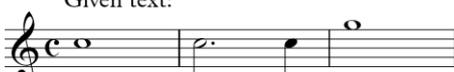


Execution:

The figure shows two staves of music in a grand staff format. The top staff is labeled 'Given text' and the bottom staff is labeled 'Execution'. Both staves are in a key signature of three flats (B-flat, E-flat, A-flat) and a common time signature (C). The 'Given text' staff shows a sequence of notes: a quarter note, followed by four eighth notes, then a half note, and finally a quarter note. The 'Execution' staff shows the same sequence of notes, but with the first two eighth notes replaced by eighth notes with rests, and the subsequent eighth notes also having rests, effectively shortening the duration of the repeated notes.

Exceptions: if repeated notes are of long value or belong to musical phrases in slow tempo, the first of the two repeated notes will lose only a quarter, an eighth, or even less of its value, the suppression by half its value being excessive and producing a void much too great (Shi 1999: 149).

Figure 5: Vierne, *Méthode d'Orgue*, repeated notes (b)

Given text:	Execution:
	
Given text:	Execution:
	
Given text:	Execution:
	

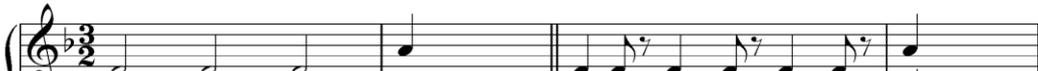
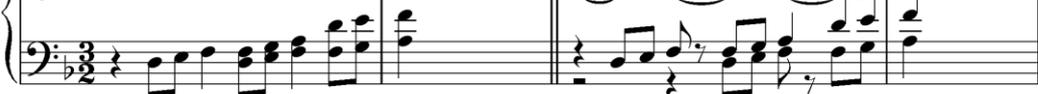
If repeated notes are found in passages of regular rhythmic value, it is necessary to suppress the first by a quantity which, while producing clean articulation, leaves no ambiguity about the metric value; if repeated notes are found in passages composed of notes of different values, the smallest value should be deducted from the first of the two repeated notes. If the note value belongs to binary meter, a multiple or a division of two is deducted. In ternary meter, this can be either a multiple of two or a multiple of three (Shi 1999: 150):

Figure 6: Vierne, *Méthode d'Orgue*, repeated notes (c)

Given text:

Execution:


Figure 7: Vierne, *Méthode d'Orgue*, repeated notes within musical context

Given text:	Execution:
	

In contrast to other instruments such as the piano, string and wind instruments, upon which it is possible to create subtle contrasts in dynamic level by varying the amount of pressure

applied, the organ is not able to create this effect with the physical attack on its keys, because the sound is created mechanically and is always constant. The method of using “mathematical precision” (Shi 1999: 152) in the duration of sound allows the performer to create a “difference of intensity” (*ibid.*). Vierne cautions that not using a constant attack will lessen the effect of articulation:

Free articulation on this instrument [the organ] produces a deplorable effect of feebleness and excludes all precision of execution: therefore, it must always be avoided (*ibid.*).

The use of effective articulation in accentuating certain notes in music supports a musical and informed performance of the text. Without effective articulation and accentuation, the music will not necessarily be faithfully conveyed as intended by the composer.

In contrast to earlier composers, whose music lacks or seldom contains little indication of articulation, more recent<sup>25</sup> composers often indicate more exact articulation in their scores. The performer, therefore, is not at liberty to simply play the notes written on the score, but read and interpret all the accompanied text that is supplied by the composer to render a correct and artistic version of the music (*ibid.*).

[These] exercises are intended for pupils to familiarize themselves with rational articulation: they should therefore work with extreme care, in a manner allowing the perfect execution of the texts in which one meets either repeated notes or notes detached from their neighbor, differentiated because of accentuation (*ibid.*). To begin practicing a piece, it is necessary therefore to determine in advance all articulated notes included in the text and to regulate the attack and the release, by counting scrupulously. For example, suppose there are two quarter notes whose first loses a sixteenth; it will be necessary to count “one” while attacking the first quarter note, “two” and “three” during its duration, and to release exactly at the counting of “four”; the second quarter will be attacked at the counting of “five”. This dividing by determined values for control is indispensable in the exact realization of articulation. If one proceeds otherwise, there will be disorder (Shi 1999: 154).

---

<sup>25</sup> By “more recent” composers, Vierne refers to composers within his lifetime such as Franck, Widor, Guilmant, and Dupré, whose musical texts are filled with articulation and phrasing markings.

## 4.2.2 Detached Chords

Vierne states that music often contains chords that sometimes need to be detached from each other while sustaining common notes between the two chords. Other times the two chords must be played completely detached from one another, though common notes occur within the two chords. He advises that when the organist is uncertain of how to perform detached chords, he should consult orchestral scores. Organ music in the past was in fact written with an orchestra in mind, rather than the harpsichord, and the articulation thus differs considerably (Shi 1999: 165).

Both Marshall and Gleason state that to create the different sound effects of a detached chord and a staccato, is dependante on the way the note or chord are released. Creating wider spaces between notes or chords will create a more staccato effect, while narrowing the spaces between them will give an effect of non-legato or otherwise known as *détaché* (Marshall 2004: 99). Gleason (1988: 51), however, does not specifically mention staccato technique, but deals with detached notes by giving the following advice:

- 1 Give the exact time values to the rests and notes. Release the keys with finger action only.
- 2 Keep the fingers in contact with the keys at all times.
- 3 Relax and avoid tension.

In the case of detached chords, the same principle of performing them apply as to repeated notes. When one chord moves to another, the first chord should be shortened depending on the tempo indication of the piece (as legato touch is still a factor, except when the chord is marked with a staccato or *tenuto* mark).

Late Romantic composers indicate precisely how they wish chords to be played when common notes are found between them: a chord should be completely detached when a sign of articulation, such as the dot or tenuto, is found on the chord; when common notes should be held between the chord, the composer will use a tie to show which common notes should be sustained (*ibid.*).

Concerning the attack of the chord, once again referring to his playing with “mathematical precision” as mentioned above with the playing of repeated notes, Vierne states the following:



For a rational execution of absolute staccato on the organ, it is necessary to hold the wrist slightly lowered, a bit contracted by the forearm, in such way that the latter serves as propeller and prevents it from changing position; the fingers, quite curved, leave the keys only as necessary to allow the latter to release. It is to say that the fingers must remain in contact with the keys constantly and that each note must be detached by a stroke of the wrist; the latter is put in motion by the forearm (in Shi 1999: 168).

In exercising staccato touch, Vierne instructs the player to commence slowly, and to always be aware of the movement of the forearm, which is the driving force of this technique. If the exercise is done slowly for a period of time, the organist can master the technique with great ease and rapidity. Double, triple and quadruple staccato is also to be found, and should eventually be performed with the same ease as a single staccato note. It is, however, important to rest in-between so as not to exhaust the hand; otherwise the resulting stiffness will negate the purpose of the exercise. Advice is given to practice the staccato for ten minutes and to rest for two minutes in the course of an hour's practice. One should also practice both hands equally as the use of staccato is distributed between both hands in music (*ibid.*).

Vierne further notes:

It is staccato that serves as a decisive test of the suppleness of the mechanism of an organ: a formidable test for negligent organ-builders. Because, with a slow, heavy, or doughy mechanism (as one encounters, alas! too often), the even *détaché* becomes impossible. With the achievement of modern organ-builders, organists are entitled to demand instruments whose mechanism is as supple, as precise, and as easy as an excellent piano (*ibid.*).

Notes on practicing the following exercises are given, by keeping in mind what has been learned in the previous exercises and retaining the suppleness in the hands and evenness on playing the notes. This is, however, where Vierne's treatise ends and no further exercises are included.

In his conclusion, Shi (1999) states that, although Vierne's treatise is incomplete, it still provides us with useful information in performing his organ works. Although Vierne was acquainted with the legato style of playing learned from his earlier teachers Louis Lebel and Adolphe Marty (both pupils of Franck) and from Franck himself, he later absorbed the Lemmens tradition when Widor succeeded as organ professor after Franck's death (Shi 1999: 176).

With Widor, Vierne not only practiced the art of improvisation as he did with Franck, but studied repertoire and mastered the interpretation of musical text with all its indications. When Vierne became Widor's assistant and later on Guilmant's, he also taught in the Lemmens tradition, which all three considered the 'true' interpretation of the organ works of J.S. Bach. Thus the Lemmens tradition became the basis for Vierne's technique and style of interpretation and the heart of his *Méthode d'Orgue* (Shi 1999: 171).

Since all Vierne's organ works were published after he was schooled in the Lemmens tradition, it is a rational observation to apply the principles of his treatise in the interpretation and performance of his organ works (Shi 1999: 172).

## 5. Interpretational Information Towards the Performance of Vierne's Organ Symphonies

An interpretational study such as this requires the 'reconstruction' of how music was performed according to certain influences - this relates directly to the term 'performance practice'. The performance practice movement began in the late 19<sup>th</sup> century, driven by German musicologists, who dubbed it *Aufführungspraxis* (Cyr 2016). It has played an increasingly important role in the interpretation and performance of Western Art Music in recent decades.

Edgecombe (1995: 6) states that performance practice has brought about the creation of more authentic performances, shaped by a constant search for new methods directed towards an accurate realisation. This type of research entails a thorough analysis of primary sources such as original manuscripts, recordings (if available), and accounts that are as close as possible to the creation of the work in question. The analysis of pedagogical treatises and of the instruments of the era both play an important role in gaining further insight into the realisation of an authentic interpretation of older music (Cyr 2016; Joseph 2014: 20).

Webb however argues that authentic performance practice is more an attempt at achieving an approximate recreation of the authentic performance:

Through analysis of general performance techniques and performance settings of a musical era, one can gain a general idea of how pieces from that era should be performed in modern situations (Webb 1995: 60).

Since an examination and performance practice of Vierne's organ symphonies with specific reference to his symphonic style is a necessarily complex and detailed exercise, this discussion will be limited to his *Troisième Symphonie* in F sharp minor, and used as example. As the material in this work is diverse and characteristic of his symphonic style, the performance practice regarding this work may also be applied to his other organ works, specifically the remaining symphonies. The 3<sup>rd</sup> Symphony will be observed and discussed against the criteria of Vierne's score, the instruments/registers to which he was accustomed, traditions valid in his time, and his own *Méthode d'Orgue*.

This discussion will further be aided by using Jon Laukvik's *Historical Performance Practice in Organ Playing Part 2, Organs and organ playing in the Romantic period from Mendelssohn to Reger and Widor* (2010). This author has undertaken extensive research on fundamental principles of organ playing during this period, citing from primary sources concerning organ techniques and practices.

## 5.1. The Symphonic Organ of Cavaillé-Coll

Influenced by the symphony orchestra of the 19<sup>th</sup> century, Aristide Cavaillé-Coll built approximately 500 French Romantic organs that possess a symphonic timbre well-suited to the performance of polyphonic music (Cavaillé-Coll 2012).

His instruments are still renowned for their thick foundation registers and powerful reeds. He reduced the number of mutation registers (mixtures) which is typical of classical organs, and added more foundation stops. These foundation stops included the *Montre* 8', *Gambe* 8', *Bourdon* 8', and the *Flûte Harmonique* 8' (an overblown flute register) which imitated the sound of the orchestral flute (Cavaillé-Coll 2012; Sung 2012: 6).

Cavaillé-Coll also created new orchestral stops correspondent to the orchestral instruments, such as the *Cor Anglais*, *Hautbois*, and *Basson*, which he accommodated by enlarging the *Récit* and *Positif* divisions of the organ. Each division was further enlarged by adding a full set of reeds, which included a 16', 8', and 4' reed, whilst the pedal division of his large organs also possesses a 32' reed stop. He mounted each of these ranks of pipes on their own windchests, and in this way ensured that his instruments did not lack sufficient wind pressure; he also foresaw that new stops would be constantly added for greater dynamic capability, and compensated for this in advance (Handle 2013: 9; Sung 2012: 6; Ritchie & Stauffer 1992: 297).

The instruments were capable of rapid changes of sound, colour and dynamic levels, thanks to a system of ratchet levers that controlled the reeds (*Anches*) of each division. These reed stops (of each manual as well as the pedals) could be drawn and mute while their specific division was played upon, but would be activated when the corresponding lever was depressed. However, the solo stops such as the *Hautbois* or *Clarinette*, were not included in the *Anches* and would always sound when drawn (Ritchie & Stauffer 1992: 297).

Another important quality of the Cavallé-Coll organs, is their uniformity of sound. Divisions such as the *Récit* and *Positif* were given effective shutters that controlled subtle gradations of volume. These shutters are controlled through a pedal activated by the organist's feet. The differentiation in volume is therefore created by a swell of sound, rather than by adding or reducing stops to emulate crescendo and decrescendo effects. The tone quality remains therefore unchanged.

In imitation of an orchestral *tutti* effect, obtained by the simultaneous playing of all the instruments, the organ is also capable of sounding its entire "orchestra" of registers by coupling all manuals to the one main manual *Grand Orgue*, or G.O. as indicated in the score. Before Cavallé-Coll's innovations, the coupling of all the manuals by mechanical action alone would render the depressing of the keys too heavy for the organist to be able play comfortably. He addressed this problem by employing the Barker system, which is a combined mechanical and pneumatic action (Cavallé-Coll 2012; Edgecombe 1995: 22; Ritchie & Stauffer 1992: 297).

It is without a doubt that Cavallé-Coll's ingenuity regarding his organs' sound and mechanics had a profound influence on organ playing, organists, and compositions. Franck was the first to realize the full potential of Cavallé-Coll's symphonic instruments, and made a revolutionary contribution to organ music with his *Grande Pièce Symphonique*, the first work for solo organ to be described as 'symphonic'. Franck is therefore generally regarded as the "Father of the Symphonic Organ School" (Dries 2005: 118).

Together they [Franck and Cavallé-Coll] forged a new aesthetic for organ music in France. Franck led French organ music in a new direction, combining formal Classical structures with rich Romantic expression. He restored the French organ music to a place of respect in contemporary cultural life (Sung 2012: 6).

## 5.2. Registration

After Vierne was unanimously named the new organist of the Notre Dame in 1900, he had access to the Cathedral's 86-stop, five-manual Cavallé-Coll instrument which replaced the

previous instrument in 1868. Cavallé-Coll retained 23 stops of the older instrument, which had been built by Thierry in 1733 and restored by Clicquot in 1788. Vierne would later have the instrument rebuilt again in 1904.

Vierne's registration indications naturally disclose the characteristics and idiosyncrasies of the instruments on which he performed, composed, and which he became accustomed to throughout his career. He completed his *Première Symphonie* in 1899 while still at Saint Sulpice; the others were inspired by the capabilities of the five-manual Cavallé-Coll of the Notre Dame Cathedral. It is therefore appropriate to give attention to the extant documentation of Vierne's registration techniques with specific reference to the organ of the Notre Dame. The specification of this organ is to be found in Addendum A, and the specification for Saint Sulpice in Addendum B.

Vierne chiefly adhered to the traditional registration techniques of his teachers, Franck and Widor (Laukvik 2010: 206).

Vierne displays the same artistic preferences as his teachers, entrusting monumental works to the organ, like the six symphonies, in which he expresses the complex timbre articulation and dynamics of an orchestra (Svetkova 2013: 5).

In the preface (*Avertissement*) of his *Pièces de fantaisie*, Vierne remarked that for the registration "it goes without saying that artists should guard themselves against ill-chosen, picturesque, or eccentric effects not justified by the character of the music" (in Laukvik 2010: 206). In another passage from the same preface he writes that "the registrations indicated in brackets are merely a preparation for the later passages and do not affect the measures in which where they are written" (*idem*: 207). He then explains that the "registration indications without brackets coincide with the exact moment of the application" (*ibid.*).

Figure 9: Vierne, *I Allegro Maestoso*, mm 70-72

Certain French romantic registration markings cannot, however, be fully realised on modern, often ‘eclectic’ instruments, but may be effectively imitated to a certain extent. Adjustments need to be made to approach the prescribed timbre or tonal colour. Vierne was aware of this fact and must have come to the same insight while travelling abroad and giving recitals on other organs; to this end he states:

The registration is by no means inflexible. It is rather an indication of the general coloring. It can be modified according to the possibilities offered by the instruments on which they are to be performed (Svetkova 2013: 14).

Laukvik gives some practical suggestions for registration on modern organs which may be applied in the works of Vierne. For the purpose of this study, these helpful notes are here quoted in full:

On a three-manual organ with a *Rückpositiv* the French symphonic repertoire is more effective if the main manual is used as both *Positif* and *Grand Orgue*. The Great’s softer 8’ stops like the Gedeckt and Gambe, possibly with the Gedackt 8’ coupled from the *Rückpositiv*, function as the *Positif*. If the Great is to enter like a *Grand Orgue*, as part of a crescendo, the Principal 8’ is drawn. The construction of the crescendo through to the full organ could then proceed somewhat as follows (for instance, in Franck’s *Choral No. 3 in A minor*):

+ *Anches Pos.* = addition of all the foundation stops not yet drawn, that is, the 2 2/3’, 2’, and the Great Trompette 8’ (and possibly the Great Mixture, if not too loud). The Positive Scharff can likewise join the combination of not too high in pitch. Otherwise, it is best omitted entirely in this sort of music. Strictly speaking, this approach is contrary to the one assumed by the composer, since the Great stops contribute to the crescendo first, and then those of the Positive.

If the organ does not have a Trompette harmonique, but only an Oboe 8’, it is possible to combine the Principal 4’ with the latter in order to approximate the Trompette sonority. The Principal 4’ reinforces the overtones of the Oboe, and

together, they convey the impression of a Trompette harmonique rather well. If the organ has both a Trompette harmonique and an Oboe, the two drawn together as a solo registration often makes a bad effect, contrary to the situation on the organ of Sainte-Clotilde. In that case, the best advice is to combine the Trompette harmonique with the foundation stops and omit the Oboe.

The romantic Voix humaine of Cavaillé-Coll and other builders may be approximated in some organs by combining the Oboe 8' and Nazard 2 2/3' (plus Bourdon 8') with the Swell box closed, as long as the Oboe is not voiced too loudly. (A mysterious, heavenly haze of sonority is what the player wishes here, and it cannot be produced by a loud, shrill Oboe.) In some organs, it might be better to use the Voix celeste instead, even though this sonority is never requested in later organ works such as the *Trois Chorals*. Perhaps Franck did not even like its sound in his later years owing to its abuse by many organists...

A Cromorne or Clarinette can similarly be imitated by the Bourdon 8', Oboe 8', and Nazard 2 2/3', as for example, in the *Andante* section of Franck's *Grande Pièce Symphonique*, but the Nazard should be gentle and the Swell box never opened very far.

Octave transpositions of various sorts are to be recommended if the compass allows, such as 16' and 8' played an octave higher than notated, or 8' and 4' an octave lower. Jacques-Nicholas Lemmens suggests this approach for an *Andante religioso* in his *Orgelschule*, using Bourdon 16' and Viola di Gamba or Salicional 8'. "This combination requires that the entire piece be played an octave higher".

On modern organs, and for the works of French composers like those of Widor and Vierne, consideration should be given to playing tutti passages notated with a high tessitura one octave lower. The sound then gains in fullness, and high mixtures seem less shrill. In each case a decision is to be made about the use of the 16', otherwise the effect would be of a 32' foundation in the manuals. Of course, a 32' sonority would correspond to the effect of the suboctave coupler, itself normal in the period, but this depends of the nature of the manual 16' stops.

If the organ's Pedal specification lacks 32', making an octave transposition (downwards) in the pedal can provide it. This is particularly helpful and effective in the passage beginning at m. 115 in Franck's *Choral No. 2* in B minor. The two Bs in mm. 120 and 126 must then be played at the notated pitch (Laukvik 2010: 207, 208).

The following are typical of registrations prescribed by Vierne; they are found in the *Troisième Symphonie* and some (especially solo registrations) are similar to those described by Laukvik as quoted above:

### I. Allegro maestoso

*Récit: Fonds et Anches 8.4.*

*Positif, Gd Orgue, Pédale: Fonds et Anches 16.8.4.*

*Claviers accouplés, Tirasses*

### II. Cantilène

*Récit: Clarinette ou Hautbois et Cor de nuit*

*Positif: Flûte 8.*

*Gd Orgue: Fonds 8.*

*Pédale: Basses douces 8.16.*

*Claviers separees*

### III. Intermezzo

*Récit: Gambes, Flûtes 8.4. Nasard*

*Positif: Salicional, Unda maris*

*Gd Orgue: Bourdon 16. (accouplés au Récit)*

*Pédale: Bourdons 8.16. Flûte 4.*

### IV. Adagio

*Récit: Gambe, Voix celeste*

*Positif: Fonds 8.*

*Gd Orgue: Fonds 8. (accouple au Positif)*

*Pédale: Fonds 16.8. doux, Tirasses*

### V. Final

*Récit: Fonds et Anches 16.8.4.*

*Positif: Fonds 16.8.4. (Anches préarées)*

*Gd Orgue: Fonds 16.8.4. (Anches préarées)*

*Pédale: Fonds 32.16.8.4. (Anches préarées) Claviers accouplés*

The score also contains markings such as the following:

<i>R. Fonds:</i>	deactivate the lever controlling the <i>Anches</i> on the <i>Récit</i> .
<i>P. anches:</i>	activate the lever sounding the reeds, which was drawn in preparation on the <i>Positif</i> .
<i>G. anches:</i>	activate the lever sounding the reeds, which was drawn in preparation on the <i>Grand Orgue</i> .
<i>Ped. Anches:</i>	activate the lever sounding the reeds, which was drawn in preparation on the <i>Pédale</i> .
<i>R. Gambe et Voix celeste:</i>	Only these specified registers on the <i>Récit</i> .
<i>Otez</i>	Remove
<i>P.R.</i>	<i>Récit</i> coupled to <i>Positif</i>

<i>G.P.R</i>	<i>Récit and Positif coupled to Grand Orgue</i>
<i>Ped,G.P.R.</i>	<i>Récit, Positif, and Grand Orgue coupled to Pédale</i>
{ <i>R</i>	Play on the <i>Récit</i>
{ <i>P.R</i>	Play on the <i>Positif (Récit coupled)</i>
{ <i>G.P.R</i>	Play on the <i>Grand Orgue (Récit and Positif coupled)</i>

When dynamic markings such as *p* and *f* are given, they refer to the swell box being opened and closed to the corresponding dynamic.

The following is a guideline of how the Symphony's registration can be interpreted on an instrument that is not necessarily symphonic of nature, for example the Marcussen organ (1980) of the Konservatorium of the University of Stellenbosch.<sup>26</sup> The disposition of this organ is as follows:

Hoofdwerk II	Swellwerk III	Positif I	Pedal
Gedaktpommer 16'	Principal 8'	Quintaton 8'	Principal 16'
Principal 8'	Viola di Gamba 8'	Gedakt 8'	Oktav 8'
Oktav 4'	Voix Celeste 8'	Principal 4'	Oktav 4'
Oktav 2'	Rørfløjte 8'	Kobbelfløjte 8'	Nathorn 2'
Hulfløjte 8'	Oktav 4'	Oktav 2'	Mixtur 5 kor
Rorfløjte 4'	Spidsfløjte 4'	Waldfløjte 2'	Subbas 16'
Quint 2 $\frac{2}{3}$ '	Flachfløjte 2'	Sivfløjte 1'	Gemshorn 8'
Mixtur 5-7 kor	Nasat 2 $\frac{2}{3}$ '	Quint 1 $\frac{1}{3}$ '	Basun 16'
Trompet 8'	Terts 1 $\frac{3}{5}$ '	Sesquialtera 2 kor	Trompet 8'
III/II	Mixtur 5 kor	Scharf 3-4 kor	I4'/P
I/II	Cymbel 3 kor	Dulcian 16'	III/P
	Trompet 8'	Krumhorn 8'	I/P
	Obo 8'	Tremulant	II/P
	Clairon 4'		
	Tremulant ( <i>Expressive</i> )		

<sup>26</sup> This is the organ on which the researcher performed Vierne's *Symphonie No. 3* as part of the practical component of the current MMus study.

To build from a *Fonds* registration to the *Grand Choeur* on this specific organ, the performer may use the following as guideline:

*Fonds:* II – *Principal 8'*, *Hullfløjte 8'*, *Oktav 4'*, *Spidsfløjte 4'*  
 III – *Principal 8'*, *Oktav 4'*, *Rørfløjte 8'*, *Obo 8'*  
 I – *Quintaton 8'*  
 Ped – *Principal 16'*, *Oktav 8'*, *Subbas 16'*  
 III/II, I/II, III/P, I/P, II/P

Although the *Oboe* belongs to the reed family, it is softer and added here to reinforce the strength of the *Fonds* on a smaller organ, a practice used by Franck on his Cavallé-Coll. Vierne would no doubt have been familiar with this registration through Franck's influence.

*Anches Réc:* III – *Tompet 8'*, *Mixtur 5 kor*;  
 I – *Oktav 2'*

*Anches Pos:* III – *Clairon 4'*, *Nasat 2<sup>2</sup>/<sub>3</sub>'*, *Terts 1<sup>3</sup>/<sub>5</sub>'*

The sharp quality of the *Nasat* and *Terts* adds to the brilliance of the 4' reed and reinforces its power to create the impression of a set of reeds on the *Positif* manual of a Cavallé-Coll organ.

*Anches G.O.:* II – *Gedaktpommer 16'*, *Trompet 8'*, *Quint 2<sup>2</sup>/<sub>3</sub>'*

Here the *Gedaktpommer* adds gravitas to the registration, while the *Quint* again reinforces the brilliance of the reed register. The *Mixtur* is omitted here, since on this organ it is too loud and the overpowering sound should come from the reeds. It is still the performer's personal choice to add or omit the *Mixtur* depending on the organ and the acoustic properties of the space.

*Anches Ped:* Ped – *Basun 16'*, *Trompet 8'*

Another aspect that sometimes needs addressing is the problem of insufficient wind supply when using the full organ sound, as most earlier organs do not possess the separate windchests on which Cavallé-Coll placed the different ranks of pipes. A strategy to counteract this effect is to not draw too many Flute stops which demand more wind supply and thus weaken the Principals. Thus the performer should avoid 4' and 2' Flute stops when building up to the full organ sound.<sup>27</sup>

<sup>27</sup> In a Masterclass by Liesbeth Schlumberger-Kurpershoek, assistant professor of organ at the Conservatoire National Supérieur Musique et Danse de Lyon, who studied under Marie-Claire Alain and Jean Boyer, this problem is addressed and useful advice given: Schlumberger-Kurpershoek, cautious against too harsh sounding Mixtures, suggests omitting the Principal 2' with the Mixture if the sound is too harsh, or to only use smaller Mixtures of the *Récit* and/or *Positif*, and omit the Mixture on the *Grand Orgue* entirely.

It is important for the performer to adjust the articulation according to the registration of a piece and the acoustics of specific performance venues. This is especially the concern when playing on the full organ or *Grand Chœur*. Guilmant states:

When one leaves the keys with a *mathematical exactitude*, it appears that the force of the sound is enhanced. One may always observe this in chords of eight or nine notes, which should generally be separated by silences, the durations of which are determined by the tempo of the piece. These sorts of silences are always necessary when playing on the *Grand-chœur* and in very large rooms, in order to lend power and clarity to the sound (in Laukvik 2010: 57).

Guilmant's statement is in accordance with Vierne's method of playing when one encounters such chords, or when they are articulated with a staccato. One can also argue that Vierne occasionally wrote this into his music. A written example of this can be found in the *Final*, which is played with the *Grand Chœur* registration:

Figure 10: Vierne, *V Final*, mm 257-261

The musical score for Vierne's *V Final*, measures 257-261, is presented in three staves. The key signature is three sharps (F#, C#, G#) and the time signature is 2/4. The top staff (treble clef) contains a melodic line with a large slur over the entire passage. The middle staff (treble clef) contains chords and rests, with several staccato markings. The bottom staff (bass clef) contains sustained chords, also with staccato markings. The score is characterized by its use of staccato and slurs to create a specific articulation and dynamic effect.

In conclusion, performers are therefore able to play most French Romantic organ music on non-French Romantic organs with smaller combinations of stops as indicated in the score, by emulating and substituting some registers if the organ does not possess the same stops or timbres as those available to Vierne on the Cavallé-Coll. Laukvik (2010) gives the performer solid guidelines for preparing convincing registration, although it is the performer's responsibility to listen to the appropriateness of the specific timbres of the organ on which works are to be executed.

### 5.3. Stylistic Influences on Vierne's Performance Style

Only limited evidence exists of Vierne's own performance style. Performers and researchers alike must rely on the pedagogy he received from Widor, and the accounts of contemporaries and students who heard him perform. Svetkova (2013: 5) states that "Vierne displays the same artistic preferences as his teachers, entrusting monumental works to the organ, like the six symphonies, in which he expresses the complex timbre articulation and dynamics of an orchestra". A few recordings of Vierne's performances in Notre Dame do exist, but these are of poor quality due to the primitive recording technology of the era.

Vierne's compositional style is an important factor for consideration when interpreting his organ music. It reflects the composer's artistic ideals. Frank Besingrand states that:

Louis Vierne's artistic ideal remained elevated without concession, and he never diverted from his artistic trajectory out of loyalty to his masters and his models, remarking "we must continue to advance in the path that was traced for us." But, especially after 1920, he valued a kind of isolation from the artistic sphere, mistrusting those who loudly and strongly heralded tradition and the models of the past in an age when composers searched to free themselves from well-established musical forms and from an overly conventional harmonic language (Besingrand 2018).

Vierne therefore, like Franck and Widor, remained faithful to the archaic musical forms of the Baroque period such as the prelude, fugue, and toccata. These forms can be seen in these composers' works, and specifically in the organ symphonies. Each composer, however, employed his unique harmonic language to enrich and modernise these forms, while staying true to the high standards of the musical art of the past.

Franck and his music had a profound influence on Vierne in terms of compositional structure and harmony, rather than organ technique. It is, however, important to bear in mind that Franck was a highly skilled pianist and was impressed with the legato playing of Lemmens. Franck spared no effort in employing this technique in his organ playing, which may be observed in the plentiful legato markings and slurs written into his organ scores, a testament to the refinement of his playing and musicianship. Laukvik specifically cites Franck's *Trois Pièces* and *Trois Chorals* to demonstrate the maturity of the composer, at a time when Vierne absorbed Franck's influence greatly (Laukvik 2010: 272, 273).

Widor's teachings further refined Vierne's technique and precision. Widor was exact in his teaching regarding phrasing and clarity, as "it was necessary to phrase more on the organ than on the piano, and much more decidedly [...] in the interest of clarity, rhythm and accent" (in Laukvik 2010: 274). These are important points which Vierne also addresses in his *Méthode d'Orgue*.

Meixner (2017: i) describes Vierne's compositions as "...virtuosic masterpiece[s] influenced by both classicism and romanticism, [and] Vierne's inclusion of aspects of dodecaphony and impressionism marks the entrance of the genre of the organ symphony into the 20<sup>th</sup> century".

#### 5.4. Touch and Articulation

Vierne's technique and touch were cultivated by Widor. Evidence for this may also be found in Vierne's *Méthode d'Orgue* where he elaborates on the subject of touch.

The term 'touch' refers to the manner in which the key<sup>28</sup> or keys are depressed and released; it refers to how the sound is produced and terminated. The term 'articulation', however, refers to the way in which two or more consecutive notes are connected (referring to a horizontal line such as polyphonic part). When playing a note on the organ, the sound or 'touch' eventually consists of three basic parts<sup>29</sup>:

1. the commencement of the sound by pressing down the key;
2. the continuance of the sound as the finger remains on the depressed key;
3. the end of the sound as the finger allows the key to lift.

It is specifically the second aspect, namely, the lingering of the finger on the key, which becomes increasingly important in legato touch as advocated by Vierne. To validate this touch on the manuals, five different kinds of joints can be employed: the two lower joints of the finger (the distal and proximal interphalangeal joints), the upper joint or knuckle closer to the hand

---

<sup>28</sup> The word 'key' refers here to both the keys of the manuals, as well as the pedals.

<sup>29</sup> Silence also plays an important part since it can be employed to create accents on certain notes within the phrase: "The length of the rest before the chord to be accented, however, must be increased by a small amount. The longer the delay (within a narrow limit) in playing the accented chord, the stronger will be the accent" (Gleason 1962: 21).

(metacarpophalangeal joint), the joint at the wrist (radiocarpal joint), the joints at the elbow, as well as the joints at the shoulder.

The stimulus from the finger, activated in the knuckle joints, is a technique already established and employed during the Baroque era. Regarding technique, most performance practice sources of this era make reference to this manner of playing. The use of the arm is, however, rarely mentioned, and its role is seldom addressed. The role of the arm is merely to move the hand into an adjusted position by vertical or sideways motion.

Depressing a key with a slow vertical movement is possible, but only at certain slower tempi. Faster passages will naturally require a faster action, but the concept of a ‘pressing’ rather than a ‘striking’ action is justifiable, even in faster passages. Vierne compared the energy of touch to that of “mezzo-forte playing on the piano with light key action” (in Laukvik 2010: 44).

‘Normal’ touch entails a rather energetic and fast pressing downwards of the key, with a slightly curved and firm finger. This touch will commence in close relation to the key, and the action would be initiated from the upper knuckle joint. Once contact is made with the keyboard, the hand comes to a rest with its full weight on the key. The wrist is released, freed up, and the hand comes to rest over the finger while it holds down the key. This is, however, just a technical guise, since the weight of the arm and the hand will always work mutually. In terms of the ending of the sound, the performer should experiment in terms of the speed at which the finger is released and lifted. The ‘normal’ lift entails the finger to be lifted in a fairly quick manner, but the contact with the key would be kept as close as possible.

An expressive ending is created by a slower lift of the key, and it is advisable to imagine that the key gently ‘pushes’ the finger upwards. For legato touch, the finger will be raised quicker and high enough, lifting at the moment that the following key is pressed down. However, when the sound must come to an end, the finger does not necessarily have to lift away from the key. Another possible action is where the tip of the finger is pulled away from the edge of the key. This action can be traced back to J.S. Bach’s playing technique as described, for example, by Forkel (1974) and Quantz (1752). Czerny (1791-1857) also refers to this technique:

[...] when runs and passagework should be played faster in this manner [*portamento*], the *second kind* of execution comes into play, whereby the soft

tip of the finger makes a scratching or plucking motion. [...] In this way, all the fingers effect a very clear sparkling [*perlendes*], even playing, by which even in the fastest tempo, all the passagework emerges evenly rounded with full but not sharp tone, and with the most attractive calmness of the hand (Czerny 1991: III, 19).<sup>30</sup>

### 5.4.1 Legato

All of the techniques discussed in the *Méthode d'Orgue* which seek to facilitate the attainment of a legato touch are necessary in performing Vierne's organ works. They are, after all, the techniques taught to him by Widor, who had in turn learnt from Lemmens. It is therefore only natural that Vierne would have included a description of these techniques in his own treatise on organ playing. As discussed earlier, the legato touch was in Vierne's time a 'new' technique, and music written with this basic cantabile (singing) ideal in mind. The organ, particularly, possesses the ability to sustain a sound for as long as the keys or pedals are depressed, and is therefore an instrument well-suited to the playing of long melodic lines with a legato touch (Laukvik 2010: 58).

Legato touch was further supported by the harmonic structures of music grown out of the Romantic period. Laukvik (2010: 13) states that non-legato playing became less fashionable in high Romanticism, "a fact observed particularly with Widor and Vierne".

### Finger Substitution

As discussed in the previous chapter in more detail, one of the important techniques which supports the attainment of a legato touch is the use of finger substitution. This is a technique where one finger is substituted with another on the same key without causing a break in the sound during the execution of the action. Laukvik states that evidence of finger substitution is found as early as in the works of François Couperin, as well as in his harpsichord treatise.

---

<sup>30</sup> Translation by Laukvik (2010: 45).

In this way the composer wishes to create a full-bodied legato [and is] necessary when fingers are lacking for the continuation of a run (Laukvik 2010: 85).

Laukvik, like Vierne, further advises:

In order to master a perfect legato in organ playing, one should not shy away from the great effort occasionally required in finger substitution. Of course, finger substitution is possible only up to a certain tempo. A legato produced by such finger exchange is not as necessary in fast pieces or with short note values as it is in slow music or with long note values (*idem*: 87).

Laukvik further mentions the substitution of fingers from one hand to the other between alto and tenor voices which can be used, for example, in Franck's *Choral no. 3* (*ibid.*), or even more fingers, such as to play a triad, as in the opening of his *Choral no. 1*.

The use of finger substitution towards the attainment of a perfect legato touch is ideally suited to music of a slower tempo. This may be observed in the left hand accompaniment of the fourth movement of Vierne's 3<sup>rd</sup> Symphony, *Adagio*. This is also an example of 'mathematical precision' once again coming to the fore: as Vierne mentioned in his *Méthode d'Orgue*, it is best to apply finger substitution in a rhythmical manner. This passage with the crotchet values in the left hand allows the performer to apply finger substitution in the rhythmical pattern of quaver beats to attain the necessary legato touch:

Figure 11: Vierne, *IV Adagio*, mm 73-74

The musical score for measures 73-74 of Vierne's *IV Adagio* shows a piano accompaniment. The bass clef part consists of a series of eighth notes with the following fingerings: 2, 5, 12, 45, 12, 45, 12, 45, 1, 3. The treble clef part has a melodic line with a slur over it. The key signature is two sharps (F# and C#).

The use of finger substitution may also be used, for example, in measures 48, 51 and 52 in the following excerpt from the second theme of the first movement, *Allegro Maestoso*. The use of legato touch here allows the theme in the upper voice to retain its melodic line while being

accompanied by the lower voices in a smooth and unbroken manner. The fingering is not given by Vierne himself, but is merely an example of the possible use of this technique:

Figure 12: Vierne, *I Allegro Maestoso*, mm 48-51

Substitution may be used in the melody of the left hand in the following excerpt from the third movement, *Intermezzo*. Here the technique of substitution is aided by the preparation of fingers for the descending line of the melody in bar 11:

Figure 13: Vierne, *III Intermezzo*, mm 8-11

In the *Final*, substitution can be applied in the melodic line of the right hand. The *Final* is marked *Allegro* – this implies that the player is required to execute a skilful application of finger substitution at a fast pace. The note values in this passage also allow the performer to make use of rhythmical substitution:

Figure 14: Vierne, *V Final*, mm 84-88

## Glissando

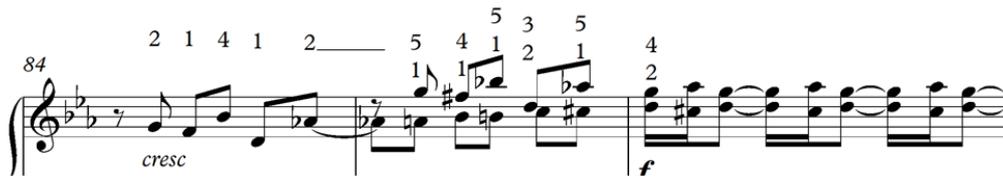
The next technique towards achieving legato on the organ is the use of *glissando*. There are two possible ways of performing *glissandi*. The first is the sliding up or down of any of the five fingers from a black key to its neighbouring white key. The second is the sliding of the thumb from a white key onto the lower black or white key with an upwards motion of the lower part of the thumb (this last applies to the right hand; the opposite is true for the left hand).

In contrast to finger substitution (a technique already found in earlier periods), Laukvik's research reveals that the *glissando* technique is a late occurrence to come about in keyboard playing, which also took some developing in treatises. The first is to be found in the writings of Christian Heinrich Rinck (1770–1846), but is restricted to the use of sliding from a black key to its neighbouring white key. Lemmens' treatise deals with it more thoroughly, but it is Vierne who explains it in detail in his *Méthode d'Orgue*:

In order to slide with the thumb on two adjacent naturals, one must, after playing the first key, slightly lift the hand again so that the key is positioned under the first joint of the thumb [i.e., under the thumb's upper knuckle joint, auth.], without allowing the pressure on the key to subside. After this, one directs the tip of the thumb towards the next key to be played. Once the tip is well positioned over the key, one lowers it by a slight lift of the wrist (in Laukvik 2010: 89).

The following excerpt from the first movement, *Allegro Maestoso*, shows where the *glissando* technique could be applied by the thumb within the lower voice:

Figure 15: Vierne, I *Allegro Maestoso*, 84-86



The following excerpt, from the second movement, *Cantilène*, suggests where *glissando* may be used in the lower voices in the right hand of bar 29 (G# to A). The sliding motion of the thumb also helps delineate the symphonic style as if the string section of the orchestra would play that passage:

Figure 16: Vierne, II *Cantilène*, mm 27-30



*Glissando* may also be used, for example, in the upper voices of the left hand in the II *Cantilène*. The following excerpt is also an example to show that *glissando* is vital in achieving the legato touch with limited fingers in one hand, while the other hand is playing on a different manual:

Figure 17: Vierne, II *Cantilène*, mm 10-12



To attain the desired legato touch from measures 41-43 in the third movement, *Intermezzo*, it will be necessary to use *glissando* in the lower voice of the right hand. This hand plays an ascending line, while the upper voice's character is indicated as *cantabile*, with its intervals requiring this technique to attain a legato line for the melody. The *glissandi* in this passage are skilfully aided by the fact that it consists of a chromatic line as well:

Figure 18: Vierne, III *Intermezzo*, mm 39-44

In the next excerpt from the fourth movement, *Adagio*, applying the *glissando* technique may be useful in achieving a legato touch in all the voices, since each voice within the open four-part chordal structure requires smooth legato transition from one note to the next. *Glissando* may be used in the inner voices of the manual parts as follows:

Figure 19: Vierne, IV *Adagio*, mm 2-6

Due to the abundance of black keys in the key of F-sharp major within the fifth movement, *Final*, the mastery of the *glissando* technique from black-to-white and black-to-black keys is necessary towards attaining a legato touch. This is the case in the left hand part of the following

excerpt (Vierne's method does not discuss pedal technique, but *glissando* may also be used in the pedal part from the F#-G# also in the following excerpt):

Figure 20: Vierne, *V Final*, mm 262-263

### Finger Crossing

The technique of finger crossing is an archaic form of playing, already familiar to Baroque organists in the execution of extended passages of scales. However, in this earlier era, the technique was used to achieve a subtly articulated line, while in the Romantic period the fingering was used to achieve a perfectly legato touch. This technique is especially useful when one is faced with the challenge of a static or stepwise moving alto line while the soprano line has an ascending or descending line; such an instance is found in the following excerpt from the first movement, *Allegro Maestoso*:

Figure 21: Vierne, *I Allegro Maestoso*, mm 30-32

The next excerpt from the second movement, *Cantilène*, shows the restatement of the opening material which is accompanied by flowing sixteenth notes; the latter includes leaps which must

be carefully navigated. In the first bar of the excerpt within the first beat, finger crossing may be employed for the octave jump and the semitone that follows (E-E-D#). The technique may also be used within the first beat of the following bar as the same figure appears, this time with the interval of a sixth (C-E-D#):

Figure 22: Vierne, *II Cantilène*, mm 54-55

In measures 67 to 68 from the second movement, *Cantilène*, finger crossing may effectively be employed in the right hand for the melodic line. In the following excerpt the 4<sup>th</sup> finger plays the G# and 5/1, Fx/ G#, for the soprano and alto voices:

Figure 23: Vierne, *II Cantilène*, mm 67-69

### Additional Techniques for Aiding Legato

Laukvik gives two technical suggestions regarding the legato touch not given by Vierne, but which may be of great help when performing his works. The first is to play with flat fingers in movements of a slower tempo which require a legato, or even sometimes a legatissimo effect:

The curved position of the fingers [...] should be the norm. But in very gentle, slow melodies, *pianissimo* and *legatissimo*, one may also press down the keys with flat, that is, almost stretched out fingers. Mathis Lussy formulates this by writing that *legatissimo* “is produced with somewhat stretched out fingers: the arm, the wrist, and the hand remains motionless” (Laukvik 2010: 54).

This technique may be profitably applied in the slower movements of the Symphony, such as the fourth movement, *Adagio*, as well as in passages containing long note values from the second movement, *Cantilène* (see figure 23).

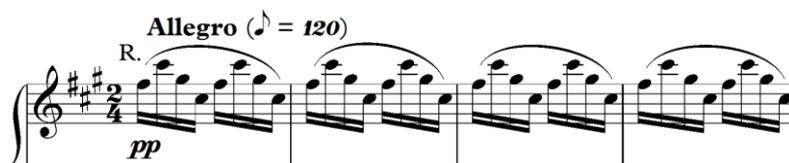
Laukvik’s second suggestion is the lateral movement of the wrist and elbow:

If one has to play larger intervals legato, the wrist must move sideways (horizontally). This is the case, for example, at the beginning of Reger’s *Fantasie* in D minor op. 135b, if all the notes are to be taken with the right hand. [...] If the hand is held in a single position, at a 90-degree angle to the keyboard, it tenses easily, since the fingers must be stretched too far. The large intervals are better played with a generous lateral movement of the wrist, a movement supported by a freely moving arm from the shoulder joint. During this, the elbow moves away from the body and back again.

Such substantial sideways movements of the whole arm from the shoulder are also advisable in fast, repeated figurations, passages that otherwise might quickly lead to muscular fatigue (*idem*: 54, 55).

This advice as quoted above might be especially helpful to performers with smaller hands in the fifth movement, *Final*, of the Symphony since the entire movement’s accompanying material consists of such wide intervals:

Figure 24: Vierne, V *Final*, mm 1-4



## 5.4.2 Articulation

In Vierne’s *Méthode d’Orgue*, the composer discusses articulation patterns such as repeated notes, detached chords and staccato or continuous *détaché* playing. This is where Vierne’s

motto regarding ‘mathematical precision’ (in Shi 1999: 166) is of special interest. The articulation and excerpts will be given with a small recapitulation from Vierne’s *Méthode d’Orgue*. It is important to note that although Vierne was rigorous and precise regarding legato touch, he stresses that intelligible and musical playing also requires clear articulation, and not just a refined legato touch. As Rosenblum points out:

Articulation is a principal element in the shaping of phrases and texture and, along with harmonic and rhythmic activity, in the clarification of phrase lengths and larger formal sections. Within a phrase, legato groups and subtle degrees of detached, staccato, and accented notes can define subphrases and motives. Coupled with the action of the instrument, this grouping and separating of notes by the player affects the amount of emphasis each note and motive receives, subtleties for which the performer bears the ultimate responsibility (Rosenblum 1997: 31).

### 5.4.3 Repeated Notes

Vierne’s approach to a pair of repeated notes is generally the principle that the first note loses half its value, “...that is to say that two quarter notes are to be executed as an eighth note followed by an eighth rest and a quarter note...” (in Shi 1999: 148). He applies the same principle when two consecutive eighth or sixteenth notes are found in a passage (*ibid.*).

In the fifth movement, *Final (Allegro)*, repeated notes would lose half of their value. The repeated note in this next excerpt is found in the left hand part of the manuals, the last beat of the first bar of the excerpt until the first beat of the second bar (D-D):

Figure 25: Vierne, *V Final*, mm 146-148

G.P.R.

The passage would be performed as:

Figure 26: Vierne, *V Final*, mm 146-148 [adapted version]

G.P.R.

Vierne gives important advice concerning the performance of repeated notes in slow tempi. He states that when the performer would halve the value of the note, the silence it creates would be too long and “create a void much too great” (in Shi 1999: 149). He concludes that it would be more musical to reduce the length of the note by a quarter or even an eighth of its value. Accordingly, in the second movement, *Cantilène*, repeated notes would lose an eighth of their length, and shorter breaks such as sixteenth rests, would be musically more pleasing. The repeated note in the following excerpt is found in the second bar of the tenor (G#):

Figure 27: Vierne, *II Cantilène*, mm 20-22

The above excerpt would then be performed as follows:

Figure 28: Vierne, *II Cantilène*, mm 20-22 [adapted version]

The image shows a musical score for three staves. The top staff is in treble clef, the middle in bass clef, and the bottom in bass clef. The key signature is G major (one sharp). The top staff contains a melodic line with staccato dots above several notes. The middle staff provides harmonic support with chords and moving lines. The bottom staff features a long, low note with a staccato dot, spanning across the measures.

#### 5.4.4 Staccato and Portamento

Staccato articulation as marked in Vierne's music, is often indicated by a staccato dot above the note, thus implying that it should sound for half of its value (refer to Fig 8 in the previous chapter) (Shi 1999: 153).

Referring to Vierne's comment on playing music intelligibly and keeping his mathematical precision in the execution of staccati, the way one approaches and executes these articulation details should always be 'intelligible'.

Articulation concerns first of all the emission of sound from the organ, the duration thereof and its cessation. Important factors that play a role include, for example, the acoustic properties of the space in which the instrument stands, tempo of the passage, and registration requirements. Bearing these factors in mind, it follows that if the acoustic of a particular venue is not very resonant, one would lengthen the articulated notes, especially when playing at a more relaxed tempo. On the contrary, in a very sympathetic acoustic, one might shorten the value of the articulated note even more, so as to enhance the clarity of the texture.

Laukvik also discusses staccato touch on the organ, stating that the staccato 'attack' used for piano playing would result in a harsh sound. To produce a 'standard' staccato on the organ, it is perhaps better to compare the touch, or attack, with the portamento of the piano. He also summarise the above-mentioned points regarding a staccato attack by stating:

In a *fff* registration [...] a decision must be made about how much the chords ought to be shortened. This will depend, firstly, on the reverberation of the room, and secondly, on the precision of speech of the stops drawn, particularly with 16' and 8' registers. It is a basic premise that, when several loud reed stops are used, chords played in an extremely detached manner have an explosive potential. The complete intensity of the sound emerges only in relatively long, held chords. If the staccato is played too short, a fully developed tone cannot result and the organ sounds “nervous” and short of breath (Laukvik 2010: 70).

In Vierne’s *Méthode d’Orgue*, he states that staccato notes in fast moving passages should be played at half their value, with equal valued rests between the notes. In slow moving pieces the staccatos should be shortened by the smallest note value of the piece; this is to prevent the occurrence of too great a void. In accordance with this statement, Laukvik quotes Wilhelm Volckmar (1812–1887):

The dots and strokes over the notes do not always communicate which sort of staccato is meant. This depends on the particular piece in question, and is determined by the tempo, rhythmic groupings, the melodic form, the harmonic architecture, the dynamics – in a word, by the character of the piece itself (in Laukvik 2010: 71)

Thus it is left to the discretion and taste of the performer to listen to the appropriate gradation of use of staccato to be applied when performing any given work or passage. The performance guidelines of the following examples, however, are constructed in accordance with Vierne’s *Méthode d’Orgue*.

The following excerpt from the third movement, *Intermezzo*, is Scherzo-like, and characterised by its constant staccato articulation.

Figure 29: Vierne, *III Intermezzo*, mm 19-20



Vierne's 'rule' is that the note should lose half its value, especially since this is a lively movement and should thus be played as follows:

Figure 30: Vierne, *III Intermezzo*, mm 19-20 [adapted version]



The portamento is indicated as a dot with a tenuto above it on the specific note or chord. Laukvik (2010: 76) states that such notes should be played “for only a little more than half their value, about two thirds, so that a slight detachment is perceptible between the successive notes.

In the following excerpt from the first movement, *Allegro Maestoso*, there are staccato chords as well as chords that are marked portamento (staccato combined with a tenuto mark). The last mentioned would be performed at three quarters of their value:

Figure 31: Vierne, *I Allegro Maestoso*, mm 5-8

The image shows a musical score for a piano, consisting of three staves (treble, middle, and bass clefs). The music is in a key with three sharps (F#, C#, G#). The score shows four measures of music. The first three measures feature staccato chords in the right hand and single notes in the left hand. The fourth measure features a portamento mark (a dot with a tenuto line above it) over a chord in the right hand and a single note in the left hand. The key signature is three sharps (F#, C#, G#).

The articulated chords would then be performed as follows:

Figure 32: Vierne, *I Allegro Maestoso*, mm 5-8 [adapted version]



Different types of touch are also frequently found in the music where one voice is to be played legato, and the other staccato or *detaché*. This form of a ‘double touch’ is seldom addressed in organ methods and is a difficult technique to master, especially for young beginners (Laukvik 2010: 51).

Two types of touch in one hand are to be found, for example, in the fifth movement, *Final*. The melody, to be played legato, is accompanied by chords in the lower voice:

Figure 33: Vierne, *V Final*, mm 46-50



Although great emphasis was put on legato touch, which subsequently became the dominant style of playing during the 19<sup>th</sup> century, different types of touch such as *detaché*, staccato, and tenuto were given equal importance; these punctuated and gave clarity to specific lines within the general musical texture.

## 5.5 Accentuation of Phrases

Accentuation is an important tool, employed to lend clarity to musical textures and delineate the emotional content of a piece. The phrasing and shaping of melodies are articulated by the accentuation of metrically important notes. This accentuation gives rhythmical structure to a texture, which in turn underlines the structure of the piece itself (Laukvik 2010: 215). For Czerny, expression was created through the ‘correct’ use of accents. He states that:

...the correct feeling for beautiful sound [Wohlklang], clarity, rhythm, and especially the feeling for the *character* of the passage being played will lead to the right musical declamation, in order that one’s feelings may be expressed to the listener as intelligibly as possible (Laukvik 2010: 215).

Laukvik (2010: 216) notes three types of accentuation that may be applied to give clarity or expression to music:

The *metrical accent* is given to clarify the metre: thus the first beat is the strongest and the second, third, and fourth are weak(er) beats. This refers to the beat hierarchy previously discussed.

The *rhythmic accent* controls the phrasing of musical speech. These accents are mainly to be found at the beginning and middle points of a phrase.

The *pathetic accent* is given to important notes that occur infrequently in musical passages and helps the shaping of the musical phrase.

Therefore, the metrical and rhythmic accents clarify the structure of the music, while the pathetic accents give expression to the melodic lines or phrases within the piece. There is also a hierarchy to these different types of accents; an understanding of this hierarchy ensures that they do not become overused, and the simplicity of the phrase structure lost as a result. Thus, the rhythmic accent dominates over the metrical accent, while the pathetic accent dominates over both the metrical and rhythmic accents. Accents that occur naturally are also to be found in music. These are the first notes to break a silence, longer note values found between shorter note values, and dotted notes that may influence the natural flow of the metre (*ibid.*).

To demonstrate these accents in practical use, the theme from the second movement, *Cantilène*, will be used as an example. Note carefully where these accents are placed in each example.

The metrical accent will be applied on every first beat of the bar:

Figure 34: *Vierne, II Cantilène (a)*, mm 13-22



The rhythmic accent which controls the phrasing:

Figure 35: *Vierne, II Cantilène (b)*, mm 13-22



The pathetic accent which lends emotional expression to the music:

Figure 36: Vierne, *II Cantilène* (c), mm 13-22



The following is an example which contains all the accents in conjunction, in order to form a musically coherent interpretation. The pathetic accent should be played longer than the metric and rhythmic accents; this is because the latter two are controlled rather by impulse and intellect and require less stress, but occur naturally. The different types of accents are marked above the specific notes (M = metrical, R = rhythmic, P = pathetic):

Figure 37: Vierne, *II Cantilène* (d), mm 13-22

A natural way of creating an accent on a new phrase is by using the same finger for the beginning of the new phrase with which the previous phrase ended. Applying this technique creates a natural break or rest between the two notes due to the time it takes the finger to replace itself from the one key to the next (Laukvik 2010: 109):

Figure 38: Vierne, *IV Adagio*, mm 70-74

Every sensitive musician is aware that the quest for historically appropriate tempos must be concerned with plausible parameters rather than with precisely delineated or very narrowly defined absolute tempos... many psychological and aesthetic factors, as well as the varying physical conditions in which performance takes place, militate against the notion that a piece of music should be rigidly bound to a single immutable tempo (Joseph 2014: 22).

Laukvik states that “slow tempi apparently characterized the playing of French organists in the 19<sup>th</sup> and early 20<sup>th</sup> centuries” (Laukvik 2010: 282). This must be taken as evidence that the 19<sup>th</sup> century Parisian organists were aware of the acoustics in their large churches, and that the performance style within these buildings necessarily had to promote clarity and transparency in the music. When teaching, Widor always impressed upon his students the fact that the organ was an instrument of grandeur, especially if the full organ was employed. Both Widor and Guilmant were of the firm belief that the tempo of a piece was decided by the acoustics of the room (Laukvik 2010: 283).

## 5.7 Rhythmic Theories and Rubato

Rubato is an important element in the interpretation of music especially of the Romantic era, bringing with it a special character of freedom. Vierne himself described rubato as the “small particulars that give life to organ music and without which the organ becomes a stiff, cold instrument of expression” (Svetkova 2013: 30).

Laukvik states that the word rubato is derived from the Italian word *rubare*, which means ‘to steal’, lending the most subtle expressivity to the performance of music (Laukvik 2010: 290). This is an accurate description of the term, since the performer slows down and rushes some notes to give them importance, departing from the strict framework of a square tempo marking.

There are two types of rubato found and accurately described by Laukvik as follows:

The purpose of rubato is, on the one hand, to lend warmth, depth, grandeur, and variety to a performance – we might say, to bring an emotional component to the performance. On the other hand, rubato can aid in the clarification of a work’s form [...] so that lingering at high points and relaxing the tempo at important cadences are means of formally shaping the music. Rubato is therefore closely associated with both the irrational/imaginary and the rational/physical. [...] We should distinguish between rubato (agogics) and the explicitly prescribed *accelerando/ritardando*. To be precise, rubato is an

extremely refined modification of tempo created by the performer, so subtle that the written instructions *acc.* or *rit.* would be excessive (*ibid.*).

The use of rubato became more frequently and freely applied in music of the later Romantic era, notably in the music of Franck onwards. Joseph states:

Flexibility of tempo is another important factor in nineteenth-century performance practice. A number of period recordings demonstrate great freedom and spontaneity of tempo. Most *tempo rubato* was not marked in the score, though holding back some notes and hurrying others was not merely permissible but was an indispensable adjunct of sensitive performance (Joseph 2014: 23).

For Widor, there must also have existed limits to the application of rubato, in order for the music not become too distorted or sentimental. In the foreword to his edition of the music of Bach, Widor states that the performer need only allow “infinite fine distinctions of tempo, metric nuances essential to the development of the idea, but nuances of such finesse that they often escape the public’s attention” (Laukvik 2010: 291).

Laukvik is of the opinion that rubato and legato are closely linked to each other and necessary to play Romantic works convincingly. We may infer from this that the use of subtle rubato in Vierne’s more melodic and slow moving pieces is justified. According to Laukvik, the presence of rubato in composers’ works also gives insight into their various personalities, since its application is of personal taste. Thus, it will also be influenced by the performer’s taste, and it is therefore necessary for the performer to undertake research concerning the personal style of a composer and, if possible, try to find reliable recordings or accounts of their playing of their own works. This will assist in the preparation of a performance which is as near authentic as possible. It is, however, important to distinguish between the fine line of rubato and unrhythmical playing (Laukvik 2010: 306).

Vierne may be placed within the framework of a more ‘liberal’ school of thought regarding the application of rubato. Leupold wrote that “the liberals advocated more exploitation of the emotional element and made much greater and freer use of rubato” (Edgecombe 1995:39). It is, however, interesting to note that in a recording made of Vierne improvising a *Meditation* in

1929, that he does play rather strictly in tempo with subtle uses of rubato, but not excessively<sup>31</sup>; in this he adheres to his teacher Widor's remarks concerning the use of tempo and rubato.

When performing the second movement, *Cantilène*, the opening four bars could be played freely with some relaxation, as the thematic line lends itself to a free and declamatory manner of interpretation. The effect of the opening is also as if the melody is suspended in the accompanying sustained chords. These chords are harmonically complex and lend a certain mysticism to the opening, which further underlines the freedom of the melody. The interpretation is further strengthened by the fact that it is one of the few places Vierne gives the indication of a *poco rit*:

Figure 39: Vierne, *II Cantilène*, mm 1-6

Svetkova also quotes this exact excerpt of the *Cantilène* and states that “the expressive theme whose development and harmonic changes require rubato” (Svetkova 2013: 30). In bar 5, however, one might play more strictly in time since the melody is not alone anymore and an *a tempo* is also given where the solo of the Oboe 8' commences.

<sup>31</sup> The recording can be found on YouTube: <https://www.youtube.com/watch?v=UyxUGtVp34A>

In the following excerpt, the use of rubato is justified and necessary; this is because the theme is recapitulated, but with a flowing accompaniment which enforces a ‘stricter’ playing of the tempo. Nevertheless, as per Vierne’s instruction, the rubato should not be so pronounced as to render the music unintelligible:

Figure 40: Vierne, *II Cantilène*, mm 13-16

The third movement, *Intermezzo*, with its *Scherzo*-like character, is best performed in a strict tempo, with the exception of the sections which signal the change of thematic material, such as the ending of sections, and the recapitulation. Vierne’s *scherzo* movements are best played as the composer himself might have, in a style which Henri Doyen described as having “rhythmic crispness, clarity and precision in registration, sense of phrasing and its architecture, and rigorous legato” (Besingrand 2018).

The following excerpt shows the final bars from the *Intermezzo*. A small pause, *ritenuto*, may be taken between the B flat and D/A notes of the pedal (in Fig 38 below) to give finality to the movement, although Vierne does not indicate it:

Figure 41: Vierne, *Intermezzo*, mm 161-164

In the fourth movement, *Adagio*, it is best not to apply rubato excessively, in the interest of preserving the line and propulsion of the melody. It is, however, permissible to stress the second note of the thematic line in the opening of the movement which occurs in the pedal part, since it falls on the strong beat, as may be observed in the following excerpt:

Figure 42: Vierne, *IV Adagio*, mm 1-4

**Quasi Largo (84 = ♩)**

Ped G.P.R.

Widor advocated for subtle nuances with agogic technique, in order to give life to musical phrases:

It is only by rhythm that one wins attention. Particularly with the organ, all accents, all effects are dependent on it. You may bear upon the keyboard with the weight of pounds, with all the strength of your shoulders—you will gain nothing by it. But delay by a tenth of a second the attack of a chord, or prolong this same chord the very least, and judge of the effect produced [...] to play upon an organ is to deal with chronometric values (in Shi 1999: 77).

In the latter half of the 19<sup>th</sup> century, *rubato* and dynamics were closely associated with each other. An *accelerando* was associated with a *crescendo*, and a *ritardando* with a *diminuendo*. This, however, does not mean that each passage associated with these markings should be played in this manner. These rubato/dynamics association should be applied at key points

within the piece to enhance the expressive elements, and clarity of structure (Laukvik 2010: 303). An expressive element such as this can be applied in the fifth movement, *Final*, where a semi-quaver passage moves up to a critical moment in the music. The *accelerando* would thus be associated with a *crescendo* which reinforces the accent on the final chord:

Figure 43: Vierne, V *Final*, mm 247-250

## 5.8 The Use of Slurs

Slurs are encountered in all periods of music, from Baroque to the present day. Laukvik (2010: 232) draws attention to three main uses of the slur: firstly to group certain notes together which is to be played legato, secondly to create an accent on the first slurred note, and thirdly to create phrases within the music. Laukvik further explains that points one and two are older uses of the slur, and that the phrasing slur is a more recent use which started in the late 18<sup>th</sup> century, especially in the works of W.A Mozart (*ibid.*)

To be able to interpret slurs within the musical score, Laukvik (2010: 233) suggests that slurs be considered historically:

In the music of the Baroque and Classical periods, at least in German-speaking regions, notes without slurs should be played with a basic non-legato touch, whereas those under a slur should be played legato (Laukvik 2010: 233).

This observation is in accordance with the first point of use of slurs that is mentioned above. In terms of the second use, with the accentuation of the first note where the slur is placed, Laukvik quotes from Gottlob Werner's (1777–1822) *Orgelschule* where Werner states that the

first note under the slur is given a slight accent, and that the notes following would then be played ‘weaker’ in context to the first note (*ibid.*). A small break should also be made at the end of the slur to make clear the grouping of the notes under the slur.

The third use of the slur mentioned above, to indicate phrasing, became a more frequent use in the 19<sup>th</sup> century. The use of the phrasing slur is mainly to give structure and form to musical sentences within the piece. This slur is known as the “inconsistent” (Laukvik 2010: 237) slur, since it is used to phrase the motif in different ways, and give it different meanings and angles throughout the performance of the piece.

Vierne does make use of the “inconsistent” slur as Laukvik (*ibid.*) names it in the fourth movement, *Adagio*, by phrasing the theme in two different manners. It is made even more effective as it is first heard played on the manuals, then phrased differently when heard in the pedal part:

Figure 44: Vierne, *IV Adagio*, mm 25-28



Note the different phrasing in the pedal part due to the upbeat:

Figure 45: Vierne, *IV Adagio*, mm 28-32



The different phrasing of the theme not only changes the articulation, but influence the structure as well.

Laukvik states that the “continuous legato slur” (Laukvik 210: 239) is also frequently found in music of the high romanticism. This slur stretches from barline to barline. There should, however, not be a break in sound between the barlines (or slurs), but it should be executed as one continuous legato line throughout, until the articulation is changed by the composer.

Laukvik (2010: 276) also refers to Vierne's fifth movement, *Final*, from the *Symphonie* as example. The tempo at which the movement is played, also does not allow for subtle phrasing breaks at the end of each barline.

Figure 46: Vierne, *V Final*, mm 1-4

The musical score for measures 1-4 of Vierne's *V Final* is presented in a grand staff. The key signature is D major (two sharps) and the time signature is 2/4. The tempo is marked **Allegro** with a quarter note equal to 120 beats per minute (♩ = 120). The dynamic is *pp* (pianissimo). The right hand (RH) plays a continuous sixteenth-note pattern, with slurs over each bar. The left hand (LH) has rests in the first and third measures, and a single note in the second and fourth measures. The dynamic is marked *pp*.

## 5.9 Pianistic Techniques and Chordal Structures

Pianistic techniques were mainly transferred to organ music by pianists, who either played the organ as well, or composed for the instrument and were not fully aware of the existing techniques to attain a legato touch on the instrument. For these reasons they often incorporated textures which could be played legato on the piano, but only by using the sustain pedal. Although later organists and composers who were trained in the techniques of achieving a legato touch were certainly aware that such pianistic textures were difficult to perform on the organ, they still wrote them into their scores for special effect (Laukvik 2010: 15). Such a passage could be found in the left hand part of the first movement, *Allegro Maestoso*:

Figure 47: Vierne, *Allegro Maestoso*, mm 141-143

Laukvik states that chordal structures are not only indicative of a composer's pianistic background, but also of orchestral writing (*ibid.*). The opening of the first movement clearly shows this influence:

Figure 48: Vierne, *Allegro Maestoso*, mm 169-172

## 5.10 Chorale Playing

Chorale playing, such as four or even five-part writing, were given more attention in organ methods as the Romantic period progressed. This technique was especially advocated by Lemmens (discussed in Chapter 3), who aimed to raise the standard of liturgical accompaniment. This was not only true for the Catholic Church, but for other Christian denominations as well. Thus chorale playing, together with its texture, plays an important role in organ music, especially as its playing was often connected to the legato touch (Laukvik 2010: 15, 16). The fourth movement, *Adagio*, makes use of four- and five-part writing in this style playing, as can be seen in the following excerpt:

Figure 49: Vierne, *Adagio*, mm 6-9

The musical score for measures 6-9 of Vierne's *Adagio* is presented in two systems. The first system contains the right-hand part (treble clef) and the left-hand part (bass clef). The right hand begins with a rest in measure 6, followed by a melodic line starting on G4 in measure 7, which is slurred through measure 9. The left hand provides a harmonic accompaniment with sustained notes and moving lines. The second system shows the continuation of the left-hand part, featuring a sustained dominant pedal point (E) that underpins the second theme.

### 5.11 Symphonic Interpretations

When performing the organ symphonies of Vierne, it is important to bear in mind the symphonic orchestra's influence, and how this determines the textures. In essence, this concerns the sound of the various instrumental groups, and how these instruments would perform the passages found in the score. Svetkova agrees with this, as she states that “the organ symphonies show at the highest level, Vierne's attitude to the organ as a great symphony orchestra, and this can be seen as a source of inspiration for the interpretation” (Svetkova 2013: 36).

The following excerpt and commentary is an example of how a performer might interpret one of Vierne's passages from the first movement, *Allegro Maestoso*, with such symphonic orchestral influence. In the following excerpt (mm 42–44) there occurs a brief passage which leads from the first theme (stated in the pedal) to the second theme. The use of a small break in the line may effectively serve to accentuate the top E, as it is the climax of the phrase as well as the beginning of the passage that leads into the second theme. The performer may imagine this line as played by a solo cello in the orchestra. The E is also delayed a fraction before descending to a sustained dominant pedal point which underpins the second theme.

Figure 50: Vierne, *I Allegro Maestoso*, mm 42-45

The passage of the pedal solo may be interpreted as follows:

Figure 51: Vierne, *I Allegro Maestoso*, mm 42-45 [adapted version]

(ritenuto)

Below is an example from the second movement, *Cantilène*, where the second theme is isolated by lifting the cadential chords a fraction earlier in order for the melodic line to be projected to the end. The main reason for this decision is that the thematic line is not played on a different manual with a contrasting timbre, but both melody and accompaniment are played on one manual, the *Grand Orgue*. The orchestral implication would be that a woodwind instrument, such as the clarinet or oboe, would play the melody. The melody is played with a bit more freedom, while the lower voices (in the manner of a string section) play in time:

Figure 52: Vierne, *Cantilène*, mm 27-29

The lift of the lower voices would then be performed as:

Figure 53: Vierne, *II Cantilène*, mm 27-29 [adapted version]

Edgecombe (1995: 21) also emphasises the importance of the swell box, which is controlled by the organist's feet; not only can it create subtle effects of crescendo and diminuendo, but it can also assist in balancing the sound between certain divisions.

In addition to the creation of crescendos and diminuendos in passages, or the shaping of melodic lines with subtle inflections, Vierne also employed the swell box to create interesting sound effects. This may be observed in the following excerpt from the fifth movement, *Final*, where he indicates both *sfpp* and diminuendo markings on a single chord. It may be interpreted as a rapid opening and closing of the swell box which creates a 'booming' sound effect, unique in its creativity. This effect might be attributed to the mechanism of earlier Cavallé-Coll instruments, wherein the swell box was not operated by a rotating pedal, but with ratchets in designated slots:

The swell box was controlled by a foot-operated lever located at the extreme right of the console. This lever could be hitched down into one of two slots. The lever had certain advantages over the modern swell pedals. The box could be completely closed suddenly, an effect used in the chorale theme of the Choral no. 3 in A minor and in other places. In addition, sforzandi on single notes could be easily achieved by quickly pushing the lever down and up (Carter 2015: 18):

Figure 54: Vierne, *V Final*, mm 6-15

The musical score for Vierne's *V Final*, measures 6-15, is presented in a grand staff format. The key signature is A major (two sharps) and the time signature is 4/4. The score consists of three staves: a treble clef staff at the top, a bass clef staff in the middle, and a separate bass clef staff at the bottom. Measures 6-10 are marked *sfpp* (sforzando piano) and measures 11-15 are marked *simile*. The music features rapid sixteenth-note passages in the treble and bass staves, with a simple bass line in the bottom staff. A 'Ped R.' marking is present below the bottom staff between measures 6 and 11.

Determining the exact tempi at which Vierne's symphonies are most effectively performed will differ from instrument to instrument, as well as the space wherein a particular organ is located (as discussed in subchapter 5.6). Both of Vierne's teachers, Widor and Franck, did not play their own works at tempi that would render the texture of the music unclear, and did not advocate the necessity of performing at extreme tempi for the sake of excitement.

Edgecombe (1995: 47) states that none of Franck's manuscripts bear any metronome markings in his handwriting, whilst Carter (2015: 42) attests that metronome markings in Franck's published music seem faster than the composer would have performed them, and are generally

performed at a slower tempi today. Widor himself preferred slower tempi in order that his music always retained clarity and “grandeur” (Shi 1999: 77):

Widor disdained empty virtuosity and insisted on slow tempi, maintaining that “the essential character of the organ is grandeur.” He believed that Bach used only two tempos: one was not very fast, corresponding to the present andante; and the other was rather slow, which would be today’s adagio. He recommended that, in gauging tempos for Bach’s music, organists should start with the smallest note value, playing it rapidly and making it at the same time perceptible clearly to the listener (*ibid.*).

Svetkova (2013: 26) reports that Vierne himself was mistrustful of metronomes and their markings; however, it is striking that on the evidence of his own recordings, Vierne’s tempi correspond exactly to the printed metronome markings. This may be attributed to the fact that Vierne knew exactly how his tempi were indicated when performing in Notre Dame Cathedral, where the recordings were made. This then leads to the conclusion that the metronome markings in Vierne’s music are of importance:

In this order I think that to take into consideration the metronome markings in the scores when playing Vierne’s symphonies are an important orientation and could help the performer to have [a] more clear idea about the music. But one could interpret the markings considering that for Vierne one very important rule was clarity (*ibid.*).

An example of the above-mentioned is the fifth movement, *Final*, where an indication of 120 beats per minute is given to a quaver, yet the registration is loud and thick:

Figure 55: Vierne, V *Final*, mm 1-5

Récit: Fonds et Anches 16, 8 4 Positif: Fonds 16, 8, 4 (Anches préparées)  
G.O: Fonds 16, 8, 4 (Anches préparées)  
Pédale: Fonds 32, 16, 8, 4 (Anches préparées) Claviers accouplés

**Allegro** (♩ = 120)

It is thus the responsibility of the performer to decide on an appropriate tempo that is befitting of the *Allegro* character, but through which all the detail in the score can be heard without sounding rushed. The registration should also be considered when deciding on the tempo so that the reeds, especially those in the pedal, have appropriate time to speak.

Svetkova (2013: 27) explains how the acoustic space in which one plays had an influence in her performances in playing all six of Vierne's symphonies as part of a research project. These were the Vasa Church, Gothenburg with an approximate reverberation of 8 seconds, and the Organ Hall at the Academy with an approximate 2 seconds reverberation. In the Vasa church she chose to play slower than the metronome marking to enhance clarity in the music. In the Organ Hall, however, the opposite is true for the space with less reverberation (Svetkova 2013: 28).

Therefore one will take into account the registration of the movement in the acoustical space to determine the best tempo at which to perform it, whilst maintaining clarity so all the detail is heard. With all the above in mind, one should therefore consider playing the symphonies slightly slower in a venue with more reverberation, while playing them relatively faster in a venue with a less lively acoustic.

## 6. Conclusion

The main objective of the current study is to interpret the Organ Symphonies of Louis Vierne with regard to information provided in his unpublished *Méthode d'Orgue*. The idea of this investigation is to approach the musical text towards a possible interpretative and sound concept which reflects the composer's intentions. A composer does not usually notate music without a sound concept in mind, even more so when he composer has played the instrument for which the composition is written. In organ compositions this sound concept is multifaceted, as the instrument, registration, articulation, tempo and numerous other elements all make up important parts of it. Jon Laukvik states in this regard that "the truest possible realization of the original sound concept is not the only goal of our interpretive labours, since our own personality – entirely in the sense of romanticism – should also make itself felt (Laukvik 2010: 17).

The French symphonic organ music tradition had its roots in the works of César Franck. This was also aligned with Cavallé-Coll's reputation as organ builder which signalled the genesis of the symphonic style of organ building. Several influential organist-composers became well-known in the 1860's in Paris, one of which was Widor to whom we also owe the establishment of the so-called 'organ symphony'. Vierne, who was a student of both Franck and Widor, became an influential teacher.

Vierne addressed many of the core issues in the interpretation of romantic organ music in his *Méthode d'Orgue*. Although originally aimed at tuition for the beginner, he still addressed the incisive changes in musical understanding which became apparent at the end of the 19<sup>th</sup> century in organ performance. In this regard these writings offer details of French romantic performance practice applicable far beyond his organ symphonies alone.

The public presentation of a work and its musical structure is contingent to the transparency of the performance which, in terms of organ performance, can often prove of challenging realization on an instrument for which the composition was not originally meant. It also relies on phrasing and the inflection of 'important' notes and/or note groupings. Registration and basic tempo choice also contribute to the delineation of the structure or framework in which

musical expression takes shape. Within this structure, articulation detail and tempo rubato are two of the principle means in creating an effective and faithful ‘aural picture’ of the notated musical text.

The current study, focusing on the musical text of Vierne’s *Troisième Symphonie*, can therefore serve as example for the application on a much wider repertoire not only limited to Vierne’s organ symphonies, but rather his full oeuvre, as well as the broader French Symphonic Organ tradition.

## Addendum A

Specification of the Cavallé-Coll Organ of Notre Dame in 1904 <sup>32</sup>	
The manuals consisted of 56 keys each, and the Pedal division of 30 keys	
I: Grand Chœur Principal 8' Bourdon 8' Prestant 4' Quinte 2 2/3' Doublette 2' Tierce 1 3/5' Larigot 1 1/3' Septième 1 1/7' Piccolo 1' Tuba magna 16' Trompette 8' Clairon 4'	II: Grand Orgue Violon-basse 16' Bourdon 16' Montre 8' Viole de gambe 8' Flûte harmonique 8' Bourdon 8' Prestant 4' Octave 4' Doublette 2' Fourniture harmonique II-V ranks Cymbale harmonique II-V ranks Basson 16' Basson 8' Clairon 4'
III: Bombarde Principal-basse 16' Soubasse 16' Principal 8' Flûte harmonique 8' Grosse Quinte 5 1/3' Octave 4' Grosse Tierce 3 1/5' Quinte 2 2/3' Septième 2 2/7' Doublette 2' Grand Cornet II-V ranks	IV: Positif Montre 16' Bourdon 16' Salicional 8' Unda maris 8' Flûte harmonique 8' Bourdon 8' Prestant 4' Flûte douce 4' Doublette 2' Piccolo 1' Plein jeu III-VI ranks

<sup>32</sup> Tsvetkova 2013: 48; Laukvik 2010: 204-206.

Bombarde 16'	Clarinete-basse 16'
Trompette 8'	Cromorne 8'
Clairon 4'	Clarinete aigüe 4'
V: Récit expressif	Pédale:
Quintaton 16'	Principal-basse 32
Diapason 8' (Mutin)	Contrebasse 16
Viole de gambe 8'	Soubasse 16'
Voix céleste 8'	Grosse Quinte 10 2/3'
Flûte octaviant 4' (replaced)	Flûte 8'
Basson et Hautbois 8'	Violoncelle 8'
Flûte harmonique 8' (replaced)	Grosse Tierce 6 2/5'
Voix humaine 8'	Octave 4'
Octave 4' (Mutin)	Quinte 5 1/3'
Quinte 2 2/3'	Septième 4 4/7'
Octavin 2'	Contre-Bombarde 32'
Cornet harmonique III -V ranks	Bombarde 16'
Fourniture IV ranks (Mutin)	Basson 16'
Bombarde 16'	Trompette 8'
Trompette 8'	Basson 8'
Clairon 4'	Clairon 4'

## Addendum B

Specification of the Cavallé-Coll organ in St Sulpice 1862 <sup>33</sup>	
<b>I: Grand-Chœur</b> Salicional 8' Octave 4' Grosse Fourniture IV Grosse Cymbale VI Plein Jeu IV Cornet V Bombarde 16' Basson 16' Première Trompette 8' Deuxième Trompette 8' Basson 8' Clairon 4' Clairon-Doublette 2'	<b>II: Grand-Orgue</b> Principal harmonique 16' Montre 16' Bourdon 16' Flûte conique 16' Montre 8' Diapason 8' Bourdon 8' Flûte harmonique 8' Flûte traversière 8' Flûte à pavillon 8' Grosse quinte 5 1/3' Prestant 4' Doublette 2'
<b>III: Bombarde</b> Sousbasse 16' Flûte conique 16' Principal 8' Bourdon 8' Flûte harmonique 4' Gambe 8' Violoncelle 8' Kéraulophone 8' Grosse quinte 5 1/3' Prestant 4' Flûte octaviante 4' Flûte octave	<b>IV: Positif</b> Violonbasse 16' Quinaton 16' Flute traversière 8' Quintaton 8' Salicional 8' Viole de gambe 8' Unda maris 8' Flûte octaviante 4' Dulciana 4' Quinte 2 2/3' Doublette 2' Tierce 1 3/5'

<sup>33</sup> Association pour le rayonnement des orgues Aristide Cavallé-Coll de l'église Saint-Sulpice, Paris: 2018; Edgecombe 1995: 183, 184.

<p>Grosse tierce 1 3/5’          Quinte 2 2/3’          Octavin 2’          Cornet V          Bombarde 16’          Trompette 8’          Baryton 8’          Clairon 4’</p>	<p>Larigot 1 1/3’          Piccolo 1’          Pleinjeu harmonique I-VI          Euphone 16’          Trompette 8’          Clarinette 8’          Clairon 4’</p>	
<p>V: Récit expressif          Quintaton 16’          Flûte harmonique 8’          Bourdon 8’          Violoncelle 8’          Voix celeste 8’          Prestant 4’          Flûte octaviant 4’          Dulciana 4’          Doublette 2’          Octavin 2’          Fourniture IV          Cymbale V          Cornet V          Bombarde 16’          Cor anglais 8’          Trompette harmonique 8’          Trompette 8’          Basson-Hautbois 16’          Cromorne 8’          Voix humaine 8’          Clairon 4’          Tremblant</p>	<p>Pédale:          Principal-Basse 32’          Contre-Basse 16’          Sousbasse 16’          Flûte 4’          Contre-Bombarde 32’          Bombarde 16’          Basson 16’          Trompette 8’          Ophicleide 8’          Clairon 4’</p>	<p>Pédales de Combinaison  <i>Tirasses:</i> Orage, Grand-          Orgue, Grand Choeur    <i>Anches:</i> pédale    <i>Octaves Graves:</i> Grand          Choeur, Grand Orgue,          Bombarde, Positif, Récit    <i>Jeux de Combinaison:</i> Grand-          Orgue, Bombarde, Positif,          Récit    <i>Accouplements au Grand          Choeur:</i> Grand Choeur,          Grand-Orgue, Bombarde,          Positif, Récit</p>

## Bibliography

- Aprahamian, F. 1970. 'Louis Vierne, 1870-1937' in *The Musical Times*, vol. 111, pp. 430-432.
- Association pour le rayonnement des orgues Aristide Cavallé-Coll de l'église Saint-Sulpice, Paris. 2018 [Online] <http://www.aross.fr/en/the-great-organ/great-organ-specification> (Accessed 20 October 2019).
- Besingrand, F. 2018. *Louis Vierne: A Legendary Figure*. Vox Humana [Online] [www.voxhumanajournal.com/besingrand2018](http://www.voxhumanajournal.com/besingrand2018) (Accessed 20 October 2019).
- Cavallé-Coll. 2012. *The Genius of Cavallé-Coll*. DVD set. UK: Fugue State Films.
- Carter, G. 2015. *César Franck Monograph, Performance and Interpretation of César Franck's Organ Works; And Pièce Héroïque – A Case Study*. Sydney: Wensley Dale Press.
- Cyr, M. 2016. *Performance Practice in Western Art Music*. Oxford Bibliographies [Online] <http://www.oxfordbibliographies.com/view/document/obo-9780199757824/obo-9780199757824-0189.xml> (Accessed 20 October 2019).
- Dries, D.M. 2005. *Marcel Dupré – The Culmination Of The French Symphonic Organ Tradition*. Unpublished PhD Dissertation. Wollongong: University of Wollongong.
- Dubois, P. 2005. *The French Classical Organ*. [Online] <http://www.goldbergweb.com/en/magazine/essays/2005/02/30725> (Accessed 20 January 2017).
- Edgecombe, C.J. 1995. *A Reconstruction of Authentic Performance Practice in Selected Organ Works of César Franck from Historical Sources and Recorded Performances*. Unpublished MMus Thesis. Johannesburg: University of Witwatersrand.
- Encyclopedia Britannica. 2017. *Marcel Dupré*. [Online] <https://global.britannica.com/biography/Marcel-Dupré> (Accessed 20 October 2019).
- Enriken, W.F. 2013. *The Guilmant Organ School at First Presbyterian Church, NY*. [Online] <http://organfocus.com/the-guilmant-organ-school-at-first-presbyterian-church-nyc> (Accessed 20 October 2019).
- Gleason, H. 1988. *Method of Organ Playing*. London: Prentice Hall.

- Handle, T. 2013. *The Influence of Aristide Cavaillé-Coll on French Romantic Organ Building and Organ Music*. Vermillion: University of South Dakota.
- Henderson, A.M. 1954. 'Personal Memories of Vierne' in *The Musical Times*, vol. 95, p. 318.
- Hurford, P. 1989. *Making Music on the Organ*. Oxford: Oxford University Press.
- Joseph, D. 2014. *Nineteenth-Century Performance Practice: Reassessing Tradition and Revitalizing Interpretation*. Scholar Works @ Georgia State University [Online] [www.scholarworks.gsu.edu/music\\_facpub/58/](http://www.scholarworks.gsu.edu/music_facpub/58/) (Accessed 20 October 2019).
- Kang, W. 2017. *Louis Vierne's Pièces de Fantaisie pour Grand Orgue: It's significance in the History of Organ Music*. Unpublished DMus Dissertation. Indiana: University of Indiana.
- Kim, S.J. 2002. *Touch and Articulation on the Organ: Historical and Pedagogical Perspectives*. Unpublished DMus Dissertation. Georgia: The University of Georgia.
- Laukvik, J. 1996. *Historical Performance Practice in Organ Playing: Part 1. Baroque and Classical Era*. Stuttgart: Carus.
- Laukvik, J. 2010. *Historical Performance Practice in Organ Playing: Part 2. Organs and organ playing in the Romantic period from Mendelssohn to Reger and Widor*. Stuttgart: Carus.
- Lee, H.K. 2016. *Louis Vierne's Pièces de Fantaisie, opp. 51, 53, 54, and 55: Influence from Claude Debussy and standard Nineteenth-Century practices*. Unpublished DMus Dissertation. Texas: University of North Texas.
- Longhurst, J.T. 1970. *A Pedagogical Study of the Pièces de Fantaisie and Vingt-Quatre Pièces en Style Libre of Louis Vierne*. Unpublished DMus Dissertation. Rochester: University of Rochester.
- Longworth, G. *Analytical Philosophy*. [Online] [www.warwick.ac.uk](http://www.warwick.ac.uk). (Accessed 20 October 2019).
- Marshall, K. 2004. *The Cambridge Companion to the Organ*. Edited by N. Thistlethwaite & G. Webber. Cambridge: Cambridge University Press.
- Meixner, E.M. 2017. *The Sixth Organ Symphonie of Louis Vierne (1870 – 1937): An Analysis*. Unpublished DMus Dissertation. Paris: University of Notre-Dame.

- Mouton, J. 2001. *How to succeed in your Master's and Doctoral Studies*. Pretoria: Van Schaik.
- Near, J.R. 2011. *Widor: A life beyond the Toccata*. Rochester: University of Rochester Press.
- Peterson, W.J. 1995. 'Lemmens, His École d'Orgue, and Nineteenth-Century Organ Methods' in *French Organ Music from the evolution to Franck and Widor*. Edited by L. Archbold & W.J. Peterson. Rochester: University of Rochester Press. pp. 61-69.
- Pinkevicius, V. & A. Motuzaitė-Pinkeviciene. *Secrets of Organ Playing*. [Online] [www.organduo.it/secretsoforganlaying](http://www.organduo.it/secretsoforganlaying) (Accessed 20 October 2019).
- Predota, G. 2015. *Louis Vierne: Dying on the Job*. [Online] <http://www.interlude.hk/front/louis-vierne-dying-job> (Accessed 20 October 2019).
- Ritchie, G. & G. Stauffer. 1992. *Organ Technique: Modern and Early*. New Jersey: Prentice-Hall Inc.
- Rosenblum, S.P. 1997. 'Concerning Articulation on Keyboard Instruments: Aspects from the Renaissance to the Present' in *Performance Practice Review*, vol 10, pp. 31-40. [Online] [www.scholarship.claremont.edu/ppr/vol10/iss1/4](http://www.scholarship.claremont.edu/ppr/vol10/iss1/4) (Accessed 20 October 2019).
- Smith, R. 2009. *Louis Vierne: Organist of Notre Dame Cathedral*. New York: Pendragon Press.
- Shi, G.J. 1999. *Louis Vierne and his unfinished Méthode d'Orgue*. Unpublished PhD Dissertation. Houston: Rice University.
- St Julien, M.G. 2002. *Lynnwood Farnam: American Classic Organist*. Unpublished DMus Dissertation. Houston: Rice University.
- Sung, A. 2012. *The Cavallé-Coll Organ and César Franck's Six Pièces*. Unpublished PhD Dissertation. Arizona: Arizona State University.
- Svetkova, T. 2013. *Performing The Six Organ Symphonies of Louis Vierne*. Unpublished PhD Dissertation. Gothenborg: University of Gothenburg.
- Swinkin, J. 2007. 'Keyboard Fingering and Interpretation: A Comparison of Historical and Modern Approaches' in *Performance Practice Review*, vol. 12, pp. 1-26. [Online] [www.scholarship.claremont.edu/ppr/vol12/iss1/1](http://www.scholarship.claremont.edu/ppr/vol12/iss1/1) (Accessed 20 October 2019).

- The Diapason. 2010. *Remembering André Marchal* [Online]  
[www.thediapason.com/andremarchal](http://www.thediapason.com/andremarchal) (Accessed 20 October 2019).
- Uszler, M., S. Gordon, E. Mach. 1991. *The Well-Tempered Keyboard Teacher*. New York: Schirmer Books.
- Vallas, L. 1951. *César Franck*. London: Harrap.
- Vierne, L.V.J. 1996. *Louis Vierne: The Complete Organ Symphonies*. Organist: Ben van Oosten. Germany: Musikproduktion Dabringhaus und Grimm.
- Vierne, L.V.J. 2005. *Louis Vierne, Symphonies pour Orgue*. Organist Jeremy Fishell. UK: Signum Records. SIGCD063.
- Vierne, L.V.J. 2012. *Vierne: Complete Symphonies*. Organist: Martin Jean. New York: Loft Recordings.
- Webb, C. 1995. 'Performance Practice: Issues of Authentic Performance' in *Undergraduate Review*, vol. 8, pp. 59–67.
- Weitner, C.A. 1991. *Jacques Nicholas Lemmens: Organist, Pedagogue, Composer*. Unpublished DMus Dissertation. Rochester: University of Rochester.
- Yale University Library. 2016. [Online]  
[http://www.library.yale.edu/musiclib/exhibits/histories/fetis\\_histoire\\_generale.html](http://www.library.yale.edu/musiclib/exhibits/histories/fetis_histoire_generale.html)  
(Accessed 20 October 2019).