The Role of the Violin in Expressing the Musical Ideas of the Romantic Period and the Development of Violin Techniques in the Nineteenth and Early Twentieth Centuries.

Part I: Thesis

Sohyun Eastham, B. Ed. (Music), B. Mus. (Perf.)(Hons)

Doctor of Philosophy

May 2007
I hereby certify that the work embodied in this thesis is the result of original research and has not been submitted for a higher degree to any other University or Institution.

(Signed):……………………………………
Acknowledgments

I wish to express thanks to the many persons who have given me advice and help in this project. Professor Michael Ewans for his untold help and advice and all his suggestions. Professor Robert Constable for pointing me in the right direction. I am deeply thankful to Elizabeth Holowell for her advice and support. She gave me much inspiration in completing this project, and I thank her for the way she taught me over the last nine years both in my under- and post-graduate studies. To Anthea Scott-Mitchell, thanks for the help and dedication and your many words of encouragement. I would say thanks to the University of Newcastle librarians and loan office staff. Finally, I wish to thank my mother, who supported me with wise words and raised me to this moment; my husband, who has faith in me with his love and support; and, my son for his untold love and understanding.

Sohyun Eastham
# TABLE OF CONTENTS

Abstract ........................................................................................................................................... vi  
List of Tables ................................................................................................................................... ix  
List of Figures ................................................................................................................................... ix

CHAPTER 1 INTRODUCTION ........................................................................................................... 1  
  1.1 BACKGROUND TO THE STUDY ................................................................................................. 1  
  1.2 QUESTIONS WHICH THIS STUDY ATTEMPTS TO ANSWER ................................................. 3  
  1.3 ORGANISATION OF THE THESIS ............................................................................................. 4

CHAPTER 2 STUDY DESIGN AND METHODOLOGY .................................................................... 9

CHAPTER 3 THE ROMANTIC PERIOD ............................................................................................ 12  
  3.1 ROMANTICISM AND THE ROMANTIC PERIOD ...................................................................... 12  
  3.2 THE END OF THE ROMANTIC ERA IN MUSIC ....................................................................... 18  
  3.3 WHAT HAPPENED IN THAT PERIOD? ...................................................................................... 22  
  3.4 HOW DID THE DEVELOPMENT OF PUBLIC PERFORMANCE AND CONCERT HALLS RELATE TO  
      ROMANTIC COMPOSITIONS? ................................................................................................. 28

CHAPTER 4 THE DEVELOPMENT IN THE DESIGN OF THE INSTRUMENT ............................ 31  
  4.1 DEVELOPMENTS OF THE VIOLIN SHAPE .............................................................................. 31  
  4.1A. How did the violin shape and the bow develop? ................................................................. 31  
  4.1B. How did the evolution of the violin relate to violin playing? ............................................ 41  
  4.2 SUMMARY OF HOW VIOLIN DEVELOPMENT RESPONDED TO NEW PLAYING CONDITIONS. 49

CHAPTER 5 AN ANALYSIS OF THE MUSIC CONSIDERING NEW TECHNIQUES,  
      AND ALSO CONSIDERING THE EXPRESSIVE REASONS BEHIND THE NEW  
      STYLES. .................................................................................................................................... 50  
  5.1 RHYTHM ................................................................................................................................... 52  
  5.2 TEXTURE .................................................................................................................................. 60  
  5.3 TONE COLOUR AND DYNAMICS ............................................................................................ 63  
  5.4 TEMPO, STYLE AND TASTE AS OTHER MEANS OF EXPRESSION ......................................... 70  
    5.4A. Tempo ................................................................................................................................. 70  
    5.4B. Style .................................................................................................................................. 72  
    5.4C. Taste .................................................................................................................................. 73  
  5.5 CONCLUSION ............................................................................................................................ 74

CHAPTER 6 LEFT-HAND VIOLIN TECHNIQUES IN ROMANTICISM ................................. 75  
  6.1 SOME NEW TECHNIQUES OF THE NINETEENTH CENTURY .............................................. 84  
    6.1A. Shifting and the portamento ............................................................................................... 84  
    6.1B. Octaves ............................................................................................................................. 96  
    6.1C. Tenths ............................................................................................................................... 99  
    6.1D. Playing chord passages (triple stops and quadruple stops) ............................................ 106  
    6.1E. Left-hand pizzicato and left-hand articulation ................................................................... 112  
    6.1F. Harmonics ......................................................................................................................... 116  
    6.1G. Vibrato and portato ........................................................................................................... 127
6.2 Fingerin in Romanticism ................................................................. 133
6.2A. Changes of position ................................................................. 142
6.2B. Use of the even-numbered positions and the half position .......... 155
6.2C. Chromatic passages ............................................................... 160
6.2D. Thirds .................................................................................. 165
6.2E. Open strings ........................................................................ 170
6.2F. Recurring finger patterns ...................................................... 175
6.3 Conclusion ............................................................................. 179

CHAPTER 7 Right-hand Violin Techniques in Romanticism .............. 182
7.1 Bowing Patterns ................................................................. 184
7.1A. Détaché ................................................................. 186
7.1B. Martelé ............................................................................ 192
7.1C. Staccato ............................................................................. 196
7.1D. Spiccato ............................................................................ 213
7.1E. The Ricochet ................................................................. 218
7.1F. Mixed strokes ................................................................. 226
7.1G. Legato ............................................................................. 232
7.2 Tone Production .................................................................. 236
7.2A. Bow pressure ................................................................. 244
7.2B. Bow speed ......................................................................... 247
7.2C. Contact point (or sounding point) ...................................... 258
7.2D. Finger stroke ................................................................. 263
7.3 Conclusion ............................................................................. 266

CHAPTER 8 Conclusion .................................................................. 268

List of Musical Examples .................................................................. 278

Appendix A: Some key Genealogical Relationships in Violin Pedagogy .................................................................................. 287

Appendix B: Notes on the Repertoire of the Period ......................... 288

Appendix C: Violinists, Composers and Their Important Violin Works and Treatises ................................................................. 293

Appendix D: List of Researcher’s Recital Performances .................. 305

Appendix E: A comparative chart of events that affected the violin development and techniques of the era ................................. 306

Appendix F The Live Recordings ..................................................... 318

COMPACT DISC NOTES .................................................................. 318
CD NUMBERS AND TRACK NUMBERS ....................................... 319

Appendix G – Achieving Rhythmic Flow and Balance ..................... 321

Bibliography ................................................................................ 323
BOOKS ...................................................................................... 323
ARTICLES .................................................................................. 326
OTHER MEDIA ........................................................................... 328
SCORES ..................................................................................... 328
FURTHER READING .................................................................. 330
Abstract

The major purpose of the research in this thesis is to add to the available knowledge on advanced violin playing of the Romantic Period by, firstly, investigating the historical and technical knowledge and, secondly, adding some of my own findings. The project consists of a thesis, five recordings of live performances by the candidate and a guide to those performances.

The development of violin techniques in the nineteenth and early twentieth centuries and the role of the instrument in expressing the musical ideals of the age were chosen to study because there is a general lack of literature on the subject written by players who have performed the music chosen by the researcher. Furthermore, studies of this literature have left some important questions unanswered.

One such question concerned how the development of the violin allowed musicians to better express the music in that era. Another question is what kinds of techniques were developed and how they related to the expression of the music.

The thesis includes a study of the historical background of the Romantic period, as well as instrument development in this period. Analyses are made of the music considering techniques only where they are new techniques which considers the expressive reasons lying behind the new styles of writing. Treatises, violin methods, as well as modern studies are examined and compared in order to determine the development of violin techniques specifically in the period.

This study is an investigation of both the written literature and the experiences of playing Romantic violin pieces in five concert situations, conducted over a time span of four years.

The first concert presented a programme of German composer Robert Schumann’s Violin Sonata No. 1 in A minor Op. 105; with French composer Camille Saint-Saëns’
Havanaise Op. 83; and also Fritz Kreisler-‘Pugnani’s’ Praeludium und Allegro.

The second concert presented a programme of Schubert’s Sonata in A major Op. 162 and Prokofiev’s Sonata No. 2 in D major Op. 94a.

The third concert presented a programme of Brahms’ Sonata No. 3 in D minor Op. 108 with Tchaikovsky’s Three Pieces Op. 42. It also included Ravel’s Tzigane.

The fourth concert programme presented Beethoven’s Piano Trio No. 1 in D major Op. 70, commonly called “The Ghost”.

The fifth concert presented a programme of Brahms’ Sonata No. 1 in G major Op. 78 and also the Sonata No. 2 in A major Op. 100. In addition his Sonatensatz (Scherzo) in C minor was performed.

For each of these concerts, the researcher made written reports detailing the reasons behind the choice of each piece, the place of the piece in the context of the research and an examination of the effectiveness of the concert recital programme. The reports included notes on the mastery of the different new violin techniques required to play the piece with an historic awareness. As evidence of this, each concert was recorded onto compact disc audio format. The reports were used as a basis for the accompanying Guide to Performance. This is a work of critical analysis and aims to give a record of the progress of the research through performance. It documents the gradual discovery of how the historical theory can be realised in practice and provides a rationale for the techniques and strategies adopted in the creative component.

The appendices include lists of repertoire and composers of the period, a chart of significant events from the period relating to the violin, and a chart of some of the key genealogical relationships in violin pedagogy.
The investigation of violin techniques of Romanticism produced a number of major results. One important finding suggests that there are solutions to the difficult technical passages, which require an understanding of the historical context and literary background.

In summary, this research produced findings which are of significance to violin educators and advanced violin students.
List of Tables

Table 7-1 Some factors that affect the contact point.................................................. 260

List of Figures

Figure 1.3-1 Organisation of the Thesis .................................................................................. 7
Figure 2-1 Methodology. ........................................................................................................ 11
Figure 4.1-1 Members of the violin family from the seventeenth century......................... 32
Figure 4.1-2 Bow showing a cremeailere ............................................................................ 37
Figure 5.1-1 (a) – (c) Common methods of shifting the accent ........................................... 56
Figure 5.3-1 The dynamic levels of Schubert’s Sonata in A major Op. 162, 1st mvt.................. 65
Figure 6.1-1 Behaviours of fingering in the changing of positions. ..................................... 91
Figure 6.1-2 Shifting. ............................................................................................................ 92
Figure 7.1-1 Martelé bowing. .............................................................................................. 193
Figure 7.2-1 Dynamic levels .............................................................................................. 238
Figure 7.2-2 Sounding points ............................................................................................ 261
Figure E-1 A variety of bows used in past eras................................................................. 317
Chapter 1 Introduction

1.1 Background to the study

In many years of studying the violin, the researcher often found difficulty in performing music from the Romantic Period. Many of the technique styles that students learn to play today come from the present period, whereas the technique styles used in the Romantic Period are different. One is required to understand the history of the period to effectively play Romantic music. As will be discussed in Chapter 3 the Romantic Period is difficult to define, but for the purposes of this study it will be defined as beginning between 1800 to 1820 and ending around the years 1910 to 1920.

This project, then, aims to explore the development of violin techniques in the nineteenth and early twentieth centuries and the role of the violin in expressing the musical ideas of the age. The project was motivated in the first instance by Guhr's *Paganini’s Art of Violin Playing*, first published in 1829 and translated and edited in 1982 by J. Gold, which revealed Paganini’s techniques. Paganini (1782-1840) is often seen as the bridge between the Classical and early Romantic Period. As will be discussed subsequently his influence on the Romantic Period was considerable. It is the aim of this thesis to reveal, through research, the performance practice of the age. It is also the researcher’s aim to make practical application, from the research through performance, of these findings.

The researcher compares and examines treatises and violin playing methods in order to determine the development of violin techniques, and the role of the violin in expressing the musical ideas of the period. Since the project is concerned with the nineteenth to early twentieth-century period, it therefore includes consideration of the analysis of music and/or treatises of composers and/or writers such as Paganini, Mendelssohn, Tchaikovsky, Baillot, Spohr, Bériot, Brahms, among others. The thesis also includes an historical overview.

Further, the thesis includes the practical application of these findings in the form of five recorded, unedited live recitals made during the course of study. Further original work
can be found in the analysis of violin fingerings. The fingerings in the examples are those of the researcher, unless otherwise noted.

This study includes a record of the processes that the researcher went through to find the best techniques to play this style of music. Many techniques were experimented with during practice sessions, and several stood out as being more useful.

The research involves itself mainly with the pieces that were performed by the researcher. These include seven sonatas, six ‘showpieces’, and one piano trio. The interpretations of the compositions are those of the researcher but have been influenced by the available literature.

The present study is concerned with extending the body of literature on Romantic Period violin techniques to improve the learning process of playing music from this era. A major emphasis in this thesis is to discover from the published literature the Romantic Period techniques that were used, and then use them in the performance of the music. Students learning to play music from that period can then use these in their performances.

The study also researches how the development of the violin influenced the musical ideals of the era. The social conditions of the era will be studied to discover the link between them and violin performance.

The importance of a project such as this lies in the attempt to resurrect apparently “lost traditions”. Whilst live models are no longer with us, there has been much information left to us on which to draw. These include among others the written word and recorded music from the late 1890’s onwards. Research through performance gives us the opportunity to recover some of these “lost” traditions.
1.2 Questions which this study attempts to answer

As described in Section 1.1, the purpose of this study is to investigate the technique and styles used in the Romantic Period. It intends to provide information which advanced music students or professional musicians and teachers may use to improve the quality of learning. It also seeks to provide some possible answers to the following specific research questions:

1. When did Romanticism have its beginning and ending?
2. What happened in that period in general?
3. What were the social and political conditions which created Romanticism?
4. What was the development of the public concert and concert halls and how did they relate to Romantic violin composition?
5. Who were the important violin players and what contribution did they make?
6. What was the important key repertoire of the period?
7. What treatises were available?
8. What style of composition did Romantic composers employ to make the compositions so expressive for the violin?
9. How did the violin shape and bow develop?
10. How did the evolution of the violin relate to violin playing?
11. How did violin development respond to new playing conditions?
12. What development was there in the left-hand violin technique?
13. Which fingerings were used and how did they change during the Romantic Period?
14. What kinds of vibrato were developed and how did they change over time?
15. How can a Romantic tone be produced?
16. What developments in bow techniques occurred?
17. What development did bowing pattern undergo during the period?
18. What new techniques were developed and how did they relate to the expression of the music?

The study will also give a brief exposition of the history of the Romantic Period as well as the time leading up to the period.
1.3 Organisation of the Thesis

The thesis is divided into two principal sections: the first section researches the development of violin techniques in the nineteenth and early twentieth centuries and the role of the violin in expressing the musical ideas of the age. Following is the organisation of this first part.

Chapter One introduces the background of this study and outlines the significant questions which the study attempts to answer. Chapter Two is a detailed description of the design and methodology used in the study.

Chapter Three outlines the research on the historical background of the Romantic Period with special emphasis on nineteenth-century and early twentieth-century violin music. It also discusses the social conditions of performance. Chapter Four is the investigation of the literature available on the topic of instrument development.

Chapter Five is an analysis of the music. It considers techniques only where they are new techniques in Romantic music. Further, consideration is given to the expressive reasons lying behind the new styles of writing for violin which are observed in the music of this period.

The next two chapters examine in greater depth the violin techniques of the left hand and of the right hand. Literature from that time period was consulted for the investigation in these chapters. Chapter Six deals with left-hand violin techniques in Romanticism, discusses new techniques and offers insight into their development. The second part of this chapter investigates fingering in the Romantic Period. Chapter Seven researches the production of Romantic tone and the colour of the tone. It also outlines bow patterns that were used and developed in the nineteenth century and how they contributed to the more expressive music.

Chapter Eight brings the research to its conclusion and offers some answers to the questions which were raised at its outset.
Several appendices that give more background information and details of performances follow this:

Appendix A: Some key genealogical relationships in violin pedagogy.
A chart of the pedagogical relationships that existed between some of the key violinistic figures of the nineteenth century. It also depicts the composers of the music performed in this research.

Appendix B: Notes on the repertoire of the period.
This includes concertos, unaccompanied music, sonatas and other solo repertoire.

Appendix C: Violinists, Composers and Their Important Violin Works and Treatises.
A comprehensive list of the more important violin composers and their repertoire, with important treatises also listed.

Appendix D: List of researcher’s recital performances including date of composition and CD numbers.

Appendix E: A comparative chart of events that affected the violin development and techniques of the era.
This chart lists in chronological order the composers and violinists, the development of the instrument itself, developments in techniques and for historical reference important events in art, architecture and society.

Appendix F: Information on the five live recorded recital performances.

Appendix G: A violin exercise.

Bibliography: List of literary works consulted and/or used in this thesis, including books, articles, other media and scores.
1.3 Organisation of the Thesis

The original project began as a Master of Creative Arts, which was to be structured as a thesis with four recitals. This format was retained when the project was upgraded to a PhD and expanded to five recitals.

The Guide to Performance (part II) is a work of critical analysis, which aims to give the progress of the research through performance and the discovery of solutions for the technical problems encountered. It provides a rationale for the techniques and strategies adopted in the creative component and is accompanied by five recorded live recitals, illustrating the research.

To summarise the above and for easier referencing, the overall organisation of the thesis is illustrated on the following page.
Chapter 1
Introduction

Chapter 2
Study design and methodology

Chapter 3
Romanticism in music

Chapter 4
The development in the design of the instrument

Chapter 5
An analysis of the music considering new techniques, and which considers the expressive reasons behind the new styles

Chapter 6
Development of Left hand techniques and the development of Fingering in Romanticism

Chapter 7
Development of Right hand techniques
Tone production
Bow patterns
Finger Stroke

Chapter 8
Conclusions

Part II
Guide to Performance – Analyses of five recitals, including five live performance CD’s.

Figure 1.3-2 Organisation of the Thesis
The examples within the thesis are numbered as follows:
Example 2-1 for the first example in chapter 2
Example 6.3-4 for the fourth example in chapter 6, section 3.
Example 3.4E-1 for the first example in chapter 3, section 4, sub-section E.
Where a CD and Track number are included in the description of the example, they refer to the researcher’s CD of the live recording. The word ‘movement’ has been abbreviated to ‘mvt’ to condense the description.

A note on the literature that the researcher used in this thesis:

The references used for some authors are taken from translated versions of the originals. The dates of the original publications are used through this work to maintain the historical context of the information. All information regarding the translated editions may be found in the bibliography. However, to note just some of the more important ones:

Bériot, C (1858) originally published in French as Methode de Violon was translated by C. Fischer in 1892 as Method for Violin.
Guhr, C. (1829) originally published in German as Ueber Paganinis Kunst die Violine zu spielen was translated and edited by J. Gold in 1982 as Paganini’s Art of Violin Playing.
Spohr, L. (1832) originally published in German as Violinschule was translated by H. Holmes as Spohr’s Violin School.
Chapter 2 Study Design and Methodology

The literature review provides a historical background for the study. Unfortunately, there were not many writers of the time who wrote about their period. However, there is nevertheless enough, when combined with more recent literature, to form some basis for how the music was performed. This background allowed the researcher to make observations that were useful in the preparation and performance of the music from the period.

The performances took the form of five concert recitals performed over a four-year period, with a preparation time ranging from six to nine months for each recital. They include music from the nineteenth century as well as from the early twentieth century. This music was chosen to show the development of techniques, to show differences in technical styles and to illustrate the different musical styles between composers.

It must be remembered that since there were no recording devices until the very late nineteenth century\(^1\), one can only speculate, from reading the literature, as to exactly how the different violin techniques were used. Some recordings that were available were consulted in this process. After researching both the applicable techniques and the background of both the composer and the piece, the researcher experimented with different techniques during many long practice sessions to try to find the one or ones that most closely “fitted” with the written descriptions, and where possible the recorded performances, from the period. It should be noted, as discussed in Chapter 6.1G Vibrato and Portato, that portamento was a dominating technique of the Romantic period with vibrato used occasionally as an ornament. However, music played in this style would sound odd to ‘modern’ ears and therefore the vibrato in the live performances has been moderated, with excesses avoided. Other techniques from the period, though, have been reproduced as closely as possible.

The experience gained from the recitals has allowed the researcher to gain an understanding of the techniques as they were most probably used during the time-period. From the knowledge gained from preparing and performing the music and from

\(^1\) See Appendix B, p. 289.
the literature, both past and present, conclusions will be drawn as to the most probable way the music from the Romantic Period would have been practised and played. The researcher was also careful to use as many musical examples as possible from pieces actually performed, as well as other key works from the period.

The overall methodology used for this thesis is illustrated in the following chart:
Reading literature and listening to Romantic pieces on early twentieth-century recordings of violinists who were born in the late-nineteenth century or earlier

Practice techniques

Did it Work?

Choose techniques and the correct examples for written research

Practice technique to performance level

Do concert performance

Was the performance successful?

Write result and summary

Review techniques if necessary

Final write up

Figure 2-1 Methodology.
Chapter 3 The Romantic Period

3.1 Romanticism and the Romantic Period

The nineteenth and early twentieth centuries are traditionally known as the Romantic era. This term, Romantic, is not only applied to music but to most of the arts of this period. Therefore it is necessary to define this term as well as its other form, Romanticism. To put this period in context it is also necessary to examine some of the aspects and ideas of earlier periods. This allows one to see changes between the period under study and the preceding time. Further, people from earlier periods may have an effect on the period under study. For example, the music and/or writings of Paganini (1782-1840), Spohr (1784-1859), Baillot (1771-1842), and Kreutzer (1766-1831) all left an undeniable influence on later nineteenth- and early twentieth-century violin music.

The term ‘Romanticism’ has evoked, as Arthur Lovejoy has remarked, “one of the most complicated, fascinating, and instructive of all problems in semantics.” (Longyear, 1969, p. 1). The term may refer to a period of time. However, any period term, like Baroque, Classic, or Romantic, can be used pejoratively, neutrally or as a term of praise; as a convenient substitute for citing dates; or can be used to mean what its users intend it to mean. Further, all period terms are conveniences, writes Longyear (1969, p. 1), and their usefulness declines in proportion to the effort made to define them or to postulate relationships among the cultural, intellectual, social, and historical components. A period term implies that certain norms exist which at least tenuously link the persons and ideas embodied under this heading, and that other persons and configurations of thought are excluded. It also implies that a certain chronology exists, even though the starting and finishing dates cannot be fixed with much precision and considerable overlapping occurs with adjacent periods. The words ‘romanticism’ and ‘romantic’, most probably originally stemming from eighteenth-century literature, have belonged since the beginning of the nineteenth century to the everyday vocabulary of music without ever having acquired a definitely defined meaning. Vague as their use has remained from the beginning until today and doubtful as it still is whether they will really stand for a style, a technique, a formal canon, or merely a general artistic point of view, they have become firmly entrenched in musical historiography. It seems certain to
Blume (1972, p. 95) at least, that they are not suited to delimiting an historical period. Romanticism, to other writers on music, means music between 1789 and 1914 in its broadest and 1828 and 1880 in its narrowest sense (Longyear, 1969, p. 1). As will be discussed shortly, Plantinga (1984, p. 21) tends to agree that there is much overlapping while Apel suggests that Romanticism ended in about 1910 (Apel, 1970, p. 737).

The adjective ‘romantic’ was used in eighteenth-century literature in the sense of ‘romance-like,’ ‘narrative’ and appears to have been in use before the corresponding noun. The same seems to be true for music, and one would describe things as ‘romantic’ rather than attributing ‘romanticism’ to them.

Since, at first consideration anyway, the adjective does not imply a definite style or a definite tendency, it is difficult to ascertain when it began to be associated with types or titles of compositions as a characterising term. Concepts such as ‘Romantic opera,’ ‘Romantic song,’ ‘Romantic piano pieces,’ and the like did not appear until later in the nineteenth century and were first introduced by the newer musical historiography to denote comprehensive historical groups (Blume, 1972, pp. 95-6). The adjective was used now and again in earlier times to indicate something about content or character. For example, Schiller called his play Die Jungfrau von Orleans (The Maid of Orleans, 1802) a ‘romantic tragedy’. Alluring undertones such as the chivalrous, the antique or archaic, the basically naive and folk-like, the remote and fabulous, the strange and surprising, the nocturnal, the ghostly, the frightful and terrifying are all emotional and imaginative content that really becomes associated with the concept of romanticism, without necessarily always having to be wholly or predominantly included therein. Romanticism is so difficult to understand because one quality will dominate, and then another, and for a work to be Romantic, it is quite sufficient for only one or just a few of these qualities to be present.

‘Romanticism’ may also refer to a ‘movement’ in society. The Romantic Movement was an international manifestation, strongest in Germany, quite influential in England, France and Russia, but also evident in other parts of Europe. The nineteenth century was a period of extreme contrasts, and any ideas that were expressed were sure to elicit opposing ideas. This diversity of ideas explains why such different composers as Bruckner and Offenbach, Donizetti and Brahms, and Chopin and Sousa can be grouped

3.1 Romanticism and the Romantic Period
Chapter 3
under the heading of Romanticism. Romanticism dismissed the Classic emphasis on harmonious adjustment and discipline (Longyear, 1969, p. 2).

The cultural and social roots of Romantic music extend far back into the eighteenth century. The nature of European life was being changed by profound and irreversible forces from the beginning of the mid-1700s. These changes assumed various guises. They occurred at varying rates from one area to another, from nearly imperceptible stages through to convulsive upheavals, and ultimately transformed societies, governments, economies, and the mind and sensibilities of an entire continent. These ‘forces’ will be discussed in more detail in section 3.3.

In music, Romanticism, writes Apel, was foreshadowed in the middle and late works of Beethoven (1770 – 1827), particularly his piano sonatas (Apel, 1970, p. 737). The Romantic generation was excited through the sometimes thoroughly personal expressions of Beethoven's works: “music as a mode of self-expression.” (Grout, 1960, in Blume, 1972, p. 130). Whether Beethoven was a Romantic or not, he “was the most powerful disruptive force in the history of music. His works opened the gateway to a new world.” (ibid.). However, Romanticism found its first champions in Weber (1786 – 1826) and Schubert (1797 – 1828). The works of six composers, all born within a ten-year period, realised it at its fullest extent: Berlioz (1803 – 69), Mendelssohn (1809 – 47), Schumann (1810 – 56), Chopin (1810 – 49), Liszt (1811 – 86), and Wagner (1813 – 83). Berlioz, Mendelssohn, Schumann, and Chopin worked principally from 1820 to 1850, a period often designated as early Romanticism. Liszt and Wagner, who lived much longer, produced their most important works after 1850. These and other composers such as Bruckner (1824 – 96), Brahms (1833 – 97), Verdi (1813-1901) and Dvořák (1841 – 1904) represent the middle period of Romanticism, from about 1850 to 1890. The last phase of the movement from about 1890 to 1910 is represented by a large number of composers born between 1850 and 1880, and is known as late (or Neo-) Romanticism. Such composers include Elgar (1857 – 1934), Puccini (1858 – 1924), Mahler (1860 – 1911), and R. Strauss (1864 – 1949) (Apel, 1970, p. 737). The researcher has chosen the majority of her performed works from the middle and late-Romantic Periods (1851-1888), with two from the early Romantic Period (1808 and 1817) and three from the post-Romantic Period (1924, 1931, and 1944) to compare and
contrast the styles. Appendix D gives details of when the individual works were composed and/or first performed.

The second half of the eighteenth century saw the Romantic Movement in the arts begin in literature. Rousseau (1712-1778) and others, reacting against the intellectual, formalistic classical tradition, demanded a return to simplicity and naturalism with less emphasis on man’s intellect and more on his instincts and feelings. In music, Romanticism was characterised by emphasis on subjective, emotional qualities and greater freedom of form (Apel, 1970, p. 737).

Of all the authors who contributed to shaping the language, ideas, and images of musical Romanticism, Jean Paul² (1763-1825) had the strongest influence upon the entire Romantic Movement. His novels, tales, and aesthetic writings are steeped in music and exceed anything that other Romantic writers have to say about that art. Another writer, E. T. A. Hoffmann (1776-1822), was undoubtedly the one who set the stamp upon the Romantic concept of music in Germany, thence also in France, and definitively influenced Romantic thought and feeling for a century. The musician Christian Schubert, whose Ideen zu einer Aesthetik der Tonkunst (Ideas on an Aesthetic of Music, 1806) already contained the essence of the entire Romantic point of view on music, had the greatest influence on John Paul as well as on Hoffmann.

Of course, not all music of the nineteenth century is Romantic. Just as in the seventeenth century not every sacred or profane composition, every mass or motet was “Baroque”, so in the nineteenth not every poem or every symphony, every drama or every opera was in the full sense ‘Romantic’. Romanticism is no definable style but a spiritual attitude.

The Romantic musicians in no way thought of themselves as a strictly unified and historically delineated group with common aims. Hoffmann freely counts Beethoven among the Romantics as well as Mozart, Haydn, and Gluck, but also Bach and (within limits) Handel. By doing this, he shows that he regarded Romanticism as not so much a

² Jean Paul is the pen-name of Johann Paul Friedich Richter (Botstein, 1994, p. 7)

3.1 Romanticism and the Romantic Period
manner of style or of reforms but rather one of content and of musical shaping more or less dictated by feeling.

‘Romantic’ and ‘classic’ are often paired together as supposed opposites. The word ‘Romantic’ has been used in literary criticism since the seventeenth century to invoke a complex of established values. ‘Classical’ was added to the vocabulary of music criticism in the 1820s, and came to designate the dominant musical styles of the later eighteenth century. However, it is probably a mistake, writes Plantinga (1984, p. 21), to think of a ‘classical period’ in later eighteenth-century music, however constituted, followed by a Romantic revolt against it. Some degree of oversimplification must be used in any attempt at separating and classifying the interwoven strands of history. To make it even more difficult, many of the stylistic traits we associate with classical music, for example, an implied metrical regularity, the circumscribed diatonic harmonic syntax, a largely homophonic texture, and slow harmonic rhythm, persist in large sectors of musical practice in the nineteenth century. And characteristics that may be thought of as ‘romantic’ may be found in the eighteenth century, such as in the keyboard works of C. P. E. Bach, for example (Plantinga, 1984, p. 21). The music historian Friedrich Blume proposed an underlying “stylistic canon” made up of the familiar elements of musical style by which European music of the late eighteenth and early nineteenth centuries is fundamentally united:

“Classicism and Romanticism, then, form a unity in music history. They are two aspects of the same musical phenomenon just as they are two aspects of one and the same historical period.” (Blume, 1972, p. 124).

To qualify Blume’s very important positive assertion, there can be little doubt that ‘romantic’ music styles emanate from, and co-mingle with, ‘classic’ ones. Hence, the point where one leaves off and the other begins cannot be determined in time or place, and therefore there is no clearly preferable point from which to embark upon a study of Romantic music (Plantinga, 1984, p. 22). However, as stated earlier by Longyear (1969), Romanticism may be considered to have started somewhere between 1789 and 1828.
To add further to the debate, it would seem that the Romantic Period itself may be divided. There was a political turning point in the century that happened in and after 1848. The revolutions had failed, and they marked the end of a period of turbulence in the underlying social order of France and central Europe. These revolutions were a landmark in social as well as political history. Of course, to say that this political turning point was a precise divider of nineteenth-century music would be naive, but it would also be naive to ignore the evidence of a caesura around that time. It was about that time that an ‘old guard’ of Romantic composers departed, or ceased composing. They included Chopin, Mendelssohn, and Schumann among others. Then a new and very different generation came to maturity, which included Brahms, Bruckner, and Franck. The mid-century also flagged new creative directions for both Wagner and Liszt (Samson, 1991, pp. 1-3). It would evidently follow, therefore, that the political climate did have an influence on the musical content of society.

The change in tone around this time justifies a change of label, in spite of obvious stylistic continuities. “The term ‘Romanticism’ connotes ideas and motivations more clearly than styles.” (Samson, 1991, p. 3). Ideas such as that the world may be better understood through the power of the creative imagination than through conceptual thought, and that the vision of the Romantic artist would give everyone else a privileged insight into reality, belonged, for the most part, to the first half of the century. While these ideas survived in music for much longer than in the visual arts or literature, music was not impervious to the widespread changes in the cultural climate that followed 1848. The term ‘late-Romanticism’ has been used to describe the second half of the century. While it may draw a line between the two halves of the century, it still recognises that the ideals of the Romantic Movement did continue on into the later part of the century (Samson, 1991, p. 3).

The perceived change in the musical ideas that occurred around mid-century was caused by a change in culture that was largely due to political changes that occurred at that time. With this in mind the researcher has chosen to study the Romantic Period with primary emphasis on the late-Romantic – the latter half of the nineteenth and the early twentieth century.
3.2 The end of the Romantic era in music

The Romantic era, in the over-all context of music history, can only be seen as a partial phenomenon within the unity of a classic-romantic period. It has in common with the classical era its genres and forms, the foundation of its style, and the composers themselves in many cases. Beethoven is a Romantic Classic or a Classical Romantic, and many a later composer is “more classical” than he was. Some Romantic composers, for example Schubert, Brahms and Bruckner, stood fast upon the classical canon of elements and forms, just as in the classical composers there appeared the beginnings of Romantic enrichment of forms and intensified expression.

In the Romantic era the individual European nations were rooted in deeper historical foundations from which they drew strength, enabling them to follow up their own lines of development alongside the central manifestation. These lines would sometimes absorb influences from each other, but overall they remained nationally determined and would apply this nationally determined style to all genres and forms. In contrast, the different nations of earlier music epochs, including the classical and Baroque, all began at the same level. One or the other, in the course of events, would take the upper hand and develop some sort of prototype that the others would recognise - though they might move away from it along their own lines. This prototype was one in which they were all at one when it came to composition in the main international genres. This is the fundamental difference between all the earlier periods of music history and the Classic-Romantic Period.

A second process in the nineteenth century parallels and often intersects this new and distinctive basic situation. It was the development of a kind of neo-nationalism, also known as “national Romanticism”. The High Classical period had succeeded in bringing together the styles of the separate nations, which was followed by a period of “mixed taste,” into what Gluck and Chabanon called the “universal language.” This language resolved differences in rank and station, country and religion into a creed of humanity and world citizenship. The fact that this universal language was primarily German should not be overlooked.
3.2 The end of the Romantic era in music

Romanticism, with its emphasis on national differences, contradictions and valuations, broke into this world of humanitarian ideals. German Romanticism was so emphatically and penetratingly German and was no longer considered, in other countries, as a result of an integration but simply as their claim to supremacy. The North German, and the Saxon accent, pressed to the fore more vigorously than a universal language could bear. Personalities of the period were also making comments that were to some nations plainly offensive. For example, Schumann said, “The highest peaks of Italian art do not even reach to the beginnings of truly German art.” (Blume, 1972, p. 176). These assumptions led to that neo-nationalism where the European nations departed from the universal stem and developed national idioms. These idioms cannot properly be called “languages” because they differ perceptibly, consciously, and often substantially from the German musical tongue, even though they came from the original Classic-Romantic canon of elements and forms that was being upheld in Germany. One might say that they are a sort of national dialect of the universal language. Their expression and speech melody are national, regional, and often conditioned by folklore, even though their grammar and syntax continue to be those of the Classic-Romantic canon.

The splitting-off of national musics from the main trunk of Classic-Romantic German music is explained through this historical process. It has however been argued that the link to German music is still present; that the major composers:

remain attached as even the outermost branch does to its tree: Russian music from Glinka via Dargomizhsky, Tchaikovsky, Rimsky-Korsakov, Balakirev, Borodin, Cui, Mussorgsky, up to one of the last true late Romantics of Russian music, the young Stravinsky; Czech music from Tomášek and Voříšek via Smetana and Dvořák to the Czech counterpart of Richard Strauss and Debussy, Janáček; Scandinavian music from Gade and Halfdan Kjerulf via Grieg, Rikard Nordraak, Andreas Hallén, August Söderman, Wilhelm Petersen-Berger, to Finn Höfding, Kurt Atterberg, and Gösta Nystroem; Hungarian music from Franz Erkel, Mihály Mosonyi, Emil Ábrányi, and Liszt to Bartók and Kodály; and the rest (Blume, 1972, pp. 176-7).

Against this background also belongs the “English Renaissance” - the resurrection of a national English school (among others W. Sterndale Bennett, Henry Hugh Pierson, Sir Hubert Parry, Charles Villiers Stanford), after there had been a decline in the late

3.2 The end of the Romantic era in music
The end of the Romantic era in music

The end of the Romantic era in music. It was born directly out of the German Romantic School. Later, this Renaissance liberated itself and achieved an English idiom more or less its own (Sir Alexander McKenzie, Sir Frederick Cowan, Sir Edward Elgar), which ultimately arrived at an “English late Romanticism,” in the specifically English musical language of Vaughan Williams and Holst.

For France a similar process may not be seen in the continuity that led from César Franck, Lalo, Saint-Saëns, d’Indy, Chausson, Chabrier, and Dukas to Fauré, Debussy, and Ravel, because the French idiom in music had been inherited from its own national past, as the German had been, and did not have to be newly created.

The Romantic era is really the first period in music history when national distinctions exercised a decisive influence on the course of artistic development and were themselves cultivated into carefully nurtured chauvinisms. It was a time of excessive international activity for a “world class” of composers and practical musicians.

The second half of the nineteenth century saw the structural values give way to autobiography, sensual intoxication, and ‘nature’ pictures in an ever-increasing degree. There was a greater reliance on extramusical elements such as the literary, pictorial and emotional. These tended to weaken the sense of form and order in music. Enormous advances in harmony and orchestration took place. The emphasis on self-expression and emotion faded in time into an intensified individualism (Machlis, 1961, p. 9).

The question “When did the Romantic era end?” evades any definite answer. To set the boundaries of a period one must recognise the assumption that there is a fundamental unity governing it. A basic unity may be convincingly defined, contradictions and convergences notwithstanding, for the older periods of music history. However, for the Romantic era this is very difficult. This period remained coherent only at the deepest underpinning, that is, its canon of elements and forms. One might say that the Classic-Romantic Period gradually died away around 1910 to 1920. It dispersed into many separate national and individual directions, casting aside the basic concepts from which it had originally come (Blume, 1972, p. 191). “The music history of the nineteenth century resolves into the multiplicity of tendencies and individual styles brought about through personalities, compositional forms, and countries.” (Blume, 1972, p. 130). “The
late nineteenth and early twentieth centuries witnessed the last stage of Romanticism and the transformation of the late-Romantic idiom into a new musical language.” (Grout, 1960, in Blume, 1972 p. 130). Therefore, this time will be the outer limit for the discussion of techniques and musical ideas. Three compositions that were composed after this time were included in the researcher’s recitals to show the continuing effects of these tendencies and individual styles. Prokofiev’s (1891-1953) sonata shows this Romantic influence lingered well into the later part of the first half of the twentieth century.³ Poulenc’s (1899-1963) *Mouvements Perpétuels* (composed in 1918) was chosen to be included because it is a Heifetz (1900–1987) transcription. He was a master of violin techniques and this is displayed in his transcriptions. Ravel’s (1875-1937) *Tzigane* is a spiritual descendant of the caprices and rhapsodies of Paganini and Liszt.

³ See also Part II “Guide to Performance”, p. vii.

3.2 The end of the Romantic era in music
3.3 What happened in that period?

Because music and musical phenomena do not exist in isolation, it is necessary to discuss other aspects of life and society that occurred during the period under discussion. These include, but are not limited to, changes in political climate; advances in science; and economic changes. This may give some insight into why there were changes in musical “flavours” of the time.

The nineteenth-century romantic point of view, expressed in philosophy, literature, arts, and music, may be summarised according to the following: 1. individualism, 2. emotionalism, 3. subjectivity, largely replacing classical objectivity, 4. favourite subjects: the ancient, the supernatural, the weird, the mystic, and 5. nationalism.

These five general aspects of Romanticism all applied to the music of the nineteenth century. Individualism is seen in the great diversity of styles of individual composers. Sentimentality, emotional expression, and personal feeling are everywhere present. The ramifications for technique will be discussed later. The songs and operas have Romantic subjects. In the second half of the nineteenth century, nationalism in music becomes one of its marked characteristics. Individual countries consciously fostered their own styles centred around folk music and the unique rhythmic characteristics of their own language. And subjectivity replaced objectivity in music. For the orchestra and for the piano there was a great expansion of instrumental music. Another marked characteristic was virtuosity; the virtuoso composer-performer in piano and violin became a typical phenomenon.

The explosive progress in science and mechanics, for example photography, the railway and steamboat, steel production, the telephone, etcetera, had a monumental effect on the political, economic, cultural, and social order. The Industrial Revolution brought with it new social and economic problems, and led to the rise of capitalism and socialism.

The accelerated growth of trade and industry effected a gradual transfer of power and wealth from a landed nobility to people engaged in commerce. Wealth was usually synonymous with ownership of land in past centuries, however it became easier to join
the ranks of the well-to-do, in the late eighteenth century, through the possession of
goods and capital. These commodities changed hands readily and flowed unhindered
around the old barriers of social class systems. Inevitably, a certain power and prestige
attaches to wealth, whether it be with an ancient noble family or an obscure person who
has grown rich from business. Thus an ever-expanding group of industrialists, bankers,
and small merchants rose to challenge the privilege and prestige of the traditional
European aristocracy.

Social shifts of such magnitude would inevitably sow seeds of discontent with the
existing order of things. Governments and laws had rarely been constituted for the
benefit of the ordinary citizen, even if s/he happened to have money. Throughout
Europe, writes Plantinga (1984, p. 2), there was a spreading discontent among those
who felt that governments were fundamentally unreasonable and that the old bases for
privilege and prestige were simply no longer acceptable. Such feelings were articulated
and powerfully reinforced by the intellectual community of the Enlightenment.

Montesquieu (cited in Plantinga, 1984, p. 3), a noted historian, has called the last four
decades of the eighteenth century the “Age of Democratic Revolution.” Struggles for
governments that recognise a general equality among citizens, and profess to operate by
the consent of the governed, gathered momentum during this period and came to a
climax with the French Revolution and the Revolutionary Wars of 1790-1800.

The French Revolution marked the birth of a new society that glorified the individual as
it had not done before. Its shibboleth was ‘freedom’ – freedom of religion; of enterprise;
political and personal freedom. From the artistic point of view, the need for pristine
individualism found form in the Romantic Movement. The Romantic spirit permeated
the arts of poetry, painting and music, but it was in the latter that “Romanticism found
its ideal expression: music, the art of elusive meanings and indefinable moods.”
(Machlis, 1961, p. 7).

These dramatic transformations in the political and intellectual life of Europe produced
a fundamentally new environment for the cultivation of the arts. The arts had nearly
always operated exclusively within the patronage system, and were subject to both its
advantages and its problems. Painters, sculptors, and poets had always worked directly
Music had always been associated with direct patronage because, in all but its simplest forms, it was a notoriously expensive entertainment. Performers had to be assembled, instruments procured, parts copied, and, in the case of dramatic music, staging and sets had to be arranged. Elaborate musical performances had traditionally added solemnity to the great feasts of the Church and enchanted the splendour of festive occasions at court. In these two institutions European musicians from Machaut (c.1300-1377) to Monteverdi (1567-1643) to J. S. Bach necessarily found their places.

Curiously, however, it was in opera that the patronage system first began to fall apart, even though this was the most magnificent and costly variety of musical entertainment. In 1637 it was possible for the first time for an ordinary citizen to buy a ticket to a staged performance of musical drama, when the first public opera house was opened in Venice. This form of entertainment was previously the exclusive province of princely courts. Because of its success, due in part to the heavy support from the affluent local nobility, six opera troupes were simultaneously active in the city by the end of the seventeenth century. The example set by Venice was followed elsewhere and in the following century opera became the most popular of all musical entertainments in Europe.

The public concert was longer in coming. It originated in different locations and was a characteristic product of the changing social patterns of the eighteenth century. In Italy the academies were the main patrons of concert organisations. These were societies, many having their beginnings in the sixteenth and seventeenth centuries, that met to investigate and discuss a variety of subjects, including a number who specifically concerned themselves with music. Among the most famous was Cardinal Pietro Ottoboni’s Accademia degli Arcadi (The Arcadian Academy), whose members included the composers Arcangelo Corelli (1653-1713) and Alessandro Scarlatti (1660-1725). It became customary, in the later eighteenth century, for musical academies to invite audiences to hear regular performances. Thus, some of these societies were transformed, by gradual stages, into concert organisations.
Concerts in German-speaking states ordinarily arose in more common surroundings. Most prominent were the organisations for amateur music making known by the name *collegia musica*. These societies gradually began to use the services of professional musicians and began to attract paying audiences as the quality of the performances improved. In the 1730s J. S. Bach was director of the local *collegium musicum* in Leipzig, and G. P. Telemann (1681-1767) founded and directed two *collegia musica*. Both composers, writes Plantinga (1984, p. 11), became involved in these musical ventures at a time when it became increasingly plain that the future of European music lay not in continuing service to Church or court, but in capturing the interest of the emergent educated, largely middle-class public.

In England, where commerce and industry grew much more quickly than in its competitors in the eighteenth century, a numerous and prosperous middle class public appeared earlier than elsewhere in Europe. The musical institutions, therefore, also began to appear, with public musical performances organised in various London homes as early as 1672. By the eighteenth century there were innumerable individual concerts arranged for the financial benefit of the principal performers.

French concerts came into being largely as a substitute for opera. The Concerts Spirituels were originally designed to provide music of a properly devotional nature during Lent and other holy days when opera was prohibited. However, since they offered a dazzling variety of vocal and instrumental music, they soon became a standard of excellence in musical performance.

Composers became more independent. The alterations that occurred in European society of the later eighteenth century allowed musicians to make a living by offering their services to the public as free agents, and no longer necessarily depending upon their courtly or ecclesiastical employers. Mozart, after quarrels with his employer, spent the last ten years of his life (from 1781) in free-lance composing, performing, and teaching in Vienna. Unfortunately, musical life there still depended very largely upon noble or ecclesiastical support and his failures in attracting this support led him to a pauper's grave. Beethoven left the court at Bonn for Vienna in 1792 and was increasingly successful as a free-lance artist. Composers also composed for large audiences in concert halls and opera houses or for smaller social meetings.
The changing pattern of musicians’ lives, like that of society as a whole in the nineteenth century, was irreversible. Genuine success always meant public success, and all made their reputations in the concert hall and the publicly oriented opera theatre (Plantinga, 1984, pp. 11-12).

The virtual collapse of the patronage system in the arts meant that most composers in the nineteenth century came to music later in life and by a different route. For example, Schubert’s fourth and Chopin’s fathers were schoolmasters. Hence, they usually had much less early exposure to a common body of musical craft and technique than did composers of previous centuries - who had been provided with early training experience within the court and Church. This provides one explanation for the dissipation of a “central style” in the nineteenth century, and for the extraordinary diversity of Romantic music (Plantinga, 1984, pp. 12-13).

Musical styles and formal concepts changed markedly in the nineteenth century. Both were highly diverse in comparison to the style and form of the classical period. The following paragraphs explain how some of these concepts changed in the nineteenth century.

Romantic melody is less regular in phraseology than classical melody and is characterised by warmth of personal feeling. This will be discussed further in Chapter 5.

There is an expansion of the harmonic idiom with new chords and new chord progressions. There is also a greater use of chromaticism, more altered chords and seventh and ninth chords. Non-harmonic or non-chordal tones are in freer use. Modulation becomes more of an end than means, and is used more for its own effect than as a function to get from one key to another (Miller, 1960, p.136).

Tonality, the basic concept of key feeling, is still intact in the nineteenth century. However, there is more tonal obscurity, that is, fluid modulations obscuring the feeling of the key in whole passages. There is the employment of more remote keys and more

---

4 While Schubert did attend the choir school of the Royal Chapel from age 11-16, most of his early music education was provided by his father, an amateur musician.
varied key schemes. There are definite signs in the late nineteenth century of a departure from conventional tonal concepts.

Counterpoint is rarely used other than in a very secondary role.

The popularity of small forms in piano and song literature increases, and there is a growth among some composers to enormous lengths in symphony, for example Bruckner and Mahler, and in opera, for example Wagner. The essentially new forms of the period are numerous (Miller, 1960, p. 137). They include such forms as ballades, romances, reveries and rhapsodies to name just a few.

The genre of program music was perfected. This was music that was associated with specific literary or pictorial images, in which a poetic idea assumed a central position within the expressive scheme. Music was thus established as a language of symbols, where the expression of literary-philosophical, world-encompassing ideas must drive all mankind (Machlis, 1961, p. 8). Program music thus became more important than at any other time in music history.

The predominating media are piano, orchestra, solo song with piano accompaniment, and opera. Chamber music and religious and secular choral music are of less importance.

An expansion of orchestration is seen in the nineteenth century. In this connection, Berlioz, Wagner, and Rimsky-Korsakov are three important names. Instrumental colour is developed. Symphony orchestras are large and a greater sonority is created by the more extensive employment of brass, woodwinds, and percussion. The growth of the orchestra was due in part to mechanical improvements and innovations. New colour was added to the orchestral palette in the form of the English horn, Wagner Tuba, Sax’s saxophone and Vuillaume’s octobass. Brass instruments were used more extensively because of the invention and widespread use of valves. And the same can be said for the Böhm key systems applied to woodwind instruments (Miller, 1960, p. 137).
3.4 How did the development of public performance and concert halls relate to Romantic compositions?

Instrumental music, in the seventeenth century, was still the privilege of the great aristocratic and royal households. They had the means to employ full-time orchestras and composers. A composer could only earn a living if he was employed as a servant of some patron. This was usually a leading church dignitary or a member of the aristocracy.

By the year 1775, the love of orchestral music had become very widespread (Wade-Matthews, 2001, p. 46). Professional performers were able to make large fortunes and composers were able to make an independent living. They no longer had to tie themselves to any one court or church. Wolfgang Amadeus Mozart and Ludwig van Beethoven were two of the first truly independent composers.

The reshaping of European society that occurred in the middle of the nineteenth century was reflected in the texture of musical life. One contrast of particular note between the two halves of the century was in the arena of the public concert. While there was no precise division, there was a perceptible change in the emphasis. The colourful, dynamic and flamboyant concert life of the 1830s and 40s gave way to stable, settled forms which reflected the strengthening social structure. The exact nature of the transformation was complex, but was due to the changing function of music within the higher social classes as much as it was to the changes in the social order itself.

The structure of the transformation was clearest in Paris. The Concerts du Conservatoire were exclusive and reserved for the upper class of society before 1848. Rival series of classical music by Berlioz and others were basically unsuccessful. Pasdeloup, who in 1852 founded his Société des Jeunes du Conservatoire, changed the musical landscape. With its popular blend of ‘classical’ and the occasional ‘modern’ work, most notably from Wagner, it successfully rivalled the Concerts du Conservatoire and became the prototype for later nineteenth-century series such as the Concerts Colonne and the Concerts Lamoureux. Chamber music series were also established, with notable ones being the Société Alard-Franchomme (1848), the Société des
Dernières Quatuors de Beethoven (1851), and the Société Armingaud (1856). These were devoted mainly to Classical quartets. The pattern of gradual consolidation of regular concert series and of a standard repertory was repeated in the other parts of the world. For example, in London, the New Philharmonic Society was started in 1852; and in Vienna, the Vienna Philharmonic was established in 1860. The pattern was also noted in the major cities of the German Confederation and in the eastern Habsburg Empire.

The historic cities of Germany had a thriving diversity of cultural life. Each tended to have its own character, which was preserved in some degree throughout the century. However, a middle-class concert life, despite the diversity, gradually took shape in the 1830s and 40s in Germany in similar ways to Paris, London, and Vienna. It was delayed a little by the patronal culture, but more and more court institutions were transformed into public ones. The court then functioned as the promoter. The federal differences slowly lessened as the middle-class culture base widened, and by the 1850s and 60s concert life already had a structure similar to the late twentieth century.

The newly consolidated bourgeois class institutionalised its musical life independently of the sacred and courtly life. Its principal ceremony, the public concert, was established in the major cities of central Europe, France and England (Samson, 1991, pp. 4-7).

While orchestral music is outside the scope of this thesis, it is important to investigate briefly the impact that this changing social condition had on Romantic composition.

Mozart wrote his early symphonies for the instruments that he had available that is, strings, two oboes and two horns. After he became independent in about 1782 he began writing for his ideal orchestra. This included flutes, clarinets, bassoons, trumpets and kettledrums. The nucleus of the modern Symphony Orchestra, however, was established by Franz Joseph Haydn, and Beethoven. The average size of the orchestra was about 40 instruments by 1800.

The orchestra was increasing in size by the 1850’s, and by 1880 it was common to see an ensemble of 100 or more instrumentalists. Because of its size, composers were
beginning to treat the orchestra as a homogeneous whole rather than as diverse sections. They had an increasing awareness of the importance of internal balance.

Larger orchestras meant higher overheads and since many orchestras did not have royal patronage any more, it was only through the efforts of the rich music lovers who sponsored events that most orchestras survived. To make the orchestras viable, larger concert halls were built. This allowed the accommodation of larger paying audiences (Wade-Matthews, 2001, pp. 46-48). These larger concert halls also meant that soloists and chamber orchestras required instruments that would project their sound. This point will be discussed in the next chapter.
Chapter 4 The Development in the Design of the Instrument

4.1 Developments of the violin shape

4.1A. How did the violin shape and the bow develop?

a. The evolution of the instrument itself

The basic shape of the violin has remained the same over the past several centuries. Figure 4.1-1 shows examples of violins from the seventeenth century. It can be seen that they look similar to the violins of the nineteenth century and today.

The origins of the violin are difficult to determine and no one knows who invented it. The earliest and most distinguished centre for violin making was Cremona, Italy. The Amati family, of whom Andrea (pre1520-77) was the father figure, established the tradition in the mid sixteenth century.

The Cremonese school culminated with the work of Antonio Stradivari (1644-1737), who was without doubt, write Wade-Matthews & Thompson (2003, p. 104), the greatest of all violin makers.

The mid to late eighteenth century saw the beginnings of some major modifications in the construction of the violin. The emergence of purpose-built concert halls and the resultant large audiences (as discussed in the preceding chapter) created a demand for instruments capable of producing greater volume and brilliance of tone. This prompted violin makers to lengthen the neck (by 0.64-1.27cm) and set it at an angle of 4-5° to the body of the instrument. These changes normally required a slightly higher, thinner and more steeply curved bridge but offered an increase in the playing length of the string. The modified neck in turn affected the shape and dimensions of the fingerboard, which was narrowed at the peg-box end to allow the player greater left-hand agility, and made a little broader toward the bridge. To facilitate high passagework, the fingerboard was also lengthened by 5.08 – 6.35cm. The increased pressures that were put on the instrument led to the neck being mortised into the top-block for greater strength and the introduction of a longer, thicker bass bar. The soundpost was also made thicker and
more substantial (Stowell, 2001, p. 33). Of course, this improved projection of sound and brilliance of tone has great relevance to any discussion of Romantic violin techniques and will be explored in more detail in subsequent chapters.

These modifications in violin construction were implemented gradually over a substantial period of transition between c.1760 and c.1830, but despite the changes in various violin fittings, the main body of the instrument remained unaltered throughout the period. Its basic design in the nineteenth century (described below) has been unsurpassed to this day (Stowell, 2001 p. 33).

Figure 4.1-1 Members of the violin family from the seventeenth century.

4.1A How did the violin shape and the bow develop?

b. Strings

Strings have changed over time. While copper, steel, brass and silk strings were available during the seventeenth century they do not appear to have been widely used, with violinists preferring to use a plain-gut e², a plain-gut or high-twist a¹, a high twist or catline d¹ and a catline g string well into the eighteenth century. The preference for gut (or silk) strings wound with silver (or copper) for the violin’s g string had emerged in many countries by the early eighteenth century, with Löhlein (1725-1781) stating specifically in 1774 that the g string should be wound with silver (Stowell, 1985, p. 28). The strings had superior tonal potential and allowed for an increase in mass without an increase in diameter and a consequent loss of flexibility.

In the eighteenth century there were distinct national preferences in stringing. In Italy and Germany gut strings continued to be used - Leopold Mozart refers to gut strings, while Majer (1689-1768) mentions a wound lowest string. However, in England the catline g was gradually replaced by an open-wound g. The French, early in the century, replaced the gut d¹ by an open-wound string and the g by a close-wound string. The Italians replaced the catline g, by the middle of the century, with a close-wound string, because of its greater tonal brilliance and reliability of response, and the rest of Europe followed suit from 1775. Twisted silver and silk covered strings also became available by the end of the eighteenth century. They were said to be less resonant, texturally inferior and more difficult to tune accurately, and then keep in tune, than gut strings. This was because of their unusual elasticity (Stowell, 1985, p. 28).

Baillot in 1835 (p. 247) recommended brass or silver and Spohr in 1832 (pp. 12-3) stipulated either plated copper or solid silver wire. Spohr preferred the silver-covered variety though, because they gave a clearer sound and did not corrode and become red and unsightly through long use (Stowell, 1985, p. 28).

The gut string has several disadvantages. These include the need to keep them moist, their tendency to unravel, greater sensitivity to variation in atmospheric temperature, and the common incidence of knots and other imperfections. Despite the increased reference to overspun d¹ strings and the well-publicised disadvantages of gut, the combination of plain-gut e² and a¹, high-twist d¹ and a g with copper, silver-plated
copper or silver round wire close-wound on a gut core was the norm throughout the nineteenth century. A few players, however, persisted with gut strings even into the twentieth century. However, gut was gradually replaced by steel, recommended in particular by Willie Burmester (1869-1933) and Anton Witek (1872-1933). When the aluminium-covered a\(^1\) string and the steel e string, with its metal adjuster for greater facility in fine tuning, were introduced, they offered the player greater reliability of intonation and response as well as a tonal brilliance better suited to the prevalent sound ideal (Stowell, 1985, p. 28).

It is not possible to draw definitive conclusions regarding pitch, string tensions and string thicknesses, as the available evidence is so conflicting and circumstances were so variable in the past. String thicknesses differed considerably, among other variables, according to considerations of pitch, the size of the instrument, and national or individual tastes regarding string materials, and this is one variant that has affected how different violinists have approached their craft. German and Italian violinists generally used thicker strings, strung at greater tension than the French, presumably to obtain a greater brilliance and volume. Evidently Paganini, the great virtuoso and acclaimed soloist, used very thin strings. They suited his technical exploits - notably his common use of high position-work, natural and artificial harmonics, left-hand pizzicato and scordatura. Unfortunately, thin strings tend to produce a very weak tone and thin e strings tend to ‘whistle’ instead of ‘speaking’ clearly. Both of these tendencies were features of Paganini’s performances (Stowell, 1985, p. 29). Spohr, on the other hand, suggested that optimal string thickness can be obtained only by experiment, with the ultimate goal that each string should have equal strength and fullness of tone. He used the thickest strings his violin would take, so long as their tone was bright and their response was quick and easy. In order to ensure uniformity in the string thickness, Spohr recommends to always measure replacement strings with a string gauge. This was a metal plate of silver or brass with a graduated slit, lettered for each string (Stowell, 1985, p. 29).

Gut naturally wears more quickly than other materials and so oiled and varnished varieties were developed with longevity in mind. Unfortunately, this treatment often affects the sound quality – which was very important in the Romantic era. Varnished gut strings tend to sound harsher than unvarnished ones. String life can be preserved by
possibly tuning down the string slightly after playing. When retuned, most gut string varieties settle fairly quickly.

c. Chin-rest

The chin-rest was invented by Spohr in 1820, and was made of ebony. Spohr said of his invention, “There is above the tail-piece, a contrivance invented by me, which I have called the violin-holder.” (Spohr, 1832, p. 3). Because of its influence on playing style, it is discussed in more detail in the next section (4.1B).

The chin-rest was accepted only gradually over time, but by the middle of the nineteenth century, it, or some variation of it, was probably fairly widely used. Many leading players, nevertheless, evidently rejected utilising such equipment - among them Wilhelmj (1845-1908).

d. Mute

The mute is a device made generally of wood, but it may also be made from lead, brass, tin or steel. Quantz disliked the growling tone produced by the wood and brass varieties. Its use was gradually extended from ensemble to solo playing during the eighteenth century. The fundamental design remained unchanged until the mid-nineteenth century, when Vuillaume (1798-1875) invented his sourdine pédale. Players would manually have to apply and remove the mute during a performance but with this device they could apply the mute by means of gentle pressure with the chin on the tailpiece. It gained, however, only evanescent success (cited in Stowell, 2001, p. 38). This device however, was one that went some way to quench the desire for a diversity of tone colours so prevalent in the Romantic Period.

e. Shoulder pad

The shoulder pad was used to facilitate the correct and comfortable support of the violin. Pierre Baillot (1835, p. 16) was one of the first writers to recommend its use.
suggested that to fill any gap between the player’s left shoulder and the instrument, a thick handkerchief or a kind of cushion should be used. However shoulder pads were not regularly used in the nineteenth century because of the dress code.

f. The bow

The bow had an enormous impact upon violin techniques of the nineteenth century. It is therefore useful to indulge in a comprehensive historical examination of the development of the bow.

The bow was first used as an instrumental accessory in the Byzantine Empire. The weak tone of the early bowed instrument compared with that of plucked ones, meant that it was considered to be used only by the “common people” (Wade-Matthews, 2001, p. 32). The bows of these early instruments bear a strong resemblance to each other (Krauss, 1951, p. 4) and were usually in the shape of fully drawn hunting bows. As the name suggests, the bow originally had a convex shape (Wade-Matthews, loc. cit.) and was made from a length of cane (Krauss, loc. cit.). It was designed to hold the horsehair under tension so that it could be drawn across the strings of the instrument to set up a sustained vibration (Wade-Matthews, loc. cit.). For the most part the hair was tied to the stick in the simplest way. Sometimes the hair was passed through a slit and held in place by a knot. In other cases it was attached to a leather thong, and occasionally it was plugged into the open end of a piece of bamboo (Krauss, 1951, p. 5).

Early bows differed greatly in size and could be as small as 20cm. They were unstandardised as regards to weight, length, form and wood-type but had certain general characteristics in common (Stowell, 2001, p. 38). The violin was becoming a popular instrument by the sixteenth century for dance music, and short bows of about 35 centimetres were adequate for this purpose.

The origin of the bow in Europe is uncertain. The opinion held by scholars of today is that the classical Mediterranean civilisation of Greece and Rome knew no bowed string instruments (Krauss, 1951, p. 6). It was probably introduced in the eleventh century by

4.1A How did the violin shape and the bow develop?

Chapter 4
the Islamic conquerors of Spain, and within 100 years the bow had become known and was being used over most of Western Europe (Wade-Matthews, *loc. cit.*).

In comparing the bows of earlier times with those of Europe to the sixteenth century, few improvements can be found. The average bow was still a rigid stick bent in a semi-circle with no means of regulating hair tension. The introduction of the viol family and increasingly complex music created the demand for better bow technique (Krauss, 1951, p. 11).

The seventeenth century saw the beginning of improvements to the bow. The stick was sometimes round and sometimes pentagonal, and became smaller in tapering toward the head. The head also became more elongated (Krauss, 1951, p. 12). The bows were usually convex and the narrow skein of horsehair was strung at fixed tension between the pointed head (which in some cases was non-existent; the hair merely met the stick at a point) and the immovable horn-shaped nut at the lower end of the stick. By the end of the century, the standard bow had a length of at least 61cm (Stowell, 2001, pp. 38-9).

This century also saw the art of playing bowed instruments develop, and it became necessary to modify the degree of tension of the hair according to the music to be executed. Hence, the movable frog was developed. There are no records of exact dates and hence it is not possible to determine when it was first introduced. The cremaillere was added to the existing form of the bow. This was a strip of notched metal, as shown at a (see Figure 4.1-2), fixed to the back of the stick. A band of metal was added to the moveable frog which could be hooked over the notches, and thus allow the tension of the bow to be changed as required (Krauss, 1951, pp. 12-3).

![Figure 4.1-2 Bow showing a cremaillere.](ibid, p. 13).

During the eighteenth century a growing demand for increased tonal volume, cantabile and a wider dynamic range prompted the production of longer and straighter bow sticks (Stowell, 1985, p. 11). Tartini (1692-1770), in about 1730, made some changes in the
bow. Evidence of his vast influence can be found in an extract from Paul Stoeving’s (1861-1948) book, *The Story of the Violin*:

The advance of Tartini’s executive art on that of his great predecessor Corelli, from a bowing point of view alone, is plainly shown in his compositions. Unless we assume that within a few years (1713-23) that particular part of technique had made such great strides generally, the Paduan master must have been reformatory, nay, epoch-making in this respect as he was in others. It is well known that he improved also the form of the bow, giving it, compared to Corelli’s, greater length and a slightly different curve (Stoeving, 1904, in Krauss, 1951, p. 14).

His bows were less clumsy and made out of lighter wood than those that had been previously used. He adopted the straight stick, shortened the head, and made grooves in that part of the stick which is in the hand. This prevented the bow from turning between the fingers (Krauss, 1951, pp. 14-15).

Straightening of the bow required the height and curvature of the so-called pike’s (or swan’s) head to be modified, to allow sufficient separation of the hair from the stick. The length of bows in the eighteenth century varies considerably, but the trend was towards those with a greater playing length of hair, especially in Italy (Stowell, 2001, p. 39).

The bow underwent a number of radical changes in the second half of the eighteenth century, principally to suit the development of the violin as a solo, virtuoso instrument (Wade-Matthews, 2001, p. 32). By the end of the eighteenth century the bow had received its last, and since then unimproved, shape (Krauss, 1951, p. 15). The new designs were the work of François Tourte (1747-1835) and Wilhelm Cramer (c. 1745-1799). Cramer designed a concave bow, which quickly led to the abandonment of the convex version (Wade-Matthews, *loc. cit.*). It was longer than most Italian models and was distinguished by its characteristically shaped ivory frog, its bold, yet neat ‘battle-axe’ head, and of course the slight concave camber of the stick (Stowell, 2001, p. 44).
Tourte experimented with various kinds of wood in order to find a variety that offered those qualities of lightness, density, strength and elasticity demanded by string players of his day (Stowell, 2001, p. 45). It did not take him long to discover that Red Brazilian Pernambuco wood (*Caesalpinia echinata*) alone would yield these results, and that it alone combined stiffness with lightness (Wade-Matthews 2001, p. 33; Krauss, 1951, p. 18). By thoroughly heating the stick he discovered that he could bend, rather than cut, it to the desired concave camber. This preserved the wood’s natural resiliency (Stowell, 2001, p. 45).

Tourte fixed the length of the violin bow between 74 and 75 centimetres (Krauss, 1951, p. 18) with the playing hair length of about 65 centimetres (Wade-Matthews 2001, p. 33), and an optimum overall weight of about 56 to 60 grams. The amount of hair employed in the stringing of bows was gradually increased from the middle of the eighteenth century (Stowell, 2001, p. 45). These hairs would cluster together in a round mass, which impaired the quality of the tone. After making his observations on this point Tourte conceived the possibility of compelling the hairs to preserve the appearance of a ribbon by pinching them at the nut with the ferrule, which was made initially of tin and then of silver (Krauss, 1951, p. 18). This widened the ribbon of hair to about one centimetre (Wade-Matthews, 2001, p. 32). Some time after this he invented “the slide”. This was a little plate of mother of pearl which covers the hair on the face of the nut (Krauss, 1951, p. 19).

Tourte is also credited with improving the moveable frog. He replaced the cremaillere with the screw that causes the nut to advance and recede, which tightens the hair at will, by means of a button placed at the extremity of the stick (Krauss, 1951, p. 16).

An important addition instituted by Francois Lupot (1774-1837) was the metal plate which lines the groove in the nut and prevents the wearing away of the nut by friction with the stick (Krauss, 1951, p. 21).

---

3 Wade-Matthews, 2001, p. 33

4.1A How did the violin shape and the bow develop?
g. Varnish

While varnish may not be able to improve the violin's tone, it can affect it adversely. A hard varnish causes an instrument to produce a hard sound, with little or no tone-colour. A thick oily varnish, on the other hand, inhibits the wood’s vibrations, and a varnish that is applied badly may well prevent the best tones from being realised. In 1715 Stradivari reached his highest pinnacle when he developed his now well-known, orange-brown coloured varnish, which dried to a light delicate elastic skin. Unfortunately, the recipe for Stradivari's varnish is now lost (Wade-Matthews and Thompson, 2003, pp. 104-105).
4.1B. How did the evolution of the violin relate to violin playing?

The violin itself evolved in response to demands from the player. For example, the mid-eighteenth-century quest for a strong, full tone and sonorous cantabile was only partly answered by the various developments in bow design during the century. The design and construction of the violin itself needed to be changed in order to enable it to produce sufficient tonal power and brilliance to fill the larger concert halls (Stowell, 1985, p. 23). (See figure 4.1-3). Violins were also involved in sonatas that included instruments such as the pianoforte as opposed to the fortepiano or harpsichord and thus were required to match their volume. Examples 4.1B-1 to 3 give three musical passages that would not be possible to play without this increased tonal power and brilliance. In example 4.1B-1 the use of the sul G was not called for by the composer and is not marked in most editions. However, the addition of sul G by performers enhances the idea of a more ‘Romantic’ approach. By playing on the G string as opposed to the D string, the player will gain greater tonal power. This change was effected chiefly by the greater tensions on the instrument resulting from the introduction of a slightly higher playing pitch, the use of a higher bridge and an increase in the playing length of the strings (Stowell, 1985, p. 23).
Example 4.1B-1 Franck - Sonata in A major, 2\textsuperscript{nd} mvt, bars 13-21.
Example 4.1B-2 Franck - Sonata in A major, 3rd mvt, bars 99-107.
The raising of the bridge meant that the angle of the strings increased and hence a corresponding elevation of the fingerboard was necessary. This allowed greater clarity of finger-stopping. The solution to this problem was to insert a thicker wedge between the fingerboard and the neck, but this would have proved contrary to the demands of a developing violin technique, which required a thinner, more manageable neck to enable the full range of the instrument to be exploited. The narrower canted neck allowed the adoption of a correct violin hold, which facilitated position work and performance on
the lower strings (Stowell, 1985, p. 24). This was exploited by, among others, Paganini. Example 4.1B-4 gives an illustration of this.


The longer, narrow neck in turn affected the shape of the fingerboard. To allow the player greater left-hand facility, it was narrowed at the peg-box end. It was gradually lengthened, and this extended the range of the instrument beyond the seventh position and afforded the violinist greater facility in the exploitation of high position work (Stowell, 1985, p. 26). Example 4.1B-5 shows this.


The main body of the instrument has remained unaltered throughout the period of transition, in spite of all the changes in the various violin fittings (Stowell, 1985, p. 27).

The chin rest was added to the violin at the beginning of the nineteenth century and its influence on playing style and technique was considerable. In his book, Violinschule (1832, p. 4), Spohr writes the following:

The modern style of playing, in which the left hand so often changes position, makes it absolutely essential for the violin to be held firmly with the chin. To do this in an unconstrained manner and without bending the head forward presents great difficulties, whether the chin is placed on the right or the left side of the tailpiece or even on the tailpiece itself. One will also run the perpetual risk of drawing the violin away from under the chin when shifting the left hand rapidly
downwards from the higher positions, or of disturbing the evenness of the bowing through some movement of the instrument. The chin rest completely rectifies all these evils and allows not only a firm and unconstrained hold of the violin but also has the advantage that one is not compelled to rest one's chin on the belly or the tailpiece, thereby checking the vibration of these parts, to the detriment of the quality and volume of tone of the instrument. The bowing, too, gains in freedom and regularity because the violin can be held exactly in the centre, above the tailpiece, and somewhat farther from the face.

From the above, it appears that Spohr placed his chin rest directly over the tailpiece, unlike today where it is usually placed to the left side. While this “must have impeded the violinist to some extent, especially in the lower strings, it nevertheless provided the greater stability required to ensure a more accurate and secure execution of shifts and position-work in the higher registers and greater freedom of the bow arm.” (Stowell, 1985, p. 30). One outcome of this is that melodies could be written that included greater leaps. Example 4.1B-6 shows a melody that includes downward double stop glissandi (bars 57 – 60), which would be very difficult to play without the chin rest.

Example 4.1B-6 Wieniawski – Concerto No. 2 in D minor Op. 22, 2nd mvt “Romance”, bars 51-60.

This new invention of Spohr’s, however, may have had a larger impact on violin technique than first recognised. In an article written by Ricci (2004), this notion is explored. Ricci writes that the violin was held by the left hand before the era of chin rests. This meant the head was free to move but the hand was kept against the ribs of the
instrument and it was the fingers that were extended backwards and forwards, both in front of and behind the thumb. The chin rest entirely changed this system, the violin now being chin-held instead of hand-held. Because the left hand was now free from having to hold the violin, it could move further around the instrument. The old system of playing (pre-chin rest) favoured a cautious approach using minimal motion and avoiding leaps and jumps. The appearance of the chin rest led to a considerable development in shifting and positions, and hence a riskier style of playing that used plenty of movement. Because the thumb now moves with the fingers, the hand and indeed the arm move also (Ricci, 2004, in The Strad, p. 1041).

Another aspect of playing that changed was posture. For example, from various accounts it is known that Paganini held his violin at a downward angle with his left elbow against his body. There is hardly any arm movement with the hand fixed against the ribs in this way, and one moves with the least amount of motion. To look at a practical example, play the following example keeping your thumb fixed in the third position while pivoting your hand:


With your hand against the ribs, the thumb remains in contact with the violin and acts as a pivot point for the rest of the hand. The first position then becomes a backwards extension. Another example confirms that if the hand is rested against the violin, the arm doesn’t have to move at all; the finger simply slides between the notes:

If, however, the violin is held with the chin, there are several position changes, from fourth to third, from third to second and from second to first position and the whole arm must move – from fingertips to shoulder:
Ricci also found that without the chin rest, a completely different fingering system was required (Ricci, 2004 in *The Strad*, pp. 1041 & 1043). Fingering will be discussed in more detail later.

The bow underwent dramatic changes throughout the centuries but it was the modern (Tourte) bow that brought the biggest changes in playing style. As discussed in the previous section, Tourte widened the ribbon of the hair and attached it to a strong, movable frog, so the tension on the hair could be adjusted and set at the beginning of the performance. Instead of the bow being grasped firmly in the whole hand, it could now be held lightly with the fingertips. This allowed much greater flexibility and delicacy of playing style, which facilitated the rise of the great eighteenth and nineteenth-century violin virtuosi (Wade-Matthews and Thompson 2003, p. 33), such as Pugnani (1731-1798), Viotti (1755-1824), Paganini, Joachim (1831-1907), David (1810-1873) and Wieniawski. However, it was not until about 1800 onwards that the full potential of the Tourte model could be realised, when its inherent power, its expressive and other qualities could be implemented on an instrument modified to fulfil similar ideals.

This new bow allowed a number of new bow strokes to be “invented”. These include among others, legato, which was necessary for the longer sustained phrases of the Romantic solo repertoire, and spiccato. These will all be discussed in more detail in chapter 7. The Tourte bow also permitted increased phrase-length; the use of certain types of accents, which had not been possible previously; and the ability to produce strong volume throughout continuous strokes. All these aspects were of very great importance in expressing the musical ideas of the Romantic Period.
4.2 Summary of how violin development responded to new playing conditions.

The developments in violin playing in the nineteenth century were aided considerably by the increasing musical and educational interests of the middle classes. This meant that concert-giving became a commercial concern. Larger concert halls were built to accommodate larger audiences. Thus it became necessary for structural alterations to the violin to be made to meet the demand for greater tonal volume. These social and instrumental changes, together with the advent of the Tourte bow, were accompanied by a gradual extension of violin technique. Numerous itinerant virtuosi also prompted further technical developments. Many of them wrote compositions for their own bravura performances. These took the form of concertos, airs variés, fantasies and the like (Stowell, 1985, p. 2).

Orchestras had also increased in size and this meant higher overheads. Since many orchestras did not have royal patronage they only survived because of the efforts of rich music-lovers who sponsored events. This was another reason why larger concert halls were built. Larger, paying audiences needed to be accommodated at concerts to make orchestras viable (Wade-Matthews, 2001, p. 48).

This demand for instruments capable of producing greater volume and brilliance of tone meant that some major modifications in the construction of the violin needed to occur. These changes started to happen in the mid-eighteenth century, and by the late eighteenth century performance styles had changed so much that the violin needed strengthening. The modifications included the lengthening of the neck and fingerboard, the bridge being made higher, the soundpost made thicker and the soundboard being made thinner. Heavier strings and tighter string tensions were needed to produce the stronger sound required to fill the new larger concert halls (ibid., pp. 103, 106).

Another modification was that the number of nails that attached the neck to the body was reduced from four to three. Glue could not be used since it would have adversely affected the tone (ibid., p. 103).
Chapter 5 An Analysis of the Music Considering New Techniques, and also Considering the Expressive Reasons Behind the New Styles.

The term ‘expression’, in its simplest sense, is applied to those elements of a musical performance that depend on personal response and that vary between different interpretations. What does it mean, then, to say that a piece of music has expression?

In the years around 1800 there occurred a fundamental change in the status of music in relation to the order of the arts. The emergence of a new concept of musical expression coincided with the rise of autonomous instrumental music as a serious art form. Previously, music had been considered by some as of no serious importance, however, it now became regarded as the most elevated of the arts, capable of expressing feelings and ideas beyond the limits of rational knowledge. An enthusiasm developed for heightened emotional states, which used music as the vehicle for rapture. Music became an art expressive of infinite and insatiable longing and indefinable feelings leading to ecstatic mystical revelation. This can be seen in the writings of numerous artists, poets, composers and critics, notably in E. T. A. Hoffmann’s novels, stories and music criticism, and in the music journalism of Weber, Berlioz and Schumann. Music was raised to the level of art-religion, and was thought of as the ultimate language of the emotions (Scruton, 2001, vol. 8 p. 464).

Perhaps one of the most influential figures in Germany in the mid-nineteenth century aesthetics of expression was Arthur Schopenhauer (1788-1860). He argued that music was the most direct representation or expression of the Will, and was the art form most immediately capable of conveying this revelatory power and of freeing people from the force of the Will. Eduard Hanslick (1825-1904) offered a critique of the theory of expression in music. He said that the form of the work ‘expresses’ nothing but itself. He set out to refute the expression theory of music in *Vom musikalisch-Schönen* (On the Beautiful in Music, 1854) by arguing that music traces the dynamic motion of a feeling, and that this is not the same as expressing an indefinite emotion, for to represent an indefinite emotion is a contradiction in terms. The first problem of music, therefore, is to give form to such dynamic emotion. His conclusion, therefore, is that music
expresses neither indefinite nor definite emotions, and if it expresses anything it is the shaping of the musical idea, in purely musical terms. Because this is a dynamic process, it appears also to evoke the dynamic character of the emotions.

Baillot wrote of expression and its means in 1835. He states that “time can bring changes to certain aspects of technique and can offer means to simplify or enrich it, but expression has as a goal to render correctly what was composed in any given system; for, during the life of this system, nothing can be changed in the bases of the established order.” (Baillot, 1835, p. 473).

Therefore, as long as the tonality, which is in use in any given time, is adhered to, correct intonation will be given as the primary condition in music. While ever rhythm is an essential part of the musical system, the tempo which determines the speed, and the precision which determines its effect, will be indispensable qualities, always fundamental to any good performance. Tone must be considered as the primary means of expression while ever cleanness, purity of timbre, and softness and brilliance of the voice please the ear (Baillot, 1835, p. 473).

Once the violinist has conquered the technical aspects of the violin, s/he should apply them to a wide choice of musical works of progressive difficulty. These allow the acquisition of both technique and taste. By studying music successively from the oldest masters to those of our time, progression beyond the ordinary will occur. All that pertains only to technique disappears, as the violin takes on an individual character, and feeling reigns in its place. It is at this point that the violinist rises above skill, sets him or herself apart, and makes the listeners forget the means being used to move them. Expression, then, opens to the talent of the violinist a new path which has limits only in the feelings of the human heart (Baillot, 1835, p. 475).

Just how were these concepts melded into the way the violin was played? In the baroque period, solo parts for concertos were written as just another instrument in the orchestra. However, in the Romantic Period the solo part in a concerto was written so as to be almost equal in stature to the whole orchestra. Similarly, as the nineteenth century unfolded, the violin part in sonatas became much more prominent.
5.1 Rhythm

Baillot writes of ‘rhythmic steadiness’ and states the performer must do more than follow the beat in order to acquire it. There should be great precision put into each of the beats making up the rhythm, and playing should be mastered so that the tempo is always even. A slight alteration in the rhythm is sometimes permitted by expression. However, the alteration should be gradual and almost imperceptible, or the rhythm should be merely disguised. In other words, while the performer feigns missing the rhythm for a moment, it is returned to soon afterwards and followed exactly as before.

If the performer abuses this freedom, warns Baillot, the music looses the charm given to it by the regular rhythm. The ear, which is accustomed to this rhythm, soon tires of a diversity or a confusion of tempi that destroys the beauty of the whole (Baillot 1835, p. 478).

One may say that it is the pulsing of the blood that has made rhythm necessary and that the beating of the heart is the origin of rhythm. When depicting the passions, one will in effect follow these emotions which are sometimes lively, sometimes slow. It is the emotions that serve as a yardstick to the composer for choosing the rhythms and the beat. However, by their very nature they cannot, then, be mathematically regular. Differences are introduced which are born from the awareness of each individual, and it is here that the origins of the great difficulty of maintaining steadiness and the following of a given tempo occur (Baillot, 1835, p. 478).

Composers such as Brahms, Bruckner, and Schubert can be recognised by their characteristic use of rhythm – in itself often attractive as an appealing detail, but recurring frequently throughout their works, in which cross-rhythms and long, drawn-out syncopations play a part.

Polyrhythm is the simultaneous use of strikingly contrasted rhythms in different parts of the musical fabric. Truly contrapuntal or polyphonic music is, in a sense, polyrhythmic. This is because, more than anything else, rhythmic variety in

---

6 See also Part II "Guide to Performance", p. 138 Example 5-19.
simultaneous parts gives the voice-parts the individuality that is essential to polyphonic style. The term is generally restricted, however, to cases in which rhythmic variety is introduced as a special effect that is often called ‘cross-rhythm’ (Apel, 1970, p. 688).

In the Romantic Period there were three types of cross-rhythms. The first and most common was duplets against triplets, or some other permutations of the concept of two beats in one part against three in another (see example 5.1-1 and 2).

The second type consisted of silvery washes of pianistic colour with rapid, irregularly grouped notes in the right hand against a steady beat in the left hand (see example 5.1-3).
The third and most complex type is the intersection of two or more rhythmic planes, usually a macrorhythmic plane enhanced with syncopation against a metric microrhythm (see example 5.1-4).

Metric developments after 1750 were relatively uninteresting until Beethoven who employed syncopation, in his late piano sonatas, as a means of escaping the ‘tyranny of the bar line’. Both Schumann and Brahms followed his example, and, because they were familiar with music from earlier periods, often used hemiola formations. In the fifteenth and sixteenth centuries, when mensural notation was used, hemiola was the term applied to time values that are in the ratio 3 : 2, particularly to the use of blackened notes in tempus perfectum. Hemiolas were constantly used in the Baroque period of the seventeenth and eighteenth centuries through phrasing and to mark cadential figures. Schumann was the one who ‘rediscovered’ it in the nineteenth century, and Brahms used it frequently (Apel, 1970, p. 382). See example 5.1-5.
Syncopation is usually defined as any deliberate disturbance of the normal pulse of metre, accent, or rhythm. In Western music, the principal system of rhythm is based on the grouping of equal beats with a regularly recurrent accent on the first beat of each group. If there is deviation from this scheme, it is perceived as a disturbance or contradiction between the underlying (normal) pulse and the actual (abnormal) rhythm.

There are three common methods of shifting the accent to a normally weaker beat of the measure:

---

5.1 Rhythm

---

Example 5.1-5 (a) – (b) Hemiolas are marked by the square lines.
5.1 Rhythm

(a) holding on over the strong beat;

(b) having rests on the strong beats;

(c) placing a stress on the weak beat.

Figure 5.1-1 (a) – (c) Common methods of shifting the accent.

Some practical applications of these methods are shown in example 5.1-6.

(a) Brahms – Sonata No. 3 in D minor Op. 108, 1st mvt, bars 1-3 piano (CD: 3 Tr: 1).

(b) Brahms – Sonata No. 2 in A major Op 100, 1st mvt, bars 271-274 (CD: 5 Tr: 4).

(c) See example 5.1-8
Syncopation is normally only ‘partial’, that is, it occurs in one part only – either the melody or the bass. The other parts usually maintain and emphasise the normal pulse of the metre. Beethoven, in his late works, is the first to use ‘complete syncopation.’ This is where there is a displacement of accents in the entire texture (see example 5.1-7). The listener’s feeling of rhythmic security is put off balance completely by this procedure. The effect (used especially by Schumann) occurs in later Romantic music.

One typically Romantic rhythmic device was substituting occasional measures of metre different from the prevailing rhythmic organisation (for example, a measure of 3:4 or 6:8 in rapid 2:2 metre), syncopations, sforzando accents in the “wrong” places, and syncopated harmonic rhythms giving the effect of “misplaced” bar lines (see example 5.1-8).
One of the foremost characteristics of late- to post-Romantic music is rhythmic complication. A thread of such complexities runs from Berlioz through Liszt to Tchaikovsky, Richard Strauss, and (with Russian folk influences) Glière. Permutations of compound metres (especially 9:8), minim triplets in 4:4 metre, constantly shifting metres, and interactions of rhythmic plains of increasingly great complexity all contributed to the establishment of twentieth-century rhythmic styles.

In the nineteenth century, an apparently contrary and antithetical development was the close interpenetration of dance and art music. This can be seen in the use of the waltz in Schubert, Schumann, Chopin, Brahms, and Richard Strauss; the quadrille in French opéra comique, the galop in Offenbach, the operatic processional march, or the many Eastern European dances with their piquant rhythmic effects. Dance forms often enhanced the Romantic approach, especially regarding nationalism in the Romantic period. Different types of Mazurkas and polonaises passionately exclaimed Poland. The Verbunkos loudly stated Hungary. Ravel and many others developed the waltz to previously unimaginable heights. Some of the other Romantic dance types include the ballet, and many collections of the national or “exotic” dances for piano duet. The steady dance beat in the accompaniment with cross-rhythms in the melody is an example of Romantic dance stylisation. The march-step and the stereotypes of waltz, galop, and other dance forms hampered rhythmic mobility.

Both Longyear (1973, p. 27) and Blume (1972, p. 134) agree that one of the major failings of many of the lesser Romantic composers – among others, George Onslow, Czerny, Henselt, Gernsheim, and Kiel – is that they rely on one rhythmic pattern to sustain interest throughout a major portion of composition, and that they lack rhythmic
imagination. This means that their music is frequently dull and tiresome. The problem is compounded when combined with frequent repetition of melodic material. The tendency toward virtuosic brilliance, in piano literature, exerted a regularising influence on rhythmic structures through its tinsel glitter. Behind the elegant arabesques and traceries the rhythmic element was often glaringly neglected.
5.2 Texture

The texture of music is made up of two basic elements – the horizontal (“woof”) and the vertical (“warp”). These two elements relate to the ‘thickness’ of the sound and its ‘heaviness’ and mesh much like a woven fabric. The horizontal elements are the successive sounds that form melodies, while the vertical are the simultaneous sounds that form the harmonies. The texture is seen (or heard) most clearly in music written in a number of parts. A horizontal line of individual design is represented by each part and they are connected with other lines by the (vertical) relationship of consonance or harmony. This type of music is said to have a contrapuntal or polyphonic texture.

In accompanied melody the texture is primarily vertical, based on a succession of chords that are connected horizontally by a top melody. This is known as having a chordal or homophonic texture. Thus, homophony is a texture in which two or more parts move together in harmony with the relationship between them creating chords. Polyphony is a texture in which the parts move with rhythmic independence. The two kinds of treatment of a single melody are shown in example 5.2-1.

![Example 5.2-1 Treatments of a single melody – (a) Polyphonic (b) Homophonic.](image-url)
There are a large variety of intermediate textures between these two extremes of strictly polyphonic and strictly homophonic music. A mixture of horizontal and vertical elements that was particularly common in nineteenth-century piano music is seen in examples 5.2-2 and 3.

Example 5.2-3 Schubert – Sonata in A major Op. 162, 1st mvt, bars 1-21 (CD: 2 Tr: 1).
5.3 Tone colour and dynamics

Each instrument has a particular timbre which depends on its structure, its size, the materials of which it is made, and the means the performer uses to cause it to vibrate. It is this timbre that gives the instrument its characteristic sound. “But there is no instrument from which the player draws a more varied and more universal expression than the violin.” (Rousseau in Baillot, 1835, p. 476). According to Baillot, in its high notes the brilliance of the clarinet or the simple and pastoral sound of the oboe can be rendered. From the middle register, the sweet and tender sounds of the flute come (see example 5.3-1), while from the lower register, the melancholy accent of the bassoon or the noble and touching sounds of the horn may be produced (Baillot, 1835, p. 476).

Example 5.3-1 Prokofiev – Sonata No. 2 in D major Op. 94a, 1st mvt, bars 87-92 (CD: 2 Tr: 5).

Baillot also related the ideas of tone colour to scordatura. Certain great players and composers have felt under no obligation to tune the violin in the universally accepted way, that is, in perfect fifths. Paganini tuned all the strings a semitone higher, to A♭, E♭’, B♭’ and F”’, to give the instrument more brilliance. So by transposing the solo part he would be playing in D when the orchestra was in E♭, or in A when they were in B♭. This allowed him to keep most of the strings open with their greater sonority without having to apply the fingers. With normal tuning this would not have been possible. De Bériot often tuned the G string up a tone in his concertos; Baillot, on the other hand, used to tune the G string down a semitone for soft, low effects.

Paganini’s Violin Concerto in E Flat, op. 6, was intended to be played on a violin tuned up a semitone; the soloist is thus playing in D (Mozart used the same scordatura for the viola in his Sinfonia concertante, K. 364). This scordatura is also found in Paganini’s variations on ‘Di tanti palpiti’ from Rossini’s (1792-1865) Tancredi (Macdonald, 2002, excerpt p. 7).
Baillot mentions Paganini’s scordatura and also de Bériot’s tuning, $a-d'-a'-e''$ as well as his own tuning of the G string to $f\#$ and his trick of tuning it slowly down to $d$ while still bowing (Baillot, 1835, pp. 417-418).

However, beyond the individual timbre of the instrument, there is another factor which depends on the degree of sensitivity of the musician, and which modifies the sound to such a degree that the same violin played by two different musicians is almost unrecognisable.

Even before the melody has reached the end of the first phrase, or the listener has had time to attach an idea to what is being performed, the tone strikes his senses and moves his soul. Tone is to the ear what beauty is to the eye. Like the first glance, the first tone casts a spell and makes an impression so deep that it may never be forgotten. Baillot suggests that those who desire a beautiful tone should begin to prepare it by technical means, but that they should “not seek elsewhere than in their own feelings, which they must draw out from their soul, for it is there that they will find its source.” (Baillot, 1835, p. 476).

The members of the Mannheim school took an important step toward expressiveness in instrumental music. They were the first to exploit, in their symphonies, the devices of dynamic expression such as long crescendos and decrescendos and sudden $ff$ and $pp$ (see figure 5.3-1 for a dynamic “map” that illustrates this point). The details of expression in these works often seemed a somewhat extraneous addition and were not always justified by the music itself. However, in the works of Haydn, Mozart, Beethoven, and Schubert a complete amalgamation of ‘expression’ and ‘composition’ was achieved. In these works expression is in total harmony with the musical substance, which has in itself become expressive (Apel, 1970, p. 301). For example, Haydn’s use of sforzati on rhythmically and metrically unstressed notes anticipated Beethoven’s powerful dynamic contrasts (see example 5.3-2), such as the sudden piano at climaxes that served as a ‘dynamic deceptive cadence’.

5.3 Tone colour and dynamics

Chapter 5
5.3 Tone colour and dynamics

Dynamics became more vital to expression with their emergence as a structural principle in the music of Rossini and Berlioz. The melodic and harmonic flow of Wagner’s *Tristan und Isolde* owes much to a system of dynamics that helps create the impression of music in a permanent state of transition. The dynamics of Schumann often have spatial aspects. For example, the heading of Op. 6 No. 17 reads ‘Wie aus der Ferne’ (‘as if from a distance’) (Thiemel, 2001, vol. 7 p. 820).

Composers felt obliged to provide more and more performance indications as the nineteenth century progressed. This led to an abundance of extreme values allegedly reflecting the composers’ intentions. Berlioz was probably the first to use **ffff**, while Tchaikovsky’s ‘Pathetique’ Symphony contained the first **pppppp**. From the second half of the century dynamic markings in scores by progressive composers are vertically

Example 5.3-2 Beethoven – Sonata No. 5 in F major Op. 24, 1st mvt, bars 153-170.
differentiated. For example, in Liszt’s *Tasso: lamento e trionfo*, the *adagio mesto* section has four simultaneous markings: *pp* for the horn, *ff* for the harp, *f espressivo* for three solo cellos and bass clarinet, and *p* for the rest of the cellos and double basses (Thiemel, 2001, vol. 7 p. 821).

The Romantic Movement exploited the possibilities of expression to their fullest. A large array of graduations of subtlety appeared, and composers spent much time and ingenuity in the invention of new nuances. They also amassed many new words or signs to indicate them on their music (Apel, 1970, p. 301). One should note, then, that dynamic signs and terms can only be taken as identical within works of individual composers, or at most for historically limited periods. Even within a composer’s personal style one must take account of diachronic developments (Thiemel, 2001, vol. 7 p. 821).

Colour in the nineteenth century was very much an individual property of each composer, whether on the piano or in orchestral writing. The technological improvements in all musical instruments made the new resources of instrumental colour possible. The clarinet, bass clarinet, French horns, English horns and harp were the principal instruments for Romantic colour. Often the contrabassoon was used by composers, usually in larger symphonies, to comical or sinister effect by taking advantage of its clumsiness and its sepulchral rattle, respectively. Other phenomena for Romantic colour were the expansion of the string sections with individual sections often divided to achieve richer sonorities; comparable expansion of the woodwind and brass choirs to extend their colours over a wide range; and the improved piano, particularly the Bosendorfer “Imperial Concert Grand”, with its extra octave and non-percussive sound. The orchestra nearly trebled in size between 1800 and 1914. More winds were added to achieve homogeneous tone colours on a given chord, and hence more strings were required to balance the number of winds, and more percussion instruments for new colours and increasingly dramatic climaxes (Longyear, 1973, p. 38).

The delight taken in instrumental colour for its own sake was not new to the composers of the nineteenth century. It can be found even in the seventeenth century, when instrumental music took very much a second place to vocal style, and the exploitation of
instrumental sonority was shown by composers as different as Monteverdi and Buxtehude (c.1637-1707). However, before the Romantic generation, orchestral colour was not one of the fundamentals of form: “Tone colour was applied like a veneer to form, but did not create or shape it.” (Rosen, 1995, p. 39). The basic materials of music were confined mostly to the neutral elements of pitch and rhythm. Scarlatti’s sonatas are one interesting exception where there are moments of pure play of sound as the keyboard instrument mimics trumpets, drums, oboes, and guitars.

The music of the Romantic generation was more intimately bound up with aural experience than any previous period. Dynamics had been integrated into compositions in the late eighteenth century and were no longer used only for simple contrasts or for their expressive value. For example, there was often a clear motivic significance to the accents of a Haydn theme. The music of Beethoven used the dynamics of a theme or motif for large-scale development and transformation (see example 5.3-3). The contemporaries of Schumann and Liszt, in the following decades, applied to other aspects of musical experience – resonance, pedalling and tone colour – what Beethoven and Haydn had done for dynamics.

Example 5.3-3 (a) – (b) Dynamics used for development and transformation.

5.3 Tone colour and dynamics
One may see the revolutionary nature of the achievements by studying transcriptions. None of the transcriptions done before the work of the generation that came to maturity in the 1830’s tried to capture and retain the instrumental qualities of the original instrument. Beethoven did not try to make the piano sound like a violin in his arrangement of the Violin Concerto for the piano. The original series of pitches were merely transferred to another instrument. Similarly, Mozart’s arrangements of Bach’s fugues for string quartet and trio did not retain any of their keyboard character. Handel, who was one of the most brilliant masters of instrumental colour at that time, did not have the sound of the original play any role in any of the hundreds of re-adaptations of his own and other composers’ music. Even as far back as the fourteenth century arrangements of vocal music for instruments existed, and were also very common in the sixteenth century, but, for example, there are no transcriptions of a motet for the lute that give any sense of vocal style. The transcriptions of Liszt in the 1830’s were among the first where the reproduction of the original sonority on the new instrument becomes a major preoccupation. Liszt was able to invent wonderful pianistic illusions of orchestral instruments and of the interplay between voices and instruments; a certain fidelity to the original sound was retained even in his most extravagant versions (Rosen, 1995, pp. 38-39).

A further contrast between the Classic and Romantic, in terms of colour, is that “few critics”, writes Longyear, “would attempt to differentiate, in performance style, between Haydn and Mozart, yet each performer must adapt his style not just from classic to Romantic music but among each Romantic composer.” The oboist, for example, needs to make subtle differences in his or her tone for Beethoven, Weber, Berlioz, Schumann, Wagner, Brahms, Tchaikovsky, and Mahler (Longyear, 1973, p. 38).

The delight in tone colour must have existed, one would suppose, from the primitive beginnings of music, but it was introduced directly into the initial stages of strict composition by the Romantic generation. The change, however, did not happen overnight, for composers would long continue to erect neutral structures of pitch and rhythm, and then clothe them in instrumental dress (Rosen, 1995, p. 40). For example, Brahms’s approach to tone colour was very different to Rimsky-Korsakov’s. Brahms used the subtler beauties of organic structure in his works. The mere acoustic effect of a passage was of far less importance than its inherent beauty, poetic import, or logical
fitness in a definite scheme of development (Lovetoknow\(^8\), 2006, www.1911encyclopedia.org/Johannes_Brahms). On the other hand, Rimsky-Korsakov’s great strength was orchestration and his talent for orchestral colour, combined with exotic, oriental-sounding harmonics, produced many rich and glowing works (Wade-Matthews and Thompson, 2003, p379). It is evident, however, that timbre, register, and spacing play a greater and more determining part in the conception of the most interesting and significant works. The Romantics altered the relationship between the delight in sound and the delight in structure. They elevated the importance of aspects of musical experience that were considered until then of only secondary interest. They enlarged, permanently, the role of sound in the composition of music (Rosen, 1995, p. 40).

\(^8\) Based on the 1911 edition of the Encyclopedia Britannica.
5.4 Tempo, style and taste as other means of expression

These are three smaller areas of expression which will be touched on briefly. These are discussed by Baillot in his 1835 treatise. He writes that along with tone and rhythm, they make up the aspects of true expression.

5.4A. Tempo.

Music was divided by the ancients into three categories according to its effects on the soul. According to Baillot, they were tranquil music, active music and enthusiastic music. These principal characters are included in the tempi known as Adagio, Moderato and Presto respectively.

The character of a piece of music depends to a large extent on its tempo. Expression therefore requires that the performer use the greatest precision in giving to the music the tempo appropriate to its basic character. So, in an adagio one should avoid playing fast passages or giving it an accent foreign to the character called for by its tempo. The ornaments will also be played more broadly, appoggiaturas more slowly, trills more flexibly and smoothly, and with the bow strokes sustained much more slowly than in an Allegro. The Allegro should be played more firmly and with a more animated bow stroke (see example 5.4-1). The ornaments are still played broadly but with quicker bow strokes. The Presto should have all the lightness, vivacity and spirit possible, the fingers and the bow always being lively and animated.

Example 5.4-1 Paganini – Concerto No. 1 in D major Op. 6, 2nd mvt, bars 16-19.
Of course, there are degrees of tempi which are derived from these three, such as Larghetto, Andante, Moderato, et cetera. It is up to the player’s musical feeling to determine how much of each of the three characters there is in each of these various tempi (Baillot 1835, p. 477).
5.4B. Style

It is the manner of expressing, the choice of expressions, and the accent one gives to each piece that characterises its style. It therefore follows that the Adagio, the Allegro and the Presto each has a style of its own. See example 5.4-2.

**Adagio** - Paganini – Concerto No. 1 in D major Op. 6, 2nd mvt, bars 8-15.

**Allegro** - Paganini – Concerto No. 1 in D major Op. 6, 3rd mvt, bars 1-6.


Each composer gives an imprint to his works or an individual stamp, a style of his own. This comes from his manner of feeling and expressing. Hence it is important for players to study the works of many composers so that their performances reflect the true style of the composer (Baillot, 1835, p. 477).
5.4C. Taste

Natural taste is just a feeling for the conventions and an imperceptible tact which gives everything the suitable tone, character and position. Refined taste is formed by the results of comparisons, by judgement and by experience. It adds to natural taste the particular knowledge of the conventions that have already been discussed. It is both a gift of nature and the fruit of education and requires thought as well as instinct. It does not consist of placing pleasing ornaments or figures in a melody, but rather of abstaining from them when the subject requires it or of using them appropriately. The ornaments that are used should be drawn from the very nature of the expression of the melody (Baillot, 1835, p. 477).

Taste is also very much a product and fashion of its day. Geminiani (1687-1762) wrote, in 1749, that “good taste” was a technical phrase which denoted the ability to use ornamentation in a refined and cultured manner, and his treatise included carefully described tables of ornaments. Artists were expected to use their imaginations (Sunday, 2006, Http://cnx.org/content/m13325/lastest/). “With regard to musical performance, experience has shewn that the imagination of the hearer is in general so much at the disposal of the master that by the help of variations, movements, intervals and modulations he may almost stamp what impression on the mind he pleases.” (Geminiani, 1749, in www.elysiumensemble.com/quotes.html). Leopold Mozart and L’Abbé Fils (1727-1803) also wrote treatises dealing with taste in the eighteenth century.

Apart from Baillot, mentioned above, there were few other treatises which dealt with the topic of taste in any detail.
5.5 Conclusion

It can be seen from the writings of different writers that several of the elements that make up music as a whole changed significantly in this period. It was also found that there were several expressive reasons behind these changes and this in turn had an impact on the composition style of the period. Elements such as cross-rhythms, syncopation, and hemiola were used in compositions to produce more emotional music, that is, music directed toward the heart.

The nineteenth century saw textures of music mixing together. Whereas previously the music either had a horizontal texture or a vertical texture, it now included both these elements together. This created a thickness in texture which often caused its own interpretive problems. Dynamic expressions were first exploited and an amalgamation of ‘expression’ and ‘composition’ was achieved where the expression of the work (more particularly those of Haydn, Mozart, Beethoven, and Schubert) was in total harmony with the musical substance. In general, the ‘Romantic Movement’ exploited the possibilities of expression to their fullest.
Chapter 6 Left-Hand Violin Techniques in Romanticism

Rode (1774-1830), Kreutzer, Baillot, and Spohr were, in their day, considered to be the giants among violinists. They approached the greatest technical perfection which a human being could achieve. They expanded the technique and developed the greatest varieties of bowing. The magic of their tone competed with the human voice. It was through this magical tone that “they succeeded in representing every emotion, and every standard, which continued the line of their musical progenitors, Corelli, Tartini, and Viotti, and enabled the violin to control the human soul.” (Guhr, 1829, p. 1).

Paganini, on the other hand, severed all traditions and carved his own path. It has been said that he could “move the deepest senses of the spirit and perform unprecedented feats with dazzling perfection.” (Guhr, 1829, p. 1). His influence on violinists since his time has been immense and he has provided the great impetus which has resulted in the current violinists attaining such glorious heights (Day, 2002, p. v).

Long before Paganini, double stopping passages had been written. However no one else has ever attained to his technical facility in their performance. He expanded “the idea of the use of the left thumb,…and use of the whole fingerboard.” (Day, 2002, p. v) It was in the domain of bowing, left-hand pizzicato, and single and double harmonics that Paganini added new effects to the violinist’s materia technica. It is a matter of personal taste as to whether the second and third of these three developments of technical display are to be considered beautiful or not. Paganini’s greatest merit lay in extending the range of his instrument, in demonstrating what surprising results could be obtained by a combination of natural talent and hard work. In short, he was showing new paths for the development of instrumental virtuosity (Pulver, 1970, p. 314).

Many virtuosi have played the passages which Paganini wrote in pizzicato for the left-hand, and those in single and double harmonics. But none has ever produced the emotional effects attributed to Paganini by writers that heard him play, whose word we are obliged to accept. His hand was no longer than normal, but thanks to an elasticity peculiar to all its parts, his span was doubled. It was by these means that he could,

---

9 See also Part II "Guide to Performance", p. 68 Example 2-34.
without altering the position of the hand, bend the other joints of the fingers of the left hand in a lateral direction, with the greatest ease and rapidity. However, it was as much by his dramatic and emotional power and versatility, as by his amazing exhibition of mechanical fluency that his greatest successes were achieved (Pulver, 1970, pp. 315-6).

During the second half of the nineteenth century, a great variety of stylistic nuances were developed. Subtleties of portamentos, slides, glissandos, and position changes added new elements of charm and elegance to violin art. Violin playing was also to take a leap forward. An inventive device began to develop around 1880. It was comparable in importance to such revolutionary advances in violinistic history as the raising of the violin to a position involving the neck, shoulder and chin; the reversing of the bow curvature; and the monumental technical upsurge of finger dexterity in the nineteenth century, crowned by the daring exploits of Paganini.

This new phenomenon was the conscious development and deliberate usage of that oscillation of the left-hand fingertip known as the vibrato.

The origin of this concept (as discussed later in chapter 6.1G) is unclear, but it is known that Wieniawski (1835-1880) invented special vibrato exercises which he passed onto Lotto (1844-1936), Vieuxtemps (1820-1881) and others. This new phenomenon spread very quickly among violinists everywhere, yet it met with much stubborn resistance that required many years to overcome. The use of finger oscillation had previously been despised and forbidden by just about every “respectable” violin school.

The contribution of the vibrato, however, was to enable violinists to play with a new beauty and heightened sensuality of sound which added new dimensions of emotional communication (Roth, 1997, p. 5).

The composition styles of the period varied greatly. One contributing factor to this was the development of left-hand technique. The composers of the period wrote very differently for the violin from each other both musically and technically. They may be divided into two groups – violin-composers, who played the violin; and composers who only either played the violin after a fashion or who knew something about the
instrument. A brief discussion follows highlighting several of them, with the virtuoso-composers being discussed first.

The young Paganini studied under Ghiretti (1747-1797) and devoted himself assiduously not only to harmony and counterpoint but also to a close study of instrumentation (Van der Straeten, 1968, vol. ii p. 343). In studying the caprices of Paganini, it may be seen that by the end of the first decade of the nineteenth century, he far surpassed his predecessors and contemporaries in the use of legitimate technical devices without the addition of such spectacular embellishments as harmonics, double harmonics, left-hand finger pizzicatos (except for a single variation in the 24th caprice) and passages simultaneously accompanied by left-hand finger pizzicatos. His caprices are superior in matters of advanced technical challenges as well as in sheer invention and imagination in basic musical substance. Later composers recognised Paganini’s talent as a composer and utilised some of his caprices as source material for works of their own. These include Brahms, Liszt and Schumann among others (Roth, 1997, p. 13).

The difficulty of Paganini’s works lies in the relentless pressure with which the separate ingredients are introduced, individually and in combination. There is no breathing space, no respite, and the most basic of his works becomes a feat of physical endurance and of almost superhuman concentration (Clarkson, 1968, p. 143). While Paganini’s field may have been comparatively small, as Chopin’s was in comparison to Brahms’s, he must still be considered a legendary artist (Roth, 1997, p. 18). However, many of his contemporaries took refuge behind a barricade of criticism and the inevitable charge of charlatanism because of the difficulties in his compositions. It was only among composers, and pianist-composers in particular, that Paganini excited profuse admiration. Schubert is known to have subsidised a friend’s visit to a Paganini recital, plunging him into deeper destitution. The bon-viveur Rossini said that he had wept only three times in his life – one was when he heard Paganini play. Schumann became ecstatic on hearing him, Chopin worshipped his playing and Liszt was stimulated to the ambition to do for the piano what Paganini was doing for the violin (Clarkson, 1968, p. 143).
Wieniawski stands far above the majority of virtuoso composers of his time. His works are not only brilliant, graceful and original in their passage, but they show poetical inspiration (Van der Straeten, 1968, vol. ii p. 384). His compositions all are written with an eye to virtuoso effect (Auer, 1925, p. 78).

As a composer Ernst (1814-1865) had true Romantic élan, exemplified in his Concerto in F sharp minor, Op. 23 or the famous \textit{Elégie} Op. 10. His compositions represent the apex of violin technique, and his arrangement of Schubert’s \textit{Erlkönig} and works for the unaccompanied violin such as the Six Polyphonic Studies show his imagination and ingenuity (Schwarz, 2001, p306). In both the style of compositions and in its execution, he approached so near Paganini. However, he possessed higher artistic qualities which show themselves also in his compositions as well as in interesting and important novel technical features. His compositions show a deeper poetical feeling than those of his contemporary virtuoso composers (Van der Straeten, 1968, vol. ii p.114). His concerto Op. 23 makes the very highest demands on the technique of both hands and together with his other, not very numerous works, supplies one of the most important factors in the higher development of a violin left-hand technique. His compositions pay tribute to the trend of his age toward virtuosity (Auer, 1925, p. 88).

Vieuxtemps studied composition under Reicha (1770-1836), whose methods were less profound than expeditious. However, Vieuxtemps did not consider the strict counterpoint of much use for his purpose. Soon afterwards he wrote his first compositions, which he played on a tour of Holland in 1836 (Van der Straeten, 1968, vol. ii p139).

Vieuxtemps revitalised the concept of the grand French violin concerto by enriching the solo part and setting it in a full, modern symphonic framework. He combined technical elements of Bériot and Paganini in his own inimitable way and created an original violinistic vocabulary that remained valid for the rest of the nineteenth century. There is none of Paganini’s ‘sorcery’ in Vieuxtemps’ technique, which is solidly based on musical concepts. His fourth concerto is pioneering in terms of form: a four movement structure comprising an improvisational introduction, a slow movement, a scherzo and a finale. His shorter compositions for the violin are more brilliant than profound, but the
best among them are at a much higher level than the shallow solo repertory of the day (Schwarz, 2001 p. 599).

The following composers were not virtuoso-composers.¹⁰

Tchaikovsky’s (1840-1893) Concerto in D major Op. 35 for violin and orchestra is a work in which its composer unreservedly reveals his individuality (Auer, 1925, p. 133). Throughout the concerto, the writing for the orchestra is as imaginative as for the solo instrument (Freed, www.kennedy-centre.org/calendar/index.cfm?fuseaction=composition&compostion_id=2506).

The Mendelssohn Concerto is, even with David’s technical advice, no more essentially violinistic than Beethoven’s. Beethoven’s thorough appreciation of the ‘lie’ of the hand in any position and of comfortable possibilities is reflected not merely in the concerto but in almost everything else that he wrote for the instrument. Mendelssohn, on the other hand, introduces devices which although not applied extravagantly, make his concerto as much a technical thesis as a satisfying composition. Whereas Beethoven’s broken octaves on the dominant seventh are a convenient solution to the problem of absolute intonational perfection, Mendelssohn’s ‘held’ octaves on the diminished seventh do not give any such security. Several of the standard technical devices are amplified in the same proportion. While Mendelssohn writes elaborate arpeggio passages on three and four strings, Beethoven is conservative in his use of the three-string arpeggio figure. Mendelssohn makes deliberate and effective use of natural harmonics, which are quite incidental to Beethoven’s purpose. Mendelssohn’s sophisticated use of double stopping has no parallel in Beethoven’s work; his use of thirds and sixths produces the essence of apparent virtuosity from some rather undistinguished progressions (Clarkson, 1968, p. 147).

As can be seen from the small sample of composers above, composition styles for the violin varied greatly, both between virtuoso-composers (represented by the first four discussed above), between other composers and between the two groups. Virtuoso-composers tended to compose more technical, violinistic music and on whole composed

¹⁰See also Part II "Guide to Performance", pp. 78-79 for a brief discussion of Brahms.
for their own abilities. The non-violin composers produced less technically demanding pieces, writing more for the Romantic effect.

The following discussion, that is Chapters 6 and 7, largely aims to investigate the development of violin technique and the use thereof. Paganini’s techniques influenced the world of the virtuoso violinists to a great degree for many years after his passing. The researcher has investigated much of the early and some of the later sources written about this man – in particular, works by Guhr, Day and Pulver et cetera. This and other literature pertinent to violin technique that has been used in this discussion may be divided into four sections:

- Early sources (written during the period of study)
- Modern studies (written after the period of study)
- Some of my own processes of preparation of the Romantic repertoire
- Examples of important key works from that period.

a) Early sources

Early sources that the researcher used in these chapters:


Baillot’s *The Art of the Violin* was a conscious attempt to remedy the omissions of the earlier *Méthode de violon* which he co-authored with Rode and Kreutzer in 1802. *Méthode de violon* had been one of the first faculty-based treatises offering systematic courses of technical and interpretive instruction, and was the standard French violin text for the Paris Conservatoire. However, Baillot’s new book surpassed it in content and
detail. The book is divided into two parts. Part 1 is devoted to the mechanics of violin playing and covers most of the technical and stylistic matters in unprecedented detail. It is supported by numerous musical examples, studies and compositions. The second part deals with expression, and is essentially a reprint of the relevant section of the *Méthode de violon* with a short introduction by Baillot (Stowell, 2001, pp. 22-3).

Guhr’s *Ueber Paganinis Kunst die Violine zu spielen* (Paganini’s Art of Violin Playing) is an informative account of Paganini’s performing style. Its intent was to add to the existing body of knowledge and it was in no way intended to be a comprehensive violin method. The book’s focus is on Paganini and in particular his “tuning of the instrument, bow strokes, combination of left-hand pizzicato with bowing, use of harmonics in single and double stopping, *una corda* playing and the extraordinary *tours de force* for which he was renowned.” (ibid, p. 23).

Bériot’s instruction book is committed to imitating the accents of the human voice as opposed to cultivating virtuosity for its own sake (ibid.).

**b) Modern studies**

Modern studies that the researcher used in these chapters include:

- Bytovetzski, P. (1917) *How to Master the Violin*.
- Auer, L. (1921) *Violin Master Works and Their Interpretation*.
- Stowell, R. (1985) *Violin Technique and Performance Practice in the Late Eighteenth to Early Nineteenth Century*.

---

11 See bibliography for the comprehensive list.
c) My repertoire\textsuperscript{12}

- Beethoven, Ludwig van (1770-1827) \textit{Piano Trio} No. 5 in D major, Op.70 No. 1 (1808)\textsuperscript{13}
- Schubert, Franz (1797-1828) Sonata in A major, Op.162 D574 (1817)
- Schumann, Robert (1810-1856) Sonata No. 1 in A minor, Op.105 (1851)
- Brahms, Johannes (1833-1897) \textit{Sonatensatz (Scherzo)} in C minor (1853)
- Tchaikovsky, Peter Ilyich (1840-93) \textit{Three Pieces} Op.42 (1878)
- Brahms, Johannes (1833-1897) Sonata No. 1 in G major, Op.78 (1879)
- Brahms, Johannes (1833-1897) Sonata No. 2 in A major, Op.100 (1886)
- Saint-Saëns, Camille (1835-1921) \textit{Havanaisa}, Op.83 (1887)
- Brahms, Johannes (1833-1897) Sonata No. 3 in D minor, Op.108 (1888)
- Kreisler, Fritz (1875-1962) Pugnani, G. (1731-1798) \textit{Praeludium and Allegro} in the style of Pugnani (1910?)
- Ravel, Maurice (1875-1937) \textit{Tzigane} (1924)
- Poulenc, Francis (1899-1963) \& arranged by Heifetz, Jascha (1900-1987) \textit{Mouvements Perpétuels} (1931)
- Prokofiev, Serge (1881-1953) Sonata No. 2 in D major, Op.94a (1944)

d) Important key works\textsuperscript{14}

Important key works that the researcher used in these chapters include:

- Paganini, Niccolo (1782-1840) Concerto No. 1 in D major, Op.6 (1817)
- Paganini, Niccolo (1782-1840) \textit{24 Caprices}, Op.1 (1820)
- Mendelssohn, Felix (1809-47) Concerto No. 2 in E minor, Op.64 (1844)
- Wieniawski, Henryk (1835-80) Concerto No. 2 in D minor, Op.22 (1862)
- Bruch, Max (1838-1920) \textit{- Concerto No. 1} in G minor, Op. 26 (1864-1867)
- Lalo, Edouard (1823-92) \textit{Symphonie Espagnole} in D minor, Op. 21 (1874)
- Tchaikovsky, Peter Ilyich (1840-93) Concerto in D major, Op.35 (1878)

\textsuperscript{12} Arranged in chronological order.
\textsuperscript{13} This is the year of composition.
\textsuperscript{14} See Appendix C and E for more details.
The following is a discussion of Paganini's extension of violin left-hand techniques, how he played, as well as what Spohr (1832), Baillot (1835), Bériot (1858) and others wrote about left-hand violin techniques in their books.
6.1 Some new techniques of the nineteenth century

6.1A. Shifting and the portamento

Two composer-performers of the eighteenth and early nineteenth centuries who brought playing in the high positions on all strings to a peak were Locatelli (1695-1764) and Paganini. Locatelli’s *Capricci* (1733) are as fiercely difficult in terms of shifting to high positions as Paganini’s famous 24 Caprices op. 1 (1820). Shifting and playing in the high positions (see example 6.1A-1) are treated as a matter of course by the treatises for violin of the nineteenth century (Monosoff, 2001, vol. 23 p. 266).

![Example 6.1A-1 (a) Locatelli’s Capriccio Var. 7 bars 15-18. (b) Paganini’s 24 Caprices Op.1, No. 24 var. 4 and var. 10.](image-url)
Several writers of the period did, however, cover this topic in their works. Some of their ideas are presented below.

Bériot (1858, p. 95) writes, “if two positions have to be crossed, as from the 1st to the 4th, the first finger must be used after the third. Ex: and the reverse in descending. Ex:

“In every change of position in scale playing we must always prefer the interval of a semitone to a tone because the hand has less to move. Still this is not an absolute rule, but only a matter of preference, because it is not possible always to conform to it” (Bériot, 1858, p. 95), as the following examples from his book show:

Example 6.1A-2 Playing scales (Bériot, 1858, p. 95).

It is better, continues Bériot (p. 95), to divide the changes of position among several strings in scales of great extent, than to try to make them on only one string. In the following examples, both fingerings shown are as good as each other:
Spohr (1832) writes that the notes situated above \( \text{\textbullet} \) cannot be stopped without the hand being shifted from its original position, and made to approach more or less towards the bridge. These different situations of the hand are called the Positions. Notes in the higher positions can be played on all four strings. When playing in these new positions, one must be careful that the manner of holding the hand does not change, but that the fingers, with both joints bent, descend perpendicularly on the strings. The wrist must not be allowed to touch the ribs of the violin when in the second position. In the third position, however, it may do so. Here the ball of the thumb rests against the projection of the neck of the instrument.

When practicing extensions, the following point should be noted. If the extended note is to be slurred with the neighbouring note, the two should not be more than a semitone apart. To draw the finger for an interval of a whole note produces an unpleasant whining, as in \( \text{\textbullet} \). However, if the extended note is followed immediately by one stopped with another finger, as \( \text{\textbullet} \), the extension may include the whole tone, and the group may be slurred. These extensions are made in order to avoid the necessity of shifting the position of the hand just for one note. Where such notes as might, without change of position, be played on the next string are reached in this way, the extension is done for the sake of uniting them with others in smoother bowing than would otherwise be possible (Spohr, 1832, pp. 83-4).
Baillot (1835, p. 125) discusses the port de voix (appoggiatura). The port de voix is a way to connect two notes which form a skip. It consists of a very light joining [made by a finger of the left hand] which moves from the very end of the first note to the next, anticipating it.

An example of the port de voix:

![Example 6.1A-4 The port de voix.](image.png)

The port de voix may also be played as follows:

![Example 6.1A-5 A variation of the port de voix.](image.png)

Passages with a light slide from one note to the next, with the same finger may also be included among the ports de voix:

---

15 See also Part II "Guide to Performance" p. 38 Example 1-56.

6.1A Shifting and the portamento
When a wide skip is played, it should generally be played freely and without any *port de voix*. The finger should be placed directly on the second note, regardless of whether it is ascending or descending:

Example 6.1A-6 Baillot (1835) p. 126.

The *port de voix* is a means of tender expression, and as such it should not be used too often. Otherwise, it would lose its effectiveness.

Baillot continues his discussion by pointing out that slides or glissandi that let the intermediate notes be heard should be avoided at all costs. Those in the following example have a very bad effect\(^{16}\) (+ is Baillot’s indication of *port de voix*:)

Example 6.1A-7 Baillot (1835) p. 126.

Example 6.1A-8 Baillot (1835) p. 128.

\(^{16}\) See also Part II "Guide to Performance", p. 38 Example 1-55.
The descending *port de voix* is played by sliding the finger, used for the second note, a little. This finger barely brushes the half step above this second note.

Effect:

Example 6.1A-9 Baillot (1835) p. 129.

The general rule for *ports de voix* is if shifting up, make a crescendo:

Example 6.1A-10 Baillot (1835) p. 129.
And if shifting down, make diminuendo:

```
   3 4
   2 1
   1 2
```

Example 6.1A-11 Baillot (1835) p. 130.

There are some exceptions to the rule, for example in passages in which very high notes need to be played more softly (Baillot, 1835, pp. 126-130):

```
   1 2
   4 3
   1 2
   3 4
```

Example 6.1A-12 Baillot (1835) p. 130.

Paganini, among others, however, regularly employed glissando with striking effect, both for showmanship and for cantabile execution of double stopping (Stowell, 2001, p. 61).

In 1899, Courvoisier wrote in his book called Joachim’s Method the following rules concerning the behaviour of the fingers in the change of position:

“...When you choose a new position, after sounding an open string or after an interruption, attack it freely with your fingers...

“...When a lower finger should, as it were, glide past the place of a higher one, in the shift up the string, the higher finger must not glide away also, or it would produce the inaccurate finger (b) instead of (a) in the following example (figure 6.1-1). Nor should the upper finger be lifted before the very moment when the lower finger advances together with the hand; otherwise the figure turns out as at (c). Similarly, inaccuracy of finger-action will produce figures like (e) or (f), instead of (d), in a downward shift:
6.1A Shifting and the portamento

“In the latter case the first finger had better not leave the string, any more than in the former case, because the open string might be audible before the note C.”

The researcher found the above to be true in practice. Example 6.1A-13 shows extracts from Brahms’s *Sonatensatz*, where the behaviour of the fingers in the changes of positions in (a) and (d) produced the desired results.

(a) – (c) Brahms – *Sonatensatz* (*Scherzo*) in C minor, bars 221-225.

(d) Più moderato
6.1A Shifting and the portamento

Chapter 6

(d) – (f) Brahms – *Sonatensatz (Scherzo)* in C minor, bars 103-107

Example 6.1A-13 (a)-(f) Behaviours of fingering in the changing of positions in the researcher’s performance piece.

“…When we shift to a higher position, and at the same time change from a lower to a higher finger (or the reverse in both respects), the hand must glide away, leaning on the finger last used, far enough that the said finger reaches its proper place in the new position, to let the other finger take measure from it with certainty. But the arrival of the gliding finger should not be heard; so the change of fingers must take place at the very moment of arrival. When the upper finger drops in before the upward glide, or is lifted before the downward one, the ugly figures 6.1-2 (b)\(^{17}\) and (d) will appear, instead of (a)\(^{18}\) and (c).” (Courvoisier, 1899, pp. 40-1).

The rules for shifting are of the utmost importance, writes Robjohns (1930) in the early twentieth century, and must be very strictly observed if technique is to become strong, fluent, and capable of refined artistic expression. Certainly one occasionally hears an effect of great beauty and charm when an artist, by an inspired impulse, does something that is contrary to academic tradition and orthodoxy. But this can only happen when the player, by long and severe discipline and wide artistic experience, has gained complete control, not only of his or her technique, but also of a violin technique that can so easily

\(^{17}\) See also Part II “Guide to Performance”, p. 38 Example 1-57 for an example of a mixture of (a) and (b).

\(^{18}\) See also Part II “Guide to Performance”, p. 38 Example 1-55.
be misused as the portamento. Rightly used, it is capable of the most delicate and beautiful effects. As a general rule, the finger that is down makes the slide to the new position. The note to which it slides may be the note required:

\[
\begin{align*}
  & \text{(a)} & \text{(b)} \\
  & \text{or} \\
\end{align*}
\]

Example 6.1A-14 (a) – (b) Slides.

in which case the slide is very simple. There is one very important point, however, to observe here. When the two notes are slurred, see example 6.1A-14(a), there is no difficulty in making a clean, easy slide. When they are detached as in example 6.1A-14(b), great care is necessary. The slide is made before the bow changes, and the finger must have reached the new note at the instant that the bow changes. It is difficult to show this in notation, but the right and wrong ways may be indicated, though roughly, as in example 6.1A-15:

\[
\begin{align*}
  & \text{Right way.} & \text{Wrong way.} \\
\end{align*}
\]

Example 6.1A-15 Slides.

By practicing this very carefully but in an easy and leisurely way, a student will very soon acquire the ability to make these movements with the utmost ease and delicacy. In the illustration in example 6.1A-15, the grace-note is a very clumsy indication. It merely shows how the bow and finger should work in relation to each other. It may be useful at first to sound the grace-note, but make it less and less audible until it is not heard at all. The bow attacks the new note at the very instant that the finger arrives there.

It is a matter of considering every musical and technical point, and deciding upon that which will give the most finished artistic effect. The violinist must have a very clear understanding of the rules, and one will then know how to modify them when necessary to achieve the finest results (Robjohns, 1930, pp. 48-49).
J. A. Fracht (1969) commented in his book *The Violinists’ Hand Book*, “If there is any playing characteristic that spells out the personality of the violinist it is the ‘shift’. There was the Kreisler shift, the Elman shift, et cetera.

“No one with a discerning ear can mistake the Heifetz shift. These very ‘shifts’ so different in personality traits had one thing in common, rhythmic and tonal synchronisation between both hands.” (p. 47).

So how can combining rhythmic flow and balance in movement between both arms be achieved? Fracht (1969) provides an exercise in his book to assist in this area (see Appendix G).

Fracht (1969, pp. 49-50) comments on the ‘balanced right-hand and left-hand shifts’.

“The general rule about this shift technique is to shift to any designated position on the finger last in use — also to slide to that same position on the identical bow (up or down) being used at that same time. This togetherness in direction and weight balance makes for perfect timing and excellent body balance. The anticipatory movements of both bow and finger for the following movement will develop an excellent timing device for the hands as well as solid assurance that all is in readiness with no tensions anywhere to move securely and rhythmically.”

One variant of shifting is the ‘strike’. Here, one shifts with the new finger as far away from the string as possible and really strikes, lightly and speedily, the new note.

Two terms that are important to define are portamento and glissando. The terms are treated by some as being synonymous, and by others as having slightly different meanings. Hence there may be confusion and difficulty for the performer. For this study the word portamento will be used to cover all the usual different ways of changing from one position to another. The term glissando will be used only to show when a slide is to be made definitely audible, as, for instance in example 6.1A-16.
6.1A Shifting and the portamento

Chapter 6

In these examples it should be noted that the shifts are the researcher’s personal interpretation, and of course there are many possible choices.
6.1B. Octaves

The fingered octave emerged, writes Auer, as a new technical device during the nineteenth century (Auer, 1921, p. 49). Ysaÿe described them as being one of the gems of modern technique (Ten Preludes For Solo Violin, 1952, p. 94). Paganini is regarded as the originator of fingered octave playing on the violin (Borer, 2003, p. 77). There are some worthy examples, especially of fingered octaves, in Paganini’s Caprices. Several Romantic violin pieces open with octave passages, such as the one above (example 6.1B-1). This is a development of this period, as one may note that none of, for example, Mozart’s concerti open in this way.

When playing octaves (see example 6.1B-2) thought should be concentrated principally on the progress of the first finger from one note to another, and on the fact that the greatest difficulty in octave playing is in correctly judging these intervals. When we come to octaves or tenths we have also another daunting difficulty with which to contend - the stretch, which, in lower positions, is substantial for the average hand. When one plays an octave section, keep the knuckles of the fourth finger bent, and the first finger may have to come onto its side a little as it works downwards. Keep the thumb relaxed and let it come under the neck. It may need to oppose the higher fingers rather than the second finger (this particularly applies to tenths) (See example 6.1B-3).
Good execution of an octave depends upon how firm and fixed the 1\textsuperscript{st} and 4\textsuperscript{th} fingers are. To keep these fingers firm and fixed it is necessary that they are not isolated by having the two middle fingers raised. By keeping them close together, the first and fourth fingers have a firmer resting place because of the contact with them. In order to make sure of the intonation of these scales, suggests Bériot (1858, p. 110), the pupil will practice them in the two following ways.

1. In separate, detached notes.

2. In notes slurred in twos.

Then the pupils will finish their work in the three following ways (Bériot, 1858, p. 110):

Examples of octave passages:

(a) Mendelssohn – Concerto in E minor Op. 64, 1\textsuperscript{st} mvt, bars 40-43.
6.1B Octaves

Chapter 6

Var. 3.

(b) Paganini – 24 Caprices Op. 1, No. 24 Var.3 (Schirmer ed.).

(c) Wieniawski – Concerto No.2 in D minor Op. 22, 1\textsuperscript{st} mvt, bars 107-9.

(d) Wieniawski – Concerto No. 2 in D minor Op. 22, 3\textsuperscript{rd} mvt, bars 307-314.

(e) Lalo – Symphonie Espagnole in D minor Op. 21, 5\textsuperscript{th} mvt, bars 153-155.

Example 6.1B-5 (a) – (e) Examples of octave passages.
6.1C. Tenths

A composer writing violinistically, knowing the technique of the instrument, will often lead into a passage in tenths in such a way that the hand is prepared to make the stretch, as in this instance from the Eighth Concerto of Spohr: (Robjohns, 1930, p. 102)

![Example 6.1C-1 Spohr – Concerto No. 8 in A minor Op. 47.]

Following are some examples (examples 6.1C-2 and 6.1C-3) of Paganini’s compositions. He composed many passages in tenths and helped to establish it as a common violin technique.

![Example 6.1C-2 Paganini – 24 Caprices Op. 1, No. 20, bars 17-23.]

In example 6.1C-2, Paganini played on all three strings at one time with a firm grip on the violin. The D string sounded continuously (Guhr, 1829, p. 12).

![Example 6.1C-3 Paganini – 24 Caprices Op. 1, No. 24 Var. 6, bars 7-12.]

Example 6.1C-4 Bruch – Concerto No. 1 in G minor Op. 26, 3\textsuperscript{rd} mvt, bars 279-280.
When one comes to tenths one has other formidable difficulties with which to contend - first, the stretch, which, in lower positions, is considerable for the average hand, and second, the fact that, in diatonic passages, the first and fourth fingers are not always moving the same distances (Robjohns, 1930, p. 96). Example 6.1C-4 shows this clearly.

In going from the third tenth E-G to the next tenth F#-A, the fingers both move the same interval - a whole tone. In some other cases they may move differently, the first finger travelling only a semitone while the fourth moves a whole tone (first tenth C#-E to second D-F#), or vice versa. This depends on whether it is a major or a minor third with the octave that makes up the tenth.

If one puts one’s hand in the ordinary attitude, as for playing an octave, placing the first finger on B (example 6.1C-4), and then trying to reach the D with the fourth finger, one will find it extremely difficult, and probably impossible, unless one has an exceptionally big hand. To play such a tenth, the fourth finger has to stretch upwards, but the first finger has also to stretch downwards, even, sometimes, coming on to its side instead of keeping right on the tip.

Before one attempts to play this passage, one should study the Studies of Kreutzer (1766-1831). For the purposes of this exercise, No. 26 in E♭ will be utilised.

The tenths that are high on the finger-board are comparatively easy to stretch, but in every case, high on the finger-board or low, the lower note of the tenth must be held while the upper note is played. A common fault, according to Holowell\(^{19}\) (2003), is to

\(^{19}\) The researcher’s supervisor.

6.1C Tenths
take the thumb back with the first finger. One may try moving the first finger and thumb
in opposite directions and thus facilitating a backward extension of 1 in addition to the
upward extension of 4.

An exercise can be made to learn to stretch the first finger back when necessary. In bar
33 (example 6.1C-5) the last note, G♭, is played with the first finger in the sixth
position. Holding that note, put the fourth finger on the E string in the same position,
and you have G♭ an octave above. Holding this upper G♭ with the fourth finger,
reach back with the first finger until one arrives at D♭ (first note of the next bar). Now
let the fourth finger slip the slight distance up to F, and one has this tenth (Robjohns,
1930, p. 99):

![Example 6.1C-6 A tenth.](image)

This is how the researcher worked on Saint-Saëns’ *Havanaise* Op.83.

If one cannot quite reach the D♭ while keeping the fourth finger on G♭, let the fourth
slip to F when the first has arrived at D♮, and then take the first finger down the further
semitone to D♭. Practise thus:

![Example 6.1C-7 An exercise for practising tenths.](image)

If one cannot reach, one may try moving the thumb higher up.
Keep the knuckles of the fourth finger bent. The first finger may have to come on to its side a little as it stretches downwards. Keep the thumb relaxed and let it come under the neck. This exercise will bring the fingers into the right relative positions, and the hand into its right position for stretching tenths. When the last exercise has become quite easy, practice this:

Example 6.1C-8 Practicing tenths.

And then, starting with the easy tenth in the middle of bar 33 (example 6.1C-5), this:

Example 6.1C-9 Practicing tenths.

The next step will be to avoid sounding the grace-note while still fingering in the same way as though to play it.

The tenth E to G#, being higher, is easier. For the next one - B to D# - make exercises similar to the above, thus:
Example 6.1C-10 Another exercise to practise tenths.

Then, of course, one has exactly the same thing over again, but a semitone lower (Robjohns, 1930, p. 100).

Other valuable studies that students commonly use are those of Don't's (1815-1888), *Twenty four Exercises*, Op. 37, and in Study No.7 there is another useful instance of a stretched tenth: (Robjohns, 1930, p. 101)

Example 6.1C-11 Don't – Op. 37, Study No.7.

The first finger must be held on the low G#, while the following note, B, is played. Here again it is necessary to have the fourth finger in place before reaching back with the first finger to G#.

Passages in tenths demand a great deal of repetition in practice. See that the hand keeps a good position, with as much ease and relaxation as the stretched attitude will allow. If
the stretch is difficult and allows of no relaxation while playing, one must stop often during practice to give one’s hand frequent moments of complete relaxation. Avoid anything in the nature of struggle, and persevere with careful intelligent practice until one gains ease.

To overcome the difficulty of the first and fourth fingers moving by different intervals, much repetition of passages is essential. The aim must be, above all else, clear thinking. Play softly with as much ease as possible, and, in order that sliding may not be hampered, avoid unnecessarily hard pressure of the fingers on the strings. Work so slowly that one has time to think each interval before one’s hand moves, to hear each note of the tenth in one’s mind clearly before one plays it, and to listen critically and with concentration while one plays it. This way one will find it easy to think each note and each movement clearly. Play so slowly that clear thinking is easy. Then by dint of much repetition clear thinking will become also rapid thinking and technical ease will be acquired. Incidentally the practice of tenths develops the left-hand technique, helps in the development of flexibility of the joints and in the changing of balance in the hand. In addition to various passages in tenths occurring in concertos, studies, and other works, all the major and minor scales should be practised in tenths.

Examples of a tenth passage:\(^{20}\)

\[
\begin{align*}
\text{(a) Saint-Saëns – Havanaise Op. 83, bars 273-279 (CD: 1 Tr: 7).}
\end{align*}
\]

\(^{20}\) See also Part II "Guide to Performance", p. 21 Example 1-25.
(b) Tchaikovsky – Concerto in D major Op. 35, 1st mvt, bars 126-127.

(c) Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bars 260-267.

Example 6.1C-12 (a) – (c) Examples of tenths passages
6.1D. Playing chord passages (triple stops and quadruple stops)

This is another development in virtuoso technique. See Paganini’s examples:

(a)

[Music notation image]

[Bibliothèque Nationale Vm 537]

“As he sat quietly in his room did his mind do battle with ideas such as this?” (Day, 2002, p. 11).

(b)

Largo, con forte espressione, e sempre crescendo

A little something for warming up!

(Day, 2002, p. 26)

Example 6.1D-1 (a) – (b) Paganini’s chord passages.

When playing triple stops (see example 6.1D-2), Baillot suggests that the bow needs to be placed near the fingerboard on the D string and played at the frog. This is because the strings are more flexible away from the bridge, and thus the violinist need only press on this string, which is the most elevated, and the other two strings will sound at the same time\(^{21}\) (Baillot, 1835, p. 146).

\(^{21}\) See also Part II “Guide to Performance”, p. 59 Example 2-21 and p. 90 Example 3-19.
6.1D Playing chord passages (triple stops and quadruple stops)

While the four strings are frequently used for playing chords, they are not usually all employed at the same time, except in struck chords. However, the four strings can be played together in sustained sounds by using the following fairly simple procedure. Turn the bow upside down with the stick below the violin, the hair above. The bow is grasped in the right hand, with the fingers just about in their ordinary position.

The strings can all be set in motion at once, and the violinist may add variety by striking just two or three strings by raising or lowering the right hand. This allows variety to be given to this type of effect, which is suited to Adagios of a gentle, serious, or mysterious character. The effect may also be used in a slightly more animated tempo (Baillot, 1835, pp. 412-3). The Adagio in example 6.1D-3 was composed to experiment with this process.
Bériot (1858, p. 88) suggests that the notes of the chord should not be struck simultaneously, but with energetic articulations such as serve to terminate a piece. All chords must be played a little arpeggio, in order to obtain the desired clearness and strength. For example, when several notes are struck at the same time on the pianoforte, they do not produce nearly as brilliant a sound as when a small interval is put between them, however small that interval may be. This way of producing chords, writes Bériot,
is “the only good one in our opinion”, and is the one that should be applied to the violin. It is impossible to attack three or four strings without spoiling the chord, as it would destroy that roundness and softness which should always accompany vigour. The highest note of the chord should be the most energetic, and form the time of the measure. The lower notes can then be the preparation. In the following exercises (see example 6.1D-4), taken from Bériot (1858), the strength of the sound is shown by the size of the note.

The whole first third of the bow should be used on each of these chords. Then it should be raised quickly and with strength in order to give more freedom of vibration to the strings (Bériot, 1858, p. 88).

Later “in the nineteenth century, when true arpeggiated chords played on one string at a time became too feeble for the resounding new music, a noisier method of chord-breaking developed whereby the chord was split into two parts with continuous multiple stops sounding” (Babitz, 1957, p. 18):

Spohr provides the first known evidence of this practice of breaking a four-note chord upwards in twos. Here the lower two notes (played together before the beat) are only of short duration while the upper two notes (played together on the beat) are sustained for

---

22 See also Part II "Guide to Performance", p. 56 Example 2-15.

6.1D Playing chord passages (triple stops and quadruple stops) Chapter 6
their full length. A down-bow was normally employed even for consecutive chords (Stowell, 2001, p. 82).

“At the same time, the *appoggiatura*, which in the eighteenth century was played on the beat, moved to the left to be played before the beat in the nineteenth century so that the consonance would be on the beat. The bass of the split chord underwent a similar metamorphosis and was moved before the beat so that the strong upper voice would strike on the beat.

“When the Bach violin solos were revived in the middle of the nineteenth century, the old tradition was practically forgotten, and amongst other innovations was the inappropriate split chord with the bass before the beat, causing critics to complain that chords were being ‘torn across the whole face of the violin’” (Hanslick in Babitz (1957), p. 19).

“Although violinists continue to play chords with equal violence and incorrectness to this day, the above criticism is not heard as frequently as it was in the nineteenth century because the normal volume of twentieth-century violin tone has swollen to the point where even torn chords cannot be much louder than ordinary one-string playing, and the contrast between the two is not as extreme as it used to be.” (S. Babitz, 1957, pp. 18-19).

**Examples of chord passages:**

(a) Mendelssohn – Concerto No. 2 in E minor Op. 64, 3rd mvt, bars 178-180.

---

23 See also Part II “Guide to Performance”, p. 32 Example 1-45 and p. 59 Example 2-21.

6.1D Playing chord passages (triple stops and quadruple stops)
6.1D Playing chord passages (triple stops and quadruple stops)

Var. 8.

(b) Paganini – 24 Caprices Op. 1, No. 24 Var. 8, bars 1-12.

(c) Example No. 18 (Guhr, 1858, p. 12).

(d) Tchaikovsky – Concerto in D major Op. 35, 3rd mvt, bars 19-36.

Example 6.1D-5 (a) – (d) Examples of chord passages
Even though left-hand pizzicato was used in the early Italian School at the time of Mestrino (1748-1790), it was neglected by modern French and German schools of the early 1800's. Only Paganini used this technique, and, one may add, with great success (Guhr, 1829, p. 13). See example 6.1E-1.

Guhr wrote about left-hand pizzicato in 1829. He made the point that, “It is especially difficult to play pizzicato on the D and G strings because they vibrate more slowly than the A and E. The difficulty here is compounded when playing the pizzicati on scale passages. This latter problem can be overcome by mastering the following exercises (see example 6.1E-2). The bow stroke is short, almost jumping, and only the middle of the bow is used.” (Guhr, 1829, p. 13). In Ravel’s *Tzigane* the researcher experimented with this technique and found it to be a successful way of playing the passage in bars 134-141.24

The "+" indicates pizzicato25 of the second, third, and fourth fingers:

---

24 See Part II "Guide to Performance", p. 110 Example 3-50 and also p. 111 Example 3-54.
25 In his treatise, Guhr represented pizzicato with “o” instead of “+”
Baillot mentions left-hand pizzicato briefly in his treatise. He states that it “is not as easy, nor has it as many advantages as pizzicato with the right hand.” (Baillot, 1835, p. 408). Since the string does not vibrate as freely, a dry sound is produced, which cannot be corrected. Also the fingers of the left hand cannot produce as much power because of their position.

Stamitz sometimes used this type of pizzicato in his solos. In the following passage, example 6.1E-3, all the notes marked with a cross (+) must be plucked with the finger which has played the preceding note, while the other notes are played with the bow.

Baillot suggests using Guhr’s treatise (1829) to acquire the exercises necessary to learn to play left-hand pizzicato (Baillot, 1835, pp. 408-9).

Left hand articulation is a development in technique accompanying the necessity for the virtuoso to project the sound; to play fast passagework and left-hand pizzicato. For left-hand articulation it is sometimes useful to strike from quite a distance out. At other times the fingers will be very close to the string. Sometimes they will be down ahead of the bow. Sometimes many fingers will be held down, while at other times, none.

26 It is not clear to which Stamitz Baillot is referring, Johann (1717-57) or one of his sons, Carl (1745-1801) and Anton (1750-between 1789-1809).
Sometimes finger 1 may be blocked whilst finger 4 strikes. The left-hand pizzicato has the biggest value in teaching the articulation where one really pulls out of the string. Of course, musical considerations mean these choices are made aurally in conjunction with right-hand articulation. The virtuosic nature of Romantic technique implies a wide range of textures and colours, such as legatissimo, marcato or, indeed, left-hand pizzicato, each of which requires its own variation of left-hand articulation.

While Ravel’s piece is not from the Romantic Period, it was included in the researcher’s performances because it contains so many of the techniques from the Romantic virtuoso tradition. It is also a spiritual descendant of the caprices and rhapsodies of Paganini and Liszt\(^\text{27}\) (Wright, 1996, pp. 3-4).

This passage (see example 6.1E-4) calls for a mixture of bowing and left-hand pizzicato. Notes not marked accordingly should be struck with the bow; this quasi pizzicato with the bow should sound exactly like the genuine pizzicato with the finger. It is important to place the hand higher so that the fingers are able to pluck the strings.

**Examples of left-hand pizzicato passages:**

\[
\begin{align*}
\text{(a) Guhr (1829) p13 No. 3}
\end{align*}
\]
6.1E Left-hand pizzicato and left-hand articulation

Chapter 6

(b) Paganini – 24 Caprices Op. 1 No. 24 Var. 9, Bars 1-12 (Guhr (1829) p13 No. 4)

Variation sopra: \textit{Nel cor piu non mi sento.}

The notes marked “NB” are played with the bow on the open D string, the pizzicati notes are stopped by the first finger and plucked by the fourth.

(c) Guhr (1829) pp13-14 No. 5

6.1F Harmonics

Natural harmonics were exploited well before the Classical period, however owing to their ‘inferior’ tone quality their acceptance was slow. Leopold Mozart described them as “a really laughable kind of music”. It took virtuosos such as Jakob Scheller\(^{28}\) (1759-1803) and Paganini to arouse public interest in artificial harmonics and the techniques involved in their mastery. The introduction of artificial harmonics in double stopping by Paganini was innovatory. Chromatic slides, single trills, trills in double stopping and double trills, all in harmonics were all included in his repertory. He extended the range of the G string, by incorporating harmonics, to cover at least three octaves (Stowell, 2001, p. 67).

Harmonics were, therefore, outside the usual means composers had used when writing for the violin up until the early to mid nineteenth century. It was most fortuitous and at the same time ingenious that the use of harmonics was made by Paganini in one of his variations on the theme of Haydn called *La Preghiera*\(^{29}\). Here harmonics in double stops, which Paganini was the first to use, and we all know how skilfully, come naturally to join the flutes and make a wonderful effect. Baillot (1835) suggests that to study the effect in detail, one should consult the works of Guhr\(^{30}\) and Mazas\(^{31}\) (Baillot, 1835, p. 404).

There can be no doubt, writes Guhr, that many of Paganini’s technical accomplishments are directly related to his complete mastery of harmonics. Certain passages, for example those shown below (see example 6.1F-1), may seem impossible to play on the violin, but are really simple with harmonics (Guhr, 1829, p. 14):

(a)

\[\text{Example 6.1F-1} \]

\[^{28}\text{Born in Bohemia and studied in Vienna and Munich.}\]
\[^{29}\text{Maestosa sonata sentimentale for Violin and Orchestra; Variations on the slow movement of Haydn’s “Emperor” Quartet. This work is an example of Paganini’s variations written to be performed on the G-string; here, the string is tuned up a major third to B. This was one of the pieces Paganini performed during his concert tour in Paris in 1831.}\]
\[^{30}\text{L’Art de jouer du violon de Paganini (Paganini’s Art of Violin Playing).}\]
\[^{31}\text{Jacques-Féréol Mazas (1782-1849) was a pupil of Baillot.}\]
Example 6.1F-1 (a) – (b) Passage that look difficult to play without harmonics.

The study of harmonics gives to the artist both dexterity and ease, and also develops tenderness of feeling (Bériot, 1858, p. 182). With continued practice of harmonics, the left hand will acquire a delicacy of touch not usually found when playing in the higher registers of the fingerboard (Guhr, 1829, p. 14).

To produce ordinary notes, the finger presses the string down firmly on the fingerboard. Natural harmonics are produced by touching the string very lightly with the finger. They possess a clearer sound, and hence are used mainly to make one note in a passage stand out more brightly than the rest. While there are many possible harmonics on the violin, most sound so differently from the ordinary tones that they strike the ear as being strange. The nobler school of violin-playing, proposes Spohr, only admits the employment of those harmonies not open to this objection. These are the octave, the fifth of the octave, and the double octave of each string. Hence, on the G string  , on the D string  , on the A string  , and on the E string  (Spohr, 1832, p. 101).

Harmonic sounds are produced when the finger touches the string in places which divide its extent into several equal portions. The bow then puts the string in motion, and forms many centres of vibration, which give to harmonics the fullness which makes their finest quality.
Example 6.1F-2 Division of the string for harmonics.

Example 6.1F-2 shows diagrammatically how harmonics are formed. When the finger is placed lightly in position A, it divides the string into two equal parts and gives the octave. At one of the two position B’s it divides the string into three and gives the twelfth. In position C the division is four times and the double octave is produced. In a D position the division is five times and the seventeenth (or double octave third) is the result. A diamond (see example 6.1F-3) denotes the note to be touched by the finger, and the higher harmonic sound that is produced, is shown by a small note above the diamond.

The harmonics in the above examples (example 6.1F-3) are made with one finger upon the open string. They are the easiest to play and are called simple harmonics (Bériot, 1858, p. 182). They should be played with the finger touching the string in the position

32 B on E string results
closer to the bridge. This is because they respond more easily and surely, and have more affinity in tone with the stopped notes than when produced at the lower end of the string (Spohr, 1832, p. 101). One significant difference in harmonic playing is that the finger producing the harmonic must be placed fractionally higher than when playing the regular note. This is because the pressure of the finger on the string (for a stopped note) increases the tension of the string, causing the pitch to rise. This is not the case for harmonics (Guhr, 1829, p. 14). This technique was found to be successful by the researcher in the playing of *Tzigane* for bars 48-49 and also for the passages in Part II "Guide to Performance", pp. 97-98 Examples 3-42, 3-45 and 3-46. Following (see example 6.1F-4) are extracts of passages from key works of the period that used natural harmonics. The different characters should be noted:

(a) Paganini (Kreisler), ‘*La Campanella*’ from Concerto No. 2 in B minor Op. 7 – In melodic fragments of a light-hearted or graceful character.

(b) Wieniawski, ‘*Obertas* Op. 19 No. 1’ – When combined with portamento, the distinctive tone colour of natural harmonics is used for the expressive underlining of a particular turn of phrase which it throws into relief. This gives a particular charm to the violinist’s playing.

(c) Wieniawski, ‘*Polonaise in A major Op. 21*’ – A particularly expressive effect is obtained by the immediate contrasting juxtaposition of an open string with a natural harmonic, or of a natural harmonic with a stopped string.

33 See also Part II "Guide to Performance", p. 48 Example 2-4.
(d) Tchaikovsky, ‘Concerto in D major Op. 35, 1\textsuperscript{st} mvt’ – This harmonic gives a warm and gentle colour to the performance.

(e) Wieniawski, ‘Concerto No. 2 in D minor Op. 22, 3\textsuperscript{rd} mvt’ – If an accented natural harmonic is used at the beginning of a fast passage of headstrong character, it gives the passage a particularly ringing tone quality.

(f) Mendelssohn, ‘Concerto in E minor Op. 64, 3\textsuperscript{rd} mvt’ – The use of natural harmonics may strengthen the impression of ‘flying’ when used in works with elements of scherzo-like fantasy.

(i) Mendelssohn, ‘Concerto in E minor Op. 64, 2\textsuperscript{nd} mvt’.
(ii) Mendelssohn, ‘Concerto in E minor Op. 64, 1st mvt’.

(iii) Spohr, ‘Concerto No. 2 in D minor, 2nd mvt’.

(g) (i) – (iii) cited in Flesch (1924, p. 126).

(i) Bruch, ‘Concerto No. 1 in G minor Op. 26, 3rd mvt’.

(ii) Saint-Saëns, ‘Concerto No. 3 in B minor Op. 61, 1st mvt’.


6.1F Harmonics
6.1F Harmonics

Chapter 6

(i) – (vii) cited in Flesch (1924, p. 127).

Example 6.1F-4 (a) – (h) Passages using natural harmonics.

Artificial harmonics are produced when two fingers are placed on the same string at the same time and at set intervals. One finger will have a strong pressure, while the other has a very light pressure (Baillot, 1835, p. 398). It is interesting to note that Bériot calls these “Compound Harmonics” (Bériot, 1858, p. 182). He refers to artificial harmonics as those which are formed by a movement of the bow (ibid., p. 186). For this research paper, the former definition will be used. This is also the modern definition.

Example 6.1F-5 Producing artificial harmonics.

In example 6.1F-5, when the first finger is placed on the A♭ note on the G string, it has in effect replaced the saddle. The string length has been shortened by a half step, and
the string now vibrates from the bridge to the first finger. Another finger is placed lightly at the same time on the upper notes and this produces the harmonic a half step higher than on the open G string.

Following this procedure, by pressing the first finger successively on the B, C, D, etc., and following in the same way with another finger, the harmonics one, two, or three notes higher can be found, and so on. In this manner a scale in artificial harmonics can be played (Baillot, 1835, p. 399). Example 6.1F-6 shows two ways to play the scales:

---

**Scale**

```
Scale
```

Example 6.1F-6 Two ways to play artificial harmonic scales from Baillot’s book.

While Spohr advocated only sparing use of harmonics, he did admit that for certain effects the artificial harmonic sounds, especially on the G string, are “of genuine value, not only in the brilliant school, but for the lofty purpose of genius, to which dignity Paganini’s employment both of double and single harmonics, assuredly often rose.” (Spohr 1832, p. 103). However, Spohr continues, triviality has been too often the unworthy ambition harmonics were employed to serve.

Following are several passages showing artificial harmonics:

---

6.1F Harmonics
(a) Paganini – ‘The Witches Op. 8’

(b) Sarasate – ‘Zapateado Op. 23’

(c) Ravel – *Tzigane*, bars 263-268 (CD: 3 Tr: 8).

Example 6.1F-7 (a) – (c) Passages of artificial harmonics.\(^{34}\)

\(^{34}\) See also Part II "Guide to Performance", p. 110 Example 3-49 and p. 111 Examples 3-52 and 3-53.

6.1F Harmonics
The following examples show the mode of writing harmonic sounds. Note the change in notation during the period. In 1829, Guhr wrote that the best way to write harmonics was to show the note that is to be sounded. Hence, he wrote the melody in the correct register and placed the word “armonici” or A1, A2, etc. above the passage. With this system, Guhr suggests that the violinists can decide whether or not to use harmonics. He reports that the other system, which prescribes the note  to be played either \[
\begin{bmatrix}
\text{ARM.}
\end{bmatrix}
\] or \[
\begin{bmatrix}
0
\end{bmatrix}
\], allows the player no alternative. One other drawback of this system is that the eye visualizes “middle C” while the resultant tone is “G”. Notes not played as harmonics are indicated “S” or “Sto” or “maniera solita di suonare” (“loco”) as in the following example (Guhr, 1829, p. 39):

Example 6.1F-8 Harmonic notation (Guhr, 1829, p. 39).

Spohr, writing in 1832, used notation thus. In the artificial harmonics the lower note must be pressed firmly, while the higher note, , must be pressed lightly, and kept perfectly steady.

Example 6.1F-9 Harmonic notation used by Spohr.
Baillot mentions harmonic notation in his treatise in 1835. He writes that “in short easy passages, some composers have indicated harmonics as they are to be played by the fingers, without regard to how they look, and have limited themselves to writing the word Armonici, Harmoniques”. (Baillot, 1835, p. 403). He writes that for longer, more complicated passages a better way is to notate it as it is heard and then on a second line to write the notes that the violinist’s fingers must press. Without this precaution, when the eye sees the key of G for the key of D, for example, and does not find itself in rapport with the fingers, much uncertainty in the performance will result. In example 6.1F-10 the harmonics belong to the key of G, and the notes of the fingering indicate to the eye the key of C (Baillot, 1835, p. 403).

The notation for harmonics used by Bériot, in 1858, is shown in example 6.1F-3. One can see that the played note and the note which is heard have been combined onto a single staff.

Bériot also suggested notation for writing harmonic sounds in double strings. The sounds made on the lower string are written on the left side of the note system, while those sounds made on the higher string are written on the right side (Bériot, 1858, p. 184), as shown in example 6.1F-11.
6.1G. Vibrato and portato

Vibrato has a long and varied history. Evidence suggests that this technique has been in existence for almost as long as, if not as long as, the violin. By the middle of the seventeenth century, there were publications on the theoretical instructions on how to play the violin.

In his book “The Art of Playing on the Violin”, Geminiani (1740) defined the close-shake for the violin: “to perform it, you must press the finger strongly upon the string of the instrument, and move the wrist in and out slowly and equally….” He suggests that vibrato makes the sound more agreeable and hence it should be made use of as often as possible. Geminiani writes in 1751 in a later edition of the same work: “The Art of playing the violin consists in giving that instrument a tone that shall in a manner rival the most perfect human voice.” (Geminiani, 1751, in Hauck, 1971, p. 10).

This indicates that the original impulse for producing an oscillation came with the endeavour to make the violin sing. In the middle of the eighteenth century, when the art of singing in Italy was at its peak, Geminiani demanded that vibrato (close-shake) be used as often as possible. During this time, special importance was attached to the vibrato in the imitation of the human voice on this newest stringed instrument, the violin (Hauck, 1971, p.10). Leopold Mozart writes in 1756 “that singing is at all times the aim of every instrumentalist; because one must always approximate nature as nearly as possible.”35 (Knocker (1951) trans., in Hauck, 1971, p. 11).

Vibrato, then, is meant to imitate the vibrations and excited quivering of the human voice and, furthermore the development of it occurs parallel to that of the art of singing. “Tremolo” was the term applied to violin vibrato until the middle of the nineteenth century, but was originally, after all, used also for the human voice.

Later, however, in 1831, Spohr writes in his Violin School that the player should guard against the use of vibrato “too frequently and in the wrong place”. It would seem that the vocal art of the Italian schools and the corresponding imitation of the human voice by vibrato together suffered a certain decline in view of their natural relationship (Hauck, 1971, p. 11). The vibrato became significantly less important after Leopold

---

Mozart. Genuinely felt musical expression, following the law of the historical pendulum, found another form called \textit{musica nova}. There was still the continuous preponderance of bel canto virtuoso about 1740, but there was the beginning of a development towards “music as a shaped individual expression of feeling” that is, towards Romanticism. There were signs of a complete change in musical style with the withdrawal from bel canto virtuoso and its proliferation. The tender “port de voix” corresponding to instrumental “Portamento”, discussed previously, begins to take the place of the Tremolo (vibrato). As a means of expression, portamento became dominant on the violin and remained so until the beginning of the twentieth century (\textit{ibid.}, p. 13). This is evidenced in the following quote from Hauck: “Considering that in 1805 Spohr was already at the apex of his art, it is remarkable that nothing changed in the opinions about vibrato in the next 100 years, until the Joachim -- Moser violin school was published in 1905. Even at the beginning of the twentieth century, portamento still played a far more important role than vibrato.” (\textit{ibid.}, p. 19). After listening to old recordings (\textit{The Recorded Violin}, various tracks) of Joachim, Powell, Ysaÿe, Kubelik, Rosé et al., the great violinists of their time, portamento was found to be the predominant means of expression, rendering them almost unbearable to us today.

However, as it is the singing tone which makes the string instrument interesting, the technique of vibrato was taught to violinists also in the time when portamento was pre-eminent. Spohr, the great master of portamento, did warn that one should not use vibrato too often, but still taught it as a means of expression to be used now and again (Hauck, 1971, p. 13).

In his book “The Art of Violin Playing”, Baillot (1835) gives only four pages to the ‘undulated sounds’ (portato and vibrato). He suggests that there are several ways to produce an undulated sound:

1. [Portato]. The violinists can press the bow on the string in increasing amounts, then diminish this pressure in the same way, and repeat this movement at different speeds and with different frequency [more or less often].
2. [Vibrato]. He can give the left-hand a light vibrating or trembling motion which is transmitted to the finger on the string.
3. He can use these \textit{two methods} at the same time. (Baillot, 1835, p. 239).
It should be noted that although portato technically belongs with the right-hand techniques, its use as an alternative to, or an enhancement of, vibrato makes it necessary to discuss these two techniques together.

To produce the first sound (portato), draw the bow over the string, slowly and softly at first, then more strongly, and then diminish the pressure little by little; the intensity of the vibrations will increase and decrease in proportion to this pressure or the speed of the bow. If one makes this undulation frequent by making the stick bend a little, by giving a sort of palpitation, this great or small amplitude of oscillation of the string will result in an undulation in the sound.

Portato is of a calm and pure expression because it is generally used in slow or moderate tempi and on an open string, or when it is played with one finger on the string, which does not move, the intonation of the note remains fixed. Example 6.1G-1 shows the use of portato.


In the second type of undulation (vibrato), the intonation is momentarily altered. To produce this effect place one finger on the string, hold the other three off the string, and make the whole left hand rock back and forth with a rather moderate movement, in such a way that this oscillation or shaking of the hand is carried to the finger. Because the finger moves back and forth, the string, which is alternately shortened and returned to its original state, imparts to the sound an undulation. Example 6.1G-2 gives an approximation of the effect.36

---

36 In the translated book of Baillot (1991) a footnote is given thus: “the explanation here, as well as the example, seems to indicate that Baillot’s vibrato goes above the pitch core. Vibrato is usually played below the pitch core; it is indeed played below the core today, and would sound sharp to our ears if played as Baillot indicates.” (p. 511 footnote 15).
Vibrato can give an expression of animation, tenderness, and sometimes pathos. The rocking of the finger, however, momentarily alters the intonation of the note. The violinist must begin and end by producing a tone with pure intonation so that the sound is sweet to the ear. When used with discretion, vibrato gives to the sound of the instrument a similarity to a voice strongly affected by emotion. While this means of expression is very powerful, Baillot (1835) cautions that it would soon lose its power to move the listener if used too often. “It would be left with only the dangerous disadvantage of rendering the melody unnatural and of causing the style to lose the precious naïveté that is the greatest charm of art; this naïveté is what always tends to restore art to its primal simplicity.” (Baillot, 1835, p. 240).

The third way to produce an undulated sound is for the finger and the bow to act together. They do this more quickly than in the two preceding types (Baillot, 1835, p. 242).

Baillot concludes by making the following points: ‘Undulation’ would be intolerable beyond a certain speed; it should not be used on a succession of notes, but only on a long note or when the same note is repeated; and the violinist should avoid making a habit of rocking the hand – only doing so when the expression requires it (Baillot, 1835, p. 243).

Other personalities of the time include Bériot, who refers to ‘soft’, ‘medium’ and ‘loud’ vibrato, relating it more to dynamic level than speed of oscillation; David, who expands on Spohr’s four vibrato types by distinguishing thirteen types in all; Joachim, Moser, and Auer, among others, who recommended selective vibrato usage and recognised the steady tone as the dominate one; and Ysaÿe, whose use of the device was more perceptible, but who still restricted it to long notes (Stowell, 2001, p. 65).
Hauck (1971, p. 82), in closing his discussion on vibrato, does make some important points. Firstly, the extent to which pitch is changed up or down when using vibrato is a matter of taste, not only for the individual, but also for what is fashionable during a certain era. Secondly, all combinations of vibrato movements will help to produce the “beautiful, expressive tone”, but it is the ear that ultimately must decide whether plus and minus in the change of pitch have been accomplished evenly and at a speed commensurate with musical feeling (Hauck, 1971, p. 82).

Wade-Matthews and Thompson (2003) make another interesting point. They suggest that vibrato is a characteristic of modern violin playing. They describe it as a “controlled rocking of the finger that is stopping the string” and that its purpose is to add intensity to the tone. Whereas it was considered as ornamentation in the eighteenth and nineteenth centuries, and was usually marked on the music where it was required, today it has gained such universal acceptance that it is marked where it is not required (Wade-Matthews and Thompson, 2003, p. 106). The reintroduction of continuous vibrato is often accredited to Kreisler, though it should probably be accredited to Lambert Massart (1811-1892), or another of his pupils, Henryk Wieniawski, who intensified the vibrato and brought it to heights never before achieved. Nevertheless, it was the influence of performers such as Kreisler and Jascha Heifetz (1900-87) that made the use of vibrato very fashionable in the 1930s, more as a constituent of a pleasing tone than as an embellishment (Stowell, 2001, p. 67).

Kreisler, however, had persevered with his use of vibrato from much earlier in his career. His tone was magical in its effect. The tactile impact of his left-hand fingers was amazingly articulative, yet the tonal texture was “fleshy,” without a trace of lean linear sound.

Both written and ear-witness accounts of his playing state that he was the first to use the continuous vibrato. These statements are true, but they do not encompass the entire subject. As mentioned at the start of the chapter, Wieniawski produced exercises for vibrato, and even somewhat earlier, romantically inclined violinists used some degree of vibrato for expressive purposes. Where others used a wrist or arm vibrato, or even a

See Part II "Guide to Performance", pp. 25 & 86.

One of the reasons it was included in the repertoire - see Part II "Guide to Performance", p. 18.
combination of the two, Kreisler used what Roth (1997) calls an “impulse” vibrato. His vibrato was generated from some point within the arm to the oscillating fingertip which had an extremely narrow point of contact.\textsuperscript{39} One advantage offered by this unique vibrato was an ability to make lyrical passages of double stops sound like two separate voices blended in mutual song in a manner unexcelled, and perhaps unmatched, by anyone. Kreisler’s vibrato was even more remarkable because it was honed in an era that still looked askance at intense vibrato and “sound for sound’s sake.” (Roth, 1997, p. 39).

Thus, it may be deduced that though the word “Romantic” has come to be almost synonymous with the use of an almost-constant vibrato, this was not the practice in the Romantic Era. The over-reliance on vibrato for warmth of tone would seem to be a modern trend.\textsuperscript{40} The Romantic techniques were much more diverse, using alternative techniques such as portato and novel fingerings to create expressive performances.

\textsuperscript{39} See also Part II "Guide to Performance", p. 70 Example 2-36, p. 86 Example 3-12.
\textsuperscript{40} See also Part II "Guide to Performance", p. 26 Example 1-35, p. 48 Example 2-4, p. 99 Example 3-33, p. 157 Example 5-51.
6.2 Fingering in Romanticism

The variety of fingering systems used were in keeping with the age and its diversity of colours and personalities.

The nineteenth century brought with it a vast development of virtuoso violin technique, and the appearance of an immense corpus of concerto literature for the violin. This in turn brought forth a new stage in the development of both theory and practice of fingering. Paganini played an enormous role in this development as both composer and executant. The introduction of new methods of fingering was required because of the innovations of Paganini with his own particular virtuoso techniques. Many of these fingerings were connected with the individual peculiarities of his style of execution and at the present time may appear somewhat unusual and, to a certain extent, as having lost their value. “But the historical significance of the fingering innovations of Paganini is extremely great, for by them he broke through the bounds of the classical school of the eighteenth century, which were a barrier against the introduction of new principles into performing practice” (Yampolsky, 1967, p.10). Example 6.2-1 shows one of Paganini’s tunes on the G string.

Example 6.2-1 Paganini – Concerto No.1 D major Op. 6, 1st mvt, bars 239ff.

Paganini dispensed with the concept of positions by adopting and developing in his works the principles of Locatelli. These principles were based on finger extensions and wide stretches. He thus opened up limitless possibilities for the development of fingering technique.
The originality of Paganini’s fingering ignored the dogmas of the established schools of thought. It did not go unnoticed by his contemporaries. “Paganini’s fingering, which is occasionally incorrect or, rather, free from any fingering rules, is not the result of caprice but of a deep and well thought-out method.” (Yampolsky, 1951, in Yampolsky, 1967, p. 10).

“Paganini played chords and arpeggios of enormous difficulty and generally used a completely individual method of fingering.” (Schottky, 1830, in Yampolsky, 1967, p. 10). “His fingering technique in no way resembles that taught in the schools.” (Fétis, 1851, in Yampolsky, 1967, p. 10). Here are three exercises which Paganini played:

Example 6.2-2 (a)-(c) Exercises that Paganini played.

Paganini often used one finger, or, for double stops, one pair of fingers as he strove for the utmost possible continuity and cantabile in cantilena passages. The fingering he used in the Caprice No. 21 is instructive in this respect:
In the eighteenth century, the tutors of the instrument provided the basic sources of information about violin fingering. Marks connected with performance, including fingering indications, occurred only rarely in the violin pieces published at the time.

In the nineteenth century an enormous amount of material for the study of violin fingering and its connection with various styles of performance is to be found in editions and transcriptions made by leading violinists. The editions and transcriptions made by David, Ernst, Joachim, Léonard (1819-1890), Kreisler and other violinists contain a great number of performing indications, particularly in relation to fingering. The transcription, which served to widen the violin repertoire and to enrich the resources of violin technique, had an important influence on the development of new fingering devices.

The abundance of performing indications arise because each violinist’s editions and transcriptions reflected his own peculiarities of style and execution (Yampolsky, 1967, p. 12).

Experience shows, then, that fingering cannot be set definitively or in a uniform and unvarying manner, writes Baillot in 1835 (p. 257). The violinist needs to consider three types of fingering:

i. *The most secure fingering* - the one most often used.\(^{41}\)

In a difficult run or passage the composer may determine the fingering himself. If this is the case the violinist must follow it as closely as possible, so as to identify him- or herself with the style of the composer. This is because fingering is one of the

\(^{41}\) See Part II "Guide to Performance", p. 94 Example 3-28 and p. 107 Ravel’s *Tzigane*.
characteristics of style. If there is no fingering indicated, the violinist must use the fingering that offers the most secure intonation (Baillot, 1835, p. 257).

Players may avoid becoming stuck in their habits by playing a passage several times with different fingerings. By adhering to the following general principles, the individual will find the best fingering to use:

a. When a shift is required, it is better to shift at a half step, or by using positions that offer support to the hand, such as the first or third position – as in example 6.2-4.

Example 6.2-4 Shifts with half steps, support, or both (Baillot, 1835, p. 258).

b. Shift in a consistent way, using the same finger each time. By using this repeated movement the passage is given an evenness of action which in turn gives it security (see example 6.2-5).

Example 6.2-5 Shifts using the same finger (Baillot, 1835, p. 258).

c. When a passage permits, remain in the same position. This is generally preferred because it is the simplest way. The exception here would be that if the known preferences of a composer or the character of the work require something different. For example, Viotti for the most part stayed in the same position, which meant that he needed to play across several strings. On the other hand, Rode often played on one string, which meant that he needed to shift (Baillot, 1835, pp. 257-8).

Therefore if violinists wish to come close to the true meaning of the composition that they are performing, they must try to finger according to the known style of the composer (Baillot, 1835, p. 258).
ii. *The easiest fingering* - for small hands.

Everyone, however, cannot use the same method of playing with secure intonation because, for example, they may lack flexibility or the small size of the hand may make it undesirable to use that method. In such cases the violinist must look for security of intonation in other ways, which are entirely individual (Baillot, 1835, p. 258) (See example 6.2-6)\(^{42}\). This necessity for individualism is, of course, typical of Romanticism.

![Example 6.2-6 Baillot – Adagio and Rondo for Violin and Piano Op. 40.](image)

iii. *Fingering that is expressive, or characteristic* of a certain composer.\(^ {43} \)

In studying the music of various composers, the violinist will note the differences in their methods of fingering. In order to better present its character, the fingering may require one to stay in the same position, or shift up and down on the same string, or to alternate both in the same passage. Hence, to perform their works in the spirit in which they were written, the violinist must use methods similar to those of the composers. If he or she does not do this, they misrepresent the composers' thoughts, and fall into a confusion of styles (Baillot, 1835, pp. 258-259). For example, Kreutzer shifted frequently on all strings and hence his style is appropriate for brilliant melodies and bold passagework (see example 6.2-7).

\(^{42}\) See also Part II “Guide to Performance”, p. 9 Example 1-7, p. 41 Example 1-62.

\(^{43}\) See also Part II “Guide to Performance”, p. 40 Example 1-60 and p. 175 Example 5-71.
6.2 Fingering in Romanticism

Rode shifted on the same string and thus his style favoured the *ports de voix* in graceful melodies. It gave these melodies a certain unity of expression which came from the homogeneity of sound of the single string (see example 6.2-8).

Example 6.2-7 Kreutzer – Violin Concerto No. 19 in D minor, 1\(^{\text{st}}\) mvt, bars 210-219 (Baillot, 1835, p. 262).

Example 6.2-8 Rode – Sonata No. 1 in C major Op. 24, 2\(^{\text{nd}}\) mvt (Baillot, 1835, p. 263).

“It is by observing in the music of each composer the differences which result from the choice of position, of string, and of fingering, that violinists can finger their own music so much better, depending on the type of expression they would like to give it.” (Baillot, 1835, p. 263).
The use of positions on different strings varies. On the A, D, and G strings the lower and middle positions are used much more frequently than the higher. This is because the tone of the upper register is rather dull. Hence the higher positions on the A and D strings are generally only used in cantilena, where a particular tone quality is required, for example in piano. Also, in fast passages there is the problem of sounding adjacent strings when playing in the high positions. Thus, it is the E string where all positions may be used. This string has a stronger and brighter tone quality, especially in the higher positions.

The G string however, is often used throughout its compass (sopra una corda) because of its particularly intense tone quality, and also is not subject to the danger of sounding adjacent strings. It was first used by I. E. Khandoshkin (1747-1804), and was widely used as a virtuoso device by the nineteenth century by violinists such as Paganini, Rossini (‘Variations on a theme’ from his opera Moise), and many others (Yampolsky, 1967, p. 37).

The introductory parts of Ravel’s Tzigane (one reason it was included in the researcher’s repertory) and Wilhelmj’s transcription of Bach’s ‘Air on the G string’ are examples of the expressive use of the G string in violin literature.

The enriching and widening of violin technique in the nineteenth century found its expression most of all in the immense development of double stopping and chord playing. This was related to the influence of Paganini’s playing, which had a tremendous effect in bringing new rational fingerings for double stops and chords into the realms of normal violin technique. Paganini expanded the idea of the use of the left thumb and use of the whole fingerboard. A more advanced thumb-position to attain greater mobility and facility in extensions was chosen by many nineteenth-century violinists. The flexible left-hand usage of twentieth-century violin techniques was foreshadowed by some of Paganini’s fingerings. These techniques included contractions, extensions and creeping fingerings which liberated the hand from its usual position-sense and the traditional diatonic framework. Several other works should be mentioned by composers who contributed – Ferdinand David’s edition of the Bach Sonatas and

---

45 See also Part II "Guide to Performance", p. vii, p. 68 and Example 2-34, and p. 109 Example 3-44.

6.2 Fingering in Romanticism
Partitas for violin solo, published in 1843, in which new fingerings for four-part chords making use of contractions are given; Wilhelmj’s Cadenza to the first movement of Paganini’s D major violin concerto, in which he uses for the first time a new fingering for octaves which led to the development of a new kind of technique for double stopping – the so called ‘fingered octaves’; and Léonard’s *La Gymnastique du violoniste* (The Gymnastics of the Violinist) in which new fingerings for sixths are given, based on a completely new principle – the extreme contraction of the fingers.

A. F. Lvov (1798-1870) gave examples in 1859 of rational fingerings for descending broken thirds, based on the extension of two adjacent fingers, rather than on sliding the same finger. This ensured an imperceptible change of position (Lvov, 1859, in Yampolsky, 1967, p.12). F. Zhigardlovich mentioned in the 1870’s the need for the violinist to master the different ways of placing the fingers on the finger-board to ensure the free use of various fingering devices (Jurgenson, in Yampolsky, 1967, p. 12). He systematised a number of rational fingerings used by the greatest violin virtuosi by analysing the methods used in playing three- and four-octave scales.

The *Method* by Charles de Bériot contains some important principles of violin fingering. In this work for the first time the significance of fingering as an individual means of artistic expression is established. Bériot writes, “We may divide the fingering of the violin into two classes, that of expression, and that of execution; in other words the fingering of the tune [cantabile melodies] and of the playing [fast passagework]. The fingering employed by various masters for singing a melody is a powerful way of obtaining expression; it joins the sounds together and imitates the inflexions of the human voice. It is varied by the performer according to the sentiment which is desired to be conveyed…” (Bériot, 1858, p. 94). That which is called passagework fingering has as its object the ability to play the passage with the greatest possible facility and evenness. As this fingering, is not subject, as is melodic fingering, to diversity of taste, it “may to a certain extent be reduced to rule.” (Bériot, 1858, p. 94)

Bériot suggested that teaching should begin not with the scale of C major, as the old methods taught, but with the G major scale. He broke with teaching tradition, which had been established on the piano and not for the violin. He thus emphasised the necessity of starting instruction by using the natural disposition of the fingers on the fingerboard,
as is needed for this scale. This fact later played an important part in the establishment of this disposition of the fingers as the basis of violin fingering. “Bériot also developed a new fingering for chromatic scales, based not on one finger moving by semitones, but on the use of all the fingers in succession, which was one of the most significant steps forward in the development of violin technique. He also had many important things to say regarding the working out of rational fingerings for diatonic scales.” (Yampolsky, 1967, p. 13).

The first attempt to summarise and define the concept of rational fingering occurred in the first half of the nineteenth century. The Russian musical scholar and critic M. P. Rezvoi in his article ‘Fingering’, written in 1835, gave one of the first such definitions. It is a clear and concise definition of fingering, and stresses the importance of the performer studying correct, or rational, fingering. “In music, fingering is the method and order of using the fingers when playing stringed instruments. It is essential for the musician to learn good fingering, as it is largely and often almost entirely on this that purity of intonation and tone depend. The correct use of the fingers is that which allows the artist to perform works written for stringed instruments with certainty and the minimum of difficulty.” (Encyclopaedic Lexicon, vol I, A-ALM, 1835, in Yampolsky, 1967, p.13).

In the last quarter of the nineteenth century, the appearance of special theoretical works devoted to the problem of violin fingering was seen. The work of the German, C. Wassmann, for the first time points out the possibilities inherent in the violins tuning in fifths and the significance of the perfect fifth between two strings taken by the same finger as a point of support for the fingers in any given position. Wassmann suggests, therefore, a uniform scheme of fingering for all diatonic and chromatic scales, giving maximum economy of position changes. Yampolsky suggests the main defect of Wassmann’s work is that he considers the problem of fingering from a purely technical point of view, without reference to the artistic side of performance (Yampolsky, 1967, p. 10).

In the remainder of this chapter the musical examples will be taken primarily from the researcher’s recital programmes. The indications as to fingering will be, therefore, those of the researcher unless otherwise stated.
6.2A. Changes of position

The left hand is presented with no real difficulty when playing within the limits of a single position. Auer makes the point that “we should consider that left-hand technique begins only with changes of position.” (Auer, 1929, in Yampolsky, 1967, p.38).

Smooth changes of position depend to a great extent on the use of rational fingerings while changing, and not only on the skill of the violinist. Bad and irrational fingerings make position changes more noticeable and uneven. Rhythmic considerations and prominence within the phrase are also important factors for hiding shifts (Yampolsky, 1967, p. 38).

There are several rational fingering devices that facilitate smooth and unnoticeable position changes. Yampolsky (1967, p. 41) believes that they are not always sufficiently used in violin practice. Examples from Paganini’s compositions (taken from music edited by Carl Flesch), the researcher’s repertoire (fingerings are those used by the researcher in the recital programs), and other key works from the period are given. They include:

1) Moving to an adjacent position by means of sliding one finger a semi-tone. This device is very useful in fast tempi.46

![Var. 4](image)

(a) Paganini – 24 *Caprices* Op.1, No. 24 Var. 4 (Fingering by C. Flesch).

---

46 Indicated by square brackets
47 See also Part II "Guide to Performance", p. 20 Example 1-24, p. 38 Example 1-56, p. 109 Example 3-46, p. 102 Example 3-38, p. 176 Example 5-72.
(b) Paganini – 24 Caprices Op. 1, No. 24 Var. 10 (Fingering by C. Flesch).

(c) Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bars 86-89 (Fingering by C. Flesch).

(d) Schumann – Sonata No. 1 in A minor Op. 105, 2nd mvt, bar 43 (CD: 1 Tr: 2) (Fingering by the researcher).

Example 6.2A-1 (a) – (d) Shifting by sliding one finger a semi-tone.

(2) Changes of position by means of alternating fingers on the same note.\(^{48}\)

Alternating fingers on the same note, especially on the strong beats of the bar, underlines the rhythmic pattern, gives greater clarity to the sound, prevents so-called false accents, and makes various tone colours possible on the one repeated note. Some violin virtuosi utilised the last possibility in their works, for example:

\(^{48}\) See also Part II "Guide to Performance", p. 102 Example 3-38, p. 161 Example 5-56, p. 149 1st bar of Example 5-37.
6.2A Changes of position

Chapter 6


Example 6.2A-4 Brahms – Sonata No. 2 in A major Op. 100, 1st mvt, bars 41-43 (CD: 5 Tr: 4).

6.2A Changes of position

(3) Changes of position using open strings.

The violinist, by using the open strings, is able both to change the position of the hand unnoticeably and to avoid the extraneous sounds which occur when changing positions in other ways. Of course, in the Romantic era violin strings were made of mellow gut – there were no metal-cored or synthetic-cored strings such as are available today. Hence the open strings would not have made any extraneous sounds. Players most probably would not have avoided open strings at all. This device is very useful when changes to distant positions are required:


Example 6.2A-9 Kreisler–Pugnani – Praeludium und Allegro, bars 1-3 (CD: 1 Tr: 6).

---

49 The sul G does not appear in the urtext. However, it is in the edition the researcher used in her recital – that is – Augener Ltd.
50 See also Part II "Guide to Performance", p. 98 Example 3-31, p. 106 1st bar of Example 3-41.
6.2A Changes of position


Example 6.2A-11 Prokofiev – Sonata No.2 in D major Op. 94a, 1st mvt, bars 3-4 (CD: 2 Tr: 5).

Example 6.2A-12 Prokofiev – Sonata No.2 in D major Op. 94a, 4th mvt, bars 36-38 (CD: 2 Tr: 8).

Example 6.2A-13 Wieniawski – Concerto in D minor Op. 22, 3rd mvt, bars 177-180. (Fingering by Henri Marteau.)

Example 6.2A-14 Mendelssohn – Concerto No. 2 in E minor Op. 64, 1st mvt, (a) bars 86-88 & (b) bars 181-182. (Fingering by C. Flesch).

---

6.2A Changes of position

Chapter 6
(4) Changes of position using natural harmonics.

This device is in many ways similar to the last one. It is well known that a natural harmonic continues to sound for a short while after the finger producing it is lifted off the string. Hence, unnoticeable position changes can be made using this feature of natural harmonics. The finger producing the natural harmonic, which is not firmly pressed on the string, frees the hand and fingers from tension at the time of moving to the new position, allowing the hand to move unnoticeably to the new position under cover of the harmonic which is still sounding (see examples 6.2A-15 to 6.2A-19):

Example 6.2A-15 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bars 52-53 (CD: 2 Tr: 8).


Example 6.2A-19 Lalo – *Symphonie Espagnole* in D minor Op. 21, 4th mvt, bars 100-103 (Fingering by C. Flesch)

When large jumps with one finger are required, the use of a natural harmonic will, in many cases, facilitate correct intonation when striking the lower note. This allows any necessary corrective movement of the finger to be made unnoticeably:

Examples of large jumps:


Example 6.2A-21 Mendelssohn – Concerto No. 2 in E minor Op. 64, 1st mvt, bars 161-170 (Fingering by C. Flesch).
(5) Changes of position using contractions:\(^{31}\):

Example 6.2A-22 Paganini – Concerto No. 1 in D major Op. 6, 3\(^{rd}\) mvt, bars 170-171 (Fingering by C. Flesch).


(6) Changes of position using extensions:

An extension is when one or more fingers are extended in order to reach, without shifting, a note not in the position the player is in. The fourth finger is normally used to make the extension, however, it may also be made with the third finger. Usually the fourth finger extension is used for tenths while the third finger is used for octaves.

A player with small hands needs to start practising extensions very early so that they gain flexibility and to ‘lengthen’ the third and fourth fingers by frequent use (Baillot, 1835, p. 266).

The first extension to practice is a semi-tone extension:

\(^{31}\) See also Part II "Guide to Performance", p. 118 Example 4-4.

6.2A Changes of position
Example 6.2A-25 A semi-tone extension to practice.

The second, the whole tone:

Example 6.2A-26 A whole tone extension to practice.

The third type of extension is the one made on all four strings. The player must remember to bring the elbow sufficiently forward so that the fourth finger is able to reach the low strings easily. Many people, writes Baillot (1835), develop a bad habit when playing extensions, of bending the wrist back when they want to use or stretch the fourth finger. By doing this, the wrist is moved away from where the note is played instead of being brought closer. “This is a very great mistake, since it causes the wrist to make an unnecessary movement which becomes detrimental.” (p. 267). He suggests the violinist practice the following exercise – taking care to move only the fingers:

Example 6.2A-27 An exercise to practice extensions.

The fourth type of extension is a series of extensions in tenths. Baillot makes the point that to avoid bending the wrist back, the player must begin by placing the 4th finger first. Example 6.2A-28 shows an extension in tenths.
The last type of extension that will be discussed is the extension in octaves, also known as fingered octaves. In example 6.2A-29 the extension is made with the third finger in a series of octaves, thus allowing the violinist to avoid shifting down a position (Baillot, 1835, p. 268).

Example 6.2A-29 Habeneck, Sr. – Fantaisie pastorale for Violin and Orchestra, bars 217-231.

The passages in examples 6.2A-30 to 35 give more examples of where extensions are used.


6.2A Changes of position

Chapter 6


Example 6.2A-33 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bars 108-110 (CD: 2 Tr: 8).


Example 6.2A-35 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bar 146 (CD: 2 Tr: 8).


From example 6.2A-36, it is recommended that a is only used for fingers capable of wide stretches, but it is worth trying; the abrupt unmusical and quite audible change of position at b+ and b++ is thereby eliminated. Two successive changes of position are to be avoided whenever possible.
6.2A Changes of position

Chapter 6


The glissando at $b+$ (in example 6.2A-37) has a disturbing effect, for this run is meant to sound as smooth as possible. $a$ avoids this shortcoming. One might also bow at $a+$, using little bow for the last four semi-quaver notes.


(7) Changes of position using a mixed fingering containing both extensions and contractions:

Example 6.2A-39 Paganini – Concerto No.1 in D major Op. 6, 1st mvt, bars 125-127 (Fingering by C. Flesch).

Example 6.2A-41 Brahms – Sonata No. 2 in A major Op. 100, 2nd mvt, bar 156 (CD: 5 Tr: 5).


The use of the even-numbered positions (mainly the 2nd and 4th) and the half position has at times (although not in the Baroque period) been avoided in violin playing. This is because the odd-numbered positions (1st, 3rd, 5th, et cetera) were considered more reliable with regards to intonation. Bériot, for example, states: “The odd-numbered positions are the most convenient for use, and it is not difficult to understand why: starting with the first position at the beginning of the finger-board the hand has a point of support for moving to the third position, thus securing correct intonation.” (Bériot, 1858, in Yampolsky, 1967, p. 48).

The results of the avoidance of the even-numbered positions, stemming from these old-fashioned and incorrect ideas, are seen in modern violin practice in that “the majority of even quite advanced players show a lack of familiarity with positions, particularly the even-numbered ones. This can easily be confirmed by asking them to read at sight in those positions any passage well within their technical capabilities. One finds a feeling of helplessness and a sharp fall in tone quality.” (Mostras, 1948, p. 21, in Yampolsky, 1967, p. 48).

A policy of avoiding the even-numbered positions leads to an impoverishment of fingering resources, and results in the violinist being faced with considerable unnecessary difficulties and awkwardness in playing. Hence, by limiting the number of positions at one’s disposal, in many cases, unnecessary position changes are required, and this makes the violinist use finger movements which are awkward in fast tempi. This leads to uneven rhythm and unnecessary extraneous sounds (Yampolsky, 1967, p. 48).

Examples of this may be found in the following extracts from key works from the period. They include extracts from the Mendelssohn Concerto, the Lalo Symphonie Espagnole and the Vieuxtemps Fantasia Appassionata (the opinions on the rights of the fingering are those of Yampolsky, 1967):
6.2B Use of the even-numbered positions and the half position

Example 6.2B-1 Mendelssohn – Concerto No. 2 in E minor Op. 64, 3rd mvt, bars 104-105.

Example 6.2B-2 (a) Lalo – Symphonie Espagnole in D minor Op. 21, 5th mvt, and (b) Vieuxtemps – Fantasia Appassionata Op. 35.

Further examples from the researcher’s own repertoire include extracts from the Brahms Sonata Opus 100, the Tchaikovsky Three Pieces Opus 42 second movement (Scherzo), and the Brahms Sonata Opus 78 (the fingerings are those of the researcher):

Example 6.2B-3 Brahms – Sonata No. 2 in A major Op. 100, 2nd mvt, bars 1-7 (CD: 5 Tr:5).
6.2B Use of the even-numbered positions and the half position

In these cases, the use of the even-numbered positions considerably facilitates execution and produces a more even sound.

One can sometimes avoid using the fourth finger when the even-numbered positions are employed. This, in a number of cases, leads to greater freedom in finger movement, making for clarity and stability in the execution of technical passages (the opinion on the rights of the fingerings are those of the researcher):


Example 6.2B-5 Brahms – Sonata No. 1 in G major Op. 78, 1st mvt, bars 226-7 (CD: 5 Tr: 1) (Fingerings by the researcher).


Example 6.2B-7 Beethoven – *Piano Trio* No. 5 in D major Op. 70 No. 1, 1st mvt, bars 29-30 (CD: 4 Tr: 1).
The use of the half position is no less important. It is connected with (a) contracted hand positions and (b) the maximum use of the fourth finger, which in this case is rational. The half position generally has a number of important advantages and often negates excessive and awkward finger movements and extraneous sounds. For example (the opinion on the rights of the fingerings are those of the researcher, except example 6.2B-9 which are those of Yampolsky, 1967):

Example 6.2B-8 Beethoven – Piano Trio No. 5 in D major Op. 70 No. 1, 2nd mvt, bars 3-4 (CD: 4 Tr: 2).

Example 6.2B-9 Mendelssohn – Concerto No. 2 in E minor Op. 64, 3rd mvt, bars 139-140.


The extensive use of these positions should be part of every violinist’s equipment, as one of the basic means of rational fingering (Yampolsky, 1967, p. 50).
Example of half position:

Example 6.2B-13 Brahms – Sonata No. 2 in A major Op. 100, 1st mvt, bars 139-141 (CD: 5 Tr: 4).
6.2C Chromatic passages

Chromatic scales are those which proceed in semitones. The technique of playing chromatic scales and passages involves the use of various special fingering devices, and is considered to be extremely difficult. It requires special study.

It was only from the mid eighteenth century that the benefits of scale practice were fully acknowledged for the cultivation of accurate intonation, finger independence, elasticity and agility, tonal clarity and many bowing disciplines. Two of the more notable nineteenth-century developments include Spohr’s fingering system for three-octave diatonic scales, in which the root position of a four-note chord of the key of a scale effectively determined the starting finger-position for most scales, and the introduction of the violin fingered-octave technique. This was first discussed by Baillot and gradually found favour because of its greater clarity, accuracy and less frequent displacements of the hand (Stowell, 2001, pp. 62-3) (see example 6.2C-1).

Example 6.2C-1 Habeneck – l’aïnes Fantaisie Pastorale, quoted in Baillot, p. 152.

In practice, there are three types of fingerings which can be used for chromatic scales and passages, each of which is based in the almost exclusive use of one particular kind of finger movement. Each one produces a different effect which can be used depending on the artistic effect required.

(1) Fingering in which each finger in turn slides a semitone (the fingers extending or contracting while the hand position remains still). In general, this is the most widely used type of fingering. It excludes the use of the open strings, which corresponds to the rules laid down by the classical violin schools. Considering the question of fingering chromatic scales, Spohr writes: ‘as the open strings (particularly the E and A strings) have a sharper tone quality than when stopped, they should be avoided when playing chromatic scales.’ (Spohr, 1832, in Yampolsky, 1967, p. 60).
Spohr recommends that when playing chromatic scales, the higher positions should be approached not on the E string but on the G and A strings. As examples of fingering for chromatic scales, he gives the following extract from his ninth Concerto:

Example 6.2C-2 Spohr – Concerto No. 9 in D minor Op. 55, 1st mvt (Fingering by Spohr).

Bériot (1858, p. 143) writes that when the same finger is used to produce two adjoining notes the result is a small trail or train of sound which, in quick parts, spoils the clearness of the execution. The player, then, should remain as much as possible in the first position where, by using open strings, the trail or slur will be avoided in four consecutive sounds (see example 6.2C-3). This facilitates the mechanism of the chromatic scale, and also renders it clearer.

Example 6.2C-3 Bériot’s chromatic scale (p143) (Fingering by Bériot).

The clean performance of chromatic scales in fast tempi is made very difficult by this type of fingering, because it requires the constant extension or contraction of each finger. Hence it is technically awkward. It can only be recommended for the performance of chromatic scales at slow speeds. In such cases this type of fingering gives greater expressiveness of sound (Yampolsky, 1967, p. 61).

(2) Fingering in which the fingers succeed one another in semitones. The constant sliding of fingers is done away with when using this type of fingering. Hence it facilitates playing chromatic scales in fast tempi and thus leads to greater evenness of
sound. This type of fingering was first suggested by Geminiani, used by Paganini (see example 6.2C-4), and later developed by Bériot (see example 6.2C-5 and Bériot (1858) page 144). For chromatic scales, it is the most practical and convenient fingering. Its use over several octaves makes possible (a) the use of open strings, which were avoided in the old methods; (b) the avoidance of the excessive use of sliding the third finger – what Joachim called one of the principal evils of violin technique (Yampolsky, 1967, p. 61).


Example 6.2C-5 Fingering of chromatic scales developed by Bériot.

In the example (6.2C-6) below it is suggested that one should make a position change on all strings after the second finger, and not on the third as Bériot gives (in Bériot, 1858, p. 147), which limits the extension of a position to a semitone (Yampolsky, 1967, p. 62):

---

52 See also Part II "Guide to Performance", p. 53 Example 2-12.
6.2C Chromatic passages

Example 6.2C-6 Change positions after the second finger (Fingering by Yampolsky).

Since playing the final note of a passage on an open string is undesirable, sliding the third finger a semitone is allowable, as the leading note and tonic should be played on the same string in the interest of uniformity of tone quality. Therefore, chromatic passages which end thus:

```
\begin{center}
\includegraphics[width=\textwidth]{example62c6.png}
\end{center}
```

are better played on one string, with the preceding note played thus:

```
\begin{center}
\includegraphics[width=\textwidth]{example62c6_good.png}
\end{center}
```

This type of fingering produces a somewhat dry effect in passages at slow tempi, and hence the fingering mentioned above should be used to give a more expressive sound.

The following are extracts of passages that may be played with this type of fingering (Yampolsky, 1967, pp. 63-64):

Example 6.2C-7 Paganini – 24 Caprices Op. 1, No.17 (Fingering by C. Flesch).
(3) Fingering in which one finger is used throughout. This type of fingering is often used in fast chromatic passages. It should not be confused with the glissando, in which the precise definition of the semitones is not required.

Sliding with one finger is used on one string, most often for descending chromatic passages, and preferably with the third, more rarely with the fourth finger. The use of the third finger is more convenient as it gives greater support to the hand while moving along the neck (Yampolsky, 1967, p. 62).
6.2D. Thirds

Thirds can be played with the following dispositions of the fingers:

(1) Natural:

(2) Contracted:

(3) Extended (mainly for major thirds):

(4) One can sometimes play thirds using the open strings:

Scales in thirds can be played with several fingerings:

(1) Playing in the odd-numbered positions, 1\textsuperscript{st}, 3\textsuperscript{rd}, 5\textsuperscript{th}, et cetera, which is the most commonly used method: (Yampolsky, 1967, p. 73)

(2) Playing in the even-numbered positions - 2\textsuperscript{nd}, 4\textsuperscript{th}, 6\textsuperscript{th}, et cetera:
Fingering using the even-numbered positions has one important advantage. As there is less distance from position to position, it allows the hand to rest, half-way between the two positions. This facilitates playing in fast tempi and ensures smooth and imperceptible position changes. In the above examples the even number positions keep the shifts on the strong beats.

The use of the open strings in certain cases when changing positions makes it possible to avoid unnecessary shifts, the fingering generally used being replaced by the following:

![Fingering Diagram]

The choice between these various methods of fingering scales in thirds should be made with regard to the key and the rhythmic pattern of the scale, which determines when position changes should be made. Thus:

![Fingering Diagram]

because the shifts occur on strong beats.

Examples of fingering for thirds:

![Fingering Diagram]

Example 6.2D-1 Paganini – *24 Caprices* Op. 1, No. 4, bar 36 (Fingered by C. Flesch).

---

**6.2D Thirds**
Example 6.2D-2 Paganini – 24 Caprices Op. 1, No. 1, (a) bar 30 (b) bar 38 (Fingering by C. Flesch)

Example 6.2D-3 Brahms – Sonata No. 3 in D minor Op. 108, 1st mvt, bars 81-83 (CD: 3 Tr: 1).


This (6.2D-4) is a standard example. The climax at + will sound best when played with the second and third fingers. However, there should be no accent on + + and no portamento at + + +, but a leap.

Example 6.2D-5 Brahms – Sonata No. 1 in G major Op. 78, 2nd mvt, bars 60-64 (CD: 5 Tr: 2).

When moving from one position or one string to another, one should avoid using the same pair of fingers in succession, using the fingerings 1-3 and 2-4 alternately.\(^{53}\)

\(^{53}\) See also Part II "Guide to Performance", p. 142 Example 5-26.

6.2D Thirds

Chapter 6
In the higher positions, the normal fingering is modified to avoid the fingers being uncomfortably close together, 1-2 being used instead of 1-3, and 2-3 or 3-4 instead of 2-4. This fingering gives greater accuracy of intonation and better quality of tone in the higher positions:

Chromatic scales in thirds can be played by alternating two pair of fingers, or by sliding either pair by itself:

Example 6.2D-6 Brahms – Sonata No. 3 in D minor Op. 108, 2nd mvt, bars 54-56 (CD: 3 Tr: 2).

Example 6.2D-7 Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bar105 (Fingering by C. Flesch).


Example 6.2D-9 Paganini – 24 Caprice Op. 1, No. 13, bars 1-3 (Fingering by C. Flesch).

and

This (example 6.2D-10) can be played either as a chromatic glissando on the D and A strings, or as a fingered passage beginning on the D and A strings and changing over to the A and E strings with a simultaneous change of bow. The choice will depend upon one’s technical ability.
6.2E. Open strings

The characteristic timbre of the violin is determined by the open strings. They play an important part in its general tone quality. The different strings each have their own characteristic timbre because they vary in the material from which they are made (though this was not the case in the Romantic era since all the strings were made with gut cores), their thickness, and the prevalence of their overtones. Thus the upper strings, A and E, are characterized by a bright and open sound, while the lower strings, G and D, are on the contrary characterized by a thick and chesty sound. Also, the different registers of the same string vary considerably in tone colour.

In those keys where an open string is used, the sound has a particular colour and is brighter and more open than where a stopped string is used. This is because the open string vibrates throughout its entire length, while the stopped one vibrates through a certain part only. Also the string rings sympathetically throughout the entire scale.

Composers writing for the violin have always taken into account these special characteristics of the sound of the open strings. Many violin works are written in keys which allow the use of the open strings. It is interesting to note that three of the Concertos of Mozart, and those of Beethoven, Brahms, Tchaikovsky, and many others are written in the key of D major. The great predominance of this key can be explained because from it we naturally arrive at the keys of G major and A major for the second subject, development, et cetera – keys in which the open strings can also be widely used.

Some special effects, such as bariolage, are also based on the use of the open strings sound. Bariolage is based on the rapid alternation of two adjacent strings, one fingered and the other open, defining the melody:


6.2E Open strings
Sometimes composers have deliberately written works for the violin in keys which exclude the possibility of using the open strings so that a particular musical effect can be achieved. However, this makes the choice of fingering and the technical performance of the works considerably more difficult, and the intonation is infinitely more difficult when one cannot tune to the open strings.

Despite the artistic significance and the technical advantages of using the open strings, many writers have advised not to use them. For example, L. Mozart advised against their use both for melodic passages and in double stops, because he thought that the uniformity of tone quality was destroyed by their greater volume and sharpness (p. 137, in Yampolsky, 1967, p. 95). Spohr recommended that they not be used in the performance of chromatic scales (Spohr, 1832, in Yampolsky, 1967, p. 95). Davydov suggests that they should be avoided in certain keys, in the interest of preserving purity of tone (Davydov, 1873, in Yampolsky, 1967, p. 95). Others reject their use owing to a false conception of the supposed unexpressiveness of the sound: ‘Who has not noticed that the strong and yet flat sound of the open string will cut through even a full chord, creating a bright but dead stain?’ (Avraamov, 1915, in Yampolsky, 1967, p. 95).
Considering the question of the use of open strings from the point of view of rational fingerings, it can be said with certainty that their use gives greater resonance, sharpness, and brightness to the tone, particularly in technical passages. On the other hand, lack of their use dulls the sound. For example:

Example 6.2E-4 Prokofiev – Sonata No. 2 in D major Op. 94a, 1\(^{st}\) mvt, bars 118 (CD: 2 Tr: 5).

Example 6.2E-5 Prokofiev – Sonata No. 2 in D major Op. 94a, 1\(^{st}\) mvt, bars 1-3 (CD: 2 Tr: 5).

The advantage of using the open strings, from the viewpoint of the left-hand technique, is that it makes for economy of movements of the hand and fingers. For example, in example 6.2E-6 the use of the open strings allows one not to need to use the fourth finger, which to a large extent facilitates the performance of the passage and produces a brilliant effect.


In choosing fingerings one may experiment with making extensive use of the open strings, whilst taking into account the artistic and technical advantages of so doing. However, the performer should realize that in many cases when using the open strings with their bright and sharp sound (particularly the E string) s/he must take the necessary steps with both the right and the left hand to equalize the tone colour of the melodic
fragment or passage so as to achieve uniformity. Thus in melodic phrases with a stopped note followed by an open string, or vice versa, the extent and speed of the vibrato should be measured so as to make a gradual transition from the stopped note to the open string, and thus to equalize the strength and character of the sound (Struve, 1933, in Yampolsky, 1967, p. 96).

The so-called false accents which occur should be concealed by corresponding measures in the right hand. Example 6.2E-7 is instructive in this connection.

Example 6.2E-7 Kreisler-‘Pugnani’ – Praeludium and Allegro, bars 126-130 (CD: 1 Tr: 6).

The use of the open strings as an important aid to imperceptible changes of position has already been mentioned. The sound of the open strings also plays an important role in artistic phrasing, often serving as a means of strengthening the expressive contrast in a musical phrase. The alternation of stopped and open strings for a single note in a repeated melodic phrase may throw it into relief and give it a variety of tone colour (see example 6.2E-8 and example 6.2E-9).

Example 6.2E-8 Kreisler-‘Pugnani’ – Praeludium and Allegro, bars 1-8 (CD: 1 Tr: 6).
Example 6.2E-9 Beethoven – *Piano Trio* No. 5 in D major Op. 70 No. 1, 3rd mvt, bars 119-128 (CD: 4 Tr: 3).

An open string is often used to emphasize the beginning of a new theme or the division of a melodic phrase:


Example 6.2E-11 Prokofiev – Sonata No. 2 in D major Op. 94a, 2nd mvt, bars 74-86 (CD: 2 Tr: 6).
6.2F Recurring finger patterns

When playing violin passages that contain so-called ‘technical passages’, the choice of fingering should aim fundamentally at brilliance, a singing quality of tone, and smoothness of execution. The conclusion one draws when analysing fingering methods is that the most important device for simplifying the learning of these passages is the use of the recurring finger pattern. This means using the same fingers in succession over several different positions. The researcher found this to be true in Brahms’ *Scherzo* (see Part II "Guide to Performance", p. 176 Example 5-72).

The following passages are good examples of such simplification. This is known as rhythmic fingering:


Example 6.2F-3 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bars 29-31 (CD: 2 Tr: 8).

---

54 See also Part II "Guide to Performance", p. 118 Example 4-5 for an example from Beethoven.
The rational fingering for the passage is the use of a recurring finger pattern – 4,2,3,1 – as opposed to the unsatisfactory fingering using different combinations of fingers for each group – 4,2,3,1, then 2,2,3,1; 2,2,3,1; 4,2,3,1; 2,0,3,1; 1,3,4,2; 3,1,2,3, as may be played.

Even more instructive as an example of the use of the recurring finger pattern is the following excerpt from the ‘Praeludium and Allegro in the style of Pugnani’ of Kreisler:

The recurring finger pattern for this passage is thus: for the upward progression of semiquavers in the first four bars:

That is 3,4,2,3,1,2; and for the downward (from the fifth bar):

That is 1,2,3,4,2,3.

6.2F Recurring finger patterns
The recurring finger pattern has its rational justification in the fact that the only difficulty to overcome when using it is the exact movement of the hand to the next position, while maintaining a uniform combination of finger movements in all positions. Perhaps there will also be a changing hand shape, and the semitone and tone shape will often change from position to position. This considerably simplifies the learning of technical passages and facilitates ‘remembering’ the movement.

The use of the principle of the recurring finger pattern is not always possible in its complete form, but its partial use is often suitable. The recurring finger pattern in its ‘pure’ form can be used:

(i) For descending or ascending sequential passages (see example 6.2F-6 - 6.2F-9):

![Example 6.2F-6 Paganini – Moto Perpetuo (Fingering by L. Lichtenberg, 1900).](image)

![Example 6.2F-7 Saint Saëns – Havanaise Op. 83, bars 158-163 (CD: 1 Tr: 7).](image)

Note (in example 6.2F-7) the different position of the semitone between 1 and 2 instead of 3 and 4.
(ii) For the repetition of the same notes an octave higher or lower:


Example 6.2F-9 Brahms – *Sonatensatz* (Scherzo) in C minor, bars 67-70 (CD: 5 Tr: 7).


Example 6.2F-11 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bar 121 (CD: 2 Tr: 8).

6.2F Recurring finger patterns

Chapter 6
6.3 Conclusion

Rode, Kreutzer, Baillot, and Spohr were, in their day, considered to be the giants among violinists. They approached the technical perfection which a human being could achieve. The magic of their tone competed with the human voice. It was through this magical tone that they were able to represent every emotion and use their violin to control the human soul (Guhr, 1829, p. 1).

The musicians of the nineteenth century expanded many techniques and developed the greatest varieties of bowing. Their contributions and developments are summarized below.

Locatelli and Paganini brought shifting into the high position into more common practice. So much so, that by the nineteenth century most treatises treated playing in the high position as a matter of course, with many writers covering the topic. Shifting became a distinguishing characteristic of many players. Fracht commented that the shift spelled out the personality of the violinist. For example, there was the Kreisler shift, the Elman shift, et cetera.

Octaves became more prominent in the nineteenth century, with several concerti opening with octave passages. They are also present in Paganini’s Caprices.

Paganini was instrumental in establishing tenths as a common violin technique as he composed many passages in tenths. Tenths present the difficulties of the hand having to stretch so far, especially in the lower positions, and the fact that, in diatonic passages, the 1\textsuperscript{st} and 4\textsuperscript{th} fingers are not always moving the same distances.

It was Paganini, again, who improved chord playing techniques, as can be seen from the included examples. Bériot suggested that chords should be played a little arpeggiated. Later in the nineteenth century, a noisier method of chord-breaking developed whereby the chord was split into two parts with continuous multiple stops sounding.
In the early nineteenth century, Paganini revived the technique of left-hand pizzicato, which was basically forgotten by the French and German schools. Guhr wrote about left-hand pizzicato in 1829, making the point that it is especially difficult to play on the D and G strings. Later, the technique was widely used in compositions, in particular by Sarasate (1844-1908) and Ravel.

The acceptance of harmonics was slow in the nineteenth century. It took virtuosi such as Scheller and Paganini to arouse public interest in artificial harmonics and the techniques involved in their mastery. Paganini extended the range of the G string by incorporating harmonics, to cover at least three octaves. In his book, Guhr paid special attention to the Paganini harmonics along with his left-hand pizzicato.

Vibrato can give an expression of animation, tenderness, and sometimes pathos. However, many of the nineteenth-century writers warned against its over-use, because it would soon lose its “power to move” the listener. So, while the word “Romantic” may have come to be almost synonymous with the use of an almost constant vibrato, this was not the actual practice of the period. It was the case that portato, portamento and novel fingerings were preferred to vibrato. It wasn’t until the 1930’s that the vibrato was made popular by performers such as Kreisler and Heifetz.

Several of the developments in fingering are summarized below.

The tutors of the eighteenth century provided the basic sources of information about violin fingerings. However, in the nineteenth century, there was a voluminous amount of material produced for the study of violin fingering. Hence, many published works included fingerings, and because each violinist’s editions and transcripts reflected his or her own fingerings, there was an abundance of performing indications. Baillot wrote (as early as 1835) that fingering cannot be set definitively in a uniform and unvarying manner.

The influence of Paganini’s playing of double stops and chord playing had a tremendous effect in bringing new rational fingerings into the realms of normal violin techniques. Further, the innovations of Paganini with his own particular virtuoso
technique required the introduction of new methods of fingering. This allowed new principles of performance practice.

While there are many technical advantages to using open strings there have always been opponents to their use, from L. Mozart to Avraamon in 1915. However, many composers writing for the violin have taken into account these advantages, and there are many violin works written in keys which allow the use of the open strings, including even the twelve-tone concerto by Berg (1885-1935), which includes the open G D A E, and commences with an arpeggio on the open strings.
Chapter 7 Right-hand violin techniques in Romanticism

Pulver (1970) writes in his book there is no more legitimate reason for honouring the memory of Paganini than because he exploited an enormous variety of new bow strokes. When Paganini appeared, the technique of the bow lagged far behind that of the left hand. By the time of his death practically all of the strokes he used with such electrifying effect were adopted by all the important schools of violin-playing. In some cases they were modified and in others they were not. Their successful employment, however, was always restricted to the few who possessed the requisite flexibility and control (Pulver, 1970, p. 315).

The full modern vocabulary of bow strokes began to emerge at the beginning of the nineteenth century. The French school was again the one to take the lead, thanks largely to Baillot. The advent of the Tourte bow meant that the emphasis was shifted away from the articulated strokes, subtle nuances and delayed attack of most mid-eighteenth century models to a more sonorous, smoother cantabile style promoted by Viotti and his school, with the added capability of a more or less immediate attack, sforzando effects and accented bowing (for example, martelé and saccade) and various ‘bounding’ strokes (spiccatò and ricochet et cetera). Many theorists, however, suggest that on-the-string strokes in the upper part of the bow were more part of ordinary playing than off-the-string strokes well into the nineteenth century. This was particularly true for a light staccato effect, and punta d’arco was commonly used to indicate a short, detached stroke at or near the point. The German playing style favoured on-the-string strokes well into the nineteenth century with Spohr’s rejection of spiccato as a ‘contemptible kind of bowing, and not in keeping with the dignity of Art’ further ingraining it into German interpretation (Stowell, 2001, pp. 78-9).

The Tourte bow was in fairly common use by the time Baillot wrote his L’Art du violon. He himself owned three bows made by Tourte. Spohr also mentions the Tourte bow and its flexibility in his Violinschule, published in 1832. However, he does not list as many types of bow strokes as Baillot does. It would therefore appear that Baillot’s publication

---

55 a sudden strong pressure of the violin bow that causes two or more strings to sound at once.
is one of the earliest attempts to classify and categorize the bow strokes made possible by the, then, new bow (Baillot, 1835, p. 508).\footnote{in notes of translated version p 508.}

The most extensive catalogue of violin bowings, therefore, from the first half of the nineteenth century was from Baillot’s survey. It was unique in the way that it integrated bow speed and articulation.

Supposedly to avoid ambiguity of interpretation, bowing indication and articulations were more thoroughly annotated in the nineteenth century. However, inconsistent use of signs, notably of the dot and wedge, imposed extra responsibility on the performers to interpret the music faithfully. There was a general trend towards enlarging the capacity of the slur, and hence bow apportionment and a general appreciation of the interdependence of bow speed, pressure and contact point, together with their combined effect on tonal quality and volume, became supremely important for convincing execution (Stowell, 2001 pp. 80-1).

Paganini gave his interpretations great vitality and variety because of the way he contrasted legato and different types of jumping bowings. The legato was frequently coupled with a gradual crescendo or decrescendo. These nuances gave cantabile passages an incredible sweetness. Notes which sounded like whispered sighs often grew so powerful that the listener was afraid that Paganini might surpass the limits of beauty. This never happened (Guhr, 1829, p. 8).
7.1 Bowing Patterns

In the following sections, the characteristic patterns of execution that can be considered fundamental types will be examined. This of course is not a complete list since these fundamental types can be mixed to form a great variety of new patterns.

The principles discussed in section 7.2, regarding the tone production with its relationship of speed, pressure, and sounding point, apply to all the various bowings (Galamian, 1985, p. 64).

Baillot writes that bow strokes fall into three main categories:

1/ With the bow on the string, writes Baillot, the following bow strokes may be produced:
   - The grand détaché.
   - The martelé.
   - The staccato.

“The general rules for playing them:
   Let the bow rest lightly on the string.
   Articulate each note with the wrist and forearm, using a somewhat extended movement.
   Allow for the play of the stick, which is somewhat flexible, for each of the notes.
   Since the bow hair rests on the string [at the end of the note], it prevents the vibration in the stick from being completely free; this lack of freedom gives the note produced an accent we can only call a ‘flat’ accent.” (Baillot, 1835, p. 172).

2/ By using the elasticity of the bow, the following bow strokes may be produced:
   - The light détaché.
   - The perlé.
   - The spiccato.
   - The ricochet, or thrown and rebounding staccato.
The general rules to play them:

“Draw the bow, allowing more play and more elasticity than in the preceding stroke, where we saw that the elasticity was a bit restrained. Sometimes the bow is bounced enough to leave the string a little, but only in certain passages.” (Baillot, 1835, p. 172).

3/ The sustained bow strokes are:

- The détaché with pressure (sustained détaché).
- The flautando.
7.1A Détaché

One of the three bases of technique in all good playing is cleanness. In passagework, cleanness depends on the détaché. The manner in which the détaché is played will determine to a large extent this cleanness. Baillot (1835) suggests that it is therefore essential for the violinist to:

“1. Know the principle of the détaché in general, and of the various sorts of détaché, which give so much charm and variety to his playing.

“2. Know which part or division of the bow should be used in order to give each détaché stroke its appropriate character.

“3. Apply himself to various technical details in order to acquire the means of performing them more easily.” (Baillot, 1835, p. 171).

The détaché bow strokes are fairly varied. However, this variety is only relative.

As mentioned early, Baillot suggests three categories of bow strokes. For the détaché there are three types.

(i) The accented or articulated détaché. Also known as the Grand Détaché.

The *Grand Détaché* is an on-the-string bow stroke.

From Baillot’s (1835) book a description of how to play this bowing pattern:

“Place the bow at a distance from the bridge.
Attack the string, down-bow, quickly and with little pressure.
Let only a single stroke be heard.
Stop the bow very short, and leave it on the string without pressure.
Do the same up-bow.
Note: The amount of bow will depend on the tempo.” (Baillot, 1835, pp. 173-4).
Examples of the grand détaché:

Tempo giusto \( \frac{\text{d} = 152}{\text{d}} \)

\[
\begin{align*}
\text{Played:} \\
\text{Play without letting the bow leave the string.}
\end{align*}
\]

Example 7.1A-1 An extract from Baillot (1835, pp. 173-174).

Example 7.1A-2 Kreisler – ‘Pugnani’ – Praeludium and Allegro, bars 61-63 (CD: 1 Tr. 6).

(ii) The light détaché is a bow stroke using the elasticity of the bow.
Baillot (1835) again gives an insight into how to play this pattern:

“Hold the bow on the string very lightly. Separate each note, taking advantage of the elasticity of the stick to give an imperceptible and slightly elongated ‘bounce’.” (Baillot, 1835, p. 186).

**Examples of the light détaché:**

Example 7.1A-3 Schumann – Sonata No. 1 in A minor Op. 105, 1st mvt, bars 189-190 (CD: 1 Tr 1).

(iii) The sustained détaché or détaché with pressure is a sustained bow stroke.

The sustained détaché is used in orchestral music in tremolando and sixteenth-note passages, where the number of instruments heightens the effect.

Baillot suggests that the melodic sustained détaché bow stroke is used in certain passages which require a sustained accent. The composer would indicate this with the words *trascinato* or *trascinando l’arco*, *traîné* or *en traînant l’archet* [drawing out or sustaining the bow]. He suggests the following way to play this stroke:

The player must bring the bow a little closer to the bridge. Play very softly while sustaining the note with as little bow as possible and separate each note by a little silence (Baillot, 1835, p. 188). Example 7.1A-4 shows an example.

---

57 See also Part II "Guide to Performance", p. 105 Example 3-39.

7.1A Détaché
The détaché with pressure is sometimes played at the tip of the bow, but is seldom used and only in passages whose character requires a sound a little flatter than that given by the martelé. Hence the bow is held continually on the string. Rode’s Caprice, Op. 22, No. 8 is one example where the stroke may be used.

The détaché with pressure can also be played in the middle of the bow. However, this changes its character. It is ordinarily used in batteries – that is, continuous arpeggiated passages in which all the notes are separate. Baillot suggests using as little bow as possible, and to articulate each note very quickly and very cleanly (see example 7.1A-5).
One of the great features of bowed instruments, writes Spohr (1832), is the many varied combinations of tied and detached notes to be obtained with the bow. The violinist, then, should become acquainted with every manner of bowing. The following examples were those bowings most in use, and which were the most effective (Spohr, 1832, p. 122).


Example 7.1A-6 and 7.1A-7 are examples of plain detached bowing in which every note receives a separate stroke. Each stroke is made with a full quarter of the upper division of the bow.
Bériot (1858, p. 76) writes of the detached stroke of the bow. He says these strokes are of three kinds: the sustained, the staccato or heavy, and the elastic or rebounding. When these strokes are large they are made from the middle of the bow, when short or pushed they are made towards the point.

The détaché stroke, writes Lehmann (1917, p. 15), may demand wrist-work only, or a supple movement of the wrist in conjunction with the play of the forearm, or even the combined activity of the wrist, the forearm and the upper arm.

*The détaché with the whole bow* stands midway between the détaché and the “spun” tone. Its duration determines into which group it is included. The type of bow stroke in example 7.1A-8 is to be found almost exactly on the boundary line between both.

Its use is indicated in slow détaché passages, to be played with great impulsion. The mechanical process of producing this effect is a certain *accentuation* of the beginning of the stroke, caused by an extended *bow-expenditure* (Flesch\(^58\), 1924, p. 66).

---

\(^58\) Born in 1873, Flesch would have grown up with the Romantic spirit well ingrained. Hence although he wrote in 1924 and 1930, his perspective would have been heavily shaded by Romanticism.
7.1B. Martelé

This bowing pattern only became possible with the advent of the Tourte bow because of the initial attack that is required. It is capable of strong volume and projection. It consists of short, single strokes, one note per bow, with stops between strokes. The bow usually moves rapidly and remains on the string during the stops. One of the variants of the martelé is the lancé. This is a somewhat longer martelé, but with the bow faster at the beginning.

Baillot (1835) suggests the following for how to play the martelé:

“With the thumb pressed against the stick, “bite” each note quickly and evenly with a movement of the wrist.
“If the tempo is slower, and if, as a result, the bow stroke is longer, let the forearm follow a little as well.
“Leave the bow on the string without pressure after the note is played, and leave a short rest between each note.
“On the E string, lengthen the martelé a little in order to compensate for the thinness of the high sounds.” (Baillot, 1835, p. 174).

Example 7.1B-1 Baillot – Prelude No. 3, bars 3-4.

From Spohr’s Violin School, martelé consists in a smart detaching of the notes with the upper part of the bow, the separation of notes being made by causing the bow to pause for an instant on the string after each note, thus momentarily checking the vibration.
Example 7.1B-2 shows a martelé passage. Of the three notes performed in the one stroke, two are slurred, and the third is smartly and forcibly detached. A full half of the upper division of the bow is equally divided between the slur and the third note.

Example 7.1B-2 Beethoven – *Piano Trio* No. 5 in D major Op. 70 No. 1, 1st mvt, bars 146-148 (CD: 4 Tr: 1).

In violin playing, writes Lehmann (1917, p. 40), this stroke is one of the most brilliant and frequently employed bowings. The martelé stroke is performed in the region of the bow near the point (see figure 7.1-1). The “hammered”, sharp character of the tone cannot be produced in any other part of the bow. But the stroke is not always as short as it is often supposed to be. It requires greater bow length than do most other short notes marked with a staccato dot and tones sharply separated one from another with particular stress. The weakness of the wrist causes the greatest difficulty in this stroke, and this lures the player into the employment of the whole arm.

Lehmann assertsthat it must not be supposed that the martelé calls for wrist action only. It requires a strong, supple wrist but the forearm too must do its share of the work (Lehmann, 1917, p. 40).

Auer (1925), who writes at about the same time, suggests that martelé is obtained by pressing the string down firmly with the point of the bow, and making use of the wrist exclusively. Only if the stroke is unable to be mastered with the use of the wrist alone, may the player have recourse to a slight pressure of the forearm (Auer, 1925, p. 26). He does agree with Lehmann, however, that upper arm or shoulder pressure should never be used.
The *simple martelé*, sometimes called the fast martelé, may be played in any section of the bow and with any amount of bow from the whole length to the smallest part. The quality of the martelé suffers unless most of the pressure is released at the termination of the stroke. However, if all the pressure is released the bow may jump off the string, especially on the down-bow strokes. A scratchy sound may result if the pressure at the instant of stopping is too much, or there is an early application of pressure before the next stroke. The bow will come to a grinding stop if care is not taken to avoid applying new pressure before the stroke is finished. If the up-bow ends very near the frog, it is best to lift the bow slightly and then reset it for the next stroke. There is great weight at the frog and hence it is hard to avoid such a terminal scratch (Galamian, 1985, p. 71).

The *sustained martelé* is an expressive détaché stroke that has a martelé start. The short, rhythmic note of the fast martelé, however, is replaced by a long sustained tone as soon as the attack is articulated. To avoid scratching, the bow must leave the martelé attack with a certain speed, but then may be slowed down to any desired rate of speed. The use of this bowing is shown in example 7.1B-3.


*Martelé staccato* is a thrown or springing bow stroke used in the case of short notes in a rapid tempo. The bow division at the end of the staccato is always difficult, writes Flesch (1924, p152). When it ends with a long note, or with a short note in the middle, the division must be precise. However, when the bow must be at the nut for the following stroke, the last staccato notes should be produced in an entirely unobjectionable way at the lower half of the bow (which is not desirable for this bow stroke). This is achieved by a light, flying staccato combined with a tiny ritardando. Example 7.1B-4 shows an example of where this bow stroke may be used.
Example 7.1B-4 Beethoven – Piano Trio No. 5 in D major Op. 70 No. 1, 1st mvt, bars 1-4 (CD: 4 Tr: 1).

Examples of Martelé:

On-the-string martelé:

Example 7.1B-5 Kreisler - ‘Pugnani’ – Preludium and Allegro, bars 61-63 (CD: 1 Tr: 6).

Off-the-string martelé:

This type of bowing is no longer called spiccato, a term which implies a certain minimum speed; it is used often for longer, off-string notes of various expressive qualities as in example 7.1B-6.

Example 7.1B-6 Brahms – Sonata No.3 in D minor Op. 108, 3rd mvt, bars 1-8 (CD: 3 Tr: 3).

Note that a slur over several staccato notes usually lengthens their sound value.

Placing the bow on the string, without any noise, at all points along its length requires great bow control.

---

59 See also Part II "Guide to Performance", p. 123 Example 4-13.
7.1C. Staccato

Staccato is a series of short notes, two or more per bow, that are separated by short stops with the bow remaining on the string. It is similar to a series of martelé notes on the same bow in the same direction. A variant is the *staccato volante*. The stroke is similar to staccato, except the bow is off-string between notes. It is also known as the ‘flying staccato’ (Lehmann, 1917, p. 61).

Opinions vary as to the way in which the staccato stroke should be delivered. The masters of the nineteenth century, for instance Kreutzer, Rode, Spohr and others, taught that the staccato stroke should be produced with the help of the wrist. Spohr indicated the use of staccato in his concertos to a considerable amount and hence must have possessed an admirable staccato stroke. Auer (1921) writes of some of the great virtuosi whom he heard play. Joachim (Auer’s teacher) had only a moderately rapid staccato, and produced it only from the wrist. It was just rapid enough for the demands of the classical repertory. Vieuxtemps produced his staccati in a mixed manner, from the wrist and from the forearm, and was able to play a great number of notes on the same bow-stroke. He was thus able to produce the most astonishing effects. In Auer’s opinion, Wieniawski was decidedly the most brilliant exponent of the staccato stroke. He used the upper arm only, stiffening the wrist to a point of inflexibility. His staccati were amazingly rapid and at the same time possessed a mechanical equality. This was the method that Auer also used. Sarasate, who had a dazzling tone, on the other hand merely used the staccato volante – not too fast a type yet one infinitely graceful. All his playing was illuminated by this ‘grace’ and was sustained by a tone of a supreme singing quality (Auer, 1921, pp. 27-8).

No bowing has been so widely discussed, writes Lehmann (1917), as the staccato. Many theories have been put forward concerning how the stroke should be acquired. Some suggest that it cannot be acquired by any known process of physical effort. Others have claimed that any player who follows the injunctions of their authors can quickly master this stroke. It is interesting to note however, that “few players acquire the staccato” (Lehmann, 1917, p. 61) and occasionally some violinist appears on the horizon and their beautiful staccato bowing thrills their hearers and gives fresh impetus to innumerable theories either plausible or extravagantly ridiculous (Lehmann, 1917, p. 61).

7.1C Staccato
Rode and Spohr, to name only two, played staccato at the tip of the bow. An example of their style is shown in example 7.1C-1.

Example 7.1C-1 Rode and Spohr played staccato at the tip of the bow.

Paganini usually played staccato down bow\(^6\) like this (Guhr, 1829, p. 10):

Example 7.1C-2 Paganini usually played staccato down bow.

Guhr used another type of staccato very successfully in public recitals. He wrote that it “is played with a stiff arm and wrist, the hand making the ‘push up’ (abstossen). The speed of this bowing increases its brilliant effect.” (Guhr, 1829, p. 12). Example 7.1C-3 shows a passage where this may be used.

Example 7.1C-3 A passage where Guhr’s style of Staccato may be used (Guhr, 1829, p. 12).

---

\(^6\) It should be noted that Guhr used tire (pull) for down bow and pousse (push) for up bow.
The staccato, writes Baillot, is played by drawing the first note violently, down bow, and then playing all the other notes in one up-bow, ‘biting’ them like fast little martelés. The amount of bow used for the staccato is proportional to the number of notes included in the group. Some examples are given in example 7.1C-4.

However, the staccato will be played more broadly if the character of the piece requires it. That is, with a longer duration for each note, and with more bow (see example 7.1C-5) (Baillot, 1835, p. 175).
Baillot suggests that some people can naturally play a very fast staccato, but that it usually can’t be controlled rhythmically without practice. The staccato that can be acquired through practice, however, is a combination of biting and softness, a light, repeated attack on the string made by a movement of the wrist. This is followed by letting the bow carry through by itself. The bow is less supported by the thumb, during the little stop that is made on the string at each note. If the player exaggerates the bite and the stop on the string until s/he is able to produce a clean articulation more quickly and lightly, s/he will succeed more easily in playing the staccato.

Baillot suggests the following procedure for playing the flying staccato:
- grip the bow a little, pressing the thumb against the stick, in order to play the first note of each group brusquely and strongly, and then leave some play in the bow for the other notes.
- Play this note down-bow very strongly and quickly.
- Stop the bow very short on the string after the down-bow.
- Play all the other notes in a single up-bow, “biting” them very evenly, but softer than the first note of the group.
- Stop the bow very short on the string after each of these piano notes.
- Play the last note of the up-bow strongly and quickly, cutting it short like the first note.
- Also practice lifting the last note, as this must be done sometimes (Baillot, 1835, p. 176).

When staccato is performed well, writes Spohr (1832, p. 126), it has a brilliant effect, and is one of the principal embellishments of solo playing. To execute it well, in some measure, must be inborn, because some of the most excellent violinists never acquire this bowing, in spite of labour and perseverance. On the other hand, some lesser players may possess it without trouble. But it is only practice that will render a violinist capable of playing staccato with full effect and at every degree of speed, even where the natural talent exists.

The staccato is played within the upper half of the bow, and with the up-stroke. It is not permitted to proceed beyond that division even if thirty notes or more are to be included in the one bow. As little bow as possible must be used for each note by the player from

7.1C Staccato
the very first. Only just so much bow as is necessary for the production throughout of a clear tone should be used. The forward movement of the bow is done with the wrist only, with no help from the fore or back arm. The whole breadth of the hair should be brought to the string for each note by the pressure of the forefinger on the bow. The weight should cease, however, for each note. “The beauty of the staccato consists in an equal, clear, and sharp separation of the notes in strict time.” (Spohr, 1832, p. 126). The student is advised to practise it quite slowly at first. Example 7.1C-6 gives several examples of staccato.

Following is an explanation of these examples:

Example 7.1C-6(a) – (f) use the same amount of bow for each slurred group.

Example 7.1C-6(g) - half bows are used for the slurs, the two detached notes occurring alternatively in the middle and at the point of the bow.

Example 7.1C-6(h) - the slurs are played with a whole bow, the short notes being taken alternatively at the nut and the bow point.

Example 7.1C-6(i) - this is played near the point of the bow.

Example 7.1C-6(j) - this is restricted to the upper third division of the bow.
Example 7.1C-6 (a) – (j) Examples of staccato (Spohr, 1832, p. 126)

Staccato may also be played on the down bow, however, it is more difficult than the up bow. It also sounds rather heavy in a rapid tempo. This makes it less adapted to the brilliant style of an Allegro. It may be used, however, with great effect in melodious
phrases, where a group of detached notes requires gentle and delicate treatment. The management of the bow in the down bow staccato is the same as that in the up bow. With the down bow, though, the wrist is lowered and the angle of the horse hair on the string is different.

Example 7.1C-7 Spohr, 1832, p129.

In example 7.1C-7(a) only the upper half of the bow is employed for each staccato. The bow sets out close to the nut, in example 7.1C-7(b), each slur receiving a somewhat liberal stroke, by which the bow is carried gradually to the point. The motion is simply reversed when performing the second phase.

Example 7.1C-8 Spohr 1832, p129

Example 7.1C-8(a) – this bowing is rendered exceedingly difficult because of the alternation of slurs and staccato notes under the one bow. However, its assiduous practice is very useful, as it imparts great command over the bow. At the second phase the pressure of the bow must be slightly eased at the termination of each of the slurs which unite the notes in couples.

Example 7.1C-8(b) – the sforzando note must be brought into strong relief by a quick and forcible stroke with the upper third of the bow.
Example 7.1C-9(a) and (b) – this bowing was named after Viotti (coup d’archet de Viotti), either because this great violinist was the first to employ it or, more likely because it was executed by him with special power and charm. The first of the two notes coupled in one stroke is given gently and with a very little of the bow, while the second is given with a longer stroke and as much force as possible. The upper third division of the bow is used (Spohr, 1832, pp. 126-9). This stroke’s use is practically limited to the works of Viotti, Kreutzer and Rode (Apel, 1970, p. 104), and it is not used by performers today.

The “biting” attack, or as Bytovetzski (1917, p. 66) calls it, the “clear cut” is necessary for each degree of staccato and is important to master. The forearm stroke is most suitable for use in beginning the practice of the “clear cut”. Place the centre of the bow firmly on the string so that the hair will grip the string in a biting manner. The bow should be drawn briskly as far as the point, stopping abruptly and then pausing long enough for the bow to grip the string. This gives the upstroke a similar clear cut.

When practising the clear cut, starting the stroke with a jerk or substituting an accent should be guarded against. These faults occur because of an eagerness to produce a strong cut, which leads to the bow being pressed too heavily on starting the stroke. A slight pressure from the forefinger on the stick is needed to make a clear cut, but is required only for the purpose of gripping the string and not for producing tone. Furthermore, it takes place before starting the stroke, whereas in the accent it partly accompanies the stroke itself.
Once a clear cut in the forearm stroke has been mastered its application to the full length of the bow should be practised. Extreme rapidity in drawing the bow is necessary for the stroke. Sometimes a quivering motion of the bow when it passes its centre will be produced. This is caused by either too much pressure or too little pressure of the bow or by holding the bow too tightly. The amount of pressure necessary and the right amount of firmness with which to hold the bow will be found by sufficient practice.

After the full stroke, the bowing should be decreased gradually until the short staccato stroke is arrived at. This may be from between five centimetres to one quarter of the bow’s length. Short strokes are more difficult to perform because of the greater rapidity of the tempo and the shortness of the pause during which the bow must grip the string. It is, however, advisable to make a longer pause between the strokes at first (Bytovetzski, 1917, pp. 66-68).

Bériot writes in 1858 (pp. 80-81) that the staccato is produced by rapid strokes which leave an interval between every two notes, with a long bow being used at a certain distance from the bridge giving it a roundness of tone. It is suitable to movements in semiquavers, Moderato, and is made chiefly from near the middle of the bow. The beginning of each note must be clearly marked by leaving the bow without pressure at each rest. Equality, lightness and precision of rhythm at its beginning and close are the characteristics of a fine staccato.

It may be employed in grand and majestic passages in concertos, especially when the bow is required to jump from one string to another.

Bériot suggests that there are two kinds of staccato. The first he called marcelé while the second he called ricochet (Bériot, 1858, p. 118).

The ricochet is produced by ‘throwing’ the bow on the string and letting it bounce. “With notes rolling off like pearls, the scale is played with unbelievable speed” (Guhr, 1829, p. 10):
Example 7.1C-10 The ricochet (Guhr, 1832, p10 No. 8).

“The flying staccato practically represent a combination of the martelé staccato with the ‘thrown’ or ‘springing’ staccato bowing, inasmuch as a number of short notes are produced by a single bow stroke, while the bow leaves the string after each note.” (Flesch, 1924, p. 77).

The flying staccato is important as an auxiliary for those violinists who cannot master the martelé-staccato. When executed in a virtuoso manner it may produce a charming effect (see example 7.1C-11). Flesch (1924, p. 77) asserts that it is used almost exclusively in the middle of the bow, although there are some rare examples of charming flying staccato at the extreme point. Many violinists slow up the forward movement of the lower arm in order to include the greatest possible number of notes. This is done by a wave-shaped horizontal movement of the arm. The curative means are approximately the same, as long as the raising and dropping movements take the place of the pressure movement.


All types of staccato:

Example 7.1C-12 Schubert – Sonata in A major Op. 162, 3rd mvt, bars 14-17 (CD: 2 Tr: 3).
on the same string:

Example 7.1C-13 Paganini’s ‘Nel Cor piu non mi Sento’ (in Guhr 1829, p. 11)

Example 7.1C-14 Brahms – Sonata No. 1 in G major Op. 78, 3rd mvt, bars 139-140 (CD: 5 Tr: 3).

on an ascending scale:

Example 7.1C-15 Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bars 133-134.


on a descending scale:


encompassing all four strings:


on an ascending arpeggio:

Example 7.1C-20 Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bar 115.
ascending and descending arpeggio:


Different character of staccato passages:

(a) In passages of a light and graceful character, a flying staccato should be substituted for a firm one:

Example 7.1C-22 Vieuxtemps – Concerto No. 1 in E major Op.10, 3rd mvt.

Example 7.1C-23 Sarasate – Zapateado Op. 23 No.2.
(b) To play Spohr’s compositions in a stylistically correct manner, one must be able to produce a pure martelé-staccato in any conceivable tempo in a rhythmically correct manner:

Example 7.1C-24 Spohr – (i) Concerto in E minor, 3rd mvt; (ii) Concerto in D minor, 2nd mvt; (iii) Concerto in A minor Gesangsscene.

(c) For pieces of a more virtuoso character, it is not important whether the staccato is played exactly in tempo, or taken somewhat more rapidly and brilliantly:


Example 7.1C-26 Vieuxtemps – Ballade and Polonaise Op. 38.
(d) When the staccato is combined with repeated change of string, it is often substituted with the springing bow. This is because of its difficulty. Also, staccato runs in double stops are not within the reach of everyone’s ability.

By following the same rules that hold true for legato playing, it is executed more easily when ascending with the down bow and when descending with the up bow:

The most important moments of the down bow staccato are the notes which precede or which conclude the staccato:
In twentieth-century notation the staccato is generally prescribed by means of a dot over or under the note, as most of the included examples have. Furthermore, modern notation often prescribes the technical means to be adopted by the performer in order to secure the required effect. For example, the distinction is made between a staccato in which the bow remains on the string and the sautillé and spiccato in which the bow leaves the string between each pair of notes. Such technical distinctions gradually came into use from the eighteenth century (Chew and Brown, 2001, vol. 24 p. 240).

Before the second half of the nineteenth century, dots, dashes and wedges were likely to have the same meaning, although some notators and theorists distinguished between dots and dashes as meaning different degrees of staccato. However, it was generally expected that eighteenth and nineteenth-century performers would make use of a variety of different touches. In the late nineteenth and early twentieth centuries there were a wide variety of signs that were used to signify various nuances of staccato articulation. This involved numerous combinations of dots, horizontal and vertical dashes, and horizontal and vertical wedges (Chew and Brown, 2001, vol. 24 p. 241).

Some examples of staccato from the researcher’s recitals are shown below in example 7.1C-32.

(a) Schubert – Sonata in A major Op. 162, 1st mvt, bars 86-89 (CD: 2 Tr: 1).
7.1C Staccato

(b) Brahms – Sonatensatz (Scherzo) in C minor, bars 103-106 (CD: 5 Tr: 7).

(c) Beethoven – Piano Trio No. 5 in D major Op. 70 No. 1, 1st mvt, bars 1-3 (CD: 4 Tr: 1).

Example 7.1C-32 (a) – (c) Examples of staccato.
7.1D. Spiccato

Spiccato († † † †) is a bowing technique that uses a bouncing bow with short, single strokes, and one note per bow. The bow comes off the string between notes. A variant is the ‘on-string’ spiccato. This is a high-speed spiccato with no time between the notes to bounce off the string. The hair remains mostly on-string, and the bow stick oscillates slightly up and down. The Tourte bow is particularly suited to this stroke.

Baillot (1835, p. 187) suggests that to play the spiccato one should make the bow bounce lightly in the same place, leaving the string a little.

```
  Tip                  Frog
               
Part of bow used
for spiccato
```

Paganini moved his right arm in a whipping motion which made the bow bounce. He used only enough bow to put the string into vibration. The wrist and arm remained motionless with the bow held lightly between the thumb and index finger and the little finger adding support. He used this bowing “only in Mezzo Forte passages”, but it had a tremendous effect (Guhr, 1829, p. 9 italics supplied).61

Example 7.1D-1a indicates the proper bowing and style which can be applied to the longer passages in example 7.1D-1b and c (Guhr, 1829, p. 9).

---

61 See also Part II "Guide to Performance", p. 16 Example 1-17, p. 27 Example 1-38, p. 29 Example 1-40, p. 101 Example 3-37.

7.1D Spiccato
7.1D Spiccato

All° moderato

When spiccato is played, writes Bériot, the bow leaves the string after each note by an elastic impulsion from the wrist. The stroke is made between the first and the second third of the bow in moderate movements. The forefinger, third finger, and the thumb are used to hold the bow.

As the stroke becomes faster and lighter, and the point of the bow is reached, the third finger should naturally leave the bow. The fingers that are not holding the bow must not

Example 7.1D-1 (a) – (c) Playing spiccato.

Example 7.1D-2 A passage in which Paganini possessed great control and clarity.
separate from it. This is so that a natural and graceful position of the hand may be maintained (Bériot, 1858, p. 85).

Lehmann (1917) describes this bowing (spiccato) as brilliant and requiring a strong and supple wrist. While it is possible in slow tempo, it is most frequently employed in rapid passages where the notes have to be sharply separated from one another.

For moderate speed the spiccato region is in the middle of the bow, but in rapid tempo the region becomes some point between the middle and the upper third of the bow.

Spiccato is most quickly and easily acquired by indirect means. That is, by careful study of the détaché soutenu at the middle of the bow, rather than by a direct attempt to make the bow rebound from the string. While this may seem strange at first, the explanation is that much careful study of sustained strokes at the middle of the bow must eventually result in strength and flexibility of the wrist. These are the two qualities pre-eminently required for rapid spiccato bowing.

No special effort is required to cause the bow to rebound once a player has acquired these qualities. Speed furnishes the requisite momentum, and so long as a certain speed is maintained, the rebound itself requires no great effort.

In the study of the spiccato, the player should begin in a slow tempo, holding the bow more or less firmly, but with a perfectly loose wrist, and gradually increase the tempo till its momentum causes the bow to rebound. This process of acquiring spiccato enables a player to develop a tone of greater volume (Lehmann, 1917, p. 60).

In 1917 Bytovetzski, in his book “How to master the violin”, wrote that the successful application of spiccato throughout a passage calls for the mastery of the following four elements: (1) the continual bounding and rebounding of the bow on the strings; (2) the simultaneous dropping and raising of the bow and fingers on and from the strings; (3) uninterrupted strokes at all changes of string; (4) uninterrupted strokes when changing positions, without accidentally sounding intermediate tones.
The best results will be obtained through the separate practice of each of the four elements in the order listed above. The combination of two or more of these elements should not be attempted before the ones included in the combination have been acquired singly.

The springing stroke is made at the middle of the bow depending on just where it rebounds most freely. There are two distinct ways of causing the bow to leave the string after each note. The first, used in rapid playing, is to set the bow springing through rapid, short and light up and down strokes. The other, used in less rapid passages, is by tapping the string. This tapping is sometimes made by the hand and arm combined and at other times by the hand alone, but the springing stroke is made by the hand alone in every instance.

The bouncing stroke for which the bow must be made to tap the string is also made at the centre of the bow. The bow must be held more firmly, for each stroke must be controlled. The wrist should not be stiffened by the firmer grip. For as in the springing stroke, a flexible wrist is highly essential (Bytovetzski, 1917, pp. 69-70).

Example 7.1D-3 shows several passages of music where spiccato is used.


(b). Prokofiev – Sonata No. 2 in D major Op. 94a, 2nd mvt, bars 11-14 (CD: 2 Tr: 6).

(c). Kreisler - ‘Pugnani’ – Praeludium and Allegro, bars 126-127 (CD: 1 Tr: 6).

Example 7.1D-3 (a) – (d) Four examples of spiccatto passages.
7.1E. The Ricochet

Ricochet - rebounding bow: two or more notes per bow; the bow rebounds between each note during the same bow as a result of the initial attack. The French term for this stroke is Jeté.

```
Part of bow  
used for  
ricochet
\|  
```

Tip  
Frog

The ricochet is usually played with the down-bow, but may be played with either. The player throws the bow at the lower end of the middle third, and from about 55 millimetres above the string. The bow rebounds and “bites” several notes by itself. When playing up-bow, the violinist must lift the bow quickly off the string after each note (Baillot, 1835, p. 184). Example 7.1E-1 shows a passage where the ricochet is used.

Example 7.1E-1 Prokofiev – Sonata No. 2 in D major Op. 94a, 2\textsuperscript{nd} mvt, bars 7-10 (CD: 2 Tr: 6).

Example 7.1E-2 shows an example where the composer has successfully combined ordinary staccato and the ricochet.

Example 7.1E-2 Prokofiev – Sonata No. 2 in D major Op. 94a, 4\textsuperscript{th} mvt, bar 105 (CD: 2 Tr: 8).

Paganini, on the other hand, played the ricochet up bow about 8cm from the tip. He held the bow loosely, with the little finger used to balance the bow while it was bouncing (Guhr, 1829, p. 10).
To learn this stroke, writes Guhr, play the first four notes on one string (see example 7.1E-3) gradually adding more and more. The greatest difficulty is keeping the bow bouncing while crossing strings. Once the technique is mastered through one octave, it should be easy to do it on all four strings (Guhr, 1829, p. 10).

Example 7.1E-3 Learning to play ricochet.

Auer (1925) suggests the bow should be held as lightly as possible, the fingers hardly touching it. It should be allowed to fall with an elastic movement of the wrist, and should rebound as far as it is freely allowed to. At first this may give a certain number of unequally hurried tones. But with perseverance success in guiding this irregular movement will allow two, three, six and eight notes to be played in an absolutely rhythmic manner with one bow stroke (Auer, 1925, p. 29).

This bowing is based entirely on the natural bounce of the bow, writes Galamian (1985, p. 81), and while several notes are played on the same bow, only one impulse is given. This impulse occurs when the bow is thrown onto the string for the first note. The bow is then permitted to jump on its own.
However, it would be impractical if the speed of the ricochet could not be regulated. By varying the place on the bow and controlling the height of the bounce, the speed may be regulated. The bowing is able to be executed in the upper two-thirds of the bow, with the bounce fastest at the point and progressively slowing as the distance from the point increases. It is also slower when it rebounds further from the string and faster when it does not jump so high. The regulation of the height can be achieved by controlling the first impulse and by a very slight pressure of the first finger. This puts a definite ceiling onto the rebound and thus speeds it up. The bow should be held “upright”, that is with the bow directly above the hair.

Since the ricochet is easier on the down-bow than the up-bow, practice should start with the down stroke. Begin with two notes a little above the middle of the bow. Let the bow drop without any force from a height of about 25mm, and use principally the vertical finger motion and a slight amount of forearm rotation. Without interfering with the natural bounce let the bow rebound, and after the second note stop the motion. Return to the starting point in the air and repeat the process. Continue gradually building up the skill with 3, 4, 5, 6, and more notes as shown in example 7.1E-4(a).

And repeat the exercise, adding an extra note on the end of each group and taking this note up-bow as shown in example 7.1E-4(b). Finally, reverse the direction, taking the up-bow for the ricochet and the down-bow for the closing note.

When the exercises given in example 7.1E-4 are functioning well, the next step is to practice the change of strings. This is shown in example 7.1E-5.
Now take up scales, starting with a few notes and gradually increasing their number.

The four-note arpeggiated chord is:

\[
\text{Allegro, molto appassionate}
\]

Example 7.1E-6 Mendelssohn – Concerto Op. 64, 1st mvt, bar 332.

This is the most common form of the ricochet and also the easiest. This is because the change of strings in itself is helpful to the bounce. The principal impulse is given on a bass note with vertical finger action and vertical hand action. Often this impulse will carry over into the up-bow especially in faster tempi, but sometimes a secondary impulse will be needed on the first note of the up-bow. The change of strings is done entirely by the arm, which in faster speeds will move in one smooth and uninterrupted arc.

It is better to start the arpeggio in the reverse direction for practice purposes. That is, beginning with the E string note and the up-bow. Thus, the chief impulse is given on the top string, with the G string having none or at most very little impulse (Galamian, 1985, p. 83).

If a player is having trouble with the ricochet, it is often because of one of the following three things:

1. The bow is being held too tightly,
2. the wrong part of the bow is being used for the desired speed,
3. the natural bounce is being interfered with because of tenseness in the natural springs (Galamian, 1985, p. 83).

Bériot (1858, p. 158) states that the ricochet is a stroke of the bow made by striking the hair on the string with a degree of strength in proportion to the number of notes to be played. It is made by either pushing or drawing when only a few notes have to be played. Some examples are shown in example 7.1E-7.
7.1E The Ricochet

Chapter 7

Example 7.1E-7 The ricochet

However, on an extended scale it is only made by pushing from the point of the bow and giving a strong impulse to the first and last notes of the scale as shown in example 7.1E-8 and 9.

Example 7.1E-8 A scale of some extent.

Example 7.1E-9 Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bars 260-263.

The following examples show several types of ricochet:

(a) ricochet of two notes:


Example 7.1E-12 Prokofiev – Sonata No. 2 in D major Op. 94a, 2\(^{nd}\) mvt, bars 8-10 (CD: 2 Tr: 6).

(b) ricochet of three notes:


Example 7.1E-14 Prokofiev – Sonata No. 2 in D major Op. 94a, 4\(^{th}\) mvt, bar 105 (CD: 2 Tr: 8).

Example 7.1E-15 Prokofiev – Sonata No. 2 in D major Op. 94a, 4\(^{th}\) mvt, bars 97-98 (CD: 2 Tr: 8).
(c) ricochet of four notes

Example 7.1E-16 Paganini – Concerto No. 1 in D major Op. 6, 3\textsuperscript{rd} mvt, bars 27-34.

Example 7.1E-17 Mendelssohn – Concerto No.2 in E minor Op. 64, 1\textsuperscript{st} mvt, bars 325-233.

Example 7.1E-18 Study by Bériot (1858, p159).
(d) continuous ricochet:


Example 7.1E-20 Bériot (1858) page 158.
7.1F. Mixed strokes

The number of possible combinations between the bowings is almost limitless. In his book “School of Bow Techniques”, Sevčík lists some 4000 variants (Flesch, 1924, p. 78). Therefore, the discussion will be confined to the general consideration of the combinations of the individual groups which, as the types most used in the period, call for consideration of a special character.

**Spun Tones + Détaché:**

This is one of the most important bowing combinations. The détaché is always appropriate at the place where the bow happens to be after completion of the “spun” stroke. The tone quality of the détaché should have no audible difference whether played at the upper or lower half (Flesch, 1924, p. 79).

**Spun Tones + Staccato:**

This is a very violinistic combination because the serenity of the preceding “spun” note allows thorough preparation of the staccato. To easily overcome the difficulty of combining the “spun” note and the staccato in the same stroke, the following type of exercise should be practised:

Example 7.1F-3 An exercise to overcome the difficulty of combining the “spun” note and the staccato in the same stroke.
**Legato + Détaché**

There are many combinations of both types between the point and the nut that may come under this heading. Following are several outstanding examples:

Example 7.1F-4 Beethoven – Concerto in D major Op. 61, 1\textsuperscript{st} mvt.

Example 7.1F-5 Vieuxtemps – Concerto No. 5 in A minor Op. 37, 3\textsuperscript{rd} mvt.

Example 7.1F-6 Mendelssohn – Concerto No. 2 in E minor Op. 64, 1\textsuperscript{st} mvt.

The only possibility of avoiding an accentuation contrary to sense and meaning is offered by a correct division of the bow. The so called *Paganini stroke* is where there is the deliberate false accent:

Example 7.1F-7 Kreutzer – 42 Etudes No. 2.

**Legato + Thrown Staccato**

This combination is one of the best to practice to gain a correct division of the bow, and to avoid false accents. Separated thrown strokes would not be possible because they would be followed by a faulty (shortened) legato.
Example 7.1F-8 Legato and thrown staccato.

Also, a single thrown bow is not possible because one would develop an incorrect stroke.

The thrown staccato turns into a springing staccato when the tempo is very rapid:

Example 7.1F-9 Beethoven – Sonata No.9 in A minor Op. 47 Kreutzer, 2nd mvt, var. 2.

**Legato Arpeggios + Thrown or Springing Stroke:**

Example 7.1F-10 Legato arpeggios and thrown or springing stroke

**Whole Bow Détaché + Martelé + Thrown Bow:**

Example 7.1F-11 Whole bow détaché and martelé and thrown Bow

An inequality of bowing is developed by the change from thrown bow at the nut and martelé at the point. In order to avoid this, the stroke is usually turned into a combination of détaché and thrown staccato in the middle third of the bow:
Martelé + Small Détaché:

\[
\begin{array}{c}
\text{Point} \quad \frac{6}{8} \quad \frac{4}{8} \quad \frac{2}{8} \quad \frac{1}{8} \\
\text{Example 7.1F-12 Beethoven – Sonata No.9 in A minor Op. 47 Kreutzer, 3rd mvt.}
\end{array}
\]

In this instance, the crotchet is longer and the quaver is shorter. In reality, the crotchet is played as quite a short martelé, with a concluding pause; and the quaver faster, with no subsequent pause, and closely connected with the immediately succeeding crotchet.

Détaché + Martelé:

\[
\begin{array}{c}
\text{Example 7.1F-13 Détaché and martelé.}
\end{array}
\]

This is an excellent exercise, however, it is seldom applied in actual practice (Flesch, 1924, p. 80)

Détaché (Middle) + Springing Bow:

\[
\begin{array}{c}
\text{Example 7.1F-14 Détaché (Middle) + Springing Bow.}
\end{array}
\]

This is a well-sounding combination that is very useful to produce echo effects. ⁶²

Détaché + Thrown Staccato:

\[
\begin{array}{c}
\text{Example 7.1F-15 Schubert – Trio in B flat major Op. 99, 4th mvt.}
\end{array}
\]

⁶² See also Part II "Guide to Performance", p. 16 Example 1-17.
There are two ways that this passage may be played. (a) Without a pause between the crotchet and the first quaver; (b) with a pause; the bow in \( a \) springs less than in \( b \), where it once more is thrown on the string. In rapid tempi, \( a \) is more suitable, while in slow tempi, \( b \) is better used.

**Springing Bow + Thrown Bow + Thrown Staccato:**

\[ \text{Example 7.1F-16 Beethoven – Piano Trio No. 2 in G major Op.1 No.2, 4th mvt.} \]

This bowing demands a very great command of the bow because the transition from involuntary springing into voluntary throwing is difficult, especially without shifting of the rhythm.

**Saltato + Thrown Staccato + Legato:**

\[ \text{Example 7.1F-17 Bazzini – Ronde des Lutins.} \]

This is a rare combination.

Within the framework of these and many other bowing types there are countless bowing possibilities. One to mention as a curiosity is a bowing combination introduced by Thibaud (1880-1953), which may be used to strengthen the fingers of the right hand.

\[ \text{Example 7.1F-18 An exercise to strengthen the fingers of the right hand.} \]
It represents a union of the shortest martelé stroke with a very powerful pressure accent at the nut and point, in the inverted stroke. The bow must pass as rapidly as possible over the distance between the nut and the point in the air. This can only be done when the bow is held in an iron grip (Flesch, 1924, p. 80).
7.1G. Legato

The Legato Bowing is one of the strokes most used, and when perfectly played has a quality of great charm (Auer, 1925, p. 31). The word \textit{legato} signifies, in its application to music, that style in which the tones are sounded in smooth succession, uninterrupted by pauses. Legato is often indicated by a slur placed over or under a group of notes that are to be connected (Bytovetzski, 1917, p. 64). The possible number of notes to be slurred varies between two and approximately a hundred (Flesch, 1924, p. 65).

To cultivate a beautiful legato, Lehmann (1917) states that two of the best studies in the violin literature are the \textit{Études} Nos. 14 and 29, by Kreutzer. “These masterly studies quickly prove that a beautiful legato means something more than merely connecting a number of notes in one bow.” (p. 39). Irregularities and even actual interruptions of tone may occur, because the wrist may pass so awkwardly from one string to another.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{example_7.1G-1.png}
\caption{Example 7.1G-1 Legato bowing}
\end{figure}

A careful distinction between flexibility and activity of the wrist is essential for good legato work. For the example in example 7.1G-1, the wrist must be both flexible and active. If the bow is required to cross four strings, however, as in example 7.1G-2, the wrist is flexible but not active. Activity of the wrist in this case would produce a stress on every tone as the bow passed from one string to another. Wrist activity would be quite impossible in a rapid tempo.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{example_7.1G-2.png}
\caption{Example 7.1G-2 Legato bowing}
\end{figure}

Lehmann would assert that legato playing requires not merely the slurring of any given number of notes in one bow, but their absolutely smooth and unaccented connection (Lehmann, 1917, pp. 39-40).
Bytovetzki (1917, p. 63) suggests that on a stringed instrument there are two main essentials for the mastering of this style of bowing: (1) to pass from one string to another very smoothly, since there may occur many changes of string in a legato passage; (2) to change the bow stroke very smoothly, since a change of bow stroke may be required at many points in the passage. Carl Flesch (1924, p.65) makes the same point.

This second main essential was another development that was made possible by the Tourte bow. Imperceptible bow changes were a preoccupation of Romantic bowing technique.

Bytovetzki (1917, p. 64) suggests that to connect slurred notes on the violin is simple, when one has mastered the problem of crossing strings; but to connect tones between which there is a change of bow stroke is quite another matter.

He states that in order to pass from one string to another without a break between the tones or an accent on the second tone, the arm together with the hand must begin to turn the bow with a rounded motion toward the new string. This must happen while playing the note preceding the change, so that the bow is near it when it is time to sound the note on the new string. The speed with which the bow is turned varies with the time-value of the preceding note.

When a passage in a piece necessitates successive changes of string, as in


the changes are made by the hand-action, the arm remaining quiet, though not so stationary as not to yield assistance.63

---

63 See also Part II "Guide to Performance", p. 85 Example 3-10.

7.1G Legato
The other necessity is to keep the bow contact on the inner side of each of the two strings employed, and not to pass to the further side. Otherwise the motion becomes too large and too much vertical action takes place, which is a waste of movement at the expense of tone. When a player encounters a passage like


s/he should imagine it as a series of double notes, thus:

Example 7.1G-5 Playing the passage in example 7.1G-4.

and then raise and lower the hand (from the wrist) just enough so as not to sound both strings at once.

There are times when the hand and arm need to compromise their respective actions. These occur when three strings are to be employed, such as:


When a passage requires that the bow-stroke must be changed, it is not uncommon for inexperienced students to change each stroke with a jerk, producing a lumpy effect at each change. The student has the erroneous idea that in order not to make a break between the two bow-strokes, extreme rapidity is necessary in the change. What actually happens is that several times a greater amount of action is used than is
necessary, causing the rough ending to each tone. To counteract this bad habit, writes Bytovetzki (1917, p. 65), let the student imagine at each stroke that it is the last one and that a pause is intended to be made after the stroke. A small pause after each note is the only possible way, in some extreme cases, to overcome this fault. The pause will be shortened until done away with altogether.\textsuperscript{64}

A little movement of the fingers and hand combined is the way a smooth change of bow-stroke is made. This movement may be called a “miniature hand-stroke,” though varying in length. It is longer, for example, in the rapid and long stroke, than in the slow and short stroke, and longer for broad tones than for delicate tones. This miniature hand movement may be explained more clearly by stating that the travelling distance of the arm and wrist is a little less than that of the fingers and bow, because of the little movement which the hand and fingers alone are required to make (Bytovetzki, 1917, p. 65). Examples of bow-changes in legato are:\textsuperscript{65}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{example7.1G-7.png}
\caption{Example 7.1G-7 Prokofiev – Sonata No.2 in D major Op. 94a, 1\textsuperscript{st} mvt, bars 21-28 (CD: 2 Tr: 5).}
\end{figure}

and:

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{example7.1G-8.png}
\caption{Example 7.1G-8 Prokofiev – Sonata No. 2 in D major Op. 94a, 1\textsuperscript{st} mvt, bars 29-40 (CD: 2 Tr: 5).}
\end{figure}

\textsuperscript{64} See Part II "Guide to Performance", p. 85 Example 3-10.
\textsuperscript{65} See also Part II "Guide to Performance", p. 65 Example 2-27.

\section*{7.1G Legato}
7.2 Tone Production

There are two things that can be distinguished in the tone of an instrument. These are the ‘quality’ or ‘timbre’, and the ‘intensity’ or ‘degree of force’. The tone of a violin depends foremost on its construction, writes Baillot (1835), but it is the player who brings to life the inert sound of the instrument and gives to its timbre all the expression of which it is capable. The violinist should therefore spend the time necessary to draw from the instrument full, strong and round sounds, but not forget that sweetness and delicacy must accompany a broad sound (Baillot, 1835, p. 227).

Baillot demonstrated how the timbre of the four violin strings could be modified in imitation of other instruments. Differences in string timbre were veiled wherever appropriate, and una corda playing was particularly encouraged by the early nineteenth-century French violin school. Spohr advocated exploitation of the higher positions for expressive and tonal purposes. Una corda playing reached its zenith with Paganini’s sul-G violin extravaganzas (Stowell, 2001, p. 64).

Tone is produced by the way in which the strings are set in vibration. Intonation also contributes to purity of tone and increases its intensity. This is because a note played in tune causes notes consonant with it to resonate (Baillot, 1835, p. 227).

There are two aspects to tone production: the mechanical and the physiological. The bow provides the first, the player the second (Gerle, 1991, p. 43).

At the mechanical level, and taking for granted that the bow stroke is moving parallel to the bridge, the following three fundamental factors for the right hand must be considered:

(1) the speed of the bow stroke
(2) the pressure it exerts on the strings
(3) the distance from the bridge at which it contacts the strings (Gerle, 1991, p. 43: Bériot, 1858, p. 125).
The intensity of the sounds depends upon the union of these three aspects of bowing (Bériot, 1858, p. 125).

While it appears as though Bériot does not give this third factor a name, the modern term, writes Galamian (1985, p. 55), is “sounding point”.

The three are interdependent. They change in proportion to each other but their sum total remains constant on a given, steady dynamic level. If the bow-speed is increased, the bow-pressure should be reduced and the distance of the bow from the bridge changed (in this instance increased) in order to maintain the same dynamic level. With decreased speed the opposite is true, so that the following rules may be observed:

1. The greater the bow-speed,
   the lesser the bow-pressure,
   the greater the distance from the bridge.

2. The lesser the bow-speed,
   the greater the bow-pressure,
   the lesser the distance from the bridge.

Bow-speed and bow-pressure are inversely proportionate at the same dynamic level, and the distance of the bow from the bridge depends on their interrelation (Gerle, 1991, p. 43).

Bériot mentions this relationship and states that “these means must be used in just proportion. It is clear that if the bow is brought too near the bridge without sufficient rest the string will whistle; if the bow does not keep up a speed proportioned to its pressure, a gnashing sound will result.” (Bériot, 1858, p. 125).

The following schema in figure 7.2-1, from Gerle (1991), illustrates the various mixtures on three different dynamic levels, although a sphere, like a balloon blown up into three different sizes, would be a truer image corresponding to piano, mezzo-forte and forte.
For any change in the dynamic level of the sound, speed or pressure can be increased or decreased, and for a very great or sudden rise or drop in dynamic level both can be increased or decreased together. The distance of the bow from the bridge has to be adjusted accordingly\textsuperscript{66} (Gerle, 1991, p. 43).

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure7.2-1.png}
\caption{Dynamic levels.}
\end{figure}

The following examples (example 7.2-1) show passages of music for the dynamic levels in figure 7.2-1:

\textsuperscript{66} See also Part II "Guide to Performance", p. 20 Example 1-23.

7.2 Tone Production
Baillot mentions briefly a relationship between bow speed, the distance of the bow from the bridge, the pressure, and the intensity of sound. However, at that time there was no scientific analysis of the relationship (Baillot, 1835, p. 228).

It is important to distinguish and differentiate between the pressure that the bow exerts on the string (‘weight’ or ‘gravity’) and the pressure that the player applies to the bow (‘force’ or ‘power’). Confusing these two concepts can create a number of problems,

---

7.2 Tone Production

Example 7.2-1 Examples for the dynamic levels in the above figure.  

Baillot mentions briefly a relationship between bow speed, the distance of the bow from the bridge, the pressure, and the intensity of sound. However, at that time there was no scientific analysis of the relationship (Baillot, 1835, p. 228).

It is important to distinguish and differentiate between the pressure that the bow exerts on the string (‘weight’ or ‘gravity’) and the pressure that the player applies to the bow (‘force’ or ‘power’). Confusing these two concepts can create a number of problems,
stemming from the uniform use of the word 'pressure' in expressing widely divergent notions.

To maintain the same dynamic level at a given steady bow-speed, the pressure by the bow on the string must remain the same along the length of the bow from frog to tip. To maintain this same pressure, however, the force exerted by the arm on the bow must be changing: increasing from the frog to the tip and decreasing from the tip to the frog. The force that causes the bow to depress the string and the physical change that the string experiences as a result, is the consequence of the combined weight of the bow itself (greatest at the frog, lightest at the tip) and the power of the arm-pressure.

By using muscles that are proportionate to the task, the best results with the least effort can be achieved. Hence larger, stronger muscles for greater physical effort are used (see example 7.2-2), while for the more delicate actions the smaller muscles would come into play (see example 7.2-3). Trying to thread a needle by flexing the upper arm muscles would make no more sense than trying to move a piano with the fingers.

Example 7.2-2 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bar 161 (CD: 2 Tr: 8).

Example 7.2-3 Kreisler – ‘Pugnani’ – Praeludium and Allegro, bars 113-114 (CD: 1 Tr: 6).

The difficulty in commanding the large muscles is that they are not in contact with the instrument, like the fingers are, and hence one cannot directly feel their actions. To liberate oneself from the fingertip concept of tone production and bring them into play requires some physical and mental practice. When these muscles are allowed to take
over most of the burden of the physical activity in violin playing, the small muscles of
the hand and fingers will be available for the more delicate task of articulation, phrasing
and expressive characterisation (Gerle, 1991, pp. 43-44).

When change occurs in all three fundamental factors, a great variety of combinations
can result (Galamian, 1985, p. 55). In the sections that follow each of these factors will
be discussed individually.

Lehmann (1917, p. 84) in his book *The Violinist's Lexicon*, makes the observation that it
is the right arm which is generally associated with everything appertaining to the
formation and production of tone to the utter exclusion of the left hand. The fingers of
the left hand are erroneously regarded as the type, the right hand as the press. Hence, it
is the right hand alone and uninfluenced which makes intelligible and beautiful
everything originally formulated by the fingers.

He asserts that to a great degree this is correct, but apart from determining the tones that
are to be produced, the actual formation of tone is a co-operative effort of the fingers
with the right arm. The arm cannot overcome, for example, the poor results of a
sluggish finger. There is nothing the arm can do that will make the tone beautiful and
brilliant if the finger action is lifeless. Also, the best efforts of the arm will be hampered
to some degree by faulty intonation. Hence, while the arm produces tone, it is not
wholly responsible for its character and quality (Lehmann, 1917, p. 84).

If the left-hand fingers are not set correctly, they may affect the tone production in two
ways: either through a too weak or a too strong pressure. If the pressure is too weak the
strings will not be shortened precisely enough and “the tone will sound undecided and
flabby” (Flesch, 1931, p. 11). If there is excessively strong finger pressure, the tone
quality will become glassy and brittle, and the freedom of the vibrato will be
diminished. The tonal volume will be affected because part of the right arm's power of
expression will be diverted to the left-hand fingers. Also, the falling fingers may cause
disturbing knocking noises.

Whether the setting of the fingers is flat or pointed influences the tone quality in such a
way that if the string is touched with the inner fleshy part of the fingertip, a much softer
tone colour will be produced than when the setting takes place with the tip in the neighbourhood of the fingernail (Flesch, 1931, p. 11).

Another factor in tone production is the type of bow used. Sol Babitz (1970, p. 2) writes that learning to use the baroque bow takes several months of practice. This is because the hand has to be taught to accommodate itself to the bow’s natural springiness. On the other hand, the “modern” concave-shaped bow has a clinging-to-the-string, even motion.

The early bow does not produce its full tone at the first contact of the hair with the string because it has an initial slackness or ‘give’ of its hair. Only after some finger pressure has been exerted while starting the stroke is the full tone produced. This application of pressure to the point where the hair will be sufficiently tensed to play the full tone causes a momentary softness, followed by a crescendo to the full tone at each stroke. Players often used bow speed instead of pressure. The bow is placed and started slowly and then sped dramatically before slowing at the end of the stroke.

The modern bow differs in that it has a firmer initial tenseness which takes hold immediately, producing a full tone. Due to its concave shape it also maintains its full tone evenly, almost to the end of the stroke. Therefore, only a small amount of additional pressure is needed at the point to give the effect of a dynamically even tone. Any attempt to start with full pressure or a ‘bite’ with an early bow would result in scratchiness. This is caused by the too sudden exertion of pressure necessary to bypass the initial soft zone. At the end of the stroke a diminuendo is produced, similar, but in reverse to the crescendo which occurred at the beginning. It is possibly caused by the approach to the tenser part of the hair at the ends of the bow combined with the resilient nature of the wood, which naturally springs back to the shape it had before the initial finger pressure was applied. Thus a normal stroke with the early bow produces a rising and falling dynamic (Sol Babitz, 1970, pp. 2-3). This is the major difference with the modern bow in which, because of the concave shape of the wood, a constant dynamic may be achieved (see the section on “legato”).

The second aspect mentioned at the start of the chapter was the physiological. The problem, according to Leopold Auer (1925, p. 17), involved in the production of an
entirely agreeable tone, one which is *singing* to a degree that leads the hearer to forget the physical process of its development, is one whose solution must always be the most important task for anyone who wishes to master the violin.

The question of tone production, writes Auer (1925):

“is not primarily a matter of the hairs on the stick, of rosin, of change of bow on the strings, nor of change of position by means of the fingers of the left hand. All these really signify nothing, absolutely nothing, when it comes to the production of a pure crystalline and transparent violin tone. ….the student must not only expect to sacrifice whatever time may be necessary, but must be willing to bring to bear on the problem all of his intelligence, all the mental and spiritual concentration of which he is capable. And for guidance in this he must rely upon the precepts of the great masters of the past, and the example of the great violinists of the present day.” (Auer, 1925, p. 18).

To describe in exact detail just how each of the mechanical aspects should be mastered presents a task of well-nigh insurmountable difficulty. But what holds good in the case of all other arts is true also of the violin. Natural instinct, physical predisposition and the construction of the muscles all play a determining part in the ultimate affect. The only practical way, asserts Auer, of achieving the beautiful tone which should be the ambition of every violinist is to have a clear and complete understanding. This requires the student to seize and retain the explanations of the teacher; the best advice set down on paper can never take the place of the living, spoken word, followed by an actual demonstration of its application (Auer, 1925, pp. 18-19). Like good intonation, good tone production requires the violinist to hear the sound desired before producing it. Players work to accrue a variety of different tone colours from which to make their musical selections. At any given moment in a performance with a truly versatile performer there is a production of a tone quality, be it intense or breathy, sweet or strident, which explains the music and captivates the audience.
7.2A. Bow pressure

Related very closely to the weight of the bow is the application of bow pressure. This is very important to producing a smooth, full tone. According to Krauss (1951, p. 36), the bow pressure is controlled entirely by the manner in which the bow is held.

The pressure, writes Galamian (1985, p57), that the bow exerts on the strings is derived either from the weight of the bow, the weight of the arm and hand, from controlled muscular action, or from a combination of these factors. The bow is a lever and hence follows the ordinary principles of leverage. Its weight will be felt least at the tip and greatest at the frog. The same principle applies to the pressure that originates from muscular action or from the transfer of arm and hand weight; its effect will naturally decrease toward the point of the bow. One of the consequences of this lever characteristic is the very awkward fact for violinists that an equal pressure applied throughout the bow results in an unequal pressure on the strings. Consequently, the pressure-weight combination applied has to be uneven when an even dynamic is needed. The pressure must be stronger toward the point to counteract the loss of weight in the bow.

The important thing in tone production is not just the amount of pressure used but the quality of the pressure. The determining factor here is the manner in which the pressure is transmitted. It must not, under any circumstances, take effect as a dead weight, inelastic and inarticulate, that would crush the vibrations of the string or at best produce a tone of inferior quality. Instead the weight of the arm and hand and the pressure from the muscles should be transmitted through a flexible and well coordinated system from the shoulder to the fingertips (Galamian, 1985, p. 57). See Example 7.2A-1.

Example 7.2A-1 Kreisler - ‘Pugnani’ – Praeludium and Allegro, bars 144-146 (CD: 1 Tr: 6).
Writers of the nineteenth-century period recommended various different methods of bow-pressure regulation, according to Stowell (1985). These range from the isolated use of either the index finger, the wrist or the thumb to the common nineteenth-century compromise, a combination of finger, wrist-joint and especially thumb pressure, as described by Baillot (1835, p. 63):

“3. When it is necessary to give some force to the playing, it should be added solely by the thumb, the index finger and the wrist; but above all by the thumb. The forearm responds to this force while remaining absolutely independent of the upper arm.

“4. The four fingers are placed on the stick, pressing the bow in order to set the string in vibration. This pressure, which must sometimes be very strong, would certainly crush the string, if, in order to prevent this, the thumb were not to counterbalance this force by gripping the stick tightly whenever a big sound or lightening of the bow is desired. Thus, when advised to apply pressure to the bow, it must always be understood that the thumb should then grip the stick strongly from below at the same time as the other fingers press down from above.” (Baillot, 1835 (p. 18) in Stowell, 1985, p. 142).

Other writers suggested alternatives to the above method. Habeneck (1781-1849) recognises the importance of thumb and index finger pressure on the bow without mention of wrist pressure, while Spohr recommended the rather outdated use of index finger pressure only and perpetuated the valid theory of the German school that the thicker strings require slightly more pressure:

“As the G string is more difficult than the higher strings to set in vibration, it should be played with a somewhat stronger bow pressure. This also makes it necessary to draw the bow more quickly....” (Spohr, 1832, in Stowell, 1985, p. 143). See example 7.2A-2.
Example 7.2A-2 More pressure is required on the G string writes Spohr.

While index finger pressure alone is still viable nowadays, writes Stowell (1985), most contemporary performers adopt a combination of finger, wrist joint and thumb pressure, although some, using the middle finger as a pressure agent, place that finger opposite the thumb and create a ‘circle of pressure’. Additional pressure on the bow can be afforded by any slight spread of the fingers on the stick or any pronation of the hand (Stowell, 1985, p. 143).
The significance of bow speed in relation to tone quality and expression was more fully documented by nineteenth-century writers, according to Stowell (1985, p. 138), than by their predecessors, of whom Leopold Mozart and to a certain extent Emil Brijon were among the few to embrace the subject, albeit fleetingly. The relationship between bow speed and tone quality is most notably put forward by Baillot:

“The roundness of tone, that is to say the manner of making the string vibrate as evenly as possible, is the basis of what is called breadth of playing.

“This breadth consists of adapting the duration of sounds and the amount of bow to the value of the notes and the grandeur of the style.” (Baillot, 1835, p. 227).

And later…

“It manifests itself at one and the same time both as a restraining force and as a forward movement of the bow. It can only be defined by saying that it is a combination of slowness and speed…. In the adagio, it is rather more than the normal holding back; in the Allegro, it is more than the normal speed of the bow, but with a continuity of vibration that seems to hold back this impulse of the bow and to give back to it in breadth what it has to forgo in length.

“Sometimes the length of the bow stroke is confused with the breadth of playing. This length, when it is out of place, is in no way true grandeur but a mere caricature of it, whereas a small amount of bow is very often enough to give breadth to the loftiest thoughts.” (Baillot, 1835, p. 227).

Problems can be created in bowing such rhythms as those indicated in example 7.2B-1 by Baillot’s emphasis on the importance of dividing the bow according to the length of the notes to be played. The player may easily run out of bow or even lose the character of the passage. Baillot’s solutions are given in example 7.2B-2. Habeneck’s solutions to such problems are similar, if a little more flexible, since he points out in addition the benefits of changing the bow speed according to the context rather than keeping it

7.2B Bow speed

Slow bow speed

Fast bow speed
constant as Baillot suggests. Thus, in example 7.2B-3a and b, the three slurred notes should be executed with a very much slower bow speed than the separate crotchet; likewise, the dotted crotchets of example 7.2B-3c and d should be played with a slower bow speed than the quaver which follows, while example 7.2B-3e essentially involves bow division, the bow being apportioned according to the values of notes concerned (Stowell, 1985, p. 138).

Example 7.2B-1 (a) – (e) Problems can be created in bowing such rhythms (Baillot, 1835, in Stowell, 1985, p. 139).
The bow may set the string in vibration by one of two ways, writes Baillot. The first way is for the violinist to draw the bow *slowly* on the string with greater or lesser speed and pressure. This imitates the voice and neither acts in a jerky fashion nor separates the sounds. Rather it sustains them and joins them together. In a sense, it is how the violin can be made to sing. This is known as the “slow bow stroke” (Baillot, 1835, p. 167):

![Example 7.2B-4 The slow bow stroke.](image)
Drawing the bow slowly and with control in the Adagio in example 7.2B-5 determines its character in the general sense. It is a character consisting of a profound and concentrated sentiment. It is this sentiment that the slowness of the bow must express properly. It can only do this by leaving the note at the last moment, and then as if with regret.

![Example 7.2B-5 Haydn – String Quartet.](image)

However, great sweeps of passion that can only be rendered with great bow movement are not excluded by the fact that the bow is drawn slowly and with control in example 7.2B-5. For example:

![Example 7.2B-6 Mozart – Quintet in G minor.](image)

The second way that a violinist can set the string in vibration is by drawing the bow over it quickly. Passagework is played this way with most of the bow strokes being light. If the passage does require a certain amount of pressure, for example the martelé or staccato, then it must be played so that all the notes have a full sound. This is called the “fast bow stroke” (Baillot, 1835, pp. 168-9):

![Example 7.2B-7 The fast bow stroke.](image)

---

7.2B Bow speed  

Chapter 7
Example 7.2B-8 shows one passage which uses the fast bow stroke and the concept of *lightness*.

Example 7.2B-8 Viotti – Violin Concerto No. 23 in G major, 1st mvt, bars 99-108.

Example 7.2B-9 shows a passage that uses the fast bow stroke and has a fullness of tone.

*Martelé* played a little away from the bridge.


Baillot suggests that all bow strokes are derived from these two means that are used to make the string vibrate. That is, they have as their basis either a slow bow stroke or a fast one. The effort to distinguish between them must be made by the violinist in order either to sustain and link the notes in a ‘melody’, or to separate them clearly in ‘passagework’ which serves as a contrast to the melody. There are, of course, exceptions. For example, there are some détaché bow strokes that must be sustained, and for that reason they may be considered as *mixed* bow strokes. When they are used in fast passages, they must be played with a little of the slow, controlled bowing generally required in the melody (Baillot, 1835, p. 170).
The speed of the bow and its friction on the string are crucial issues in bowing. This is because the fullness of tone and its carrying power depend on the breadth and purity of vibrations of the string. Flesch (1924, p. 91) found that “the less friction there is between the bow and the string the more the vibrations gain in breadth”. Krauss (1951, p. 38) states that the same degree of tonal power may be produced in two ways: (1) with little bow and strong pressure in the vicinity of the bridge; and (2) with weak pressure further away from the bridge. He asserts that the tone that carries farther is that which is produced by the second method with more bow, and is superior and of better quality. This can be proved not only by auditory perception, but by actually measuring the vibratory breadth of the strings themselves. It is found that with the greater length of bow, the strings vibrate with double the breadth produced by the short bow stroke (Krauss, 1951, p. 38).

One must return here to Galamian’s model of bow pressure, bow speed and sounding point. Bow speed is critical in this mix. Obviously without any bow speed there is no sound at all. Many players have a natural predilection for slow bow speeds and greater pressure. Indeed, with a correct choice of sounding point, this is a perfectly valid choice. Other players naturally prefer the faster bow speeds and correspondingly less pressure. This choice is often associated with the so-called “Russian” school of bowing.

Ideally, a violinist will be versatile and comfortable with all bow speeds and will colour the music with a real variety of bow speeds. In this way, bow speed can take its place as a major expressive device.⁶⁹

**Examples of different bow speeds:**

![Examples of different bow speeds](image)


⁶⁹ See also Part II "Guide to Performance", p. 26 Example 1-35.

7.2B Bow speed
(b) Brahms – Sonata No. 1 in G major Op. 78, 2nd mvt, bars 98-105 (CD: 5 Tr: 2).

(c) Wieniawski – Concerto No. 1 in F# minor Op. 14, 1st mvt.

Example 7.2B-10 (a) – (c) Slow bow speed.

With the appearance of the Tourte bow, which was longer, pressure could be used all the way to the end. This allowed fast bow speeds to be used without “running out of bow”.

Alternating Fast and Slow Bow

The mixing of bowing types has many problems associated with it. One that stands out as being especially difficult is the alternating of fast and slow bows without losing a well-balanced sound. It must be said that the slow bow is a feature of the Tourte bow so...
alternating bow speed became more sophisticated in the Romantic Period. Some of the sophisticated examples are to be found in the Concerto repertoire and are shown in example 7.2B-12. 

Example 7.2B-12 (a) – (d) Examples from the concerto repertoire.

Galamian (1985, p. 86) describes an exercise that has been devised to help overcome the difficulty mentioned above. In the following passage:

Example 7.2B-13 An exercise.

70 See also Part II "Guide to Performance", p. 134 Example 5-11 and p. 135 Example 5-14.

7.2B Bow speed
the single note (the last quaver) normally sounds louder owing to the much greater speed of bow stroke used in its execution.

If the dynamic is to be uniformly balanced, the increased speed has to be compensated for by a lightening of pressure. This new speed--pressure combination, on the single note, also requires a different sounding point on the string. It needs to be further away from the bridge. See example 7.2B-14.

Example 7.2B-14 Prokofiev – Sonata No.2 in D major Op. 94a, 2\textsuperscript{nd} mvt, bars 70-73 (CD: 2 Tr: 6).

Often, it is found that the string “whistles” on the short note in such passages. The slow pick-up of the bow and its failure to gain speed fast enough immediately upon starting is the cause of this. The cure, according to Galamian (1985, p. 86), is to give either a slight pinch -- if the tempo is not too fast -- or a little whip at the beginning of the fast note. Either of these tactics will “catch” the string and impart the necessary starting speed, the required pick-up. See example 7.2B-15.

Example 7.2B-15 Prokofiev – Sonata No. 2 in D major Op. 94a, 2\textsuperscript{nd} mvt, bars 202-3 (CD: 2 Tr: 6).

In the above exercise (example 7.2B-13), the down-bow must not sound softer than the up-bow, and consequently the bow pressure must be lightened on the single note.

The manner of practice shown in the following example (example 7.2B-16) can be applied to scales and/or many of the standard etudes to acquire the right technique:
Example 7.2B-16 Practicing alternating fast and slow bow

Perform the above example:

“first using the section of the bow from middle to point, and during the short rest quickly change the sounding point, either by using the horizontal turning motion of the fingers or by pushing the whole bow toward the fingerboard in one fast move. This latter move is made by reaching forward with the whole arm so that the bow is displaced parallel to itself, never abandoning the right angle contact with the strings. Immediately after the shift of sounding point, attack the single note with a slight pinch similar to a martelé stroke. Lift the bow off the strings after a few inches and set it again on the strings at its middle point and on the original sounding point. Repeat the same routine for the next set of notes. The exercise should be played later in different parts of the bow as well as with the whole bow. Gradually, the written rest should be shortened, the pinch replaced by a whip, and the lifting of the bow more and more postponed, until finally the contact with the string is only lightened toward the frog rather than being completely removed. This exercise will be still more beneficial if one not only balances the sound, but also exaggeratedly overbalances, playing the legato (slurred) notes very intensely and the single note very lightly during practice.” (Galamian, 1985, p. 87).

Example 7.2B-17 gives four examples of alternating fast and slow bow.
7.2B Bow speed

Chapter 7

(a) Ravel – Tzigane, bars 1-8 (CD: 3 Tr: 8).

(b) Brahms – Sonata No.1 in G major Op. 78, 3rd mvt, bars 1-7 (CD: 5 Tr: 3).

(c) Brahms – Sonata No. 1 in G major Op. 78, 1st mvt, bars 1-2 (CD: 5 Tr: 1).

(d) Beethoven – Piano Trio No. 5 in D major Op. 70 No. 1, 1st mvt, bars 232-241 (CD: 4 Tr: 1).

Example 7.2B-17 (a) – (d) Alternating fast and slow bows.
7.2C Contact point (or sounding point)

What today is known as the ‘sounding point’ was known as the ‘contact point’ in the nineteenth century. However, while the early nineteenth-century writers (for example Baillot and Spohr) do not appear to have given it a specific name, they do describe the effects of placing the bow in different positions. Therefore, for ease of referencing the contact point “may be defined as that particular place, in relationship to the bridge, where the bow has to contact the string in order to get the best tonal results.” (Galamian, 1985, p. 58). The actual point of contact changes constantly and in advanced bowing technique is something which takes place intuitively to a degree.

It may be said that while changes of bow speed and pressure are responsible primarily for dynamic shading, variations in the sounding point account for the infinite expressive graduation in tone colour of which the violin is capable. The eighteenth-century writers, notes Stowell (1985), neglected the question of variation in the sounding point, the majority describing the normal sounding point in very basic fashion, allowing, like L’Abbé le Fils, little variation for differences of string or tonal effect: “The bow should be drawn straight and always directed over the sound holes of the violin.” (L’Abbé le Fils, 1761, in Stowell, 1985, p. 143). Their nineteenth-century successors, however, adopted on the whole a rather more flexible attitude, generally conceding that the sounding point may vary according to the tone quality, volume, effect, dynamic nuances required and, in some cases, to the thickness of the particular string employed (Stowell, 1985, p. 143). Baillot, for instance, instructs:

“13. Place the hair of the bow between the [upper] round hole of the f-holes and the fingerboard, a little closer to the f-holes than the fingerboard.

“14. Bring the hair a little closer to the bridge or leave it at a distance, depending on whether you want to produce more or less sound in a melody when you are playing loudly.

“15. It is good to move the hair away from the bridge in order to obtain full round tones in passagework as well as sweet sounds in melodies (see example 7.2C-1).

“16. The positions of the bow very near the bridge (see example 7.2C-2) and very near the fingerboard produce two opposite effects.” (see example 7.2C-3) (Baillot, 1832, p. 22).
Meanwhile his contemporary, Spohr, perpetuates his compatriots’ theory that the optimum contact point depends on the thickness of the strings employed, the bow contacting the string nearer the bridge when playing on the thinner, higher strings than on the thicker, lower strings (Spohr, 1832, p. 15). He further suggests in passing that the first and ultimate aim of the violinist is to produce purity of tone and that “it should be remembered that the bow’s proximity to the bridge, as, likewise, the amount of pressure of the bow on the string, is dependent upon the rapidity at which a stroke proceeds…” (Spohr, 1832, p. 34).

Twentieth-century writers go into even more detail. Krauss (1951, p. 40)\(^{71}\) suggests that the point of contact is dependent upon three main factors. When broken down into steps, these are: (1) the duration of the stroke, (2) the dynamic level (whether it is loud or soft)\(^{72}\), and (3) the height of position of the left hand on the string. The following table summarises these factors:

---

\(^{71}\) While writing in 1951, Krauss puts into a more compact form what the earlier writers have alluded to.  
\(^{72}\) See also Part II "Guide to Performance", p. 19 Example 1-21, p. 21 Example 1-25 and p. 89 Example 3-16.

---

7.2C Contact point (or sounding point)  
Chapter 7
Contact point in the vicinity of:

<table>
<thead>
<tr>
<th>Factors</th>
<th>Bridge</th>
<th>Fingerboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long strokes</td>
<td></td>
<td>Short stokes</td>
</tr>
<tr>
<td><strong>Forte</strong></td>
<td></td>
<td><strong>Piano</strong></td>
</tr>
<tr>
<td>High positions</td>
<td></td>
<td>Low positions</td>
</tr>
<tr>
<td>Thinner strings</td>
<td></td>
<td>Thicker strings</td>
</tr>
</tbody>
</table>

Table 7-1 Some factors that affect the contact point

See example 7.2C-4 for passages where the contact point is near the bridge and example 7.2C-5 for passages where it is near the fingerboard.

From table 7-1, it can be seen, for example, that if the duration of the stroke is a long, spun bow stroke then the point of contact should be near the bridge. On the contrary, a short stroke with the whole bow should make contact in the vicinity of the fingerboard.

(a) Brahms – Sonata No. 3 in D minor Op. 108, 2nd mvt, bars 37-39 (CD: 3 Tr: 2).

(b) Brahms – Sonata No.3 in D minor Op. 108, 1st mvt, bars 63-71 (CD: 3 Tr: 1).

Example 7.2C-4 (a) – (b) Contact point in vicinity of bridge (or at +2 on figure 7.2-2).

7.2C Contact point (or sounding point)
7.2C Contact point (or sounding point)

Of course, mixtures of these individual types are inevitable and a way must be sought to equalise their contradictory influences. Hence, a passage might be found containing short strokes (point of contact: fingerboard) and be dynamically marked *forte* (point of contact: bridge). Krauss (1951, p. 41) suggests that to equalise both types one would play this passage in the middle between the bridge and the fingerboard (see figure 7.2-2a). If the same passage contained notes in a high position (point of contact: bridge), the point of contact would be middle bridge (see figure 7.2-2b).

(a) Short Strokes – Fingerboard (-1)  
Forte – Bridge   (+1)  
Middle position (0)

(b) Short Strokes – Fingerboard (-1)  
Forte – Bridge   (+1)  
High Position – Bridge (+1)  
Middle bridge (+1)

Figure 7.2-2 Sounding points
In the following combination,

\[
\begin{align*}
\text{Short stroke – fingerboard} & \quad (-1) \\
\text{piano – fingerboard} & \quad (-1) \\
\text{middle fingerboard} & \quad (-1) \\
\text{high position – bridge} & \quad (+1)
\end{align*}
\]

one would place the bow at middle fingerboard. With so many factors influencing the sounding point, it would seem almost impossible to find the right sounding point at any given moment. However, like so many other facets of the violinist’s technique, which often seem very complicated, the solution is quite simple for those who have good technical equipment, a good ear, and a sound musical instinct. Such players, according to Galamian (1985, p. 59), will arrive at a degree of proficiency at which they apparently find the right sounding point instinctively by feeling the way toward or away from the bridge. Spohr agrees with this point: “if the scholar can himself perceive the need of a fine tone, his own ear and experience will teach him, better than any theory, the niceties of bowing which best to produce it.” (Spohr, 1832, p. 15).

Krauss (1951, p. 43) concludes that all these factors are subject to changes in limitations, and thus they must be considered and adapted to the individual and his/her fundamental style of bowing.
7.2D. Finger stroke

“The importance of the wrist and finger motion is realised when it is understood that it takes place in some degree at every change of bow in every kind of bowing. It is fundamental when changing bows in a sustained cantilena and it is equally fundamental in the staccato.” (Berkley, 1941, p. 13).

It is difficult to determine when the necessity of making the finger joints flexible first began to be recognised. Flesch (1924, p. 58) suggests that the innovation came from Belgium.

The finger-stroke hardly ever contributes in any way towards tone production and should never be independently used as a substitute for elbow- and shoulder-joint. The importance of the finger-stroke rests upon its connection with the vertical wrist movement, whereby a most unobtrusive change of bow is secured. Until the violinist is able to produce a tonally beautiful finger-stroke at the nut without the aid of the wrist s/he may not lay claim to the possession of flexible finger-joints, and s/he will not be capable of a perfect, inaudible change of bow.

In the change of bow, the bow stroke just ending is prolonged a very little bit before the arm commences the new stroke. It would appear as though there exists some physical necessity which prevents the changing of bow stroke without a small portion being added to the one coming to an end. The law underlying this phenomenon is that ‘a body moving in a certain direction has a tendency to continue in that direction even when compelled to stop or to continue in another direction’. For example, it is impossible for a runner to come to an immediate stop when called upon to halt; he is obliged to take a few more steps forward. The arm moving downward or upward is subject to the same law. In this discussion this movement will be termed ‘stroke-continuation’.

It is at the nut that the difficulties involved in change of bow present themselves, since it is at this place that the dead weight of the bow is so great that, if not diminished by lifting, the pressure exerted by the bow annuls the vibrations of the string and produces the variety of secondary sounds generally called ‘scratching’. The chief problem of nut technique is to prevent this. The same necessity of stroke continuation exists at the point
or in the middle, however its disturbing influence at these places is greatly diminished because there is far less dead weight of bow.

The beginning violinist produces the stroke continuation by prolonging the bow stroke through a horizontal movement of the upper arm and shoulder joint, with the result that, at the end of the stroke, a jerking accent is developed. Flesch (1924, p. 60) asserts that, “One cannot be mistaken in taking for granted that in the initial stages of violin playing this species of bow-change was generally prevalent, unless the violinist preferred to make no use at all of the lower third of their bow, a supposition which is very probable. (At the end of the nineteenth century, old violinists still were to be found in Paris who made no use of the nut section as a matter of principle. In 1890 I saw with my own eyes old Dancla accompany the Paganini Concerto on his violin by holding his bow three inches above the nut! In old prints, too, we never see violinists playing at the nut.)” He goes on to say that great individual talents, tired of this jerking accent, asked themselves whether this movement could not, perhaps, be carried out by part of the arm instead of by the whole arm. Since the lower arm was not employed at the nut in a horizontal direction it did not come into consideration. This left first of all, the wrist. This was the origin of the wrist movement in relation to the change of string. However, it may be regarded only as a necessary substitute for another, too clumsy movement. The stroke continuation was achieved by a slight pushing forward of the hand in the wrist joint, the object being to carry out the change of bow in the least noticeable and audible fashion. However the object and its means of attainment was soon confused. The development of as flexible as possible a wrist-joint (without regard for the individual finger joints) was regarded as the main object. The inaudibility of the stroke continuation, the actual end in view, was neglected. The tonally inadequate results secured by this procedure led to the idea that it may be possible to substitute the movements of the wrist with a still smaller inconspicuous partial movement of the fingers. This was the origin of the idea of the finger stroke.

Flesch (1924, p. 60) also points out that toward the end of the nineteenth century many violinists used this movement for the production of the stroke continuation exclusively. This, again, did not produce the entire inaudibility of the change of bowing. However, there was only a single step forward which lay between this and the solution to the problem. Soon, many recognised that a combined movement of wrist-joint and fingers

7.2D Finger stroke

Chapter 7
was the only one capable of producing absolutely frictionless, inaudible stroke continuation.

“No part of the hand or arm can be considered of less importance than the rest. Good bowing calls for complete cooperation and team work in all muscles and joints from the shoulder to the fingers.” (Berkley, 1941, p. 13). The practical results obtained by this method mean that it should be possible for every violinist, according to Flesch (1924, p. 60), to carry out the change of bow without any accompanying noises if they possess the technique of a correct vertical wrist and finger movement, and are able to merge the two into a unified whole. “The most practical kind of bow change at the nut, therefore, consists of producing the stroke continuation by means of a combined movement of the wrist and fingers.” (Flesch, 1924, p. 60).

The wrist and finger motions must be considered as one motion because if the wrist moves and the fingers do not the bow will not travel in a straight line. It is the shaping of the fingers on the bow that enables this. Conversely, a weakness in tonal quality may result if the fingers bend and straighten without the participation of the wrist.

Therefore, states Berkley (1941, p. 13), the wrist and finger motions should be studied as a single movement, so that coordination may become automatic and complete. The finger motion should only be practised separately in the case of unusually stiff fingers, as the habit of using the fingers too much is easy to get into and is difficult to break.

The wrist and finger motion starts in the wrist and the fingers adapt themselves to the changing position of the hand. Flexibility of the little finger is the key to the motion. If this finger remains stiffly straight, the other fingers cannot bend. Once flexibility is attained the next step is to train the finger, whether straight or bent, to balance the bow sensitively at the nut.

If the wrist and finger motion is not well controlled or is absent, the result will be frequent breaking of the tone at the change of the bow. At best, there will be a coarsening or deadening of the tone at the nut, a lack of agility in the lower half of bow and the inability to be able to change instantaneously from one type of bowing to another. “And yet this motion is little studied or understood by the majority of violinists.” (Berkley, 1941, p. 14).
7.3 Conclusion

The advent of the Tourte bow, with its new shape, lead to a tremendous acceleration of development of technique in this period. For example, bow pressure is not really possible without it. The French terms ‘tirez’ and ‘poussez’, viz ‘pull’ and ‘push’, describe basic legato bowing which only became possible with the Tourte bow.

The Tourte bow was in fairly common use by the time Baillot wrote his *L’Art du violon* in 1835. Spohr also mentions the Tourte bow and its flexibility in his *Violinschule*, published in 1832. Baillot’s publication was one of the earliest attempts to classify and categorize the bow strokes made possible by this new bow.

The following is a brief summary of several of the bow strokes made possible by the Tourte bow.

The ricochet was broadly used by Paganini and since then it has been used in compositions by great composers including Paganini (1829), Baillot (1835), Mendelssohn (1844), Bériot (1858), Tchaikovsky (1890) and Prokofiev (1920).

Carl Flesch was one of the first writers to write about mixed strokes. These were developed in the early twentieth century.

The formation of tone is a co-operative effort of the fingers with the right arm. While the arm produces tone, it is not wholly responsible for its character and quality. It was found that there are three fundamental factors for the right hand in producing a tone at a steady dynamic level. They are bow pressure, bow speed and the distance from the bridge that the bow contacts the strings. The Tourte bow allows for a firmer initial tenseness, which takes hold immediately producing a full tone from the first instant. This was not possible with earlier bows.

Different schools of the nineteenth century adopted different approaches to the way bow pressure was exerted. It was found that Baillot’s method became most accepted through
the century and into the early twentieth century, although the others were still acceptable.

While several eighteenth-century writers mention it briefly, Baillot first put forward in a major way the relationship between bow speed and tone quality. He suggested that there were two main ways to set the strings in vibration: either slowly or quickly. This determines the character of the tone produced. Fast bow speeds were made possible with the appearance of the Tourte bow – with its extra length and the ability to maintain pressure to the end. A variation of bow speeds allows the violinist to colour the music, making it one of the major expressive devices.

Although nineteenth-century writers didn’t give the “contact point” a name, they did write about its effects. It appears as though it did become more important as the century progressed. While bow speed and pressure are primarily responsible for dynamic shading, it is the variations in the contact point that give the violin its infinite expressive graduation of tone colour.

The technique of finger stroke was found to be a development of the late nineteenth century, and was developed over a period of time.

Hence, it can be seen that without the Tourte bow many of the bow strokes discussed would not have been possible.
Chapter 8 Conclusion

In concluding the thesis, it can be seen that there exists a connection between the characteristics of the Romantic Period, the social conditions of that time and the development of the violin itself.

As stated in Chapter 1.2 *Questions Which This Study Attempts to Answer*, the purpose of this study was to investigate the techniques and styles used in the Romantic Period and to provide answers to specific research questions. The answers to these questions have been provided in the preceding chapters. However, the main points are summarised below.

Romanticism is considered to have begun in the later half of the eighteenth century. However, most writers find it difficult to define it as a period of time, a style, a technique, a formal canon or merely a general artistic point of view. As discussed in Chapter 3.1 *Romanticism and the Romantic Period*, Romantic musicians did not think of themselves as a strictly unified and historically delineated group with common aims. Further, the end of the period is equally difficult to define, as discussed in Chapter 3.2 *What happened in that period?*, although it may be considered to be between 1910 and 1920. For this research paper, Romanticism was considered to be a style of music from the period of the nineteenth century and early twentieth century, but may include works from before, such as Beethoven, or after this period, such as Ravel, whose compositions were of Romantic style.

Music and musical phenomena, however, do not exist in isolation. Other aspects of life and society, such as politics, science, economics and education all have an influence and were discussed in Chapter 3.3 *What Happened In That Period?* and are tabulated in Appendix E, *A Comparative Chart of Events That Affected the Violin Development and Techniques of the Era*. One of these aspects was the dramatic transformation in the political and intellectual life of Europeans toward the end of the eighteenth century which produced a fundamentally new environment for the cultivation of the arts. Music, as well as other arts, had nearly always operated exclusively within the patronage system. Composers and musicians now became more independent. They were able to
make a living by offering their services to the public as free agents. Music had previously been composed for small groups, such as royal courts, but was now composed for large audiences in concert halls and opera houses.

Larger concert halls allowed for larger orchestras and it was common by 1880 to have an ensemble of one hundred or more instrumentalists. Composers were thus beginning to treat the orchestra as a homogeneous whole rather than as diverse sections and their awareness of the importance of internal balance increased. Larger orchestras though meant higher overheads, and hence larger concert halls were built to accommodate larger paying audiences. As discussed in Chapter 3.4 How Did the Development of Public Performance and Concert Halls Relate to Romantic Compositions? this meant that soloists and chamber orchestras required instruments that would project their sound. This was discussed in depth in Chapter 4 The Development in the Design of the Instrument.

The important violin players and their contribution are summarised in Appendix C Violinists, Composers and Their Important Violin Works and Treatises and Appendix E A comparative chart of events that affected the violin development and techniques of the era. The relationships between them are shown diagrammatically in Appendix A Some key Genealogical Relationships in Violin Pedagogy. As can be seen and is generally acknowledged, the father of modern violin playing was Giovanni Viotti. He was trained in the classical Italian tradition by Pugnani and first went to Paris in 1782. There he taught or inspired the founders of the French violin school (Baillot, Rode and Kreutzer), who exerted a massive influence on violin playing throughout the nineteenth century. He was one of the first to appreciate the specific beauties of the G string and its high positions, and his concertos unite the singing style and the brilliance of passagework. He may also have assisted Tourte in creating the modern bow.

The Italian school reached its apex in Nicolò Paganini. His music uses practically all known technical devices in a grand, virtuoso and often novel manner, including extensions and contractions of the hand, glissandos, harmonics of every type, multiple stops, octave trills, pizzicatos of both left and right hands, scordatura and the solo on the G string alone. This last one was a speciality of his. With the bow he used ricochet, staccato and mixed bowings of all kinds.
The technical standard of the early nineteenth century was set by Paganini and Baillot. In Brussels, a school of violin playing similar to that of the one in Paris was founded by Charles de Bériot in 1843. The Germans were generally more conservative in technique and more serious in musical attitude than the French. Louis Spohr was Germany’s protégé and his ideas were recorded in his *Violinschule* (1832). Joseph Joachim’s editions of such works as the Mendelssohn and Beethoven violin concertos, and his cadenzas, reveal much about the technique of the nineteenth century and the implied ideas of expression. It should be noted that sharp distinctions in schools of instruction became less clear as the nineteenth century progressed.

The important key works and treatises of the period are listed in Appendix C *Violinists, Composers and Their Important Violin Works and Treatises*, Appendix E *A comparative chart of events that affected the violin development and techniques of the era* and the early part of Chapter 6 *Left-Hand Violin Techniques in Romanticism*. There are several treatises which are still available from that time that give one an insight into the techniques and styles of playing that existed then. Baillot’s *L’art du violon* (*The Art of the Violin*) published in Paris in 1835 was perhaps the most influential violin treatise of the period. It easily surpassed in detail Baillot, Rode and Kreutzer’s *Methode de violon* (*Method for Violin*) (Paris, 1803) which was previously adopted by the Paris Conservatoire. Baillot’s influence was propagated by several of his pupils including François-Antoine Habeneck (*Méthode* (*Method*), Paris, c1835, incorporating extracts from Viotti’s unfinished treatise), Delphin Alard (*Ecole du violon* (*School for Violin*), Paris, 1844), and Charles Dancla (*Méthode élémentaire* (*The Elementary Method*), Paris 1855). The principal contributions of the Belgian school were from Charles de Bériot (*Méthode de violon* (*Method for Violin*), Paris, 1858) and Hubert Léonard (*Méthode* (*Method*), Paris, 1877).

Karl Guhr’s *Über Paganinis Kunst die Violine zu spielen* (*Paganini’s Art of Violin Playing*) (Mainz, 1831) focuses on specific aspects of Paganini’s performing style, while Louis Spohr’s *Violinschule* (*Violin School*) (Vienna, 1832) and David’s *Violinschule* (*Violin School*) (Leipzig, 1863) are more comprehensive. Joseph Joachim’s important three-volume *Violinschule* (*Violin School*) (Berlin, 1902-05) appears to have been written by his pupil Andreas Moser.
Flesch attributed the development of technique and pedagogy in the later nineteenth century principally to Donizetti, Sauret (1852-1920), Schradieck (1846-1918) and Ševčík (1852-1934), although the treatises of Courvoisier and Kayser (1867) deserve mention. Flesch’s *Kunst des Violin-Spiels (The Art of Violin Playing)* (Berlin, 1923-8) is a fusion of the techniques and artistic priorities of the principal schools in the Romantic Period.

Chapter 6 *Left-Hand Violin Techniques in Romanticism* discusses some of the treatises in more detail.

There was much variation in the composition styles of composers. This is also discussed in Chapter 6 *Left-Hand Violin Techniques in Romanticism*. They used a variety of techniques to make their composition more expressive. These are discussed in Chapter 5 *An Analysis of the Music Considering New Techniques, and also considering the Expressive Reasons behind the New Styles* and include the use of rhythm, texture, tone colour and dynamics as well as tempo, style and taste to a lesser extent.

These techniques were developed in response to the development of the violin and bow. The origins of the violin are difficult to determine. Chapter 4 *The Development in the Design of the Instrument* discussed the development of the violin and the bow as well as other various violin fittings. It was the mid to late eighteenth century that saw the beginnings of some major modifications to the construction of the instrument. The demand for instruments capable of producing greater volume and brilliance of tone prompted violin makers to lengthen the neck and change its angle relative to the body. This affected the shape and dimensions of the fingerboard, which was made longer. Because of the increased pressures this put on the instrument, the neck was mortised into the top-block for greater strength.

These modifications were implemented over some 70 years between about 1760 and 1830. The main body of the instrument has since remained unaltered to the present day.

Another modification to the violin, although not directly to the violin body, was the invention of the chin rest. Although Spohr originally positioned it over the tailpiece, a chin-braced grip on the left of the tailpiece was accepted by most by the middle of the nineteenth century. The chin rest afforded firm support for the violin and allowed it to...
be held horizontally at shoulder height and directly in front of the player. This gave the player the best possible freedom of left-hand movement and bow management. A pad was used by some players to increase security and comfort and avoid raising the left shoulder.

The bow had an enormous impact upon violin technique of the nineteenth century. While the origin of the bow in Europe is uncertain, it was probably introduced in the eleventh century and within an hundred years had become known and was being used over most of Western Europe. The seventeenth century saw the beginning of improvements to the bow. Further, the art of playing bowed instruments developed, and it became necessary to modify the degree of tension of the hair according to the music to be executed. Hence the movable frog was developed and the cremaillere was added.

The bow underwent a number of radical changes in the second half of the eighteenth century. This was to accommodate the development of the violin as a solo, virtuoso instrument. The bow received its last and since unimproved shape by the end of that century. The new designs were the work of Tourte and Cramer. Tourte experimented with various kinds of wood before finding that Red Brazilian Pernambuco wood gave the qualities of lightness, density, strength and elasticity demanded by string players. He is also credited with improving the movable frog and replacing the cremaillere with the screw that causes the nut to advance and recede.

The violin itself evolved in response to the demands of players and this is discussed in Chapter 4.1B How Did the Evolution of the Violin Relate to Violin Playing?. Violinists required greater tonal power and brilliance to fill the larger concert halls and to compete, volume-wise, with louder instruments such as the pianoforte. Many itinerant virtuosi prompted further technical developments, with many of them writing compositions for their own bravura performances.

The development of the violin and its fittings brought with it changes in techniques. There was much development in the left-hand technique as discussed in Chapter 6 Left-Hand Violin Techniques in Romanticism. Rode, Kreutzer, Baillot and Spohr were considered to be the leading violinists of the day. They expanded the technique and developed the greatest varieties of bowing. Paganini expanded the idea of the use of the

Conclusion

Chapter 8
left thumb and use of the whole fingerboard. Many nineteenth-century violinists chose to use a more advanced thumb-position to attain greater mobility and facility in extensions, sometimes avoiding formal shifts between positions. Some of Paganini’s fingerings, for example, anticipated the flexible left-hand usage of twentieth-century violin technique. These techniques included contractions, extensions and creeping fingerings which liberated the hand from its usual position-sense and the traditional diatonic framework. In twentieth-century music increased chromaticism, whole-tone, microtone and other scale patterns, and non-consonant double and multiple stopping demanded this, such as in Prokofiev’s Violin Sonata Op. 94a. Paganini also added new effects in the domain of bowing, left-hand pizzicato and single and double harmonics.

In shifting, the odd-numbered positions were emphasised from early in the period, and a more frequent use of semitone shifts facilitated achievement of the prevalent legato ideal. The higher positions were utilised more often for expressive reasons, especially for sonority and uniformity of timbre. The fingered-octave technique slowly gained favour for its greater accuracy and clarity, and less frequent displacements of the hand.

A wide variety of stylistic nuances was developed during the second half of the nineteenth century. These included subtleties of portamentos, slides, glissandos and position changes. Later in the century, the left-hand fingertip vibrato was developed.

The diversity of fingering was in keeping with the age and its variety of colours and personalities. With the development of virtuoso violin techniques and the appearance of an enormous amount of literature for the violin came a new stage in the development of both theory and practice of fingering. As discussed in Chapter 6.2 Fingering in Romanticism, Paganini played a huge role in this development as both composer and executant. He dispensed with the concept of positions by adopting in his works the principles of Locatelli. These principles were based on finger extensions and wide stretches. The development of fingering technique was thus opened to limitless possibilities.

The nineteenth century produced a considerable amount of material for the study of violin fingering, and its connection with various styles of performance is to be found in editions and transcriptions made by leading violinists. These had an important influence.
on the development of new fingering devices as discussed in Chapters 6.2A-F *Fingering in Romanticism*. The diversity of systems used in methods and studies, however, confirmed that fingering is a matter for individual decision rather than textbook regulation.

Vibrato has a long and varied history. Chapter 6.1G *Vibrato and Portato* discusses vibrato in detail. It was written about as early as 1740 by Geminiani, who described it as the close-shake. He demanded that it be used as often as possible. The original impulse for producing an oscillation came with the endeavour to make the violin sing. The art of singing was at its peak in Italy and vibrato was to make the violin imitate the human voice. As the vocal art of the Italian schools declined the use of vibrato did so also. Spohr wrote in 1831 that vibrato should be used sparingly, and Baillot gives only four pages to the subject in his treatise. For most of the nineteenth century, vibrato was used sparingly as an expressive ornament linked with the inflections of the bow. It served to assist in cantabile playing and to articulate melodic shape. Vibrato was used in particular on sustained or final notes in a phrase, at an intensity and speed appropriate to the music’s character. It wasn’t until the early twentieth century that vibrato made a resurgence. And even then it took until the 1930’s and players such as Kreisler and Heifetz to make it more accepted. Kreisler used what may be termed impulse vibrato where the vibrato is generated from some point within the arm to the oscillating fingertip.

The tone of a violin depends foremost on its construction, however it is the player that brings to life the inert sound of the instrument and gives to its timbre all the expression of which it is capable. Tone is produced by the way in which the strings are set in vibration. Intonation also contributes to purity of tone and increases intensity. In Chapter 7.2 *Tone Production*, the two aspects to tone production are listed as the mechanical and the physiological. It is stated that the bow provides the first and the player the second.

Romantic tone, then, is a full tone, made possible only after the advent of the Tourte bow. The sound is produced with expressiveness both by the bow and the left hand.
Much of the development of bow technique may be attributed to Paganini and Baillot (see Chapter 7 Right-Hand Violin Techniques in Romanticism). In the late eighteenth century the technique of the bow lagged far behind that of the left hand. By the time of Paganini’s death practically all of the strokes he used were adopted by all the important schools of violin playing.

The French school, thanks largely to Baillot, took the lead in the development of the modern vocabulary of bow strokes. The Tourte bow shifted the emphasis away from the articulated strokes, subtle nuances and delayed attack of most mid-eighteenth century bows to a more sonorous, smoother cantabile style, with the added capability of a more or less immediate attack, sforzando effects and accented bowing and various bounding strokes.

Bowing patterns therefore also underwent much development. These are discussed in detail in Chapter 7.1 Bowing Patterns. Baillot’s survey provides the most extensive catalogue of violin bowings from the first half of the nineteenth century. Only the characteristic patterns of execution that could be considered fundamental types were examined because these fundamental types can be mixed to form a great variety of new patterns.

The Romantic Period was one of expressiveness. Many of the techniques developed and discussed above were developed for the purpose of expression in the music. The chin rest allowed the development of some of the left-hand techniques because of the added security it provided in the holding of the violin (see Chapter 4.1B How Did the Evolution of the Violin Relate to Violin Playing?). The Tourte bow propelled the development of bow technique. These, together with concepts such as playing solely on the G string and trills, all added to the expressiveness of the music.

The researcher has tried to draw information about the development of violin techniques from current available literature of that period.

One fact that does stand out is that many of the new techniques used in the nineteenth and early twentieth centuries owe their origin to Paganini. It was the brilliance of this
man that gave such wonderful techniques to the world of music. “In his Allegros, Paganini shows all his various techniques. The impossible is achieved with ease.” (Guhr, 1829, p. 48).

Of course many of these techniques would not have been possible without the Tourte bow. In fact, the whole of the wonderful Romantic Concerto repertoire could not have existed without it. The violin as a solo instrument with large orchestra, an epic transformation, is due to the developments of technique in the Romantic Period.

One can see from the performance pieces that Beethoven was certainly a precursor of the Romantic Period, with some of his late work being composed in the period. His Trio Op. 70 No. 1 is included because it was written in terms of the Romantic spirit; more so in the piano part than the violin. Prokofiev is an example of twentieth-century music that carries on Paganini’s violin techniques, such as left-hand thumb position. It can be seen that Romanticism, then, is not primarily a movement or an era, but is more a style.

Historical performance practices in music of the nineteenth and early twentieth centuries clearly differ from modern techniques. They also evolved and metamorphosed during the period. A great deal appears to have been implicit in scores, especially in the early part of the period, that is inevitably lost in a literal modern interpretation. The performance component of this research was to try to demonstrate some of these early playing styles. Further, the concepts of ideals in terms of instrumental sound appears to have changed. Players clearly had a different concept regarding the use of certain techniques, such as vibrato and portamento. Several of these techniques and practices are inconsistent with modern interpretations, and as mentioned previously would more than likely sound strange to modern ears.

After considering the historical development of the technique of playing the violin, one can see a clearly defined tendency for technical methods of playing to become simpler. Music history provides several examples of such simplification that gave birth to new artistic possibilities for performers.

If the development of violin technique methods is considered in this light, it can be seen that such simplifications, which were linked with the eradication of movements which

Conclusion

Chapter 8
were not necessary in the left and right sides, were the consequence of using previously undeveloped technical devices.

Historical awareness, as an element of artistic performance, is indivisible from expressing musical ideas of the age; therefore historical awareness means expressing musical ideas of the age. It is important for the violinist to be able to take a musical work and through the use of all the rich resources of expressing musical ideas, be able to reveal its intellectual and emotional content.
List of Musical Examples

Example 4.1B-1 Franck - Sonata in A major, 2nd mvt, bars 13-21..................................................42
Example 4.1B-2 Franck - Sonata in A major, 3rd mvt, bars 99-107. ..................................................43
Example 4.1B-3 Franck - Sonata in A major, 4th mvt, bars 85-98. ..................................................44
Example 4.1B-4 Paganini – 24 Caprices Op. 1, No. 9, bars 9-13. ..................................................45
Example 4.1B-5 Paganini – 24 Caprices Op. 1, No. 24, Var. 10, bars 1-6.................................45
Example 4.1B-6 Wieniawski – Concerto No. 2 in D minor Op. 22, 2nd mvt “Romance”, bars 51-60........46
Example 4.1B-7 Paganini – 24 Caprices Op. 1, No. 19, bar 28. ..................................................47
Example 5.1-1 Beethoven – Concerto in D major Op. 61, 1st mvt, bar 552 Cadenza by Joseph Joachim......53
Example 5.1-3 Brahms – Sonata No. 1 in G major Op. 78, 1st mvt, bars 223-224 (CD: 5 Tr: 1). ..........54
Example 5.1-4 Brahms – Sonata No. 3 in D minor Op. 108, 4th mvt, bars 279-282 (CD: 3 Tr: 4)..............54
Example 5.1-5 (a) – (b) Hemiolas are marked by the square lines..................................................55
Example 5.1-6 (a) – (d) Shifting the accent (Syncopation is marked by square lines).........................57
Example 5.1-7 Beethoven – Piano Sonata No. 28 in A major Op. 101, 1st mvt, bars 27-30..................57
Example 5.1-8 Brahms – Sonata No. 3 in D minor Op. 108, 1st mvt, bars 188-191 (CD: 3 Tr: 1). ........58
Example 5.2-1 Treatments of a single melody – (a) Polyphonic (b) Homophonic..............................60
Example 5.2-3 Schubert – Sonata in A major Op. 162, 1st mvt, bars 1-21 (CD: 2 Tr: 1).......................62
Example 5.3-1 Prokofiev – Sonata No. 2 in D major Op. 94a, 1st mvt, bars 87-92 (CD: 2 Tr: 5)...........63
Example 5.3-2 Beethoven – Sonata No. 5 in F major Op. 24, 1st mvt, bars 153-170.........................65
Example 5.3-3 (a) – (b) Dynamics used for development and transformation. ...............................67
Example 5.4-1 Paganini – Concerto No. 1 in D major Op. 6, 2nd mvt, bars 16-19.............................70
Example 5.4-2 The styles of expression...............................................................................................72
Example 6.1A-1 (a) Locatelli’s Capriccio Ver. 7 bars 15-18. (b) Paganini’s 24 Caprices Op.1, No. 24 var. 4
and var. 10. ........................................................................................................................................84
Example 6.1A-2 Playing scales (Bériot, 1858, p. 95)...........................................................................85
Example 6.1A-3 Changes of position (Bériot, 1858, p. 95). ...............................................................86
Example 6.1A-4 The port de voix........................................................................................................87
Example 6.1A-5 A variation of the port de voix. ...............................................................................87
Example 6.1A-6 Baillot (1835) p. 126. .................................................................................................88
Example 6.1A-7 Baillot (1835) p. 126. .................................................................................................88
Example 6.1A-8 Baillot (1835) p. 128. .................................................................................................88
Example 6.1A-9 Baillot (1835) p. 129. .................................................................................................89
Example 6.1A-10 Baillot (1835) p. 129. ..........................................................89
Example 6.1A-11 Baillot (1835) p. 130. ..........................................................90
Example 6.1A-12 Baillot (1835) p. 130. ..........................................................90
Example 6.1A-13 (a)-(f) Behaviours of fingering in the changing of positions in the researcher’s performance piece. ..........................................................92
Example 6.1A-14 (a) – (b) Slides. ..................................................................93
Example 6.1A-15 Slides. ..................................................................................93
Example 6.1A-16 (a) – (b) Glissando. ..............................................................95
Example 6.1B-1 Paganini – 24 Caprice Op. 1, No. 23, bars 1-4..........................96
Example 6.1B-2 Schubert – Sonata in A major Op. 162, 1st mvt, bars 93-96 (CD: 2 Tr: 1). ..........................................................96
Example 6.1B-3 Paganini – Concerto No. 1 in D major Op. 6, 3rd mvt, bars 87-94..................................................97
Example 6.1B-4 Practicing for sure intonation of octave scales..........................97
Example 6.1B-5 (a) – (e) Examples of octave passages. .................................98
Example 6.1C-1 Spohr – Concerto No. 8 in A minor Op. 47.......................................99
Example 6.1C-3 Paganini – 24 Caprices Op. 1, No. 24 Var. 6, bars 7-12. ................99
Example 6.1C-5 Kreutzer – Study No. 26, bars 32-36. ..........................................100
Example 6.1C-6 A tenth...........................................................................101
Example 6.1C-7 An exercise for practising tenths...........................................101
Example 6.1C-8 Practicing tenths................................................................102
Example 6.1C-9 Practicing tenths.................................................................102
Example 6.1C-10 Another exercise to practise tenths.......................................103
Example 6.1C-11 Dont – Op. 37, Study No.7....................................................103
Example 6.1C-12 (a) – (c) Examples of tenths passages.................................105
Example 6.1D-1 (a) – (b) Paganini’s chord passages.......................................106
Example 6.1D-3 Baillot’s composition for quadruple stops...............................108
Example 6.1D-4 The only good way of playing chords – according to Bériot........109
Example 6.1D-5 (a) – (d) Examples of chord passages ....................................111
Example 6.1E-2 (a) – (b) Adapted from Guhr (1829, p. 13). ..............................113
Example 6.1E-3 Pizzicato passage (Baillot, 1835, p. 408). ..............................113
Example 6.1E-4 Ravel – Tzigane, bars 125-132 (CD: 3 Tr: 8). .........................114
Example 6.1E-5 (a) – (c) Extracts from Guhr (1829), pp13-14 – Exercises to practice..............................................115
Example 6.1E-6 Sarasate – Zigeunerweisen (Gypsy Airs) Op. 20. ..................115
Example 6.1F-1 (a) – (b) Passage that look difficult to play without harmnics. ...117
Example 6.1F-2 Division of the string for harmonics..........................................................118
Example 6.1F-3 Harmonics. Note that bars 4 and 5 will sound the same.........................118
Example 6.1F-4 (a) – (h) Passages using natural harmonics.............................................122
Example 6.1F-5 Producing artificial harmonics.................................................................122
Example 6.1F-6 Two ways to play artificial harmonic scales from Baillot’s book.........123
Example 6.1F-7 (a) – (c) Passages of artificial harmonics..................................................124
Example 6.1F-8 Harmonic notation (Guhr, 1829, p. 39)....................................................125
Example 6.1F-9 Harmonic notation used by Spohr............................................................125
Example 6.1F-10 Harmonic notation....................................................................................126
Example 6.1F-11 Bériot’s notation for harmonics in double strings.................................126
Example 6.1G-1 Brahms – Sonata No. 3 in D minor Op. 108, 2nd mvt, bars 1-9..............129
Example 6.1G-2 An extract from Baillot’s book (p. 240) showing the idea of vibrato......130
Example 6.2-1 Paganini – Concerto No.1 D major Op. 6, 1st mvt, bars 239ff.....................133
Example 6.2-2 (a)-(c) Exercises that Paganini played........................................................134
Example 6.2-3 Paganini – 24 Caprices Op. 1, No. 21.........................................................135
Example 6.2-4 Shifts with half steps, support, or both (Baillot, 1835, p. 258)......................136
Example 6.2-5 Shifts using the same finger (Baillot, 1835, p. 258).....................................136
Example 6.2-6 Baillot – Adagio and Rondo for Violin and Piano Op. 40.............................137
Example 6.2-7 Kreutzer – Violin Concerto No. 19 in D minor, 1st mvt, bars 210-219 (Baillot, 1835, p. 262)...........................................138
Example 6.2-8 Rode – Sonata No. 1 in C major Op. 24, 2nd mvt (Baillot, 1835, p. 263).....138
Example 6.2A-1 (a) – (d) Shifting by sliding one finger a semi-tone..................................143
Example 6.2A-2 Paganini – 24 Caprices Op. 1, No. 24 Tema (Fingering by C. Flesch)...144
Example 6.2A-3 Tchaikovsky – Three Pieces Op. 42, 1st mvt, bars 83-90 (CD: 3 Tr: 5)...144
Example 6.2A-4 Brahms – Sonata No. 2 in A major Op. 100, 1st mvt, bars 41-43 (CD: 5 Tr: 4).........................144
Example 6.2A-5 Tchaikovsky – Three Pieces Op. 42, 3rd mvt, bars 47-51 (CD: 3 Tr: 7)........144
Example 6.2A-6 Brahms – Sonata No. 2 in A major Op. 100, 3rd mvt, bars 1-6 (CD: 5 Tr: 6)..............145
Example 6.2A-7 Paganini – 24 Caprices Op. 1, No. 24 Var. 4, bars 11-12 (Fingering by C. Flesch)..............................................................145
Example 6.2A-8 Saint-Saëns – Havanaise Op. 83, bar 90 (CD: 1 Tr: 7).............................145
Example 6.2A-9 Kreisler-‘Pugnani’ – Praeludium und Allegro, bars 1-3 (CD: 1 Tr: 6)........145
Example 6.2A-10 Kreisler-‘Pugnani’ – Praeludium und Allegro, bars 126-127 (CD: 1 Tr: 6).........146
Example 6.2A-11 Prokofiev – Sonata No.2 in D major Op. 94a, 1st mvt, bars 3-4 (CD: 2 Tr: 5).................146
Example 6.2A-12 Prokofiev – Sonata No.2 in D major Op. 94a, 4th mvt, bars 36-38 (CD: 2 Tr: 8)......................146
Example 6.2A-13 Wieniawski – Concerto in D minor Op. 22, 3rd mvt, bars 177-180. (Fingering by Henri Marteau.).................................................................146
Example 6.2A-14 Mendelssohn – Concerto No. 2 in E minor Op. 64, 1st mvt, (a) bars 86-88 & (b) bars 181-182. (Fingering by C. Flesch).........................................................146
Example 6.2A-15 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bars 52-53 (CD: 2 Tr: 8) ........147
Example 6.2A-16 Schubert – Sonata in A major Op. 162, 1st mvt, bars 10-11 (CD: 2 Tr: 1).................................147
Example 6.2A-17 Schumann – Sonata No. 1 in A minor Op. 105, 2nd mvt, bars 3-4 (CD: 1 Tr: 2).........................147
Example 6.2A-18 Schumann – Sonata No. 1 in A minor Op. 105, 3rd mvt, bars 43-44 (CD: 1 Tr: 3).................147
Example 6.2A-19 Lalo – Symphonie Espagnole in D minor Op. 21, 4th mvt, bars 100-103 (Fingering by C.
Flesch).........................................................................................................................148
Example 6.2A-20 Paganini – 24 Caprices Op. 1, No. 9, bars 24-25 (Fingering by C. Flesch)..............................148
Example 6.2A-21 Mendelssohn – Concerto No. 2 in E minor Op. 64, 1st mvt, bars 161-170 (Fingering by	C. Flesch)...........................................................................................................................148
Example 6.2A-22 Paganini – Concerto No. 1 in D major Op. 6, 3rd mvt, bars 170-171 (Fingering by C.
Flesch)........................................................................................................................................149
Example 6.2A-23 Tchaikovsky – Three Pieces Op. 42, 1st mvt, bar 101 (CD: 3 Tr: 5).................................149
Example 6.2A-25 A semi-tone extension to practice..................................................................................150
Example 6.2A-26 A whole tone extension to practice............................................................................150
Example 6.2A-27 An exercise to practice extensions..................................................................................150
Example 6.2A-28 Extensions in tenths (Baillot, 1835, p. 268). .................................................................151
Example 6.2A-29 Habeneck, Sr. – Fantaisie pastorale for Violin and Orchestra, bars 217-231:..................151
Example 6.2A-30 Paganini – 24 Caprices Op. 1, No. 24 Var. 1 (Fingering by C. Flesch)..............................151
Example 6.2A-32 Brahms – Sonata No. 2 in A major Op. 100, 2nd mvt, bars 1-2 (CD: 5 Tr: 5).................152
Example 6.2A-33 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bars 108-110 (CD: 2 Tr: 8).......152
Example 6.2A-34 Saint-Saëns – Havanaise Op. 83, bar 153 (CD: 1 Tr: 7).................................................152
Example 6.2A-35 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bar 146 (CD: 2 Tr: 8)..............152
Example 6.2A-36 Saint-Saëns – Havanaise Op. 83, bars 83-84 (CD: 1 Tr: 7)..............................................152
Example 6.2A-39 Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bars 125-127 (Fingering by C.
Flesch)........................................................................................................................................153
Example 6.2A-40 Brahms – Sonata No. 3 in D minor Op. 108, 1st mvt, bars 90-91 (CD: 3 Tr: 1)..............153
Example 6.2A-41 Brahms – Sonata No. 2 in A major Op. 100, 2nd mvt, bar 156 (CD: 5 Tr: 5).................154
Example 6.2A-43 Ravel – Tzigane, bars 15-16 (CD: 3 Tr: 8).................................................................154
Example 6.2B-1 Mendelssohn – Concerto No. 2 in E minor Op. 64, 3rd mvt, bars 104-105. ..................156
Example 6.2B-2 (a) Lalo – Symphonie Espagnole in D minor Op. 21, 5th mvt, and (b) Vieuxtemps –
Fantasia Appassionata Op. 35............................................................156
Example 6.2B-3 Brahms – Sonata No. 2 in A major Op. 100, 2nd mvt, bars 1-7 (CD: 5 Tr: 5).................156
Example 6.2B-5 Brahms – Sonata No. 1 in G major Op. 78, 1st mvt, bars 226-7 (CD: 5 Tr: 1) (Fingerings by the researcher). .......................................................... 157
Example 6.2B-7 Beethoven – Piano Trio No. 5 in D major Op. 70 No. 1, 1st mvt, bars 29-30 (CD: 4 Tr: 1). 157
Example 6.2B-8 Beethoven – Piano Trio No. 5 in D major Op. 70 No. 1, 2nd mvt, bars 3-4 (CD: 4 Tr: 2)... 158
Example 6.2B-9 Mendelssohn – Concerto No. 2 in E minor Op. 64, 3rd mvt, bars 139-140. .................. 158
Example 6.2B-10 Saint-Saëns – Havanaise Example 6.2B-11 Brahms – Sonata No. 3 in................. 158
Example 6.2B-13 Brahms – Sonata No. 2 in A major Op. 100, 1st mvt, bars 139-141 (CD: 5 Tr: 4)....... 159
Example 6.2C-1 Habeneck – L’aires Fantaisie Pastorale, quoted in Baillot, p. 152. ......................... 160
Example 6.2C-2 Spohr – Concerto No. 9 in D minor Op. 55, 1st mvt (Fingering by Spohr). ............. 161
Example 6.2C-3 Bériot’s chromatic scale (p143) (Fingering by Bériot). ............................................. 161
Example 6.2C-4 Paganini – 24 Caprices Op. 1, No. 24 Var. 4 (Fingering by C. Flesch). ................. 162
Example 6.2C-5 Fingering of chromatic scales developed by Bériot. .................................................. 162
Example 6.2C-6 Change positions after the second finger (Fingering by Yampolsky). ...................... 163
Example 6.2C-7 Paganini – 24 Caprices Op. 1, No.17 (Fingering by C. Flesch). .............................. 163
Example 6.2C-8 Tchaikovsky – Concerto in D major Op. 35, 1st mvt, bar 40 (Fingering by D. Oistrakh) . 164
Example 6.2C-10 Schumann – Sonata No. 1 in A minor Op. 105, 1st mvt, Bars 189-191 (CD: 1 Tr: 1) .... 164
Example 6.2C-11 Brahms – Sonata No. 3 in D minor Op. 108, 1st mvt, bars 254-256 (CD: 3 Tr: 1). .... 164
Example 6.2D-1 Paganini – 24 Caprices Op. 1, No. 4, bar 36 (Fingered by C. Flesch). ...................... 166
Example 6.2D-2 Paganini – 24 Caprices Op. 1, No. 1, (a) bar 30 (b) bar 38 (Fingering by C. Flesch) ... 167
Example 6.2D-3 Brahms – Sonata No. 3 in D minor Op. 108, 1st mvt, bars 81-83 (CD: 3 Tr: 1). ....... 167
Example 6.2D-5 Brahms – Sonata No. 1 in G major Op. 78, 2nd mvt, bars 60-64 (CD: 5 Tr: 2). ....... 167
Example 6.2D-6 Brahms – Sonata No. 3 in D minor Op. 108, 2nd mvt, bars 54-56 (CD: 3 Tr: 2). ...... 168
Example 6.2D-7 Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bar105 (Fingering by C. Flesch) ... 168
Example 6.2D-8 Brahms – Sonata No. 3 in D minor Op. 108, 2nd mvt, bars 53-56 (CD: 3 Tr: 2). ..... 168
Example 6.2D-9 Paganini – 24 Caprice Op. 1, No. 13, bars 1-3 (Fingering by C. Flesch). ............... 168
Example 6.2D-10 Saint-Saëns – Havanaise Op. 83, bars 267-269 (CD: 1 Tr: 7).............................. 169
Example 6.2E-1 Paganini – 24 Caprices Op. 1, No. 24 Var 2 (Fingering by C. Flesch) ....................... 170
Example 6.2E-2 Schumann – Sonata No. 1 in A minor Op. 105, 1st mvt, bars 197-204 (CD: 1 Tr: 1) .... 171
Example 6.2E-3 Brahms – Sonata No. 3 in D minor Op. 108, 1st mvt, bars 84-87 (CD: 3 Tr: 1) ....... 171
Example 6.2E-4 Prokofiev – Sonata No. 2 in D major Op. 94a, 1st mvt, bars 118 (CD: 2 Tr: 5). ....... 172
Example 6.2E-5 Prokofiev – Sonata No. 2 in D major Op. 94a, 1st mvt, bars 1-3 (CD: 2 Tr: 5) ....... 172
Example 6.2E-7 Kreisler–Pugnani – Praeludium and Allegro, bars 126-130 (CD: 1 Tr: 6)............. 173

List of Musical Examples
Example 6.2E-9 Beethoven – *Piano Trio* No. 5 in D major Op. 70 No. 1, 3rd mvt, bars 119-128 (CD: 4 Tr: 3). ..................................................................................................................................................................................174
Example 6.2E-10 Schumann – Sonata No. 1 in A minor Op. 105, 3rd mvt, bars 53-55 (CD: 1 Tr: 3)..............174
Example 6.2E-11 Prokofiev – Sonata No. 2 in D major Op. 94a, 2nd mvt, bars 74-86 (CD: 2 Tr: 6).............174
Example 6.2F-1 Paganini – 24 *Caprices* Op.1, No. 17 (The good fingering by C. Flesch. The opinion on the
rights of the fingerings are those of Yampolsky, 1967, p. 99)...............................................................175
Example 6.2F-2 Saint-Saëns – *Havanaise* Op. 83, bars 77 and 92-93 (CD: 1 Tr: 7)......................................................175
Example 6.2F-3 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bars 29-31 (CD: 2 Tr: 8)...............175
Example 6.2F-4 Kreisler - ‘Pugnani’ – *Praeludium and Allegro*, bars 126-131 (CD: 1 Tr: 6) (Yampolsky,
1967, p. 99)........................................................................................................................................176
Example 6.2F-5 (a) – Finger patterns......................................................................................................................176
Example 6.2F-6 Paganini – *Moto Perpetuo* (Fingering by L. Lichtenberg, 1900)...........................................177
Example 6.2F-8 Tchaikovsky – *Three Pieces* Op. 42, 1st mvt, bars 82-84 (CD: 3 Tr: 5).................................178
Example 6.2F-9 Brahms – *Sonatensatz* (Scherzo) in C minor, bars 67-70 (CD: 5 Tr: 7).............................178
Example 6.2F-11 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bar 121 (CD: 2 Tr: 8)....................178
Example 7.1A-1 An extract from Baillot (1835, pp. 173-174).........................................................................186
Example 7.1A-2 Kreisler - ‘Pugnani’ – *Praeludium and Allegro*, bars 6-13 (CD: 1 Tr: 6)..........................187
Example 7.1A-3 Schumann – Sonata No. 1 in A minor Op. 105, 1st mvt, bars 189-190 (CD: 1 Tr 1).........188
Example 7.1A-4 Boccherini – Quintet in F minor Op. 42 No. 1, 3rd mvt, bars 1-8 ......................................189
Example 7.1A-5 Baillot – Etude Op. posth. No. 12, bars 1-12 (Baillot, 1835, p. 190).................................190
Example 7.1A-6 Saint-Saëns – *Havanaise* Op. 83, bars 78-79 (CD: 1 Tr: 7)......................................................190
Example 7.1A-7 Kreisler - ‘Pugnani’ – *Praeludium and Allegro*, bar 23-24 (CD: 1 Tr: 6).........................191
Example 7.1A-8 Kreisler - ‘Pugnani’ – *Praeludium and Allegro*, bars 1-2 (CD: 1 Tr: 6)..............................191
Example 7.1B-1 Baillot – Prelude No. 3, bars 3-4.........................................................................................192
Example 7.1B-2 Beethoven – *Piano Trio* No. 5 in D major Op. 70 No. 1, 1st mvt, bars 146-148 (CD: 4 Tr:
1).....................................................................................................................................................193
Example 7.1B-3 Saint-Saëns – *Havanaise* Op. 83, bars 294-299 (CD: 1 Tr: 7)......................................................194
Example 7.1B-4 Beethoven – *Piano Trio* No. 5 in D major Op. 70 No. 1, 1st mvt, bars 1-4 (CD: 4 Tr: 1)...195
Example 7.1B-5 Kreisler - ‘Pugnani’ – *Praeludium and Allegro*, bars 61-63 (CD: 1 Tr: 6).........................195
Example 7.1B-6 Brahms – Sonata No.3 in D minor Op. 108, 3rd mvt, bars 1-8 (CD: 3 Tr: 3)......................195
Example 7.1C-1 Rode and Spohr played staccato at the tip of the bow.........................................................197
Example 7.1C-2 Paganini usually played staccato down bow.................................................................197
Example 7.1C-3 A passage where Guhr’s style of Staccato may be used (Guhr, 1829, p. 12)......................197
Example 7.1C-4 Examples of staccato..............................................................................................................198

List of Musical Examples
Example 7.1C-5 Staccato played more broadly ................................................................. 198
Example 7.1C-6 (a) – (j) Examples of staccato (Spohr, 1832, p. 126) ..................................... 201
Example 7.1C-7 Spohr, 1832, p129 .................................................................................. 202
Example 7.1C-8 Spohr 1832, p129 .................................................................................. 202
Example 7.1C-9 Spohr, 1832, p130 .................................................................................. 203
Example 7.1C-10 The ricochet (Guhr, 1832, p10 No. 8) ...................................................... 205
Example 7.1C-11 Saint-Saëns – Havanaise Op. 83, Bars 121-125 (CD: 1 Tr: 7) ......................... 205
Example 7.1C-12 Schubert – Sonata in A major Op. 162, 3rd mvt, bars 14-17 (CD: 2 Tr: 3) .................. 205
Example 7.1C-13 Paganini’s ‘Nel Cor piu non mi Sent o’ (in Guhr 1829, p. 11) ................. 206
Example 7.1C-14 Brahms – Sonata No. 1 in G major Op. 78, 3rd mvt, bars 139-140 (CD: 5 Tr: 3) .............. 206
Example 7.1C-15 Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bars 133-134. .............. 206
Example 7.1C-16 Saint-Saëns – Havanaise Op. 83, bars 181-182 (CD: 1 Tr: 7) ......................... 206
Example 7.1C-17 Tchaikovsky – Three pieces Op. 42, 3rd mvt, bars 17-18 (CD: 3 Tr: 7) ............. 206
Example 7.1C-19 Paganini – 24 Caprices Op. 1 No. 7, bars 17-22 (Guhr, 1829, p. 11) ................. 207
Example 7.1C-20 Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bar 115. ................. 207
Example 7.1C-21 Paganini – 24 Caprices Op. 1, No. 1, bars 1-5. ........................................ 208
Example 7.1C-22 Vieuxtemps – Concerto No. 1 in E major Op.10, 3rd mvt. ......................... 208
Example 7.1C-23 Sarasate – Zapateado Op. 23 No.2. ...................................................... 208
Example 7.1C-24 Spohr – (i) Concerto in E minor, 3rd mvt; (ii) Concerto in D minor, 2nd mvt; (iii) Concerto in A minor Gesangscene ................................................................. 209
Example 7.1C-25 Wieniawski – Polonaise No.2 in A major Op. 21 ........................................ 209
Example 7.1C-26 Vieuxtemps – Ballade and Polonaise Op. 38 ................................................... 209
Example 7.1C-27 Wieniawski – Concerto in D minor Op. 22, 1st mvt, bars 219-220 .................. 210
Example 7.1C-28 Wieniawski – Concerto in D minor Op. 22, 3rd mvt. ................................. 210
Example 7.1C-29 Sibelius – Concerto in D minor Op. 47, 3rd mvt ......................................... 210
Example 7.1C-30 Legato playing ....................................................................................... 210
Example 7.1C-31 Wieniawski, Concerto in D minor Op. 22, 1st mvt, bars 125-127 ....................... 211
Example 7.1C-32 (a) – (c) Examples of staccato ................................................................. 212
Example 7.1D-1 (a) – (c) Playing spiccato ........................................................................... 214
Example 7.1D-2 A passage in which Paganini possessed great control and clarity ....................... 214
Example 7.1D-3 (a) – (d) Four examples of spiccato passages ................................................. 217
Example 7.1E-1 Prokofiev – Sonata No. 2 in D major Op. 94a, 2nd mvt, bars 7-10 (CD: 2 Tr: 6) ................ 218
Example 7.1E-2 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bar 105 (CD: 2 Tr: 8) ............ 218
Example 7.1E-3 Learning to play ricochet ............................................................................. 219
Example 7.1E-4 Exercise for practising ricochet ................................................................. 220
Example 7.1E-5 Ricochet with string crossing ...................................................................... 220
List of Musical Examples

Example 7.1E-6 Mendelssohn – Concerto Op. 64, 1st mvt, bar 332
Example 7.1E-7 The ricochet
Example 7.1E-8 A scale of some extent
Example 7.1E-9 Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bars 260-263
Example 7.1E-10 Paganini – 24 Caprices Op. 1 No. 20, bars 49-53
Example 7.1E-12 Prokofiev – Sonata No. 2 in D major Op. 94a, 2nd mvt, bars 8-10 (CD: 2 Tr: 6)
Example 7.1E-14 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bar 105 (CD: 2 Tr: 8)
Example 7.1E-15 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bars 97-98 (CD: 2 Tr: 8)
Example 7.1E-16 Paganini – Concerto No. 1 in D major Op. 6, 3rd mvt, bars 27-34
Example 7.1E-17 Mendelssohn – Concerto No.2 in E minor Op. 64, 1st mvt, bars 325-323
Example 7.1E-18 Study by Bériot (1858, p159)
Example 7.1E-20 Bériot (1858) page 158
Example 7.1F-1 Beethoven – Piano Trio No. 6 in E flat major Op. 70 No. 2
Example 7.1F-2 Kreutzer – 42 Etudes No. 4 in C major
Example 7.1F-3 An exercise to overcome the difficulty of combining the “spun” note and the staccato in the same stroke
Example 7.1F-4 Beethoven – Concerto in D major Op. 61, 1st mvt
Example 7.1F-5 Vieuxtemps – Concerto No. 5 in A minor Op. 37, 3rd mvt
Example 7.1F-6 Mendelssohn – Concerto No. 2 in E minor Op. 64, 1st mvt
Example 7.1F-7 Kreutzer – 42 Etudes No. 2
Example 7.1F-8 Legato and thrown staccato
Example 7.1F-9 Beethoven – Sonata No.9 in A minor Op. 47 Kreutzer, 2nd mvt, var. 2
Example 7.1F-10 Legato arpeggios and thrown or springing stroke
Example 7.1F-11 Whole bow détaché and martelé and thrown Bow
Example 7.1F-12 Beethoven – Sonata No.9 in A minor Op. 47 Kreutzer, 3rd mvt
Example 7.1F-13 Détaché and martelé
Example 7.1F-14 Détaché (Middle) + Springing Bow
Example 7.1F-15 Schubert – Trio in B flat major Op. 99, 4th mvt
Example 7.1F-16 Beethoven – Piano Trio No. 2 in G major Op.1 No.2, 4th mvt
Example 7.1F-17 Bazzini – Ronde des Lutins
Example 7.1F-18 An exercise to strengthen the fingers of the right hand
Example 7.1G-1 Legato bowing
Example 7.1G-2 Legato bowing
Example 7.1G-3 Brahms – Sonata No.3 in D minor Op. 108, 1st mvt, bars 125-127 (CD: 3 Tr: 1)
Example 7.1G-4 Brahms – Sonata No. 3 in D minor Op. 108, 1st mvt, bars 121-124 (CD: 3 Tr: 1) ..............234
Example 7.1G-5 Playing the passage in example 7.1G-4 ...........................................................................234
Example 7.1G-6 Schubert – Sonata in A major Op. 162, 4th mvt, bars 210-221 (CD: 2 Tr: 4)..............234
Example 7.1G-7 Prokofiev – Sonata No.2 in D major Op. 94a, 1st mvt, bars 21-28 (CD: 2 Tr: 5) ..........235
Example 7.1G-8 Prokofiev – Sonata No. 2 in D major Op. 94a, 1st mvt, bars 29-40 (CD: 2 Tr: 5) ........235
Example 7.2-1 Examples for the dynamic levels in the above figure ..........................................................239
Example 7.2-2 Prokofiev – Sonata No. 2 in D major Op. 94a, 4th mvt, bar 161 (CD: 2 Tr: 8) ...............240
Example 7.2-3 Kreisler - ‘Pugnani’ – Praeludium and Allegro, bars 113-114 (CD: 1 Tr: 6) .................240
Example 7.2A-1 Kreisler - ‘Pugnani’ – Praeludium and Allegro, bars 144-146 (CD: 1 Tr: 6) .............244
Example 7.2A-2 More pressure is required on the G string writes Spohr..................................................246
Example 7.2B-1 (a) – (e) Problems can be created in bowing such rhythms (Baillot, 1835, in Stowell, 1985, p. 139). ...........................................................................................................................................248
Example 7.2B-2 (a) – (e) Baillot’s solutions to the previous examples (Stowell, 1985, p. 139) ..............249
Example 7.2B-3 Various bow speeds (Stowell, 1985, p. 140) ..................................................................249
Example 7.2B-4 The slow bow stroke .........................................................................................................249
Example 7.2B-5 Haydn – String Quartet ....................................................................................................250
Example 7.2B-6 Mozart – Quintet in G minor ..........................................................................................250
Example 7.2B-7 The fast bow stroke ..........................................................................................................250
Example 7.2B-8 Viotti – Violin Concerto No. 23 in G major, 1st mvt, bars 99-108. ...............................251
Example 7.2B-9 Baillot – Violin Concerto No. 9 in A minor Op. 104. .................................................251
Example 7.2B-10 (a) – (c) Slow bow speed .................................................................................................253
Example 7.2B-11 (a) – (b) Fast bow speed .................................................................................................253
Example 7.2B-12 (a) – (d) Examples from the concerto repertoire .............................................................254
Example 7.2B-13 An exercise. ....................................................................................................................254
Example 7.2B-14 Prokofiev – Sonata No.2 in D major Op. 94a, 2nd mvt, bars 70-73 (CD: 2 Tr: 6) ........255
Example 7.2B-15 Prokofiev – Sonata No. 2 in D major Op. 94a, 2nd mvt, bars 202-3 (CD: 2 Tr: 6) .....255
Example 7.2B-16 Practicing alternating fast and slow bow ........................................................................256
Example 7.2B-17 (a) – (d) Alternating fast and slow bows ........................................................................257
Example 7.2C-1 The second theme: Paganini Concerto No.1 in D major Op. 6, 1st mvt, bar 135-136 ....259
Example 7.2C-2 Paganini – Concerto No. 1 in D major Op. 6, 1st mvt, bars 95-96. ..............................259
Example 7.2C-3 Paganini – Concerto No.1 in D major Op. 6, 1st mvt, bar 123. ....................................259
Example 7.2C-4 (a) – (b) Contact point in vicinity of bridge (or at +2 on figure 7.2-2) .........................260
Example 7.2C-5 (a) – (b) Contact point near the fingerboard .................................................................261

List of Musical Examples
Appendix A: Some key Genealogical Relationships in Violin Pedagogy. The table places the persons in order of their birth year. Some of the persons may have had more than one teacher. The persons that do not appear to have students would have had students whose influence may be outside the scope of this research. The boxes with a shaded background represent composers whose compositions were performed in recital.

Source: Milsom (2003) p. 15
Appendix B: Notes on the Repertoire of the Period

The most celebrated representative of the virtuosi species was Niccolo Paganini. His *Caprices* are an indispensable means to the otherwise baffling technical demands of the great late Romantic concerti, such as those of Brahms, Tchaikovsky, Elgar, and Sibelius. Even Joseph Joachim, the grandest of late Romantic violin playing figures, was impressed by the solid value of some of Paganini’s innovations. However, he realized that one need not become Paganini-mad to extract lasting benefit from a serious study of difficulties such as double harmonics, swift passage in tenths, flying staccati, and left-hand pizzicati.

A gigantic influence on violin playing and composition was the Mannheim product Louis Spohr. His comparatively quiet style of performance was readily eclipsed by the magnificent technical feats of his contemporaries, and was the very antithesis of the electrifying art of Paganini. He wrote numerous works for the violin. His concerti revealed sound musicianship, superficial melodic invention, with an unfailing resourceful handling of the most solid features of the violin idiom. They did, however, lack a happy contrast and rhythmic variety. One should note though, that to Spohr’s everlasting credit, he regarded technical achievement as only a means to an end. The lofty character of his art is most vividly seen in the fact that his foremost pupil, Ferdinand David, devoted himself mainly to the propagation of neglected violin classics and the perfection of chamber music performance. He was the peer of violin pedagogues during the middle decades of the nineteenth century.

Pierre Baillot, Rudolf Kreutzer, and Pierre Rode laid the foundations for the French School at Paris. Their published *Method* represented a solid, but cold fusion of all the great violin traditions since Corelli. Unfortunately it failed to satisfy the French leaning towards superficial brilliancy and the new school threatened to fall victim to the purely sensational features of Paganini’s art. It was the refined, yet progressive genius of Charles de Bériot, a Belgian, that saved French violin art from disaster. The overwhelming success of his compositions offered a compromise that proved a powerful antidote to the Paganini “fever”.

Appendix B: Notes on the Repertoire of the Period
The resultant merged Franco-Belgian style was meticulous yet charming and must be credited with producing more first-ranked virtuosi than any other during the nineteenth century. (Thompson, 1975, pp. 2378-2380).

Instrumental recordings of the violin repertoire from the end of the nineteenth century are non-existent as recording technology was in its infancy. The emphasis on expressiveness that was very typical of Romanticism lifted the soloist to star status, worshipped by the concert audience. Virtuosi of the calibre of Paganini had an influence that can be felt down to the present day. Paganini did not leave any audible documents behind him. The gramophone record arrived just in time to document the next generation of violin players who were still performing in the early twentieth century. These audible records, despite their faults, give some picture of playing styles and musical ideals of the nineteenth century. For example, recordings of Joachim (1903) and Sarasate (1904) do exist. Both these masters were past their peak performance abilities when these recordings were made, Joachim being over 70 years old. Unfortunately, the recording technology of the time could not reproduce the sound of the violin in all its richness. Nevertheless, the styles and techniques of playing can be heard.

Other players of the time also made recordings. Ysaÿe made a few recordings in 1912 and Auer left some behind him as well. Szigeti made his debut on record in 1908. Elman and Kreisler’s reputations were largely based on recordings – Elman was famous for his ‘golden’ violin tone, and Kreisler, who made more recordings than any other violinist, was the central figure in violin playing for the first four decades of the century. Their recordings, however, were initially typical of the violin repertoire of the acoustic recording period: small, sensitive pieces and demonstrative bravura numbers (Gronow and Saunio, 1998, pp. 20-21).

**Repetory**

The repertoire of this period is shown in Appendix C. Below are some additional notes about the repertory.
**Concert Violin**

Since compositions for a solo instrument must stand the rigid test applied by time, almost all the sonatas, concerti, et cetera, penned by the most famous virtuosi and teachers of the violin since Corelli have either paled into insignificance or become mere academic material. Thus, with a few exceptions, the enduring masterworks of the violin repertoire have been composed by geniuses none of whom were professional violinists. For example, Bach, whose Six Solo Sonatas represent the acme of polyphonic expression on the instrument, only played the violin after a fashion, while Handel merely “understood” the violin (Thompson, 1975, p. 2380).

**Violin Concertos**

During the nineteenth century, there were three main streams of development for the violin concerto. Traditional musical values were stressed by Spohr, Mendelssohn, Schumann, Bruch, Brahms and Saint-Saëns among others; while Paganini, Bériot, Vieuxtemps, Wieniawski and Ernst followed the virtuoso path. The third stream that was introduced was a new type of ‘national’ concerto. These composers included Joachim (*Konzert in ungarischer Weise*), Lalo (*Symphonie espagnole* and *Concerto russe*), Bruch (*Schottische Fantasie*), Dvořák and Tchaikovsky (Schwarz *et. al.*, 2001, vol. 26 p. 725).

**Violin Sonatas**

Between Beethoven’s and Schubert’s sonatas and the sonatas of Schumann in 1851, Germany produced only minor works by Spohr, Weber and Mendelssohn. Brahms discarded four sonata attempts before composing his Op. 78, the first of three. Other German works in the genre include those of Raff (1822-1882), Strauss and Busoni (1866-1924).

French composers, apart from Lalo and Alkan (1813-1888), showed little interest in the sonata until the establishment of the Société Nationale de Musique and various private
societies devoted to chamber music performance. This was after the 1870-71 war with Prussia. Fauré’s two sonatas contrast in style and performance while the first of Saint-Saëns’s features thematic cross-reference and the second is more polyphonic. The sonatas of Franck and Lekeu (1870-1894) also exploit the cyclical principle.

Apart from the works of Fibich (1850-1900), Novák (1870-1949) and Pixis (1788-1874), the Czech lands are represented only by Dvořák’s sonata and sonatina. The sonata’s finale is perhaps most indicative of its Czech origins.

Danish interest in the genre is represented chiefly by Gade (1817-1890) and Nielsen (1865-1931). Greig’s (1843-1907) voice is predominant in Sibelius’s modest sonata and sonatine (Schwarz et. al., 2001, vol. 26 p. 725).

Unaccompanied Violin Music

There appears to have been little or no interest by composers in writing music for unaccompanied violin. While there were many fine works written, in comparison to other genres the output was relatively small. Apart from various concert études, only Romberg’s (1767-1821) three Etudes ou sonates Op. 32, Jansa’s (1795-1875) Sonate brillante, Bull’s (1810-1880) Quartet for solo violin (1834), David’s Suite and the many caprices and variations of Paganini are noteworthy. In the twentieth century, Ysaÿe composed imaginative variations on Paganini’s 24th Caprice, and six sonatas Op. 27; Kreisler, in homage to Ysaÿe, composed his Recitative and Scherzo Caprice Op. 6. Reger’s (1873-1916) eleven sonatas and numerous short works in neo-Baroque style were imitated by Hindemith (1895-1963) in his two sonatas Op. 31 and by Jarnach (1892-1982). Notable serialist composers who have written for unaccompanied violin include Hauer (1883-1959), Klebe (1925-), Jelinek, and Gruber (1943-). Bartók (1881-1945) composed his Solo Violin Sonata in 1944 and this represents the culmination of the genre in the twentieth century.

Other Solo Repertory

The works of lasting significance from the French and Belgian schools of the nineteenth century emanated from Berlioz, Saint-Saëns, Dancla, Bériot, Vieuxtemps and Chausson. From Germany Schubert produced several works, while Svendsen and Sinding are representative of the Scandinavian input. British composers such as Mackenzie, Coleridge-Taylor and Delius also made worthy contributions.

One of the popular vehicles for virtuoso display of the nineteenth century was the air varié. Examples of note were written by Bériot, Vieuxtemps, Ernst, Wieniawski, Boehm, Hubay, Hellmesberger, Pixis, Bull and Joachim. Many of Paganini’s works are based on operatic themes, dances, ‘national’ tunes or other popular melodies. Pairs of eminent virtuosos wrote many fantasias on operatic themes. Examples are Lafont and Moscheles, Vieuxtemps and Rubinstein, and Ernst and Osborne. Rimsky-Korsakov’s Fantasia on Two Russian Themes and Napravnik’s Fantasia on Russian Themes are somewhat awkward attempts at ‘nationalising’ the concerto.

The various editions and transcriptions of seventeenth and eighteenth-century masterworks by violinists such as David were a valuable source of repertory in the nineteenth century, as were the exemplary arrangements by Joachim of Brahms’s Hungarian Dances, the Schubert-Wilhelmj Ave Maria, and many others. Unfortunately, the abuse of the genre saw an oversupply of inferior arrangements and even falsifications towards the end of the century. One case in point would be Kreisler, who wrote many pseudo-Classical pieces himself, but ascribed them falsely to composers such as Pugnani. Similarly, Dushkin arranged some pieces for his own concert use that were actually original composition attributed to earlier composers.

The composition of a large number of short genre pieces (with orchestra or piano) widened the repertory during the nineteenth century. (Schwarz et. al., 2001, vol. 26 p. 729). Some of these can be seen in the table in Appendix C.
### Appendix C: Violinists, Composers and Their Important Violin Works and Treatises

<table>
<thead>
<tr>
<th>Violinist/Composer</th>
<th>Work</th>
<th>No.</th>
<th>Name of Important Works</th>
<th>Treatises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alard, Delphin (1815-1888)</td>
<td>Treatise</td>
<td>1</td>
<td>No. 1 in A minor Op. 54 (1891)</td>
<td>Ecole du Violon (1844)</td>
</tr>
<tr>
<td>Arensky, Anton (1861-1906)</td>
<td>Concerto</td>
<td>1</td>
<td>Serenade Op. 30 No. 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short Concert Work</td>
<td></td>
<td>No.1 in D minor Op. 32</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trios</td>
<td>2</td>
<td>No.2 in F minor Op. 73</td>
<td></td>
</tr>
<tr>
<td>Auer, Leopold von (1845-1930)</td>
<td>Treatises</td>
<td>2</td>
<td>Violin Playing As I Teach It (1921)</td>
<td>Masterworks and their Interpretation (1925)</td>
</tr>
<tr>
<td></td>
<td>Arrangement</td>
<td></td>
<td>Brahms’ Hungarian Dances</td>
<td></td>
</tr>
<tr>
<td>Baillot, Kreutzer, &amp; Rode</td>
<td>Treatise</td>
<td>1</td>
<td>Methode de Violon (1803)</td>
<td></td>
</tr>
<tr>
<td>Baillot, Pierre (1771-1842)</td>
<td>Treatise</td>
<td>1</td>
<td>L’Art du Violon: nouvelle Methode (1835)</td>
<td></td>
</tr>
<tr>
<td>de Bériot, Charles (1802-1870)</td>
<td>Concertos</td>
<td>10</td>
<td>No. 7 in G major Op. 76</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No. 9 in A minor Op. 104 (Saenger)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short Concert Works</td>
<td>2</td>
<td>Fantasie sur Scène de ballet Op. 100</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fantasie-Ballet No. 2 Op. 105</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duets</td>
<td>49</td>
<td>Air Varie, No. 1 Op. 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trios</td>
<td>4</td>
<td>No. 2 Op. 58</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Etudes</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aires-varies</td>
<td>1</td>
<td>No. 1 in D minor Op1 (Pollitzer)</td>
<td></td>
</tr>
<tr>
<td>Berlioz, Hector (1803-1869)</td>
<td>Short Concert Work</td>
<td>1</td>
<td>Réverie et caprice Op. 8 (1841)</td>
<td></td>
</tr>
<tr>
<td>Brahms, Johannes (1833-1897)</td>
<td>Concerto</td>
<td>1</td>
<td>No. 1 in G major Op. 78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short Concert Work</td>
<td>1</td>
<td>Piano Trio No.1 in B major Op. 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trios</td>
<td>4</td>
<td>Piano Trio No. 2 in C major Op. 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Piano Trio No. 3 in G minor Op. 101</td>
<td></td>
</tr>
<tr>
<td>Violinist/Composer</td>
<td>Work</td>
<td>No.</td>
<td>Name of Important Works</td>
<td>Treatises</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------------------</td>
<td>-----</td>
<td>----------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Bruch, Max (1838-1920)</td>
<td>Concertos</td>
<td>3</td>
<td>No. 1 in G minor Op. 26 (1868)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No. 2 in D minor Op. 44 (1878)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No. 3 in D minor Op. 58 (1891)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short Concert Works</td>
<td>Many</td>
<td>Romance in A minor Op. 42</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Schottische Fantasie Op. 46 (1880)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adagio appassionato in F minor Op. 57</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Swedish Dances Op. 63</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>In Memoriam in C Sharp minor Op. 65</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Serenade Op. 75</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Concert Piece in F Sharp minor Op. 84</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sonatas</td>
<td>Many</td>
<td>in G major</td>
<td></td>
</tr>
<tr>
<td>Capet, Lucien (1873-1928)</td>
<td>Treatise</td>
<td>1</td>
<td></td>
<td>Technique Superieure de l'archet (1916)</td>
</tr>
<tr>
<td>Chausson, Ernest (1855-1899)</td>
<td>Short Concert Work</td>
<td>1</td>
<td>Poeme Op. 25 (1896)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concerto</td>
<td>1</td>
<td>Concerto for Piano, violin and string quartet, Op.21 (1890-1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quartet</td>
<td>1</td>
<td>in A major Op.30 (1898)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trio</td>
<td>1</td>
<td>in G minor Op. 3</td>
<td></td>
</tr>
<tr>
<td>Courvoisier, Karl (1846-1908)</td>
<td>Treatises</td>
<td>2</td>
<td></td>
<td>The Technique of Violin Playing on Joachim's Method (1899)</td>
</tr>
<tr>
<td>Dancla, Charles (1817-1907)</td>
<td>Aires-varies</td>
<td>Some</td>
<td>Op.89</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Etudes</td>
<td>Many</td>
<td>Op. 118</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concertos</td>
<td>Some</td>
<td>Violin solo Op.52</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 Etudes Brilliante Op. 73</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>36 melody Studies Op. 84</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Violin Solo Op. 77</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatise</td>
<td>1</td>
<td>No. 1 in G major</td>
<td>Methode elementaire et progressive de violon (1855)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No. 2 in A minor</td>
<td></td>
</tr>
<tr>
<td>David, Ferdinand (1810-1873)</td>
<td>Concertos</td>
<td>5</td>
<td>in D minor Op. 47 (1822)</td>
<td>&quot;Violinschule&quot; (1864)</td>
</tr>
<tr>
<td></td>
<td>Variations</td>
<td>Some</td>
<td></td>
<td>&quot;High School of Violin Playing&quot;</td>
</tr>
<tr>
<td></td>
<td>Rondos</td>
<td>Some</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Caprices</td>
<td>Some</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Solo pieces</td>
<td>Some</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatises</td>
<td>2</td>
<td></td>
<td>Kunstlerotechnik (The Artist's Technique of Violin Playing) (1921)</td>
</tr>
<tr>
<td>Dounis, Demetrius (1886-1954)</td>
<td>Treatises</td>
<td>Several</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix C: Violinists, Composers and Their Important Violin Works and Treatises
<table>
<thead>
<tr>
<th>Violinist/Composer</th>
<th>Work</th>
<th>No.</th>
<th>Name of Important Works</th>
<th>Treatises</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dvořák, Antonín (1841-1904)</strong></td>
<td>Concerto</td>
<td>1</td>
<td>in A minor Op. 53 (1879-80)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sonatas</td>
<td>2</td>
<td>in F major Op. 57 (1880)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short Concert Work</td>
<td>Many</td>
<td>Sonata in G major Op. 100 (1893)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Romance in F minor Op.11 (1877)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Romantic Pieces Op.75 (1887)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mazurka in E minor Op. 49 (1879)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humoresques in F Sharp major Op. 101</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slavonic Dance Op. 46 (1891)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ballad in D minor Op. 15 (1894)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capriccio (1878)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nocturne in B major Op. 40 (1883)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Eberhardt, Siegfried (1883-1960)</strong></td>
<td>Treatises</td>
<td>1</td>
<td>Der beseelte Violin-Ton (1910) trans. As Violin Vibrato: Its Mastery and Artistic Uses (1911)</td>
<td></td>
</tr>
<tr>
<td><strong>Enescu, George (1882-1955)</strong></td>
<td>Sonatas</td>
<td>4</td>
<td>No. 1 Op. 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No. 2 in F minor Op. 6 (1899)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No. 3 in A minor Op. 25 (1926)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Torso in A minor (1911)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ernst, Heinrich (1814-1865)</strong></td>
<td>Concertos</td>
<td>2</td>
<td>Caprice Roumain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short concert works</td>
<td>Many</td>
<td>Fantasia Brillante from Otello Op. 11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nocturne in D major Op. 8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Airs hongrois variés Op. 22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Élégie in C minor Op. 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rondo Papageno Op. 21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flesch, Carl (1873-1944)</strong></td>
<td>Arrangements and edits</td>
<td>Many</td>
<td>Urstudien (1911)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatises</td>
<td>3</td>
<td>The Art of Violin Playing - Vi (1924), Vii (1930)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Die Kunst des Violinspiels; Vol.2 2nd Ed. (1929)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix C: Violinists, Composers and Their Important Violin Works and Treatises
<table>
<thead>
<tr>
<th>Violinist/Composer</th>
<th>Work</th>
<th>No.</th>
<th>Name of Important Works</th>
<th>Treatises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fauré, Gabriel (1845-1924)</td>
<td>Sonatas</td>
<td>2</td>
<td>in A major Op. 13 (1876)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>in E minor Op. 108 (1917)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short Concert Works</td>
<td>Many</td>
<td>Berceuse in D major Op. 16</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dolly Berceuse Op. 56</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Romance in B Flat major Op. 28</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Andante in B Flat major Op. 75</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Morceau de lecture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concerto</td>
<td>1</td>
<td>Op. 14</td>
<td></td>
</tr>
<tr>
<td>Franck, César (1822-1890)</td>
<td>Sonata</td>
<td>1</td>
<td>in A major (1886)</td>
<td></td>
</tr>
<tr>
<td>Glazunov, Alexander (1865-1936)</td>
<td>Concerto</td>
<td>1</td>
<td>in A minor Op. 82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short Concert works</td>
<td>2</td>
<td>Mazurka – oberek in D major</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Meditation in D major Op. 32</td>
<td></td>
</tr>
<tr>
<td>Godard, Benjamin (1849-1895)</td>
<td>Concerto</td>
<td>1</td>
<td>Romantique Op. 35</td>
<td></td>
</tr>
<tr>
<td>Grieg, Edvard (1843-1907)</td>
<td>Sonatas</td>
<td>3</td>
<td>in F major Op. 8 (1865)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>in G major Op. 13 (1867)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>in C minor Op. 45 (1887)</td>
<td></td>
</tr>
<tr>
<td>Guhr, Carl (1787-1848)</td>
<td>Treatise</td>
<td>1</td>
<td>Paganini’s Art of Violin Playing (1829)</td>
<td></td>
</tr>
<tr>
<td>Habeneck, François (1781-1849)</td>
<td>Concertos</td>
<td>2</td>
<td>Some</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duets</td>
<td></td>
<td>Some</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Caprices</td>
<td></td>
<td>Some</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Solo pieces</td>
<td></td>
<td>Some</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatise</td>
<td>1</td>
<td>Methode (1835), incorporating extracts from Viotti’s unfinished treatise</td>
<td></td>
</tr>
<tr>
<td>Hegar, Friedrich (1841-1927)</td>
<td>Concerto</td>
<td>1</td>
<td>in D major</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sonata</td>
<td>1</td>
<td>in C minor Op. 6</td>
<td></td>
</tr>
<tr>
<td>Hindemith, Paul (1895-1963)</td>
<td>Sonatas (unacc.)</td>
<td>2</td>
<td>Op.31 No.1, No. 2 (1924)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sonatas</td>
<td>4</td>
<td>in C major</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>in E major</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Op. 11 Nos. 1 &amp; 2 (1918)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duet</td>
<td>1</td>
<td>Some</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short concert works</td>
<td>Some</td>
<td>Kammemusik No. 4 Op. 36</td>
<td></td>
</tr>
<tr>
<td>Violinist/Composer</td>
<td>Work</td>
<td>No.</td>
<td>Name of Important Works</td>
<td>Treatises</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------</td>
<td>-----</td>
<td>-----------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td></td>
<td>Sonata</td>
<td>1</td>
<td>D major Op. 22 Romantic</td>
<td></td>
</tr>
<tr>
<td>Joachim, Joseph (1831-1907)</td>
<td>Concertos</td>
<td>3</td>
<td>Hungarian-style Concerto&lt;br&gt;No. 2 in D minor Op. 11&lt;br&gt;No. 3 in G major</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Variation</td>
<td>1</td>
<td>E minor</td>
<td></td>
</tr>
<tr>
<td>Joachim and Moser</td>
<td>Treatise</td>
<td>1</td>
<td>Violinschule (1902-5)</td>
<td></td>
</tr>
<tr>
<td>Jousse, Jean (1760-1837)</td>
<td>Treatise</td>
<td>1</td>
<td>The Theory and Practice of the Violin (1811)</td>
<td></td>
</tr>
<tr>
<td>Kreisler, Fritz (1875-1962)</td>
<td>Short concert works</td>
<td>Many</td>
<td>Liebesfreud&lt;br&gt;Liebesleid&lt;br&gt;Caprice Viennoise Op. 2&lt;br&gt;Tambourin Chinois Op. 3&lt;br&gt;Schön Rosmarin&lt;br&gt;Andante Cantabile&lt;br&gt;Berceuse Romantique Op. 9&lt;br&gt;Old Viennese Dances&lt;br&gt;Recitative and Scherzo Caprice Op. 6&lt;br&gt;Petite Valse</td>
<td></td>
</tr>
<tr>
<td>Kreutzer, Rodolphe (1766-1831)</td>
<td>Concertos</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Etudes</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violinist/Composer</td>
<td>Work</td>
<td>No.</td>
<td>Name of Important Works</td>
<td>Treatises</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------</td>
<td>-----</td>
<td>-------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Lalo, Edouard (1823-1892)</td>
<td>Concertos</td>
<td>3</td>
<td>Op. 20 (1872)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Op. 21 <em>Symphonie Espagnole</em> (1873)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Op. 29 <em>Concerto Russe</em> (1889)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sonata</td>
<td>1</td>
<td>in D major Op. 10 (1853)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short concert work</td>
<td>1</td>
<td><em>Romance-Sérénade</em></td>
<td></td>
</tr>
<tr>
<td>Léonard, Hubert (1819-1890)</td>
<td>Solo pieces</td>
<td>Many</td>
<td>Solo in D major Op. 41 No.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concerto</td>
<td>1</td>
<td>No. 4 Op. 26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatises</td>
<td>2</td>
<td><em>Méthode de Violin</em> (1877)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Etudes</td>
<td>1</td>
<td><em>The Violinist's Physical Training</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Etudes</td>
<td>1</td>
<td><em>Études classiques</em></td>
<td></td>
</tr>
<tr>
<td>Lussy, Mathis (1828-1910)</td>
<td>Treatises</td>
<td>1</td>
<td><em>Traité de l'expression musicale: accents, nuances et mouvements dans la musique vocal et instrumentale</em> (1874) (Eng. Trans. 1885)</td>
<td></td>
</tr>
<tr>
<td>Marsick, Martin (1848-1924)</td>
<td>Concertos</td>
<td>3</td>
<td>Pieces Op. 6</td>
<td></td>
</tr>
<tr>
<td>Mendelssohn, Felix (1809-1847)</td>
<td>Concertos</td>
<td>3</td>
<td>in E minor Op. 64 (1838-44). First perf. by F. David</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sonata</td>
<td>3</td>
<td>in D minor Op. 14 (1822)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short concert works</td>
<td>1</td>
<td><em>Concerto for Piano and Violin in D minor</em></td>
<td></td>
</tr>
<tr>
<td>Mendelssohn, Felix (1809-1847)</td>
<td>Sonatas</td>
<td>3</td>
<td>in F major Op. 10 (1820)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sonatas</td>
<td>3</td>
<td>in F minor Op. 4 (1825)</td>
<td></td>
</tr>
<tr>
<td>Molique, Wilhelm (1802-1869)</td>
<td>Concertos</td>
<td>Many</td>
<td>Many</td>
<td></td>
</tr>
<tr>
<td>Molique, Wilhelm (1802-1869)</td>
<td>Sonatas</td>
<td>Many</td>
<td>Many</td>
<td></td>
</tr>
<tr>
<td>Moser, Andreas (1859-1925)</td>
<td>Treatise</td>
<td>1</td>
<td><em>Geschichte des Violinspiels</em> (1923)</td>
<td></td>
</tr>
<tr>
<td>Prokofiev, Sergei (1891-1953)</td>
<td>Concertos</td>
<td>2</td>
<td>No. 1 in D major Op. 19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sonata</td>
<td>4</td>
<td>No. 1 in F minor Op. 80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short concert work</td>
<td>1</td>
<td><em>Melodies</em> Op. 35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concertos</td>
<td>2</td>
<td>No. 2 in G minor Op. 63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sonata</td>
<td>4</td>
<td>No. 2 in D major Op. 94a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short concert work</td>
<td>1</td>
<td>No. in D major Op. 115</td>
<td></td>
</tr>
<tr>
<td>Violinist/Composer</td>
<td>Work</td>
<td>No.</td>
<td>Name of Important Works</td>
<td>Treatises</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------</td>
<td>-------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
| Paganini, Niccolo (1782-1840) | Concertos               | Wrote 8, but only 6 survive | No. 1 in D major Op. 6  
No. 2 in B minor Op. 7 La campanella  
No. 3 in E major  
No. 4 in D minor  
No. 5 in A minor  
No. 6 in E minor Op. posthumous |           |
|                              | Caprices                 | 24                | Op. 1                                                                                  |           |
|                              | Short Concert Works      | Many              | Campanella, LA Op. 7  
Variations on 'G' string  
Cantabile in D major  
Introductions and Variations Op. 12 Non piu mesta  
Maestos Sonata Sentimentale  
Moto perpetuo in C major Op. 11  
Sonata and Variations “Prachi o l’impegno”  
Sonata in A major  
Variations on “La carmagnole”  
Tarantella in A minor  
Theme and Variations Op. 8 “Le streghé”  
Variations on “God Save the Queen” Op. 9  
Variations on “Carnival of Venice” Op. 10 |           |
| Poulenc, Francis (1899-1963) | Sonatas                  | Several           | Op. 12 (1918)  
| Reger, Max (1873-1916)       | Sonatas (unacc.)         | 11                | Op. 42 (4 sonatas)  
Op. 91 (7 sonatas) |           |
|                              | Sonatas                  | 9                 | No. 1 in D minor Op. 1  
No. 9 in C minor Op. 139 |           |
|                              | Concerto                 | 1                 | In A major, Op. 101 |           |
|                              | Short Concert Works      | Many              | Largo for violin and organ Op. 93a “in the old style”  
Little Son in A major Op. 103b no. 2  
Prelude and fugue in A minor Op. 131a and Op. 117  
Prelude in E minor  
Suite in A major Op.103a “Aria”  
Romance in G major |           |
| Rode, Pierre (1774-1830)     | Caprices                 | 24                | No. 6 in B flat major  
No. 7 in A major  
No. 8 in E minor |           |
|                              | Concertos                | 13                | No. 6 in B flat major  
No. 7 in A major  
No. 8 in E minor |           |
<table>
<thead>
<tr>
<th>Violinist/Composer</th>
<th>Work</th>
<th>No.</th>
<th>Name of Important Works</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sonatas</td>
<td>2</td>
<td>No. 1 in D minor Op. 75 (1885), No. 2 in E flat major Op. 102 (1896)</td>
</tr>
<tr>
<td>Sibelius, Johan (1865-1957)</td>
<td>Concerto</td>
<td>1</td>
<td>in D minor Op. 47 (1903-05)</td>
</tr>
<tr>
<td></td>
<td>Sonatas</td>
<td>2</td>
<td>in F major Op. 12 (1889), Sonatina in F Sharp minor Op. 67 No. 1</td>
</tr>
<tr>
<td>Schubert, Franz (1797-1828)</td>
<td>Sonatas</td>
<td>4</td>
<td>No. 1 in D major Op. 137 (1816), No. 2 in A minor, No. 3 in G minor, in A major Op. 162 (1817)</td>
</tr>
<tr>
<td></td>
<td>Short Concert Works</td>
<td>Many</td>
<td>Rondo in A major D438, Konzertstück in D major D345, Polonaise in B flat major D580, Fantasie in C major Op. 159 D934, Kornische Ländler for 2 violins in D major D354</td>
</tr>
<tr>
<td>Violinist/Composer</td>
<td>Work</td>
<td>No.</td>
<td>Name of Important Works</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------</td>
<td>-----</td>
<td>-----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Schumann, Robert (1810-1856)</td>
<td>Concertos</td>
<td>3</td>
<td>in D minor (1853) Phantasie in C major Op. 131 (1853) both written for Joachim, but first performed by Schumann's great-niece J. d'Aranyi  in A minor Op. 129</td>
</tr>
<tr>
<td></td>
<td>Sonatas</td>
<td>4</td>
<td>No.1 in A minor Op. 105 (1851) No.2 in D minor Op. 121 (1851) incorporates variations on the chorale melody Gelobt seist du Jesu Christ No3 in A minor Wo027 This third sonata evolved from a collaboration with A. Dietrich and J. Brahms. Sonata “FAE”</td>
</tr>
<tr>
<td>Smetana, Bedrich (1824-1884)</td>
<td>Short Concert Works</td>
<td>Many</td>
<td>Z domoviny Fantasie sur un air bohemien Pieces T.128 “from my homeland”</td>
</tr>
<tr>
<td>Strauss, Richard (1864-1949)</td>
<td>Sonatas</td>
<td>&gt;1</td>
<td>in E Flat major Op. 18 (1887)</td>
</tr>
<tr>
<td></td>
<td>Concerto</td>
<td>1</td>
<td>in D minor Op. 8</td>
</tr>
<tr>
<td></td>
<td>Short Concert Work</td>
<td>1</td>
<td>Allegreto in E major Av.149</td>
</tr>
<tr>
<td>Violinist/Composer</td>
<td>Work</td>
<td>No.</td>
<td>Name of Important Works</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------</td>
<td>-----</td>
<td>-----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Suk, Josef (1874-1935)</td>
<td>Short Concert Works</td>
<td>Some</td>
<td>&quot;Ballade in D minor&quot; (1890)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Four Pieces&quot; Op. 17 (1900)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Fantasy in G minor&quot; Op. 24 (1903)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Valse – Scherzo in C major&quot; Op. 34 (1877)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Souvenir d'un lieu cher&quot; Op. 42 (1878)</td>
</tr>
<tr>
<td>Tchaikovsky, Peter (1840-1893)</td>
<td>Concerto</td>
<td>1</td>
<td>&quot;Violin Concerto&quot; Op. 35 (1878)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Serenade melancholique Op. 26 (1875)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;3</td>
<td>&quot;Valse – Scherzo in C major Op. 34 (1877)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Souvenir d'un lieu cher Op. 42 (1878)</td>
</tr>
<tr>
<td>Vieuxtemps, Henri (1820-1881)</td>
<td>Concertos</td>
<td>8</td>
<td>&quot;No.1 in E major Op. 10&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.2 in F Sharp minor Op. 19&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.3 in A major Op. 25&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.4 in D minor Op. 31&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.5 in A minor Op. 37&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No 6 in G major Op. 47&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.7 in A minor Op. 49&quot;</td>
</tr>
<tr>
<td></td>
<td>Concert etudes</td>
<td>6</td>
<td>&quot;Ballade et polonaise Op. 38&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Fantasia appassionata Op. 35&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Capriccio in C minor&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Feuille d'album Op. 40&quot;</td>
</tr>
<tr>
<td></td>
<td>Short concert works</td>
<td>Many</td>
<td>&quot;Morceaux Op. 32 &quot;Rondino&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Morceaux Op. 22 No. 3 &quot;Réverie&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Morceaux Op. 22 No. 5 &quot;Tarentella&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Suite in B minor Op. 43&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Variations Op. 33</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Voies de Coeur Op. 53&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;Voix intimes Op. 45</td>
</tr>
<tr>
<td></td>
<td>Sonata</td>
<td>1</td>
<td>&quot;in D major Op. 12</td>
</tr>
<tr>
<td></td>
<td>Etude</td>
<td>1</td>
<td>&quot;Op. 48&quot;</td>
</tr>
<tr>
<td>Viotti, Giovanni B. (1755-1824)</td>
<td>Concertos</td>
<td>29</td>
<td>&quot;No.1 in C major G 32&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.2 in E major G 44&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.3 in A major&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.4 in D major G 33&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.5 in C major G 45&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.6 in E major G 34&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.7 in B Flat major G 46&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.8 in D major&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.9 in A major&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.10 in B Flat major G 56&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.11 in A major&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;No.12 in B Flat major&quot;</td>
</tr>
</tbody>
</table>

(continued…)
<table>
<thead>
<tr>
<th>Violinist/Composer</th>
<th>Work</th>
<th>No.</th>
<th>Name of Important Works</th>
<th>Treatises</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Viotti, Giovanni B. (continued)</strong></td>
<td></td>
<td></td>
<td>No.13 in A major G 65 No.14 in A minor G 66 No.15 in B Flat major G 84 No.16 in E minor No.17 in D minor G 86 No.18 in E minor G 90 No.19 in G minor No.20 in D major G 92 No.21 in E major G 96 No.22 in A minor G 97 No.23 in G major G 98 No.24 in B minor G 105 No.25 in A minor G 124 No.26 in B Flat major G 131 No.27 in C major G 142 No.28 in A minor G 143 No.29 in E minor G 144</td>
<td>Sonatas 18 Duets 50 Serenata for 2 violins in E flat major G148 Concertante for 2 violins No.1 in F major G76 Concertante for 2 violins No.2 in B flat major G77</td>
</tr>
<tr>
<td><strong>von Wasielewski, Joseph (1822-1896)</strong></td>
<td>Violin works</td>
<td>few</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Etude</td>
<td>1</td>
<td>Duets Etudes for two violins Op.18</td>
<td></td>
</tr>
</tbody>
</table>

Appendix C: Violinists, Composers and Their Important Violin Works and Treatises
<table>
<thead>
<tr>
<th>Violinist/Composer</th>
<th>Work</th>
<th>No.</th>
<th>Name of Important Works</th>
<th>Treatises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilhelmj, August (1845-1909)</td>
<td>Concerto</td>
<td>1</td>
<td>No. 1 in G minor “Fugate” Op.27</td>
<td>“A Modern Violin School”</td>
</tr>
<tr>
<td>Solo pieces</td>
<td>Some</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatise</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woof, Rowsby (1883-1943)</td>
<td>Treatises</td>
<td>1</td>
<td></td>
<td>Technique and Interpretation in Violin-Playing (1920)</td>
</tr>
<tr>
<td>Ysaÿe, Eugene (1858-1931)</td>
<td>Sonatas (unacc.)</td>
<td>6</td>
<td>No. 1 in G minor “Fugate” Op.27 No. 2 in A minor No. 3 in D minor “Ballade” No. 4 in E minor “Sarabande” No. 5 in G minor No. 6 in E major</td>
<td></td>
</tr>
<tr>
<td>Concerto</td>
<td>1</td>
<td>No.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix C: Violinists, Composers and Their Important Violin Works and Treatises
## Appendix D: List of Researcher’s Recital Performances

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Opus #</th>
<th>Composer</th>
<th>Recital/CD #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1808</td>
<td>Piano Trio</td>
<td>70 No.1</td>
<td>Beethoven, Ludwig van (1770-1827)</td>
<td>4</td>
</tr>
<tr>
<td>1817</td>
<td>Sonata in A major</td>
<td>162</td>
<td>Schubert, Franz (1797-1828)</td>
<td>2</td>
</tr>
<tr>
<td>1851</td>
<td>Sonata No.1 in A minor</td>
<td>105</td>
<td>Schumann, Robert (1810-1856)</td>
<td>1</td>
</tr>
<tr>
<td>1853</td>
<td>Scherzo in C minor</td>
<td>--</td>
<td>Brahms, Johannes (1833-1897)</td>
<td>5</td>
</tr>
<tr>
<td>1878</td>
<td>Three Pieces</td>
<td>42</td>
<td>Tchaikovsky, Peter Ilyich (1840-93)</td>
<td>3</td>
</tr>
<tr>
<td>1879</td>
<td>Sonata No. 1 in G major</td>
<td>78</td>
<td>Brahms, Johannes (1833-1897)</td>
<td>5</td>
</tr>
<tr>
<td>1886</td>
<td>Sonata No. 2 in A major</td>
<td>100</td>
<td>Brahms, Johannes (1833-1897)</td>
<td>5</td>
</tr>
<tr>
<td>1887</td>
<td>Havanaise</td>
<td>83</td>
<td>Saint-Saëns, Camille (1835-1921)</td>
<td>1</td>
</tr>
<tr>
<td>1888</td>
<td>Sonata No. 3 in D minor</td>
<td>108</td>
<td>Brahms, Johannes (1833-1897)</td>
<td>3</td>
</tr>
<tr>
<td>1910</td>
<td>Praeludium and Allegro</td>
<td>--</td>
<td>Kreisler, Fritz (1875-1962)</td>
<td>1</td>
</tr>
<tr>
<td>1924</td>
<td>Tzigane</td>
<td>--</td>
<td>Ravel, Maurice (1875-1937)</td>
<td>3</td>
</tr>
<tr>
<td>1918 (1931)</td>
<td>Mouvements Perpétuels</td>
<td>FP1473</td>
<td>Poulenc, Francis (1899-1963)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>arr. Heifetz, Jascha (1900-1987)</td>
<td></td>
</tr>
<tr>
<td>1944</td>
<td>Sonata No.2 in D major</td>
<td>94a</td>
<td>Prokofiev, Serge (1891-1953)</td>
<td>2</td>
</tr>
</tbody>
</table>

73 Refers to the catalogue prepared by Carl B. Schmitt of music by Poulenc.
Appendix E: A comparative chart of events that affected the violin development and techniques of the era.

The following table lists in chronological order the composers, violinists, and developments in both the violin and the bow, and violin techniques that were important in the Romantic Period. It also lists some of the repertoire of composers – especially their key works (a more detailed list is given in Appendix C), and places all of these in context by listing other historical events, including events in art and architecture. The table has been split into decades or half-decades for easier referencing.

The table necessarily must start its timeline before the start of the Romantic Period because many of the people and events that shaped the period occurred before it began. Hence the decade of 1740 was chosen as a starting point as this was also the decade when some of the techniques which were developed in the Romantic Period were born.

One shortcoming of this type of table is that it is very difficult to show relationships between people, places, and events and how they may, or may not, have interacted with each other. Appendix A, adapted from Milsom’s (2003, p. 15) book, shows graphically the pedagogical relationships that existed between some of the key violinistic figures of the nineteenth century.

As one can see from the schematic in Appendix A, Giovanni Battista Viotti (1755-1824) is recognized as “the link connecting the modern school of violin-playing with the schools of the past” (Ferris, 1881, p. 36). The “modern school” here is referring to the nineteenth century. Viotti was acknowledged as the leading violinist of his time. His influence on violin music, as well as music in general, was of a very substantial order. He embodied the accomplishments of the great virtuoso as well as the gifts of the composer.
<table>
<thead>
<tr>
<th>Date</th>
<th>Composers</th>
<th>Violinists</th>
<th>Development of Violin and Bow</th>
<th>Development of Violin Technique</th>
<th>Musical Events and violin compositions</th>
<th>Literature and Principal violin treatises</th>
<th>Art and Architecture</th>
<th>Historical Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1740</td>
<td></td>
<td></td>
<td>1740 Tartini played the bow in fig. E-1.1 (page 317) Anon bow (fig E-1.2): 58g, 70.2cm, playing length (PL) = 59.5cm</td>
<td>1740 Geminiani: Close Shake (vibrato) – to perform it, one must press the finger strongly upon the string of the instrument, and move the wrist in and out.</td>
<td>1740 The tune to <em>Twinkle, Twinkle, Little Star</em> was published in France</td>
<td>1751 Geminiani: The Art of playing on the Violin</td>
<td>1740-86 Berlin Opera House was built</td>
<td>1741 Celsius develops his own thermometer scale, <em>Celsius</em>, a centigrade scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1761 L’abbé le fils’s <em>principes du violon</em></td>
<td></td>
<td>1746 Wearing of the kilt is banned in Scotland by the Dress Act</td>
</tr>
<tr>
<td>1750</td>
<td>Giovanni Viotti (1755-1824) Rodolphe Kreutzer (1766-1831)</td>
<td>1750 Edward Dodd (fig E-1.3): 46g, 73cm, PL = 62cm Anon (fig E-1.4): 52g, 71.1cm, PL = 63.1cm 1760 Tourte Père (fig E-1.5): 49g, 73.8cm, PL = 64.4cm</td>
<td>1756 Mozart: vibrato- one must always approximate nature as nearly as possible. He was the first to pin-point the relationship between bow speed and volume, and mentions three types of vibrato: slow, accel-erating; and fast. He commented that necessity, convenience, and elegance were the only reasons for using positions other than the First. Leopold Mozart recommended ‘slide fingering’ for violin on chromatic scales. 1761 L’Abbé le Fils: The bow should be drawn straight and always directed over the sound holes of the violin. He discusses natural and artificial harmonics. He recommended resting the chin on the violin to the left (lowest string side) of the tailpiece and holding the bow at the frog – not as Geminiani and L. Mozart suggested (3-7cm above the frog).</td>
<td>1764 Carlisle House Soho Square in London</td>
<td>1750 Westminster Bridge is officially opened in London</td>
<td>1750 A small earthquake hits London 1752 Pennsylvania Hospital, the first hospital in the U.S. is opened</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1761 A transit of Venus occurred</td>
<td></td>
<td>1753 British Parliament extends citizenship to Jews</td>
</tr>
<tr>
<td>1770</td>
<td>L. Van Beethoven (1770-1827) Pierre Baillot (1771-1842) Pierre Rode (1774-1830) August Kreutzer (1778-1832)</td>
<td>1770 Cramer played bow in fig E-1.6 1774 G string should be wound with silver by Löhlein 1775 Edward Dodd (fig E-1.7): 48g, 73.4cm, PL = 62.8cm</td>
<td>1769-70 L. Mozart introduced the ‘Geminiani grip’ [ \frac{2}{1} + \frac{1}{2} ] - Elbow well under the middle of the instrument. Closer to the body than nowadays. The wrist was turned inwards to avoid contact between the palm and the neck.</td>
<td>1770 First New York performance of Messiah 1772 Haydn: ‘Farewell’ symphony 1773-5 Mozart composed five violin concertos</td>
<td>1774 Goethe: <em>Sorrows of Werther</em> 1775-1817 Jane Austen 1776-88 Gibbon: <em>Decline and fall of the Roman Empire</em> 1777 Sheridan: <em>School for Scandal</em> 1779-81 S. Johnson: <em>Lives of the Poets</em></td>
<td>1772 the Pantheon, Oxford St Concert Hall built 1775 Hanover Square rooms built 1776-86 Chambers: new Somerset House</td>
<td>1772 First division of Poland 1776 Declaration of Independence, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Composers</td>
<td>Violinists</td>
<td>Development of Violin and Bow</td>
<td>Development of Violin Technique</td>
<td>Musical Events and violin compositions</td>
<td>Literature and Principal violin treatises</td>
<td>Art and Architecture</td>
<td>Historical Events</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------------------------------------------</td>
<td>------------------------------------------------</td>
<td>------------------------------</td>
<td>--------------------------------</td>
<td>---------------------------------------</td>
<td>------------------------------------------</td>
<td>---------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1780</td>
<td>John Field (1782-1837) Louis Spohr (1784-1859) Carl Maria von Weber (1786-1826)</td>
<td>Jacques F. Mazas (1782-1849) Niccolò Paganini (1782-1840) Louis Spohr (1784-1859) Joseph Mayseder (1789-1863)</td>
<td>1780 John Dodd (fig E-1.8): 49g, 73.7cm, PL = 64.1cm</td>
<td>There were few bows before the Tourte bow that were suited to accented bowings such as Martelé or Sforzando effects. These were very rare in the 18th century. Similarly, ‘bouncing’ strokes such as sautille, spiccato and ‘flying staccato’ were sparingly employed for bravura effect. True legato bowing was achieved only by slurring.</td>
<td>1779–87 Mozart’s nine fully mature sonatas composed in Salzburg and Vienna</td>
<td>1782 Corrette’s L’art de perfectionner dans le violon 1784 Beaumarchais: Mariage de Figaro Thomas Love Peacock (1785-1866) 1786 R. Burns: Poems 1789 Blake: Songs of Innocence</td>
<td>1792 White House, Washington built</td>
<td>1787 American Constitution passed and the Association for the abolition of Slave Trade formed in England 1789 Beginning of the French Revolution, Washington becomes president of U. S. A.</td>
</tr>
<tr>
<td>1790</td>
<td>Karl Czerny (1791-1857) G. Rossini (1792-1865)</td>
<td>Karol Lipinski (1790-1861) Franz Pechatschek (1793-1840) Joseph Strauss (1793-1866) Joseph Panny (1794-1838)</td>
<td>1790 Viotti played with bow in fig E-1.9</td>
<td>Khandoshkin (1747-1804): first to play on the G string throughout its compass (sopra una corda). It was widely used as a virtuoso device by nineteenth-century violinists.</td>
<td></td>
<td>1791 Boswell: Life of Johnson Galeazzi: Elementi teorico – practici di musica Vol. 1</td>
<td>1792 France declares war on Austria. Prussia declares war on France. France becomes a republic. Coal gas is used for lighting</td>
<td></td>
</tr>
<tr>
<td>1800</td>
<td>Hector Berlioz (1803-69)</td>
<td>Georg Hellmsberger (1800-73) Charles de Bénot (1802-70) Wilhelm Molique (1802-69) Johann Strauss (1804-49)</td>
<td>1800 John Dodd (fig E-1.10): 53g, 73cm, PL=63.1cm</td>
<td>After 1800 – Holding the violin on the collar bone, and at the neck were preferred 1800 Pre-Tourte bow was of an articulated, non-legato character. The player could vary the degree of articulation and modify the stroke by adding nuances appropriate to note-lengths and the tempo and character of the music as well as by the regulation of bow speed, pressure, and the point of contact. Posture and the violin hold was free, comfortable and with a natural posture. However, it was not until the early 19th century that there was any general agreement as to the optimum playing position.</td>
<td>1800 Beethoven: First Symphony (Op. 21) 1804 Beethoven: Eroica Symphony</td>
<td>1803 Baillot, Rode and Kreutzer: Méthode de Violin 1804 Schill: William Tell</td>
<td>1801 Ritter discovers ultraviolet radiation</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Composers</td>
<td>Violinists</td>
<td>Development of Violin and Bow</td>
<td>Development of Violin Technique</td>
<td>Musical Events and violin compositions</td>
<td>Literature and Principal violin treatises</td>
<td>Art and Architecture</td>
<td>Historical Events</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------------------------</td>
<td>--------------------------------</td>
<td>--------------------------------------</td>
<td>---------------------------------------------</td>
<td>---------------------</td>
<td>------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1809 Goya: Execution of the Defenders of Madrid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1812 Napoleon retreats from Moscow &amp; U.S.A. declares war on Britain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1813 Turner: Frosty morning</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1821 Weber: Der Freischütz performed in Berlin 1822 Schubert: ‘Unfinished Symphony’ Beethoven: Mass in D</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1821 Constable: The Haywain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1821-5 The Stockton and Darlington Railway constructed</td>
</tr>
<tr>
<td>Date</td>
<td>Composers</td>
<td>Violinists</td>
<td>Development of Violin and Bow</td>
<td>Development of Violin Technique</td>
<td>Musical Events and violin compositions</td>
<td>Literature and Principal violin treatises</td>
<td>Art and Architecture</td>
<td>Historical Events</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------</td>
<td>----------------------------------------</td>
<td>--------------------------------------------</td>
<td>----------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>1825</td>
<td>Johann Strauss (Jr.) (1825-99)</td>
<td>Joseph Strauss (1827-70)</td>
<td>Joseph Hellmesberger (1828-93)</td>
<td>1829 Carl Guhr: said that left-hand pizzicato and also artificial harmonics in double stopping was innovatory. Chromatic slides, single trills, trills in double stopping and double trills, all in harmonics, as well as some interesting pseudo-harmonic effects. Left-hand pizz was rarely used in the early 18th century but it was used successfully by Paganini - Artificial harmonics used by Paganini. Guhr introduced Paganini finger position – a more advanced position of the thumb, more often than not avoiding formal shifts between positions. <img src="image" alt="Finger Position" /> Some of Paganini’s fingerings anticipated the flexible left-hand usage of twentieth-century violin technique, in which contractions, extensions and ‘creeping fingerings’ liberated the hand from its customary position-sense and the traditional diatonic framework.</td>
<td>1825 Beethoven: Choral Symphony No. 9 – first performance in England Mendelssohn: Violin Sonata Op. 4 composed 1826 Mendelssohn: Overture to Midsummer Nights Dream 1829 Rossini: William Tell performed in Paris</td>
<td>1826 Cooper: Last of the Mohicans 1829 Guhr: Ueber Paganinis Kunst die violine zu spielen</td>
<td>1825 Trade Unions in Britain recognised as legal</td>
<td>1827 Catholic Emancipation in England</td>
</tr>
<tr>
<td>1830</td>
<td>Johannes Brahms (1833-97)</td>
<td>Georg Hellmesberger (1830-52)</td>
<td>Moritz Kossmayer (1831-84)</td>
<td>Joseph Joachim (1831-1907)</td>
<td>1830 Changed pitch to 435-440Hz (Classical a’=430Hz, Baroque a’=415Hz) 1831 Spohr: Vibrato – too frequently and in the wrong place. Suggests 4 kinds of vibrato: 1) fast – for sharply accentuated notes; 2) slow – for sustained notes in impassioned melodies; 3) accelerating – for crescendos; 4) decelerating – for decrescendos. 1832 Spohr: Sound point &amp; contact point depend on the thickness of the string. He advocated the exploitation of the higher positions for expressive and tonal purposes. The first known evidence is provided of the modern practice of breaking a four-note chord upwards in twos where the lower two notes are only of short duration while the upper two notes are sustained to their length. Four-note chords were also “broken”, perhaps 2+2 commencing either before or on the beat, 3+1 or 2+1+1.</td>
<td>1831 Felix Mendelssohn came to Paris and played his own Piano Quartet in B minor, Op. 3, with Ballots Quartet, for Cherubini 1831 Paganini’s first concert appearance in Paris on 24th February. He gave 11 concerts over the next two months</td>
<td>1830 Tennyson: Poems. Cobbett: Rural rides 1832 Spohr: Violinschule 1834 Lytton: Last Days of Pompeii. Mickiewicz: Pan Tadeusz</td>
<td>1830 Corot: Chartres Cathedral Delacroix: Liberty on the Barricades 1831 Constable: Waterloo Bridge 1834 Delacroix: Femmes d’Alger</td>
</tr>
</tbody>
</table>
## Appendix E: A comparative chart of events that affected the violin development and techniques of the era.

<table>
<thead>
<tr>
<th>Date</th>
<th>Composers</th>
<th>Violinists</th>
<th>Development of Violin and Bow</th>
<th>Development of Violin Technique</th>
<th>Musical Events and violin compositions</th>
<th>Literature and Principal violin treatises</th>
<th>Art and Architecture</th>
<th>Historical Events</th>
</tr>
</thead>
</table>

74 However, such statements must inevitably have been interpreted somewhat loosely, as some degree of thumb bending would have been required to achieve the requisite flexibility of the fingers.

Appendix E: A comparative chart of events that affected the violin development and techniques of the era.
## Appendix E: A comparative chart of events that affected the violin development and techniques of the era.

<table>
<thead>
<tr>
<th>Date</th>
<th>Composers</th>
<th>Violinists</th>
<th>Development of Violin and Bow</th>
<th>Development of Violin Technique</th>
<th>Musical Events and violin compositions</th>
<th>Literature and Principal violin treatises</th>
<th>Art and Architecture</th>
<th>Historical Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>C. V. Stanford (1852-1924)</td>
<td>Johann Schrammel (1850-93)</td>
<td>mid-century – A chin-braced grip on the left of the tail-piece gained universal support (Spohr’s chin rest was originally positioned directly over the tail-piece)</td>
<td>The movement of the chin rest from on to left of the tail-piece allowed firmer support for the violin. It allowed it to be held horizontally at shoulder height (Spohr in 1832 recommended an angle of 25 to 30°, while Baillot in 1834 suggested 45°) and directly in front of the player at almost 90°. Optimum freedom of left-hand movement and bow management was thus achieved.</td>
<td>1850 Berlin Conservatory founded 1851 Wagner completes Oper und Drama. Théâtre – Lyrique, Paris founded. Schumann composed Op. 105, Op. 121 Violin Sonatas 1852 New Philharmonic society founded, London 1853 Liszt completes the Piano Sonata in B minor. October: Brahms dedicated to Schumann the Violin Scherzo in C min. Lalo composed violin sonata. Schumann composed two concertante works for Joachim: Concerto No. 2 in D minor Op. 11 and Phantasy Op. 131 Wieniawski: Violin Concerto 1854 Brahms: Songs and the B major Piano Trio</td>
<td>1850 Dickens: David Copperfield. 1851 H. Melville: Moby Dick Hawthorne: House of the Seven Gables 1852 H. Beecher Stowe: Uncle Tom’s Cabin 1853 Mrs Gaskell: Cranford</td>
<td>1850 Paxton: Crystal Palace</td>
<td>1852 Napoleonic III Emp. of the French 1854-56 Crimean war</td>
</tr>
<tr>
<td>1855</td>
<td>Edward Elgar (1857-1934) G. Puccini (1858-1924)</td>
<td>César Thompson (1857-1931)</td>
<td>After mid-century the tremolo bowstroke is used in some chamber music and solo playing. 1858 Bériot: established the significance of fingering as an individual means of artistic expression. He suggested that teaching should begin with the G major scale – not C major as was customary. He developed a new fingering for chromatic scales, based on the use of all the fingers in succession (one of the most significant steps forward in the development of violin technique). 1859 Lvov: gave examples of rational fingerings for descending broken thirds, based on the extension of two adjacent fingers, rather than on sliding the same finger.</td>
<td>1855 Anton Bruckner appointed organist at Linz Cathedral 1856 J. Brahms accepts post as musical director at Detmold 1857 Camille Saint-Saëns appointed organist at the Madeleine, Paris. Liszt completes his Faust Symphony 1858 César Franck appointed organist at Sté Clotilde. Brahms completes his first Piano Concerto</td>
<td>1855 Longfellow: Hiawatha. Walt Whitman: Leaves of Grass Dancla: Méthode élémentaire et progressive du violin Op. 52 1857 Trollope: Barchester Towers 1858 Bériot: Méthod de Violon Tennyson: Idylls of the King, 1859 Meredith: Richard Feverel</td>
<td>1856 Ingres: La Source 1859 Ingres: Le Bain Turc. Corot: Macbeth</td>
<td>1855 Alexander II Emp. Russia 1856 Louis Pasteur becomes Prof. in University of Paris. Bessmear invents cheap process of converting iron into steel 1857 Indian Mutiny</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Composers</td>
<td>Violinists</td>
<td>Development of Violin and Bow</td>
<td>Development of Violin Technique</td>
<td>Musical Events and violin compositions</td>
<td>Literature and Principal violin treatises</td>
<td>Art and Architecture</td>
<td>Historical Events</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------</td>
<td>--------------------------------------------</td>
<td>-------------------</td>
<td>------------------</td>
</tr>
</tbody>
</table>

Appendix E: A comparative chart of events that affected the violin development and techniques of the era.
<table>
<thead>
<tr>
<th>Date</th>
<th>Composers</th>
<th>Violinists</th>
<th>Development of Violin and Bow</th>
<th>Development of Violin Technique</th>
<th>Musical Events and violin compositions</th>
<th>Literature and Principal violin treatises</th>
<th>Art and Architecture</th>
<th>Historical Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1875</td>
<td>Maurice Ravel (1875-1937)</td>
<td>Fritz Kreisler (1875-1962)</td>
<td></td>
<td></td>
<td>1875 Bizet: Carmen</td>
<td>1877 Léonard: Méthode. Tolstoy: Anna Karenina 1879 Ibsen: A Doll’s House</td>
<td>1876 Renoir: Au Théâtre</td>
<td>1876 The telephone invented by Graham Bell 1877 Edison invents the phonograph 1878 Microphone invented 1879 First electric tram demonstrated at Berlin Trade Exhibition</td>
</tr>
<tr>
<td>1885</td>
<td>Louis Persinger (1887-1966)</td>
<td></td>
<td>1885 C. Wassmann – the possibilities inherent in the violin’s tuning in fifths. He also suggested a uniform scheme of fingering for all diatonic and chromatic scales, giving maximum economy of position changes.</td>
<td>1885 Dvořák’s Seventh symphony composed for the philharmonic society. Brahms’ Fourth symphony and Bruckner’s Eighth. Saint-Saëns: Violin Sonata Op. 75 1886 Improvements made in piano construction by firms of Blüthner, Bechstein, and Steinway. Saint-Saëns composes Le carnaval des animaux. Brahms: Violin Sonata Op. 53</td>
<td></td>
<td>1888 Amsterdam Concertgebouw was founded</td>
<td>1888 Pasteur Institute established in Paris</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix E: A comparative chart of events that affected the violin development and techniques of the era.

<table>
<thead>
<tr>
<th>Date</th>
<th>Composers</th>
<th>Violinists</th>
<th>Development of Violin and Bow</th>
<th>Development of Violin Technique</th>
<th>Musical Events and violin compositions</th>
<th>Literature and Principal violin treatises</th>
<th>Art and Architecture</th>
<th>Historical Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890</td>
<td>S. Prokofiev (1891-1953)</td>
<td>Adolf Busch (1891-1952) Josef Szigeti (1892-1933) Franz Vécsey (1893-1935)</td>
<td></td>
<td>1890 Developed finger stoke 1890’s Carrillo: experimental ‘sonido 13’ system (of equal-tempered quarter-tones) initiated the twentieth century interest in microtones. 1890 Tchaikovsky: Sleeping Beauty 1892 Tchaikovsky: Nutcracker. C. Nielsen completes the first of six symphonies. Dvořák becomes director of the National Conservatory of Music 1893 Dvořák composes his Ninth symphony, ‘From the New World’ Tchaikovsky dies, St Petersburg, shortly after completing his Symphony No. 6 ‘Pathétique’ 1894 Debussy completes his innovatory Prélude à L’après-midi d’un faune</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1895</td>
<td>Francis Poulenc (1899-1963)</td>
<td>Alfred Dubois (1898-1949)</td>
<td></td>
<td>1897 Valter: Important to use even-numbered positions, particularly the second. Without a solid foundation here, the violinist is less likely to be able to choose the correct fingering. Joachim’s editions of such works as the Mendelssohn and Beethoven violin concertos reveal much about the technique of the</td>
<td>1895 Mahler’s second ‘Resurrection’ Symphony given. Strauss: Till Eulenspiegel. Melbourne Conservatory founded. Henry Wood begins the Promenade concerts at the Royal Albert Hall. 1896 Chausson composed Poème Op. 25.</td>
<td>1899 Courvoisier: The Techniques of Violin Playing on Joachim’s Method.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1895</td>
<td>Francis Poulenc (1899-1963)</td>
<td>Alfred Dubois (1898-1949)</td>
<td></td>
<td>1897 Valter: Important to use even-numbered positions, particularly the second. Without a solid foundation here, the violinist is less likely to be able to choose the correct fingering. Joachim’s editions of such works as the Mendelssohn and Beethoven violin concertos reveal much about the technique of the</td>
<td></td>
<td></td>
<td>1895 X-rays discovered by Röntgen. Lumière brothers invent the cinematograph. Marconi invents wireless telegraphy 1886 Nobel prizes established. Daily Mail founded</td>
<td></td>
</tr>
</tbody>
</table>

Appendix E: A comparative chart of events that affected the violin development and techniques of the era.
<table>
<thead>
<tr>
<th>Date</th>
<th>Composers</th>
<th>Violinists</th>
<th>Development of Violin and Bow</th>
<th>Development of Violin Technique</th>
<th>Musical Events and violin compositions</th>
<th>Literature and Principal violin treatises</th>
<th>Art and Architecture</th>
<th>Historical Events</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Puccini’s La bohème given, Turin.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Isaac Albéniz: Pepita: Jiménez.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ernest Chausson composes his Poème for Violin and orchestra.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1897 Symphony No. 1 by Sergey Rakhmaninov given</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1898 Adelaide Conservatory founded</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1899 Arnold Schoenberg: Verklärte Nacht</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M. Ravel: Pavane pour une infante défunte</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900-</td>
<td>Jascha Heifetz (1900-87) Ivan Galamian (1903-84)</td>
<td>In twentieth-century music the flexible left-hand usage, that was foreshadowed by some of Paganini’s fingerings, was demanded by increased chromaticism, whole-tone, microtone and other scale patterns and non-consonant double and multiple stopping.</td>
<td>1917 Fauré: Violin Sonata Op. 108</td>
<td>1902-05 Joachim and Moser: Violinschule 1910-11 Eberhardt: Der beseelte Violin – Ton trans. as Violin vibrato 1916 Capet: Technique supérieure de l’archet 1920 Woof: Technique and interpretation in Violin Playing 1921 Auer: Violin Playing as I Teach It.</td>
<td>1900 British Labour Party founded Federation of Australia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1913 Bezekisky – first to give examples of rational fingerings for various kinds of double stops, based on the use of extensions and the simultaneous use of two adjacent positions</td>
<td>1923 Flesch distinguishes three portamento types: a straightforward one-finger slide, the ‘B-portamento’ and the ‘L-portamento’.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1930’s Vibrato became very fashionable because of the influence of Kreisler and Heifetz. Continuous vibrato is a twentieth-century phenomenon, indicating that in itself that the older ornament has lost its expressive power.</td>
<td>1923 Moser: Geschichte des Violinspiels 1924 C. Flesch: The Art of Violin Playing 1925 Auer: Masterworks and their interpretation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix E: A comparative chart of events that affected the violin development and techniques of the era.
Appendix E: A comparative chart of events that affected the violin development and techniques of the era.

Figure E-1 A variety of bows used in past eras. Explanations are given in the column entitled ‘Development of Violin and Bow’ in the table in Appendix E.)
Appendix F: The Live Recordings

Compact Disc Notes

The five compact discs accompanying this thesis include live performances of the music that the researcher played with historical stylistic awareness.

Recordings

All of these compact disks were recorded in the concert hall of the Newcastle conservatorium, University of Newcastle over a four-year period between 1999 and 2002.

The violin is by Harry Vatilitiotis (1999), Sydney.
The pianos are a Steinway model grand & Stuart No. 2.
The recordings were made without any cuts or editing, in order to preserve the ethos and aesthetics of a live performance.

CD’s 1, 2, & 5 were played with Helen Smith on the piano.
CD 3 was played with Helen English on the piano.
CD 4 was played with Anthea Scott-Mitchell on the cello and John Collyer on the piano.

They were all “historically-aware” performances. Most of the discussion in this thesis is supported by example from these performances. These performances attempt to recreate the use of violin techniques, for example vibrato, shift, sound point, finger stroke, etc.

As detailed in the findings of this thesis the researcher extends thanks to all involved in the recording of these CD’s especially the University of Newcastle for the use of the recording venue and equipment.
CD Numbers and Track Numbers

Track List

CD 1 (1999)

Robert Schumann – Sonata No. 1 in A minor Op. 105
1. Mit leidenschaftlichem Ausdruck
2. Allegretto
3. Lebhaft

Francis Poulenc – arr. Jascha Heifetz – Mouvements Perpétuels
4. Assez modéré
5. Alerte

Fritz Kreisler – Praeludium und Allegro in the style of Pugnani
6. Allegro

Camille Saint-Saëns – Havanaise Op. 83
7. Allegretto lusinghiero

Players
Violin: Sohyun Eastham
Piano: Helen Smith

CD 2 (2000)

Franz Schubert - Sonata in A major Op. 162
1. Allegro moderato
2. Scherzo – Presto
3. Andantino
4. Allegro Vivace

Serge Prokofiev – Sonata No. 2 in D major Op. 94a
5. Moderato
6. Presto
7. Andante
8. Allegro con brio

Players
Violin: Sohyun Eastham
Piano: Helen Smith
CD 3 (2001)
Johannes Brahms - Sonata No.3 in D minor Op. 108
1. Allegro
2. Adagio
3. Un poco presto e con sentimento
4. Presto agitato

Peter Tchaikovsky - *Three Pieces* Op. 42
5. Andante molto cantabile – Meditation
6. Presto giocoso – Scherzo
7. Moderato con moto – Melody

Maurice Ravel
8. *Tzigane*

**Players**
Violin: Sohyun Eastham
Piano: Helen English

CD 4 (2001)
Ludwig Beethoven - Piano Trio in D major Op. 70, No. 1 “*Ghost*”
1. Allegro Vivace con brio
2. Largo assai ed espressivo
3. Presto

**Players**
Violin: Sohyun Eastham
Cello: Anthea Scott-Mitchell
Piano: John Collyer

CD 5 (2002)
Johannes Brahms - Sonata No. 1 in G major Op. 78
1. Vivace ma non troppo
2. Adagio
3. Allegro molto moderato

Johannes Brahms - Sonata No. 2 in A Major Op. 100
4. Allegro amabile
5. Andante tranquillo
6. Allegretto grazioso

Johannes Brahms – *Scherzo* in C minor
7. Allegro

**Players**
Violin: Sohyun Eastham
Piano: Helen Smith
Appendix G: Achieving Rhythmic Flow and Balance

An exercise provided by Fracht (1969) to achieve rhythmic flow and balance in movement between both arms. See page 94 for the discussion on this topic.

“Bring the violin to the chin and rest the chin lightly on the chin-rest. Lean the violin against the wall and press the first finger firmly on the low F of the E string. Since shifting involves the arm, we will concentrate on the arm as the basic involvement at this stage. The left arm elbow should now pull downwards and in this way bring pressure to bear on the first finger. Now start a first to third position slide with the first finger only and note that the weighted elbow brings the left shoulder into the picture as the main moving force. This left elbow moving as it will in a few moments with a corresponding movement of the right shoulder becomes a balance source for freedom in shifting movement. A few slides should establish the feeling that the arm and hand have become one piece. Stop. Now remove the left-hand thumb from the neck of the violin and stretch it out to the side of the neck in a horizontal position. This position of the thumb will perforce compel the arm to motivate the shift movement and that is our aim. Once again resume the up and down slide motion, expanding and shrinking the spans at will. When freedom and a sense of rhythmic flow is established take your bow in hand and place it on the violin at the tip. With the bow resting firmly on the violin remove all the fingers but the thumb and index fingers from the bow. You may rest the 3rd, 4th, and 5th fingers against the back of the frog. With fingers removed from the frog and the thumb removed from the neck of the violin, both hands are now in a position to permit the arms to take over the complete job of shifting.

“In the following gymnastic use only as much bow space as you need to use in sliding with the left hand to get from one position to another. In other words use the same amount of space in both arms. This exact synchronisation in movement between the two arms is the start of a balanced, well timed and coordinating mechanistic basis for combining both arms in movement. Now slide with the first finger to the third position up bow (with a detached left-hand thumb) stopping both hands at the same time with a firm pressure. At the stopping point, reverse
the weight pressure from the elbows of both arms using this weight pressure as the stopping and pivot points simultaneously. Now (reverse pressure is the shift from up bow weight to a down bow weight) release this pressure – and shift back to the first position using the same pressure and stopping device at the end of the stroke in reverse manner. A few of these movements should establish a oneness between both arms in feel and rhythm. Now shift from the first position to the fourth - then the same to the fifth position, etc.” (Fracht, 1969, pp 47-48)
Bibliography

Books


*Reference used in Part II Guide to Performance only.

Bibliography: Books

\textsuperscript{75} This reference is not quoted directly, rather articles from the source are quoted.
Articles


Reference used in Part II Guide to Performance only.


Other media


Scores

Franck, C. (1944) Sonata in A. G. Ricordi and Co., Italy.
Kreisler, F. (1910) Praeludium and Allegro in the style of Pugnani, B. Schott’s Söhne Mainz. Copy write renewed 1938.

Bibliography: Other media
**Further reading**

The following articles and books were consulted in the research process but were not directly used in this thesis:

**Farga, F. (1940) Violins and Violinists. Salisbury Square, London.**

**Flesch, C. F. (1990) ‘And Do You Also Play the Violin?’ Toccata Press, England.**


**This is a book.**


