

ARI POUTAINEN

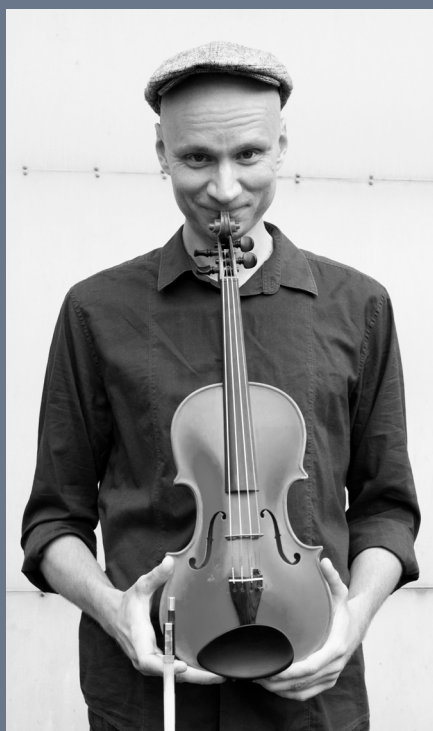
STRINGPROVISATION

A FINGERING STRATEGY
FOR JAZZ VIOLIN IMPROVISATION



Among the key issues of left-hand violin technique are fingering, shifting, and position playing. This doctoral study presents a unique fingering strategy, *Stringprovisation*, that focuses on these technical matters. The strategy is targeted to formulaic modern jazz improvisation and is communicated through applications of idiomatic musical patterns. The strategy excludes the use of open strings and relies instead on so-called schematic fingering. This advanced fingering approach reflects well the tactile and kinesthetic aspects of violin playing, and idiomatic patterns can be effectively performed with it in all keys and violin positions.

The study is divided into two parts. Part I consists of a comprehensive investigation of schematic fingering approaches in relevant pedagogical string instrument literature. Part II presents the fingering strategy with an extensive collection of musical examples. This strategy draws from the author's



wide experience in and knowledge of jazz violin performance and pedagogy. The strategy appears to provide a significant alternative fingering approach with which modern jazz can be effectively improvised across the entire violin fingerboard.

Ari Poutiainen is an original contemporary jazz violinist, violist, composer, and arranger. He is known for his use of rare, hybrid 5-string violas in addition to violin, his main instrument. He has performed across Europe, led various small groups and string ensembles, composed scores for films, contemporary dance and theatre performances, and appears on approximately 50 CDs. As a pedagogue, Poutiainen has specialized in bowed string instrument improvisation, having taught the subject at different levels and institutions for several years. He has also published scholarly articles and given conference presentations on jazz violin history and improvisation.

“Surprisingly, this is the first attempt to address the unique fingering challenges of modern jazz on a violin....He meticulously explains all the harmonic, melodic, and fingering implications of each example in a manner that should serve as a standard for other jazz instruction books.” (Stacy Phillips, *Fiddler Magazine*)

“[It] offers practical ideas, exercises, and improvisation tips that should appeal to players and teachers outside of academia....Although it's not a method or exercise book in the strict sense, the ideas and examples provided in *Stringprovisation* should be useful to those interested in serious jazz violin studies.” (Lyzy Lusterman, *Strings*)

“The volume...is clearly the result of exhaustive thought and consideration, time and effort, with a multitude of footnotes, references and explanations....The book offers fascinating observations about the violin in jazz history, and also gives arresting and insightful scientific comparisons with other more common jazz instruments....Poutiainen's magnum opus offers much food for thought.” (Chris Garrick, *The Strad*)

Ari Poutiainen

Stringprovisation

A Fingering Strategy
for Jazz Violin Improvisation

Acta Musicologica Fennica 28

The Finnish Musicological Society

Helsinki

2009 & 2019

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Cover design Timo Klaavo

Front cover picture Ari Poutiainen

Back cover picture Timo Klaavo

Acta Musicologica Fennica 28

The Finnish Musicological Society

ISBN 978-952-94-1657-8

ISSN 0587-2448

First edition printed by HSE Print (Helsinki, 2009)

Second, updated edition only in digital format (Ari Poutiainen, 2019)

ABSTRACT

In modern jazz improvisation, violinists frequently employ only a limited part of the fingerboard. This often results in performances in which most of the wider, more expressive violin range remains unemployed. Among the key issues of left-hand violin technique are fingering, shifting, and position playing. These are infrequently discussed in the pedagogical literature for jazz violin. This study presents a fingering strategy that focuses on these technical matters. The strategy is targeted to formulaic modern jazz improvisation and is communicated through applications of idiomatic musical patterns. The strategy excludes the use of open strings and relies instead on schematic fingering. This fingering approach reflects well, for example, the tactile and kinesthetic aspects of violin playing and with it idiomatic patterns can be effectively performed in all keys and violin positions.

In support of the strategy, related approaches from the pedagogical literature of classical and jazz violin are examined. Relevant guitar and mandolin methods are discussed in detail as well. In Part I, the research method resembles comparative research, however also essentially including some elements of practice-based research. Part II presents the fingering strategy mostly in terms of practice-based information. This strategy draws from the author's wide experience in and knowledge of jazz violin performance and pedagogy. The strategy appears to provide a significant alternative fingering approach through which modern jazz can be effectively improvised across the entire violin fingerboard. This study proposes that a particular approach to the application of schematic fingering may be ideal for jazz violin improvisation.

PREFACE TO THE DIGITAL EDITION

The print edition of *Stringprovisation* has now been sold out for some years. To my surprise, I keep receiving inquiries about the book. I am nothing but humbled by this continuing interest in a dissertation on such a marginal subject. Due to my various and several academic commitments and responsibilities and a relatively busy artistic schedule as well, it has unfortunately taken some time to prepare this digital edition. However, at long last, here it is. I hope *Stringprovisation* and its key findings will now disseminate faster and to larger audiences. It seems that the number of accomplished bowed jazz string players is steadily growing, and that this fresh talent shares my concern about the level of strings education. It is alarming indeed that still so little has been written on jazz strings fingering and bowing technique.

When *Stringprovisation* came out in 2009, it was carefully evaluated by top colleagues around the world. Popular international strings media introduced my contribution on their pages. The book was reviewed, for example, in *The Strad* (June 2011), *Strings* (January 2010), and *Fiddler Magazine* (Summer 2010). The appreciation and generously positive reactions were inspiring. In addition to my reviewers, I wish to acknowledge everyone who then took the time to read the book and directly approach me with encouraging feedback.

The book's recognition resulted in several meaningful peer connections and invitations to present and discuss my work. Soon I was also asked to teach my strategy in masterclasses and strings camps. In this respect, Barcelona Fiddle Congress and the Zbigniew Seifert Foundation were among the first events or institutions to take heed. It has been a great pleasure to learn about players, educators, and researchers who have pondered similar ideas and are determined to work for the promotion of jazz strings. The classes have been fun and mutually engaging. They have given me the opportunity to put my theory into practice and test the preliminary exercises I had developed for schematic fingering and position playing.

For this digital edition I needed to correct only a few typographical errors. Otherwise the contents are the same as the print version, unabridged and neatly folded.

Cordially improvised in Helsinki

March 4, 2019

PREFACE

At first glance it seems that I became a jazz violinist by coincidence.

My first jazz instrument was the piano, and I dreamed of becoming a professional jazz pianist. At the piano, I received formal jazz education for the first time in a public music school in my hometown when I was in my teens. However, as soon as my early jazz mentors heard that my main instrument was actually viola (by that time I had played both classical violin and viola for about eight years), they insisted that I also bring a string instrument with me and give it a try in a session. I did that—and they soon stopped encouraging me from playing jazz piano anymore. I accepted that change without a second thought. I was just happy to have a chance to improvise.

As soon as I began to take jazz violin playing seriously, the prospects really grabbed me. I remember that there was a time when the issues of left-hand violin technique occupied my mind so much that I even used to see scale fingerings in my dreams. That happened when I was about 20 years old and was becoming a more devoted music student. By that time, I had already played jazz violin and piano for some years.

I got involved in semi-professional jazz performing rather early-on. As soon as I had internalized the fundamentals of jazz, I was playing gigs regularly—and even earning some money that way. Although I could hardly be considered as a jazz prodigy of any kind, it seems that I was able to apply my classical string instrument technique to jazz rather easily and quickly. However, I can now see that there were things in my earlier musical history that had somewhat paved the way. Small things had been happening and growing here and there. Still, everything had occurred so smoothly that nobody, I the least, had never paid any serious attention to certain aspects of my development.

Like many jazz string players, my roots were in classical music education, and I gained my elementary technique with violin and viola studies of classical music.¹ However, classical music never really inspired me that much as a child; something always seemed to be missing. Therefore, as soon as I learned my written part, for example, in a chamber orchestra, I began to softly improve that part by improvising; playing additional voices around the written lines.² I had my own fun with the predictable harmonies of classical pieces by enhancing them a bit. This fun naturally lasted only until the conductor promptly put me back in line again.

Much earlier than my classical violin studies, I had taught myself to play the piano at home. My sister, who was four years older, had begun to study classical piano, and I naturally had to find

¹ I began my formal classical music studies on the recorder at six and changed to the violin at eight. I began to focus on the viola at 15. Since I was 19, I have mainly played different acoustic or electric 5-string violas (i.e., violas with the violin E string) or a 5-string electric violin (i.e., a violin with the viola C string). When I began to work on this study, I changed back to the standard, acoustic violin again. The various, hybrid 5-string instruments have allowed me to enjoy a violinist-violist double identity. Consequently, I have frequently considered and introduced myself as a violinist.

² Since the beginning of my classical string studies I frequently played in diverse chamber and symphony orchestras, string quartets, and other ensembles and became familiar with a wide selection of repertoire from Renaissance music to contemporary classical music. I was often employed as an extra violist in regularly performing and recording professional orchestras since I was 15.

out what in the earth she was doing with that big machine in our living room. At the age of five, I remember, I proudly stated that I already had at least ten piano compositions. These naturally were little more than small tunes with diatonic melodies and simple harmonies. Nevertheless, they surely felt like mine, all mine.

Beginning with those tiny piano pieces, I continued my self-directed study of music through composing or making it my own. For instance, when I was about ten, I picked up my father's old acoustic guitar and learned to strum chords and play some blues. Since the local rock band scene was not very vital or inspiring at the time, and since I did not feel ready to start a group of my own, I bought myself a four-track cassette tape recorder and focused on an exploration of arranging and polyphony instead. I got plenty of ideas from music theory and ear-training lessons, all of which I took seriously.

So, from a second, more retrospective glance, it now seems almost inevitable that I became a jazz violinist. Despite my classical education, which I recall as discouraging any original musical impulses, I had managed to develop an open, flexible, and organic approach to music making. When it was time to think about university studies, music competed with architecture for the top position (I liked to draw as well). I had already played at some domestic jazz festivals and undertook a small tour in Germany with a hometown swing jazz band, and I took composing seriously as well. There were, unfortunately, few possibilities available to study jazz on a higher level, so I bravely began to attend courses in musicology and music education.

Through academic studies I soon got involved in the more competitive jazz scene. The stakes got higher—and did so quickly. Now I had to learn all the keys better and had to dive into more complex chords and scales. To my great disappointment, I could never find a competent jazz violin teacher to show me how to cope technically with these new musical issues. Nor could I find a true jazz violin idol whose recordings I wanted to emulate. I studied, therefore, with saxophone players. Although they could explain advanced details of jazz theory and improvisation to me, they could not guide me in focusing and improving my instrumental technique. I had to base my jazz applications of classic violin technique, for example, solely on intuition.

Since I had no one to lead me with fingering issues, for instance, I decided to play it safe and first designed scale fingerings just for the first and half positions. As the general musical requirements soon got higher again (there were always more distant goals to reach, such as more complicated tunes and harmonies, new musical idioms and styles, etc.), I did not have much time to invest in thoroughly studying the rest of the fingerboard. Actually, I spent some difficult years resolving other fundamental technical obstacles in jazz violin improvisation (e.g., diverse problems of bow technique, amplification, and sound processing). Working alone, I naturally made relatively slow progress and I finally decided that it was perhaps better to take a degree in something other than jazz. Consequently, I quickly graduated from a classical music theory program—still, with an ardent thesis on jazz saxophonist Michael Brecker's melodic and instrumental devices.

Eventually, I became a professional jazz violinist as well. Ultimately, I also got my own bands, tours, recordings, students, commissions, and such things. Having built my fundamentals

through independent musical experimenting, compositional problem resolving, and patient trial and error type learning, I eventually gained control of the violin to the point where I could even consider developing original approaches to it. I began to study, for instance, how I could gain a better command of the entire fingerboard. Somewhere along the way I had an idea that seemed to open an inspiring point of view. The idea crystallized into a fingering approach that I soon identified as schematic fingering.³ This fingering approach prodded me to go back to school again, this time into a doctoral program. And thus began another exciting process of independent learning.

The particular, long process finally produced the fingering strategy that I am about to present to public in this study. In some respect, I see that this work represents the highest achievement in my musical career to date. The following pages summarize some of the diverse technical matters I have been working on for several years. To me, they also materialize something dear and precious; something that was, I like to believe, already manifest in those early piano tunes I made as a child. That is, in addition to the presentation of my fingering strategy, I hope that this study is able to demonstrate at least some of those features I today value in music the most—expression, ideas, courage, devotion, and eclecticism.

This study was conducted and written in four different countries: in Finland, Germany, the USA, and France. As a whole it was, literally, a rather long journey. During this travel, the research, with all its peculiarities, often seemed to be a deep river that was too strong or wide to cross. While fearlessly stroking in it, the current was often about to bring me a place somewhere else. Also, along the long way, all directions occasionally seemed to lose their meaning. I guess for me it still is a bit too early to say if I reached the other bank, an island, or just a floating log. However, it all was worth the dip.

³ I describe the early phases of the fingering strategy development in detail in Part I, Chapter 2.

ACKNOWLEDGEMENTS

My doctoral studies and research have benefitted from advice, assistance, help, and support from various parties. The project has involved efforts by several individuals and institutions. I want to acknowledge the following contributions, in particular.

I thank my two reviewers, Professor David Hebert (Sibelius Academy) and Assistant Professor Stig Roar Wigestrund (Vestfold University College) for their helpful cooperation. In particular, I acknowledge Professor Hebert's valuable insights regarding my research method. Similarly, I thank my group of advisors at Sibelius Academy—Professor Vesa Kurkela; Doctor Jari Perkiömäki; Lecturer Henriette van der Woude-Rantalaiho; and Violist Helge Valtonen—for their guidance. I especially want to acknowledge van der Woude-Rantalaiho and Valtonen for their warm encouragement and many invaluable ideas about how to connect my work to the pedagogical literature of classical violin.

Next, I would like to thank Professor Lewis Porter (Rutgers University). To improve my skills as a jazz researcher, I spent a year at Porter's extraordinary Jazz History and Research Program under the auspices of the Fulbright program. That year at Rutgers was extremely inspiring and educational. I want to credit Professor Porter for his outstanding advisement and for introducing me to several key persons in the North American professional jazz community.

I am deeply grateful to jazz violin historian Anthony Barnett for his help with numerous details concerning jazz violin history. With Barnett's kind help I was also able to gain access to some rare research material. I am indebted to violinist Paul Anastasio for introducing me to Joe Venuti's sketches and special fingering concept. I thank Doctor, mandolinist Jouni Koskimäki (University of Jyväskylä) and mandolinist Petri Hakala for their guidance concerning mandolin literature. I want to credit Doctor Jarkko Niemi (University of Tampere) and Doctor Risto Pekka Pennanen (University of Tampere) for their explanation of aspects of Turkish music theory. Doctor, cellist Raimo Sariola (Sibelius Academy), I acknowledge for sharing his expertise in classical cello literature. To Professor, bassist Anders Jormin (University of Gothenburg) and bassist Ari-Pekka Anttila, I am grateful for the information I gained about fingering approaches for jazz and classical bass. I also thank cellist Susanne Paul for introducing me to Helmut Zacharias' rare jazz violin booklet.

I want to especially acknowledge one of my best friends, jazz composer and guitarist Esa Onttonen, who guided me through challenges with computer technology and software. Another close friend, author Teemu Miettinen, I thank for his general comments on my text. I thank pianist Antti Kujanpää and recording engineer Olli Ovaskainen for their very pleasant cooperation in preparing the auditory demonstrations needed for this study. From a larger group of colleagues and friends who made valuable suggestions, I want to mention Doctor Heikki Uimonen (University of Tampere), composer Tim Page, and the members of The Finnish Graduate School of Folk and Popular Music.

I should not forget my first three jazz mentors—saxophonist Kalervo Mäkinen, drummer Simo Peltola, and pianist Tapani Riippa. Without their early influence and support this study could be about piano, which was my first choice of jazz instrument, instead of being of violin. I thank these three gentlemen for being kindly obsessive about getting me to play jazz on a bowed string instrument!

I must also give considerable credit to my dear sister, Doctor Saira Poutiainen (University of Helsinki), for being my most significant informal academic adviser at the early stages of my doctoral studies. She helped me with my method design, introduced me to higher scholarly customs, and guided me in fundraising.

Most of all I want to thank my dear parents, Ritva and Jaakko Poutiainen, for showing their loving support in many ways. Regarding my early steps in music, for instance, I am especially grateful to my mother for obstinately talking me into the local public music school, even though the school had labelled me as an “unmusical and unskilled” child at its entrance exam. This study could be proof of how difficult it is to measure children’s musical talent and potential by such exams alone. Regarding my early steps in jazz, I am grateful as much to my father, with whom I designed and built my first electric 5-string violas. These unique, sophisticated custom instruments were a significant improvement since they allowed me to be heard on the band stand for the first time and helped me in creating my own sound and approach to jazz violin and viola improvisation.

Financial support for my doctoral studies has been provided by the Finnish Cultural Foundation, the ASLA-Fulbright Graduate Grant Program, the Jenny and Antti Wihuri Foundation, the American-Scandinavian Foundation, and the Sibelius Academy. This funding allowed me to focus, study, and research my subject in Finland and abroad.

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PART I

Setting the Frame

CHAPTER 1

Introduction

“Oh, you play jazz on violin? I haven’t heard violin in jazz before. It’s kind of rare, isn’t it?”

Ever since I began to play jazz on violin and viola I have heard questions like these raised after each public jazz performance. Such questions are typically made by one or two members of the audience whose curiosity was aroused by the music they heard. Sometimes I hear similar comments from fellow jazz musicians; when I am joining a pick-up band or joining a jam session, for instance. It really seems that violin is not easily associated with jazz. Instead, it is frequently seen as a bit strange as a jazz instrument.

Although I have long ago become accustomed to such inquiries, I must admit that they still sometimes surprise me—especially since I think, feel, and know that violin has always been a part of jazz music. It has been around all the time throughout jazz history. However, it has not been very audible or highly visible, and thus it seems to be something quite new for many jazz audiences.

I am accustomed to telling inquirers that the violin is actually not that rare in jazz anymore, and that earlier, back in the good old days, it was heard rather frequently. Sometimes I continue with details, explaining, for example, that violin was a part of the African-American music tradition even before jazz was born. Yes, right from the very start violin was there, being a significant early blues instrument. Also, around the beginning of the 20th century, when early jazz was born, the violin was a part of the original instrumentation.⁴ Sometimes violinists, who often had more formal musical education than did other members, were employed as bandleaders. And next in the storyline follow those numerous swing violinists who played so melodically and elegantly or with such a swing that it got everybody jumping.

Later, after sharing these small pieces of historical information, I often find myself wondering what wiped these things from the memory of the dedicated jazz audience. Why is violin perceived as rare in jazz? How has the instrument come to occupy such a marginal position? It seems likely that the position has origin in the many challenges that the modern jazz expression presented to violinists.⁵

⁴ See Christopher Washburne, “Miscellaneous instruments in jazz,” in *The Oxford Companion to Jazz*, ed. Bill Kirchner (New York: Oxford University Press, 2000), 653-667.

⁵ In this study, *modern jazz* is employed as an umbrella term that refers to jazz expression based on the most common jazz styles of the 1940s, 1950s, and 1960s. The particular styles in question are bebop, hard bop, cool, and modal jazz. The term is discussed in detail below, in subchapter 1.6.1.

1.1 Violin and Modern Jazz

The role of violin in jazz history is certainly ambiguous. Perhaps it is this vague status of the instrument that sometimes brings up such prejudged views as, “you cannot really swing on violin,”⁶ which is still occasionally repeated today by the jazz media and, I am sad to say, by some professional jazz musicians. Such statements have also been implied in some popular jazz literature.⁷ The lack of a percussive attack typical for more popular jazz instruments is a possible, important reason for the ambivalence to violin as a jazz instrument. In as well, the severe difficulties in acoustic or electric amplification of the violin sound challenged violinists for several decades. These technology issues perhaps made the instrument less appealing both to players and listeners. Jazz violin did not escape only from the ears of the public but from its eyes as well; it seems that few jazz violinists’ contributions have interested the jazz media. Even in the present day mass media, it seems that jazz violin is frequently pushed into the margins and the possibilities and potential of the instrument and its contemporary development appear to remain rather under-recognized.

The status of violin in jazz and other related issues are not keeping only me busy; they have worried jazz violinists for a long, long time. As early as 1945, for instance, these matters occupied violinist Paul Nero. In the introduction of his charming *Fiddler’s Handbook: “Hot Tips” for the Commercial Fiddler*, he suggests that, at that point in time, violin had been misused in jazz; that no one (neither arrangers nor violinists themselves) had really made any serious efforts to creatively employ the full potential of the instrument. Nero also claims that the lack of amplification equipment made it impossible to hear violin until the late 1930s. In addition, he argues that ambitious classical violinists had purposely ignored all the opportunities for applying their skills in jazz or dance music: Instead, they had only been interested in the concert stage or playing in a symphony orchestra.⁸

Nero’s points are engaging and they form a good, historical basis for a more general consideration of the status of the violin in jazz. However, the points Nero makes could hardly alone explain why the violin had already become such a marginal instrument in jazz in the 1940s. Nor can they make clear why violin is still, more than 60 years later, in the margins. I am convinced that many of the reasons for the status of violin in jazz are more likely based on challenges that the development of modern jazz presented to instrumentalists. It is a cold fact that well-played modern jazz cannot be frequently heard on violin. Many of my colleagues agree with this view.⁹

⁶ This view has been shown to be inaccurate by many violinists; especially by the magnificent Stuff Smith. Those still in doubt should listen to, for instance, Stuff Smith, *The Complete Verve Stuff Smith Sessions*, Mosaic Records, MD4-186.

⁷ See, for example, Gunther Schuller, *Early Jazz: Its Roots and Musical Development*, paperback ed. (New York: Oxford University Press, 1986), 8.

⁸ Paul Nero, *Fiddler’s Handbook: “Hot Tips” for the Commercial Fiddler* (New York: Carl Fischer, 1945), 3. I wish to acknowledge jazz violin historian Anthony Barnett for giving me access to this rare publication.

⁹ As a part of my artistic and academic work I have personally met many significant, contemporary jazz string players.

The complex melodic, harmonic, and rhythmic elements and aspects of modern jazz improvisation are difficult for anyone, but they appear to be especially challenging for violinists. Consequently, the melody construction typical to modern jazz, for instance, seems to be present less frequently in historical, recorded examples of violinists. However, in recordings by saxophonists, for example, such melody construction is very common. It is surprising that the same seems to apply even today; modern jazz improvisation on violin is still relatively rare in the recent recorded output. Those jazz violin recordings including the elements of modern jazz improvisation are relatively far and few between.¹⁰

In the canon of jazz, not too many violinists have mastered modern jazz improvisation. Hence, it is generally agreed that, in many respects, the development of jazz violin has differed a great deal from the development of other, more common jazz instruments. Why and for what reason? For decades the phenomenon has been a subject for speculations among musicians, journalists, and jazz audiences. The matter still seems to be un-researched and academic argumentation on the matter is thus sparse.

However, violinist and musicologist Susanne Gläß shed some light on this issue in her dissertation, *Die Rolle der Geige im Jazz*.¹¹ There, she approaches the change of status of violin during the bebop era from an interesting angle. Like many of her predecessors, Gläß first discusses the general changes in timbre and volume as major issues challenging violinists.¹² However, later she argues that the primary reason for the change of status of violin in jazz was that the instrument clearly represented European-American culture and tradition and that this fact made the position of the instrument problematic during the bebop era.¹³ The Bebop revolution,¹⁴ as it often is called, re-evaluated and emphasized the African-American tradition and roots in jazz, and in this respect created an urge to signify the difference between jazz as an African-American art form and its European influences.¹⁵

I have become very familiar with the challenges of modern jazz violin expression through my experience in the field as a performing jazz violinist, as a composer and an arranger for strings, and as a jazz violin pedagogue and researcher. In addition to my own artistic work, I have taken part in numerous musical projects (in Europe and the USA) that have involved other internationally recognized, educated, and professional jazz violinists. Through such work with colleagues, I believe I have been able to form a relatively many-sided and clear image and outline of the challenges and problems facing jazz violinists.

¹⁰ Naturally, here I am referring to the general level of jazz violin expression, not to the actual amount of recordings. To record so-called “straight-ahead,” modern jazz playing and standard repertoire is not that popular anymore; contemporary jazz violinists prefer to record their own repertoire and chosen style.

¹¹ Susanne Gläß, *Die Rolle der Geige im Jazz* (The role of violin in jazz) (Bern: Peter Lang, 1992). Published only in German. The translation of the title is mine.

¹² *Ibid.*, 99.

¹³ *Ibid.*, 100.

¹⁴ A rather contemporary classic, highly recommendable study on bebop history is Scott DeVeaux, *Birth of Bebop: A Social and Musical History* (Berkeley: University of California Press, 1997).

¹⁵ *Die Rolle der Geige im Jazz*, 100.

Furthermore, I have worked as a free lance radio jazz journalist for several years.¹⁶ As a member of the jazz media, I have also encountered numerous, leading, international jazz violin performers. For years, while visiting jazz festivals and broadcasting reports and in-depth programs on their various artists and their performances, I intentionally sought out and interviewed all the jazz string players I could come across. And it always happened that when a jazz string player met another, a positive amount of informal discussion of jazz string issues took place—even though I appeared in the role of an interviewer. I see this as a meaningful addition to my holistic understanding of the field and the larger framework of jazz violin issues.

I argue that, in respect to jazz expression, violinists have to face more frequently fundamental technical challenges than the players of more common jazz instruments. The challenges arise, for instance, from the way violin is held, how a percussive attack is produced on violin, and how much attention and focus good intonation demands. These issues often occupy violinists at the early stages of their education for a relatively long time and they must be among the main reasons for the marginal position of violin in jazz. Although these issues are rather well-known, especially by jazz violinists, it seems that they have not been discussed and approached in depth in print. In order to shed more light on the matter, I have attached to the end of this study a supplemental explanation. As Appendix 2, I present an analysis entitled “Comparison of Violin and More Common Jazz Instruments” in which I compare violin to popular jazz instruments and discuss the status of those other instruments in the historical eras of blues and jazz, details of instrumental technique, and details of physiology and coordination, for instance.

1.2 Technical Issues

Because violin is played with two hands and because both hands conduct the very different motor tasks of fingering and bowing, technical challenges appear to be not just few, but many. These challenges are among the most important difficulties faced by jazz violinists and are strong influences on the marginal status of jazz violin playing. Of the many technical obstacles that every modern jazz violinist has to face, some are overcome more easily than others. In most cases, in order to deal with and overcome these obstacles, violinists have to develop and employ special technical approaches. While some of the approaches can be based on classical violin technique, some have to be derived from other sources.¹⁷

The sound production on violin is rather complex and subtle when compared, for instance, to such common jazz instruments as piano or guitar. Beginners of piano and guitar can often make faster progress than beginners of violin (whether playing classical music or jazz). After a few days, if not sooner, piano and guitar beginners can produce a reasonable and enjoyable sound on their

¹⁶ I worked at Jazzradio of Yleisradio (Jazz Radio of Finnish Broadcasting Company), which is the major jazz program in the public radio network of Finland.

¹⁷ A good example of this is the bowing technique, especially slurring. I discuss this important aspect more in Part II, Chapter 3.

instruments. Most violin beginners, however, cannot; after several of months of intensive study, their sound is still quite far from the general tone quality ideal for the instrument. Actually, it often takes some years, at least, to learn to produce a good tone on violin. Many agree, then, that sound production on violin is not easy; it requires considerable control, coordination, and concentration. This raises the issue of whether sound production is a challenge for jazz improvisation as well. It certainly seems possible, if not likely. However, there is another, even bigger challenge that the instrument dictates for its players.

Violin does not carry any tools nor aids for adjusting intonation. It does not have any keys or frets. Hence, violinists must rely on their tactile and kinesthetic memory and their ears when they play. In order to play in tune, then, they must constantly quickly make small adjustments or corrections.¹⁸ Playing out of tune here and there, however, could sometimes be tolerated a bit more in jazz than in classical music. Still, good intonation is a predictable virtue in jazz as much as in other genres. Today, a flat or sharp note (if it is played accidentally, without a purpose) sounds as bad in jazz as in classical music.¹⁹

Just as in classical music, in jazz the issue of intonation on violin is also closely related to fingering technique. In classical violin performance, good fingerings help considerably in producing a successful performance, and in jazz violin, as well, security and certainty of fingering technique improves an improvisation. If jazz violinists know that desired pitches are safely in reach of their fingers and that their hand is in a good violin position (e.g., regarding the background harmony), they surely are much more comfortably able to improvise.

For this simple reason it jazz violinists may be tempted to keep their left hand around the “safe area” of the fingerboard. The safe area seems to include the first three or four positions.²⁰ When observing jazz violinists play, it quickly becomes clear that most do not employ the whole range of violin (i.e., the entire fingerboard); the higher positions are only visited briefly. Indeed, the major part of the improvisation seems to occupy only the first and half positions.

At first this may appear to be quite acceptable. If the results (i.e., the improvisations) are artistically satisfactory, there cannot be anything wrong in mainly employing the safe area, the low part of the fingerboard. However, on further consideration, it seems unduly limiting to play only in the low part. Why not to take advantage of the entire fingerboard? Why not to employ the entire, extremely expressive and wide violin range? As a jazz violinist I am interested in answering these questions. I want to break from safe areas or expand them to cover a larger area of the fingerboard. I

¹⁸ This particular character of violin playing has inspired many jokes. Some of them are rather illustrative in their exaggerations. As an example: Why are violinist’s fingers like lightning? (They rarely strike the same spot twice.) There are numerous jokes that especially tease violists for not being able to play in tune. For example: How do you define a dissonance? (You just ask two violists to play in unison.) For years I have frequently performed both on violin and viola. In my experience, viola is somewhat more difficult instrument to play than violin due to its larger dimensions and more delicate sound production, for instance. Nevertheless, I do not at all mind jokes that unrightfully question violists’ professional skills. A general example of this: Why can a symphony orchestra not take a break longer than 30 minutes? (If the break was any longer, the violists would have to be reeducated.)

¹⁹ The remaining difference is that, in general, while in jazz exceptions in good intonation can sometimes be considered as a special way of expression, such exceptions in classical music are more often considered to be flaws.

²⁰ I define the violin positions below, in subchapter 1.6.1.

do not want to be limited by the violin's physical characteristics but to play modern jazz over the full technical range of the violin. I strive to let my hand shift and my fingers fly—both high and low.

I argue, then, that fingering and shifting techniques are one of the most important concerns in modern jazz violin improvisation. However, both appear to be seldom explored and studied in pedagogic jazz violin publications.²¹ The majority of such publications seem to focus on other aspects of jazz improvisation, with the result that the fingerings, shifting, playing in positions, or different approaches to these issues are hardly presented or examined.

The lack of instruction about fingering and shifting in jazz violin literature is, in fact, quite alarming. It is especially surprising that these aspects are not discussed, even though many of the pedagogical publications of jazz violin do pay considerable attention to scales. Commonly, the connection between harmony and improvised melody construction is approached through the ever-popular jazz trinity of chords, scales, and improvisation. Jazz violin pedagogues, most of who have a strong background in classical music, should know that scale fingerings are a central issue in violin playing.²² One needs to take just a short look at a sample of publications of classical violin for evidence of the importance of fingering and shifting. At least in the classical violin education (a tradition several hundreds of years old), the basics of intonation on violin are internalized and maintained through daily routines that include scale exercises. If scales are accepted as the basis for jazz improvisation on violin as well (at least pedagogically), it is evident that much more attention should be paid to fingering and shifting.

1.3 An Alternative Fingering Strategy Based on Schematic Fingering

This study focuses, then, on a very detailed part of the left hand jazz violin technique, the fingerings. Within the subject of fingerings, which is in itself a vast topic, I concentrate on so-called *schematic fingering*; especially on scale fingering schemes and how they can be employed in modern jazz improvisation.²³ I argue that significant improvements in fingering technique can be achieved through applying schematic fingering. In this study, I will show how some of the major challenges of improvisatory melody construction typical to modern jazz can be faced successfully with the help of a specific approach: an advanced, professional-level fingering strategy.

Schematic fingering is the solution I propose for many of the fingering challenges facing jazz violinists—especially scale fingering schemes. I argue that these schemes have considerable potential for developing contemporary, modern jazz violin technique. Hypothetically, certain very important challenges in the modern jazz violin improvisation and related pedagogy can be

²¹ For this study I conducted a survey of such materials. The publications included in the survey are listed in Appendix 4. I discuss their contents further in Part II, Chapter 1.

²² A survey of the authors of pedagogical jazz violin publications revealed that the majority have an extensive background in classical violin.

²³ These fingering schemes indicate placement of the four left hand fingers (the index, middle, annular, and little finger) on a violin string. Fingering schemes are basically different combinations of finger placements. I define this key term in more detail below, in subchapter 1.6.1.

overcome with the help of the schematic fingering. My personal experience strongly supports the last mentioned view.

Schematic fingering offers a relatively new perspective on the challenges of fingering the violin. Earlier, minor appearances (or suggestions of this approach under different names) within the pedagogical literature of classical violin, can be traced to the beginning of the 20th century. Material that clearly reflects schematic fingering appears more frequently in the classical violin literature of the last 25 years. In the pedagogical literature for jazz violin in particular, schematic fingering approaches have appeared even more recently, since fewer than 15 years ago.

In this study, I employ French jazz violinists Didier Lockwood and Francis Darizcuren's publication *Cordes & Âme: Méthode d'improvisation et de violon jazz* as the main reference for my theoretical framework.²⁴ This many-sided study book is the focus of attention at the beginning of the discussion of schematic fingering and scale fingering schemes. Although Lockwood and Darizcuren are not the only authors who have suggested a schematic fingering approach for jazz violin, I chose to rely on their *Cordes & Âme*. The reasons for this are explained later, where I discuss and analyze the other significant treatments of schematic fingering.

Although *Cordes & Âme* is a magnificent work in many ways, unfortunately Lockwood and Darizcuren offer hardly any practical applications for schematic fingering or scale fingering schemes. Nor do they do present any theory, theoretical framework, or references as the basis for their fingering approach. In this study, I thus take Lockwood and Darizcuren's ideas on the scale fingering schemes a step further and apply them in practice, as a fingering strategy. The goal of my strategy is to introduce an alternative fingering approach. I apply this approach in formulaic modern jazz improvisation.

In part, the study represents the type of research often referred to as *practice-based* or *artistic*, or both. In particular, this is to say, in short, that the entire process originated with an idea that occurred to me in and through my artistic work. The project began as a personal, technical experiment, several years ago. Later, I undertook a more analytical path, which then led towards its present theoretical formulation. Most of the journey, with all its ups and downs, curves, stops, and cross-roads are finally summarized in this document.

The study focuses on two research questions. The first is relatively straight-forward: How may the playing of idiomatic patterns typical to modern instrumental jazz improvisation be effectively accomplished on the entire violin fingerboard? The second focuses on the more scholarly aspect: How might scholarly analysis of previous publications inform the development of a systematic approach to jazz violin improvisation based on application of schematic fingering? I elaborate upon these questions in detail in the next chapter, entitled "Method." There I also discuss the related research modes and models.

²⁴ Didier Lockwood and Francis Darizcuren, *Cordes & Âme: Méthode d'improvisation et de violon jazz* (Strings and heart: A method for improvisation and jazz violin) (Paris: Éditions Salabert, 1998). Published only in French. The translation of the title is mine.

1.4 Potential Benefits

Now, if some good modern jazz violin improvisation can be conducted within the lower violin positions (and this is obviously possible and frequently happens), why bother to discuss any other fingering strategies? What could be the real benefits of a fingering strategy based on schematic fingering? In respect to my fingering strategy, I see three major benefits.

First, the strategy is a significant alternative to common fingering procedures and practices on jazz violin. As a fresh option, I believe it should offer at least inspiration and some fresh ideas to other jazz string players and thus be of some direct value in developing their artistry. I believe it will also help violinists to understand the fingerboard in a somewhat different light.

Second, the strategy should make modern jazz improvisation easier on violin. This benefit is warranted by many practical points. First, the strategy significantly reduces the number of scale fingerings violinists have to learn and remember. It also offers a practical solution for playing in certain challenging keys where open strings cannot be frequently employed (for example, in D \flat , E \flat , G \flat , A \flat , and B major keys), and especially for improvising in higher violin positions.

Finally, the strategy offers a potential basis for further development of violin technique. In this respect, it can benefit other violin music styles, not just jazz. Actually, I believe the strategy should serve well, for example, as a source for new applications for children's (classical) violin education.

It is certainly possible that the same artistic results at which this study aims (viz., succeeding with certain elements of modern jazz improvisation) can be accomplished through other fingering approaches. There is no doubt about whether great modern jazz violin improvisation can be produced, for instance, by employing mainly the first and half positions and by visiting the higher positions only occasionally. This seems to be the most popular approach jazz violinists have successfully employed in the past and will continue to employ in the future. I do not question in any way the achievements of former or present-day jazz violin masters, but my experience suggests that schematic fingering, particularly the approach presented in this study, merits careful consideration. Violinists may use it to their advantage in several creative ways: for example, in breaking free from familiar, easier key areas and thus becoming even more competent and fluent in their improvisations.

The essential, strong undercurrent in this study, consequently, is tactility; the know-how and memory based on touching the violin and on the kinesthesis that violin playing necessarily involves. Violin playing is, above all, a difficult handicraft. Everything in the art of violin playing somehow depends on the sensation of the movements and touch. Such tactile and kinesthetic knowledge often remains unexpressed in the pedagogical literature. Tactility, however, is a significant part of learning music. Mark Levine's stressing of the tactile aspect in internalizing music in his *The Jazz Theory Book* is exemplary:

As you practice, a visual imprint of the notes you play is made on your eyes, and a tactile imprint is made on your fingers, hands, arms, and (if you're a drummer or pianist) your feet. Your "memory" of a piece of music, be it a lick phrase, or an entire tune, is internalized through constant repetition (practice, in other words), and consists of four parts:

- Aural, or how the music sounds.
 "C7alt sounds like this."
- Theoretical, or how you think about the music
 "C7alt is the seventh mode of D^f melodic minor."
- Tactile, or how the music feels.
 "C7alt feels like this."
- Visual, or how the music looks.
 "C7alt looks like this."²⁵

In my fingering strategy, every decision has been based on the tactile and kinesthetic knowledge I have gained throughout the years. I believe this emphasis on the tactile and kinesthetic aspects is effectively demonstrated in the musical examples introducing the strategy. The practice-based component of the development of this schematic fingering approach was naturally based on personal insights. However, I do not present nor subjectively discuss these insights and the practical decision-making in detail but only occasionally refer to them because presentation of these as a personal narrative could have distracted from the focus of my research. Instead of attempting to narrate this particular practical component of the research (i.e., the decision-making), I will focus on background research concerning schematic fingering.

1.5 Structure of the Study

This study is divided into two parts. The first, more analytical and academic part, *Setting the Frame*, consists of special research I conducted for my fingering strategy. The strategy itself is presented in the second, more practical part, *Stringprovisation*. Readers whose primary interest lies in practical, useable information may find it appealing to begin reading directly from the second part. Though this is possible, it is not recommended since most of the technical terms are introduced, explained, and discussed in detail in the first part. I am convinced that the first part conveys a wealth of information that most practice-oriented readers will find interesting and inspiring, and thus strongly encourage reading the parts in the order presented.

After this introductory chapter, *Setting the Frame* begins with Chapter 2, "Method," where I present my research approach. The remainder of the first part consists of various analyses and discussions of selected literature or similar presentations. In Chapter 3, "Cordes & Âme," I extrapolate and explain the theoretical framework and the guiding principles of Lockwood and Darizcuren's system of scale fingering schemes. In the next chapters, I examine the publications included in the selection of the primary research material. The primary research material is divided

²⁵ Mark Levine, *The Jazz Theory Book* (Petaluma: Sher Music Co., 1995), 248.

into three categories. The first category consists of material very similar to Lockwood and Darizcuren's presentation. The second category consists of references within jazz literature, while the third category reviews pedagogical literature for classical violin.

In Chapter 4, "Closest References," I examine in particular the publications of Robert Gerle and David Baker, those that carry the closest resemblance to Lockwood and Darizcuren's system of scale fingering schemes. In Chapter 5, "Jazz References," I investigate applications of schematic fingering within certain pedagogical jazz string instrument literature. The focus here is on contributions by William Leavitt, Mick Goodrick, Mike Marshall, and Joe Venuti. In Chapter 6, "Classical References," I concentrate on the relevant publications in the field of Western classical violin pedagogy. I discuss at length examples from the publications of Ivan Galamian, Lucien Capet, Carl Flesch, and Joseph Joachim and Andreas Moser. I then conclude the first part in Chapter 7 as the "First Ending."

The second part, *Stringprovisation*, begins with another introductory chapter, this time preparing for my fingering strategy. After the introduction, I present the central themes of my strategy in Chapter 2, "Focus." Next I discuss the relevant issues of jazz violin bowing in Chapter 3, "Bowing." Since my fingering strategy also calls for a fresh approach to shifting, I introduce such an approach, together with appropriate support, in Chapter 4, "Shifting." This strategy necessarily encourages pushing the limits of a violin position. This matter, together with a "creeping fingering" technique, I concentrate on in Chapter 5, "Position Playing." After I have covered the central technical aspects in bowing, shifting, and position playing, it is time to address idiomatic jazz patterns, to which I apply schematic fingering. This takes the entire, long Chapter 6, "Patterns." In that chapter, I examine popular melodic and harmonic matters of modern jazz expression in connection with the issue of employing the entire violin fingerboard. This represents the core of my fingering strategy. After I have introduced and discussed relevant examples, I explain how they can be put into practice. Consequently, practical tips, examples, advice, and exercises are the subjects of Chapter 7, "Applications." There I demonstrate two different applications, called "All Over" and "Where It's At." The closing chapter, Chapter 8, is offered as the "Second Ending." In it, I look back and summarize the whole study and make some additional remarks on diverse matters discussed earlier.

All the appendices (including those referred to in *Setting the Frame*) appear at the end of the publication. However, there are two reference lists in this study, one for each part.

1.6 Study Conventions

This study is an introductory presentation of a specific technical approach to jazz violin improvisation. The study is thus not a complete jazz violin method, nor a definitive collection of etudes or exercises. However, the study includes enough exercises, examples, and theorizing to call it a strategy instead of an approach. My presentation does not attempt to give the impression of a school book with lessons and assignments, although the contents carry some resemblance to

pedagogical literature of that type. Despite the fact that I describe and explain the strategy in academic fashion, the study is suitable for self-study and education.

Technically, the material presented is somewhat challenging: Since the subject itself is already very specific, an understanding of the information provided depends on some professional experience and habits. Consequently, I see violinists as the main target group of the study. How demanding the content actually appears to readers is directly relative to their background and experience. Thus, it is possible that parts of the contents may appear difficult even for violinists who see that they represent the professional level. For example, readers who have not already employed shifting and position playing regularly may find the exercises focusing on these matters somewhat difficult at first. In addition, since the subject is connected to modern jazz improvisation, readers who are not yet confident with it may feel challenged. Still, I encourage violinists representing other than a professional level or other musical genres than jazz to approach the contents without hesitation. I believe that my strategy can provide some food for thought and inspiration to readers who have a variety of interests and levels of accomplishment.

First, however, I must define certain key terms that frequently appear in this study. I will also make some remarks about the larger theoretical framework and about references to musical and other examples, notation, and chord symbols.

1.6.1 Key Definitions

In this study, *modern jazz* refers to idiomatic jazz expression associated with jazz styles of the 1940s, 1950s, and 1960s. The particular styles in question are bebop, hard bop, cool, and modal jazz. This study focuses especially on the rhythmic, harmonic, and melodic practices typical to bebop and hard bop. However, since the study also discusses some harmonic elements of jazz popularized in the 1960s, I use “modern jazz” as an umbrella term to encompass a set of related concepts. As a basis for this usage of the term, I lean especially on Peter Gammond’s definition in *The Oxford Companion to Music*. According to Gammond, the term “modern jazz” was established “in the 1940s to distinguish the new bebop style of playing from the traditional forms of jazz.... Jazz historians use the term more specifically to mean jazz of the period 1940-60.” James Lincoln Collier employs the term in this latter fashion in *Oxford Music Online* when discussing bebop and modern jazz. The same applies to David Demsey’s use of words in his article on jazz improvisation in *The Oxford Companion to Jazz*.²⁶

I presume that most of the readers of the study will be violinists (or violists and players of other bowed string instruments). Therefore, though I frequently employ only the word *readers*, I

²⁶ Peter Gammond, “Modern jazz,” in *The Oxford Companion to Music*, ed. Alison Latham (New York: Oxford University Press, 2000), 789. James Lincoln Collier, “Jazz: Bop and modern jazz,” in *Oxford Music Online* (accessed 28 April, 2009). David Demsey, “Jazz improvisation and concepts of virtuosity,” in *The Oxford Companion to Jazz*, ed. Bill Kirchner (New York: Oxford University Press, 2000), 788-798.

clearly address violinists in the text.²⁷ Similarly, I may refer only to *strings*, when I actually address the bowed strings. This practice is only for keeping the text simple and readable.

Within the framework of this study, the word *violin* indicates the highest-tuned, soprano member of the violin family of bowed string instruments. The family also includes the viola, cello, and double bass, although technically the double bass belongs to the viol family.²⁸ All members of the string family are tuned in fifths, except the double bass which is tuned in fourths. The lowest string and the lowest note on violin is the G just below the middle C. The other open, unstopped ascending strings are thus the D, A, and E. Violin is usually played with a bow but its strings can also be plucked with fingers. The violin body is hollow and the violin fingerboard is unfretted. The range of the instrument is approximately four octaves. Although I focus the discussion on violin, I want to stress that *all the information in this document is directly applicable to viola as well*.

Position is a central word in this study: On a string instrument, position means the placement of the left hand on the fingerboard. Position changes, which are as often called “shifts” (I will employ only the latter in the text), are indicated by fingerings. On the violin the first position covers the notes from A to D (the lowest A and D) on the G string. The highest note in the first position which can be reached (without stretching) by the fourth finger on the E string is B. The second position is achieved when the first finger takes the place of the second finger; that is, when the first finger falls on the B \flat or B (on the G string), for instance. In the second position the fourth finger falls on the E \flat or E on G the string. Letting the first finger take the place of the third finger (in the first position) the third position is achieved, and so forth.²⁹

The *numbering of positions* follows two rules, both of which are connected to the Western notation system and especially to the placement of notes regarding staff or ledger lines.³⁰ According to the first rule, the notes which appear on (the staff or ledger) lines are named by an odd position number. The notes which appear between, above, or below (the staff or ledger) lines are named by an even position number. Accidentals do not have any impact on the position number! Consequently, if the first finger appears on the lowest B \flat on the G string, the hand is said to be in the second position (according to the placement of the note head, in this case below the ledger line), not, for instance, in a position between the first and the second, or in “the one-and-half position.” I want to emphasize that the rules of position numbering are connected to the placement of notes on, below, above, or between the staff and ledger lines; enharmonic situations do not have any effect on the numbering itself.³¹ The only widely accepted exception is the area between the nut and the first

²⁷ From time to time exceptions may occur. For instance, when I analyze guitar methods in Part I, Chapter 5, I refer to guitarists with the word “readers,” since the majority of the readers of those particular publications presumably play guitar.

²⁸ Stanley Sadie, “Violin,” in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

²⁹ Sonya Monosoff, “Position,” in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

³⁰ For reference, see Leopold Mozart, *A Treatise on the Fundamental Principles of Violin Playing*, 2nd ed., translated by Editha Knocker (Oxford: Oxford University Press, 1985), 132-133 and 140-141. The same numbering logic can be found from Pierre Baillot. See Pierre Marie François de Sales Baillot, *The Art of the Violin*, edited and translated by Louise Goldberg, 3rd paperback printing (Evanston: Northwestern University Press, 1999), 72.

³¹ As a further example: The rule also applies in cases when, for instance, an F \flat above middle C appears on a staff, indicated to be played with the first finger on the D string. According to the rule, the player’s hand is in the second

position: It is widely and frequently called the *half position*.³² I employ that word in this study as well.

According to the second rule, the numbering of positions on the violin starts from the lowest A on the G string, the lowest E on the D string, the lowest B on the A string, and the lowest F on the E string. In the example below, the first finger is placed in the first fifteen violin positions on all the four strings.

Example 1.6.1–1: “Violin Positions”

The diagram illustrates the first fifteen violin positions on all four strings. It is organized into three rows of five positions each. Each position is shown on a treble clef staff with four notes representing the G, D, A, and E strings. A finger number '1' is placed above the first note of each position. The positions are labeled as follows:

- Row 1: open strings, 1st position, 2nd position, 3rd position, 4th position, 5th position
- Row 2: 6th position, 7th position, 8th position, 9th position, 10th position
- Row 3: 11th position, 12th position, 13th position, 14th position, 15th position

The word *fingering* is also frequently mentioned in this study. I rely on the article on fingering of bowed strings in the *The New Grove Dictionary of Music and Musicians* for the definition of the term below.³³ In addition, I have employed Matti Raekallio’s discussions of

position although it can enharmonically appear to be in the first position (Ff is enharmonically E). The physical sensation certainly is that the hand is in the first position. In such extreme cases, the actual playing position would depend on the notes appearing before and after the Ff in question. Also, in such special cases it may be necessary to temporarily separate the tactile information from the position numbering theory. In this study, however, such marginal cases will not appear.

³² Jazz violinists employ the half position frequently and deliberately; they feel comfortable playing even long passages in it and they purposively apply it in challenging keys or key centers (such as Af, B, Df, and Gf major). In classical violin practice, the half position is often seen as a temporary position option and typically it is seldom employed and only for short passages. I discuss this interesting difference in practices further in Part I, subchapter 6.3.4.

³³ Sonya Monosoff and Peter Walls, “Fingering: Bowed Strings: Violin,” in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

fingering and hand positions in classical piano music, using his study *Sormituksen strategiat: Tutkimus pianonsoiton sormitusvalinnoista* as a model for the definition.³⁴

In the present study, a fingering indicates the following three phenomena:

- 1) The choice of the finger (of the hand holding the instrument, excluding the thumb) used to produce a certain tone.³⁵
- 2) The numbering of the digits (of the hand holding the instrument) or an open string. The modern practice for bowed string instruments is followed in the present study. Thus:
 - 0 indicates an open (i.e., unstopped) string,
 - 1 indicates the index finger,
 - 2 indicates the middle finger,
 - 3 indicates the annular finger (the ring finger), and
 - 4 indicates the little finger.
- 3) Expressions (usually literal, visual, or verbal) that indicate which finger is suggested for producing a certain pitch or note.

Scheme is a word in constant use in the text. It indicates a plan for doing or organizing something, as well as an ordered system or arrangement.³⁶ In order to systemize the scale fingerings needed for jazz violin improvisation, it is helpful to construct schemes from them. Violinists Didier Lockwood and Francis Darizcuren use the French equivalent (*la schéma*).³⁷

From the two above origins, the word *fingering scheme* is derived. It indicates a placement of the four left hand fingers (the index, middle, annular, and little finger) on a violin string. Each finger usually appears only once in a particular scheme. Between the individual fingers, a scheme frequently employs distances which represent half and whole steps in pitch. However, larger distances (e.g., stretches or extensions) are possible. Although the term is implied in some publications of violin literature,³⁸ in this study it refers only to those ten fingering schemes presented in Lockwood and Darizcuren's *Cordes & Âme*.³⁹

³⁴ Matti Raekallio, *Sormituksen strategiat: Tutkimus pianonsoiton sormitusvalinnoista* (Strategies of fingering: A study of fingering choices of piano playing) (Helsinki: Sibelius-Akatemia, 1996), 17 and 19. Published only in Finnish. The translation of the title is mine. In his publication Raekallio examines different styles of fingering, fingering methods, and the history of fingerings in classical concert piano repertoire.

³⁵ The violin string can be stopped with the thumb as well, and I actually employ the thumb sometimes in my performances. Still, today the thumb is so seldom employed in stopping that it is common to exclude the finger in violin fingering theory. In some cases, the choice of using an open string instead of a finger is called a "fingering" as well. This illogical use of the word is common and accepted.

³⁶ *Oxford Advanced Learner's Dictionary of Current English*, 4th ed., 2nd impression, chief editor A. P. Cowie (Oxford: Oxford University Press, 1990), 1129.

³⁷ *Cordes & Âme*, 10.

³⁸ See, for instance, Robert Gerle, *The Art of Practising the Violin: With Useful Hints for All String Players*, 2nd ed. (London: Stainer & Bell, 1983).

³⁹ *Cordes & Âme*, 10.

Fingering schemes are basically different combinations of finger placements. Such fingering schemes can be employed, for example, when constructing scale fingerings. The argument can be made that every fingering on a violin is based on fingering schemes (i.e., that fingering schemes are the smallest possible units of fingerings and that all fingerings can be divided into such schemes). In this study, however, I frequently employ “fingering schemes” only when referring to a higher level organization of fingers and fingerings.

In violin jazz improvisation, as with any other instrument, the melodic language of chord arpeggios and scales also play a central role. The use of different arpeggios and scales as a basis for improvisation is common. Clearly, then, when violinists wish to improvise in the modern jazz fashion, they must master a relatively large amount of different arpeggios and scales. Furthermore, they have to be able to change very quickly from one type of arpeggio or scale to another. In order to make the act of chord and scale-based jazz violin improvisation smoother, it is useful to create and internalize simple chord and scale fingerings. These are fingerings which are easy to adopt and remember and that avoid too many or too challenging shifts. In this study, scale fingerings that are ideally systemized for the modern jazz violin improvisation purposes and which are built of fingering schemes are called *scale fingering schemes*.

The scale fingerings on violin can be organized into systems. In a scale fingering system, usually just a limited number of fingering principles and guidelines is employed. In this study, the use of the term *system of scale fingering schemes* is based on and derived from the two above defined terms (i.e., fingering schemes and scale fingering schemes). Thus, in this study the term is intended to define only the organization of scale fingerings presented by Lockwood and Darizcuren. The particular system was published in *Cordes & Âme*.⁴⁰

Fingering schemes approach and *schematic fingering* refer to fingering where fingering schemes (or an approach which implies them) are frequently employed. These terms do not refer to Lockwood and Darizcuren’s contributions only, but also to similar fingering and fingering approaches of other authors.

In this study, *fingering strategy* indicates an application of violin fingering technique that is especially designed to work as practical tool for the challenges of modern jazz violin improvisation. Aspects of the particular fingering technique are presented as a strategy that attempts to be consistent. The term is employed only when I refer to my contributions.

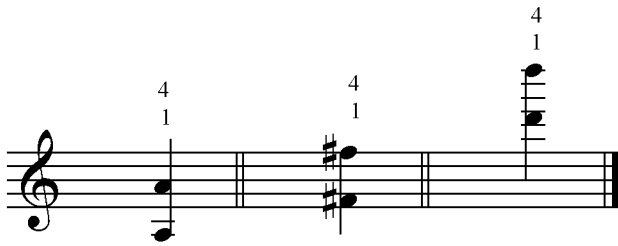
The words *frame* or the *frame of an octave* or the *octave frame* all refer to a concept which is closely connected to fingering schemes. Both Ivan Galamian and Carl Flesch promote relying on a frame formed by the first and fourth left hand fingers on the violin fingerboard. This frame significantly helps to maintain good intonation on violin (e.g., if violinists are able to form the frame in tune, they should consequently be able to play all the pitches inside the frame in tune).⁴¹ Both Galamian and Flesch envisage that the frame should be a perfect interval. Flesch supports the

⁴⁰ Ibid., 62-69.

⁴¹ Experience in position playing (in tune) is naturally also essential in succeeding with this.

frame of a perfect fourth, performed by the first and fourth fingers on one string.⁴² He sees the particular setting of fingers the most suitable for the anatomy of the hand and thus the most unforced.⁴³ According to Galamian, the framing interval should be a perfect octave, similarly performed by the first and fourth fingers, but on two adjoining strings.⁴⁴ When I discuss “frame” in this study, I refer only to the concept by Galamian, since I find it more applicable for the scale fingering schemes.⁴⁵ As an example, below appears three different octave frames.

Example 1.6.1–2: “Three Different Octave Frames”



Flesch in particular (but also Galamian, although not as directly) suggests that after the seventh position the frame should be performed between the first and third fingers.⁴⁶ This is in conflict with the principles of scale fingering schemes; these impose a requirement that the frame remains the same all over the fingerboard.⁴⁷ Thus, in this study the word “frame” always indicates a frame of a perfect octave interval between the first and fourth fingers, regardless of whether the position is high or low.

1.6.2 Larger Theoretical Framework, Notation and Chord Symbol Conventions, and Numbering of Examples and Figures

I expect that my readers will know the basics of jazz music theory and terminology. However, when I refer to more specific theoretical concepts or when I employ certain more specific terms or words, I define and introduce them briefly in the text or footnotes. Most of these entries I have also collected in a glossary. It appears as Appendix 1.

Jazz theory and its terminology are far from a canonized system. There are many different schools in practice, and a name and a definition for a simple jazz musical phenomenon can vary a great deal from one theorist to another. In choosing their theoretical basis, jazz researchers naturally

⁴² Carl Flesch, *The Art of Violin Playing, Book 1*, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000), 11.

⁴³ *Ibid.*, 96-97.

⁴⁴ Ivan Galamian, *Principles of Violin Playing & Teaching*, 3rd ed. (Ann Arbor: Prentice-Hall, 1985), 20-21.

⁴⁵ I discuss this matter further in Part I, subchapter 6.1.4.

⁴⁶ Carl Flesch, *Violin Fingering: Its Theory and Practice*, English adaptation by Boris Schwarz (London: Barrie and Rockliff, 1966), 226; Ivan Galamian, *Principles of Violin Playing & Teaching*, 3rd ed. (Ann Arbor: Prentice-Hall, 1985), 20.

⁴⁷ This I discuss more when I present my advanced framework of the scale fingering schemes in Part II, Chapter 2.

can only depend on their experience, education, and best knowledge. I am personally accustomed to employ Mark Levine's terms, concepts, and theories, which he has promoted worldwide in *The Jazz Piano Book* and *The Jazz Theory Book*.⁴⁸ These publications represent my larger framework of reference to jazz theory. Readers who have difficulty understanding the various theoretical concepts in this study will benefit from a closer look at these books.

All the musical examples in this study are indicated for violin, unless otherwise specified. Violin is not a transposing instrument; the note on a staff equals the pitch. The chord symbols in this study follow the system and logic presented in *The New Real Book* series by Sher Music Company. This series is well known, widely used, and respected throughout the jazz world. During my research I especially had the first volume of the series at hand.⁴⁹

The numbering of the musical examples and other figures follows a logic that first gives the number of the subchapter, then the running number of examples in the particular subchapter. These two figures are separated by an "en dash" (–). As an example of the practice: "3.1–1" indicates "the first example or figure in subchapter 3.1."

⁴⁸ Mark Levine, *The Jazz Piano Book* (Petaluma: Sher Music Co., 1989) and *The Jazz Theory Book* (Petaluma: Sher Music Co., 1995).

⁴⁹ Chuck Sher, *The New Real Book, Vol. 1: Jazz Classics, Choice Standards, Pop-Fusion Classics*, published and edited by Chuck Sher (Petaluma: Sher Music Company, 1988).

CHAPTER 2

Method

This study rose from an interest in developing a fingering strategy for modern jazz violin improvisation. My goal was to bring the strategy to a high artistic level and express it in a literal form. The process contained many stages, some of them including extensive analysis and research. Due to the doctoral study program in which the study was conducted and the subject itself, I was to design an original method.¹ In this respect, I could not find any existing, directly applicable models. In the method design, however, I could refer to parts of some more typical research modes.

My study most resembles what is commonly known as *action research*. In action research, researchers typically focus on their own practice and attempt to improve it. According to Tim Cain's description, practitioners of action research "(such as teachers) decide what is worth researching, carry out research and thereby become research-informed."² Consequently, Cain sees that the action research is often practical in nature and its research goals can differ considerably from the ordinary, more conventional scholarship. The research process usually forms and follows a continuous cycle of planning, acting, evaluating, and reflecting. From the aspects Cain lists as Somekh's suggestive summary of action research principles, my research, for instance, integrated research and action, involved the development of knowledge and understanding of change, involved higher level reflexivity and sensitivity to my role in the process, involved exploratory engagement with a wide range of existing knowledge and sources, and located the examination in an understanding of its historical context.³

Action research typically features systematic examination and informal experimentation on one's own practices with implications for actions or activity. Therefore, it often necessarily involves creating and defining an original research method application, which naturally reflects the characteristics of the actions or activity in question. Since my work did not solely focus on education or instruction, for instance, but included a significant amount of active, creative work, my research method formalizes itself best as a somewhat unique research procedure. I describe and discuss the procedures later in this chapter, after describing and reviewing previous studies, research questions, and research materials. First, however, in order to shed light on the exceptional nature of the research, especially on those elements that categorize my research as *practice-based*

¹ I conducted the study as a part of the Applied Project Doctoral Program of Sibelius Academy (Helsinki, Finland). This unique doctoral program allows students to combine elements of both practice-based or artistic research and conventional academic research into their degrees. In my case, the degree consisted of the development of a fingering strategy (practice-based research) as well as the body of research that supports it (more conventional musicological research).

² Tim Cain, "The Characteristics of Action Research in Music Education," *British Journal of Music Education*, vol. 25 (3), 283.

³ *Ibid.*, 283-285. In his article, Cain refers to Bridget Somekh's conclusions in her *Action Research: A Methodology for Change and Development* (Maidenhead: Open University Press, 2006).

research or perhaps even *artistic research*,⁴ I begin by describing some events preceding the stage in which the research became a part of my doctoral studies. I frequently employ just the word research instead of the more precise practice-based research.

2.1 Background of the Study

The events preceding the academic stage of this research started in 1998. During the fall of that year, when I was preparing myself for the final jazz violin exam of my Master of Music degree at the Sibelius Academy, I began experimenting with fingering certain symmetric scales in a way which was new to me.⁵ As I was trying to find personal approaches to various symmetric scales on violin, I realized that both types of diminished scales (the one beginning with a whole step and the one beginning with a half step) need actually only one scale fingering each. This, however, was only possible if I chose a fingering excluding all open strings but relying on frequent shifting. For me, all that was involved was just experimenting, trying out something different, checking out “a new fingering idea.” I had hardly conceptualized the approach in my thinking. However, I can now see that I was then addressing the scale fingerings for the first time in a schematic fashion.

In the earlier stages of learning to play modern jazz on violin I had not employed shifting as much. Nor had I concentrated on working on my shifting technique. Instead, I had found it more practical to attempt to resolve the melodic and harmonic challenges typical to modern jazz expression mainly in the first and half positions. Although intonation in shifting and position playing had not been serious challenges for me (none of my colleagues or teachers had complained

⁴ These research modes are not yet well-established academic concepts or terms, although the recent discussion of them and their status has been lively. Consequently, the modes are slowly being accepted as valid sources of information and base of academic statements. According to the research procedures described below, it is not essential to attempt to explicitly define exactly what practice-based and artistic research is. According to Sarah Rubidge, in practice-based research projects, “the research question/s tend to be clearly stated at the start of the project. Here practice is used as one mode of interrogating that question, and may play either a supporting or a dominant role in the research methodology. The results... which may or may not be an art work, lean towards an illustration of and/or demonstrate the researcher[']s findings with respect to the original research question.” Artistic research, again, Rubidge sees as “research into artistic practice” or “through artistic practice.” In this mode, “research privileges the practice in and of itself. A rigorous, systematic theoretical interrogation of concepts which are attendant on that practice is not a requirement here. This is this form of research that those practising artists in the professional world who we consider to be bona fide researchers in their discipline engage in.” I find these definitions very illustrative and can relate my work to them, especially the first. Rubidge presents these definitions in her keynote address, “Artists in the Academy: Reflections on Artistic Practice as Research,” given in *Dance Rebooted: Initializing the Grid* conference on dance research (Melbourne: Deakin University, 2004), available at <http://www.ausdance.org.au/resources/publications/rebooted/rebootedpdfs/Rubidge.pdf> (accessed 15 May, 2009). For a clear example of a reflection on the academic status of artistic research, see Henk Borgdorff, “Artistic Research and Academia: An Uneasy Relationship,” in *Årsbok för konstnärligt FoU 2008*, <http://www.ahk.nl/ahk/lectoraten/theorie/download/an-uneasy-relationship.pdf> (accessed 2 January, 2009).

⁵ Scales that consist of symmetric interval structure are often called symmetric scales. In jazz theory, the three most popular symmetric scales are the diminished scale (consisting of alternating whole and half steps), whole-tone scale (consisting of whole-steps only), and augmented scale (consisting of alternating minor third and minor second intervals). Asymmetric scales come in exactly 12 forms, corresponding to each of the 12 keys. However, symmetric scales are constructed via self-replicating patterns, and come in fewer forms. This means that there are only three different diminished scales, two different whole-tone scales, and four different augmented scales. For more information on symmetric scales in jazz, see for example Andy Jaffe, *Jazz Harmony*, 2nd ed. (Rottenburg: Advance Music, 1996), 127 and Hal Crook, *How to Improvise: An Approach to Practicing Improvisation* (Rottenburg: Advance Music, 1993), 159-160.

about this aspect of my playing, for instance), I must admit that I felt more secure and comfortable in those two lowest positions. It seemed “just easier” to try to play chromatic melodies and patterns of the modern jazz in the “safe area,” the low part of the fingerboard.

After the small, exciting revelation employing the fingering of diminished scales without open strings, I applied the same fingering idea to another symmetric scale; the whole-tone scale. Since this application also appeared to work fine, I soon began to finger the pentatonic minor and major scales the same way as well. I remember that then I could conceptualize, for the first time, some potential benefits in this fingering approach. However, at the time I did not attempt to reduce the concept to any theoretical framework, for example. I just made note to myself of some short, general principles: “Don’t use any open strings in the fingerings. The fingering should be the same in all keys. Different keys and tonalities are achieved by shifting the fingering from a position to another.”

At that time I performed frequently with my own jazz-rock group, called NoneAlike. When soloing, I often employed the pentatonic major and minor scales. I also utilized the blues scale frequently, and thus I applied the new fingering idea to it as well. Playing out of the key centers of my (relatively tonal) jazz-rock tunes—through shifting up and down the fingerboard (but keeping the scale fingering the same)—become so easy that I sometimes thought that the whole fingering idea was somehow a “cheap solution,” since it was so practical. It felt a bit like cheating of some kind. Nevertheless, I finally applied the idea to other common diatonic scales, such as the major, Dorian, Phrygian, and Mixolydian modes. Although I made rather fast progress in taking advantage of the new idea, I still regarded it only as an improved tool for more modal jazz. I doubted if the approach could work for idiomatic modern jazz patterns. Actually, I did not even bother to try.

In the autumn of 1999, I learned of Didier Lockwood and Francis Darizcuren’s *Cordes & Âme* publication.⁶ Out of professional curiosity I bought myself a copy and began to read and play through it.⁷ While studying it, I could soon see that these two violinists were recommending an approach to scales that was similar to the idea I had. They even had taken time to conceptualize it into a kind of system and they had also given it the name “fingering schemes” (*schémas doigts*). However, as I played and studied their book further, I could see to my great disappointment that the authors had not effectively put their approach to fingering schemes into practice. As a “critical” reader (by nature and education), I began to wish that such practical application existed. I wondered what it would actually look like. I also began to speculate if the approach could be applied to idiomatic patterns of modern jazz.

Although I had succeeded relatively well this far in employing idiomatic patterns mainly in the first and half positions of violin, I now saw that the technical approach I had was a rather limited one. Why had I employed other positions mainly when I was playing over modal backgrounds?

⁶ Didier Lockwood and Francis Darizcuren, *Cordes & Âme: Méthode d'improvisation et de violon jazz* (Strings and heart: A method for improvisation and jazz violin) (Paris: Éditions Salabert, 1998). Published only in French. The translation of the title is mine.

⁷ I read, speak, and write French.

Why did I not play more often in higher positions? Why I did not utilize the entire fingerboard? Was I unconsciously avoiding shifting? If so, for what reasons? I suddenly became very critical about my shifting and position playing and realized that I nevertheless must have neglected these particular, but important, aspects of violin technique a bit. Therefore, I challenged myself to learn to employ the entire violin fingerboard much more in modern jazz.

In the autumn of 2000, I began to teach jazz violin for the Pop and Jazz Music degree program of Helsinki Metropolia University of Applied Sciences (previously known as Helsinki Polytechnic Stadia). As an ambitious young teacher I did not hesitate explaining and showing my schematic scale fingering ideas to my undergraduate students. I wanted to share my modest findings with my more advanced students. Although these students often did not have the necessary technical capabilities for the approach, they could easily understand its principles and were fascinated by its potential. They were especially interested in the opportunity to effectively limit the amount of scale fingerings they needed to learn.⁸ Then, I also began to see more clearly how, in this particular respect alone, import new possibilities were offered by the approach. Thus, my work as a jazz violin teacher encouraged me to continue experimenting with schematic scale fingering. My students' positive feedback added a new, pedagogical level to my attempts, which had thus far been purely motivated by personal, artistic interests.

Simultaneously, however, I began reflection on myself as a teacher. Should and could I teach my students a fingering approach I had not yet mastered myself? After some serious pedagogical contemplation my answer was negative. No, I could not take the risk of confusing my students with vague and tentative results of some rather recent experimenting; instead, I should share only crystallized, logical, refined fingering ideas with them. I did not want to shift any possible misconceptions to my students, and therefore I soon stopped introducing and discussing my schematic fingering ideas with them.

The next two years I spent applying the fingering schemes approach in adapting my first findings about fingering to some popular idiomatic modern jazz patterns. I made relatively slow progress, however; the work appeared to be quite challenging. I was also busy working on other, diverse musical projects and had other artistic goals occupying my mind as well. While making slow-paced advancement with my own fingering, I spent time in designing some first, supportive exercises improving my control of violin positions and shifting technique in jazz terms.⁹ Through this preliminary working phase, which had the primary goal of making me a better jazz violinist and violin teacher, I also began to realize that my experiments and findings resembled academic research in some interesting ways.

Soon this new point of view started to provide additional inspiration. I came to the conclusion that the work I had done to that point—and all that work still in front of me—could be expressed in

⁸ The instrument exams they were preparing for required extensive practicing of scales.

⁹ Some of these exercises are presented in Part II, Chapter 4.

academic form as well.¹⁰ That scheme sounded crazy enough to be great fun! So, without further hesitation I prepared a research proposal and became a doctoral student, in just few weeks.¹¹

Thus began the academic part of the process and as a logical, first academic assignment, I had to situate my fingering experiments in the larger picture of violin literature; the one especially framed in previous studies.

2.2 Previous Studies

Schematic fingering and the fingering schemes approach are relatively unresearched areas of violin technique. According to my best knowledge, there is no other academic work which resembles my study. Thus, I could not take any work into consideration as a direct or adoptable model for designing my research method. However, below I discuss two examples of academic research work that could be seen as previous studies, although neither directly addresses the topic of the present study.

The academic attention paid to Didier Lockwood and his jazz violin improvisation appears to be very limited. This is unfortunate, but perhaps understandable. First, the general academic or musicological interest in jazz has largely fallen on the instruments other than the violin. Second, although Lockwood is a popular and widely respected jazz violinist, he is perhaps not as well known around the whole jazz world as he deserves. The reasons for this might be many. One of the most important may be that Lockwood's artistic output has not been effectively exported, for example, to the USA. Lockwood has mostly worked on medium size European recording labels (e.g., MPS, JMS, Dreyfuss Jazz) that have distribution which cannot compete with the dominant, bigger, or more popular jazz recording companies (e.g., Atlantic, Blue Note, Columbia, and Verve).

According to my understanding, at the conclusion of the present study, the only major academic research on Didier Lockwood was that of jazz violinist Stig Roar Wigestrands. His doctoral thesis, *Lockwood's System: A Theoretical and Artistic Study of Didier Lockwood's System for Improvisation*, was published in 2004.¹² As with the present study, Wigestrands focuses on Lockwood and Darizcuren's fingering schemes. Wigestrands, however, approaches the subject from a very different perspective.

¹⁰ In this respect, it would thus be more precise to say that this project is *practice-led research*. According to Sarah Rubidge's suggestion, practice-led research is "research in which the research is initiated by and artistic hunch, intuition, or question, or an artistic or technical concern generated by the researcher's own practice which it has become important to pursue in order to continue that practice. It may not be linked initially to any formally articulated question, hypothesis or theoretical concern, although it may lead to them." See "Artists in the Academy: Reflections on Artistic Practice as Research."

¹¹ Luckily, the Sibelius Academy had established its Applied Project Doctoral Program just some months before.

¹² Stig Roar Wigestrands, *Lockwood's System: A Theoretical and Artistic Study of Didier Lockwood's System for Improvisation* (Oslo: Norges musikkhøgskole, 2004).

Wigestrands primary focus is on the influence that the fingering schemes approach has on Lockwoods and on Wigestrands own improvisations.¹³ The main areas of research focus are thus Lockwoods and Wigestrands playing, and especially about how the latter has been influenced by the alternative approach.¹⁴ Wigestrands states that the main purpose of his thesis is to be “a study of an alternative technique for performing jazz violin.”¹⁵ Wigestrands calls the system of fingering schemes *Lockwoods System* and in his study he sets his main question as: “What influence can an acquiring of Lockwoods system have on one’s potential to improvise jazz [on the] violin?”¹⁶

In addition to relying on (jazz) music theory and (classical) violin technique, this objective leads Wigestrands to lean on the theories of cognitive psychology. There is a central relationship between cognitive theory and Wigestrands task of analyzing, comprehending, and applying Lockwoods system.¹⁷ The use of cognitive theory naturally raises other questions in Wigestrands thesis. The two ancillary questions he proposes are: “Is it possible to [acquire] new mental models for use in jazz improvisation?” and “What can the use of mental models based on a fingerscheme-oriented approach lead to during improvising jazz [on the] violin?”¹⁸

Wigestrands is thus involved in two case studies: First, he studies Lockwoods system and how Lockwood employs it in his playing. Second, he studies his (Wigestrands) own approach to Lockwoods system and how he (Wigestrands) employs it in his playing. Wigestrands varied methods for the first case study include listening to and transcribing Lockwoods improvisations, conversations with Lockwood, and discussion of related literature from cognitive psychology and of Lockwood and Darizcuren’s text in *Cordes & Âme*. In addition, Wigestrands employs some literal jazz and classical violin resources. In the second case study, Wigestrands concentrates on three performance-oriented elements: his own practising, recording his own playing, and transcribing parts of this recorded material.¹⁹

Wigestrands doctoral thesis is an interesting academic study. Since I am not experienced or educated in studying the deeper cognitive aspects of violin playing, I could easily relate to Wigestrands enlightening reflections about acquiring new mental models on the basis of schematic fingering influence. Unfortunately, however, his thesis did not offer any other direct support for my research: Wigestrands cognitive approach to the fingering schemes was too different from my research interests. Therefore I could not, for instance, refer to his analyses and discussion while developing my fingering strategy or apply his research methods when resolving the various methodological problems of my research.

¹³ In his thesis, Wigestrands frequently employs the word *fingerschemes*, in this precise form, when discussing and referring to *schémas doigts* in *Cordes & Âme*. After careful consideration I have chosen to employ my own translation, fingering schemes, instead.

¹⁴ *Lockwoods System*, 25.

¹⁵ *Id.*

¹⁶ *Ibid.*, 26.

¹⁷ *Ibid.*, 32.

¹⁸ *Ibid.*, 33.

¹⁹ *Ibid.*, 44.

The other example of academic work I could consider to as a previous study was done by classical pianist, Matti Raekallio. For his doctoral studies Raekallio conducted a research study that shares something in common with my study. Raekallio's analysis and discussion, *Sormituksen strategiat: Tutkimus pianonsoiton sormitusvalinnoista*, is somewhat similar to mine.²⁰ In his work as a performing classical pianist, Raekallio had developed a new fingering approach to classical piano music. In his thesis he focuses on Beethoven's piano sonatas. He first examines and carefully discusses the preceding approaches of fingering the particular sonatas. After studying and discussing the fingering history of the sonatas, Raekallio presents his own approach.²¹ Raekallio's results are interesting and significant, but his method appeared to be somewhat problematic in the light of my specific research goals. However, I saw Raekallio's method as an inspiring presentation.

2.3 Research Questions

All the work conducted for this study originates in my personal artistic calling and ambition. The pedagogical and academic views and elements developed later, after a significant amount of the groundwork had already been completed. Consequently, I saw it natural to maintain the practice-based and artistic elements in the research. My research came to involve diverse aspects and assignments. Many of the tasks drew from my professional experience and tacit knowledge.

Despite the practice-based nature of this effort, I strived to bring my research close to the conventions of scholarship in the humanities. This is manifested, for example, in the crystallization of three goals. The first goal was to apply the aforementioned Lockwood and Darizcuren influenced schematic fingering approach effectively as a performer of modern jazz. The second goal was to develop a systematic approach based on my application of schematic fingering in which the entire violin fingerboard would be employed. In addition, these instrumental matters were to be incorporated appropriately in musicianship (i.e., besides to fingerings, significant attention had to be paid in bowing, shifting, string crossing, and putting the applications effectively into practice). Thus, the third goal was that the final product should simultaneously follow the aesthetics of modern jazz improvisation and reflect effectively the violin technique.

In attempting to follow the aesthetics of modern jazz improvisation, my efforts revolved around its complex melodic practices. Within these melodic practices (i.e., improvised melody construction), my attention centred on taking advantage of melodic fragments.²² Relying on and employing melodic fragments is one of the most essential elements of formulaic jazz improvisation.

²⁰ Matti Raekallio, *Sormituksen strategiat: Tutkimus pianonsoiton sormitusvalinnoista* (Strategies of fingering: A study on fingering choices of piano playing) (Helsinki: Sibelius-Akatemia, 1996). Published only in Finnish. The translation of the title is mine.

²¹ The focus in Raekallio's doctoral degree was classical piano concert performance; his thesis was a minor part of his studies. Raekallio's degree was thus rather the type of a DMA or DMus than a conventional PhD.

²² In improvised melody construction the harmonic and rhythmical aspects are important as well. In the present study, however, I chose to emphasize the melodic aspect. The primary challenges of violin fingering in modern jazz naturally deal with melody construction.

According to Barry Kernfeld, *formulaic improvisation* “is the most common kind of improvisation in jazz, spanning all styles. In formulaic improvisation...many diverse formulae intertwine and combine within continuous lines; particular musicians and groups often create a repertory of formulae (their ‘licks’) and draw on it in many different pieces. The essence of formulaic improvisation is that the formulae used do not call attention to themselves, but are artfully hidden, through variation, in the improvised lines; the challenge presented by this type of improvisation is to mold diverse fragments into a coherent whole.”²³

Idiomatic patterns are melodic fragments which form a significant part of the so-called public domain, “things that every jazz musician plays,” or “the grammar and syntax” of modern jazz expression.²⁴ The content of the “public domain of patterns” has never been clearly defined but stays (and will stay) open. However, there are certain patterns that appear to be popular (i.e., frequently appearing in jazz improvisations) and hence are commonly considered to be closer to the core of the domain than others. Sometimes such popular patterns can be seen as being more idiomatic than others.

Idiomatic patterns have several general artistic functions. For example, they connect jazz improvisers and their solos to jazz history and tradition. Through them improvisers can signify a particular jazz idiom and acknowledge it or its representative performers. Delicate artistic implications (in the form of quotations, for instance) can be designed on the basis of idiomatic patterns. Moreover, the idiomatic patterns offer a chance to study jazz improvisation in small components (as melodic cells, for instance).

Idiomatic patterns have many names. They are called as *formulas*, *clichés*, *licks*, *tricks*, or *pet patterns* as well. No consensus can be found regarding which name is best. However, I found *idiomatic patterns* to be the most neutral, descriptive, and practical term for this study. Often jazz musicians are recognized through the idiomatic patterns they employ in their improvisations. Hence, it is also relevant to understand the patterns as *signature phrases* or *mannerisms*. Paul F. Berliner chose to refer to idiomatic patterns as *vocabulary patterns* or *vocabulary phrases* in his study entitled *Thinking in Jazz*. In this superb study he describes the particular aspects of jazz improvisation at length.²⁵

²³ Barry Kernfeld, “Improvisation: Jazz: Formulaic improvisation,” in *The New Grove Dictionary of Music and Musicians*, 2nd ed.

²⁴ Music is often referred to as a “language.” This popular allusion is somewhat misleading and problematic since it stresses the technical aspect too much. Kenny Werner has observed: “It’s nice to have the ability to burn and play on a million changes, but that is just the technology of the music, the language of improvisation. Bebop is a language, for example.... The goal of so many players is just to speak the language. Again, let’s apply the issue to conversation. If you master the English language, does that make you a poet? Being able to speak in complete sentences is not an art, but a technical skill. Being a poet, playwright or lyricist—that is art.” See Kenny Werner, *Effortless Mastery: Liberating the Master Musician Within* (New Albany: Jamey Aebersold Jazz, 1996), 48. However, the metaphor of music as a language is practical when the complex phenomenon of learning music is described and discussed. In this respect I occasionally admit to employ the allusion.

²⁵ Paul F. Berliner, *Thinking in Jazz: The Infinite Art of Improvisation* (Chicago: The University of Chicago Press, 1994), 105-114. Berliner’s work is recommended to readers who are not yet quite familiar with the basics of jazz improvisation.

Idiomatic patterns are important building blocks of improvisations. They can be employed in several ways. One of the most popular ways is to play them when outlining certain chord colors (such as the altered dominant chord), chord progressions (such as II-V, II-V-I, or V-I progressions), or superimposed harmonic structures (such as the *Countdown* superimposition). Relying on the idiomatic patterns is formulaic improvisation. According to the common understanding of the most essential elements within the modern jazz expression, improvisers should be also able to demonstrate their skills and knowledge in this respect (i.e., melody improvisations should reflect, at least to some extent and in a mindful way, formulaic improvisation). While some of the patterns can be traced to certain musicians and their recorded solos (e.g., to solos by Charlie Parker or John Coltrane) or compositions, arrangements, and their parts (like *Honeysuckle Rose* or *Half Nelson*), the origin of others may be difficult or impossible to trace.²⁶

Idiomatic patterns frequently seem to challenge improvising violinists. Most, if not all, of the idiomatic patterns of modern jazz were created and popularized on other, more common jazz instruments than violin. For this reason, some popular patterns may (and, as my experience as a performer and teacher suggests, quite often do) appear challenging to play on violin. The origin of such challenges may be found in the many crucial, technical, structural, and functional differences between violin and more common jazz instruments.²⁷ Still, no matter how unsuitable for the violin idiomatic patterns can be, violinists should include them in their improvisation if they wish to reflect the modern jazz idiom in their improvisations. If only the first and half positions of violin are employed, utilizing idiomatic patterns often results in problematic fingering and string crossing, for instance.²⁸ These two aspects alone can cause significant technical obstacles in modern jazz violin expression.

From this simple observation arose the first research question.

How may the playing of idiomatic patterns typical to modern jazz improvisation be effectively accomplished on the entire violin fingerboard?

²⁶ A classic, recommendable study of Charlie Parker in this respect is Thomas Owen, "Charlie Parker: Techniques of improvisation," 2 vols. (Ph.D. diss., University of California at Los Angeles, 1974). The legacy of John Coltrane (as an originator of the so-called *Giant Steps* superimpositions, for example) can be studied in Lewis Porter, *John Coltrane: His Life and Music*, first paperback ed. (Ann Arbor: The University of Michigan Press, 1999). The opening phrase (the first five notes of the melody) of *Honeysuckle Rose* (composed by Thomas "Fats" Waller, copyright given in 1929) is a frequently appearing idiomatic pattern. The chord progression at the turnaround of *Half Nelson* (composed by Miles Davis, copyright given in 1948) has also become idiomatic. The progression can be employed in jazz improvisations as a superimposition on a standard I-VI-II-V progression. The improvised melodies based on the turnaround of *Half Nelson* are usually recognizable. The resemblance to *Half Nelson* is often noted by jazz musicians by saying that a particular player's solo included one (or more) "*Half Nelson* pattern(s)." It should be noted that the particular chord progression only became popular through *Half Nelson*; the origin of the progression is said to be jazz pianist, composer, and arranger Tadd Dameron. In addition, Davis' role as the composer of *Half Nelson* has been questioned. See Carl Woideck, *The Charlie Parker Companion: Six Decades of Commentary*, ed. by Carl Woideck (New York: Simon & Schuster Macmillan, 1998; imprint, New York: Schirmer Books, 1998), 221.

²⁷ See Appendix 2.

²⁸ I illustrate this in Part II, subchapter 1.4.

My exploring and experiments suggest that the fingering schemes approach appears to work to great benefit on violin if it is applied to idiomatic patterns. Through this approach the fingerings of patterns become easier and demanding string crossing can be avoided. Thus, the fingering schemes approach should be researched and applied effectively. As an answer to the above question, I developed and designed a fingering strategy which is based on and that frequently employs the fingering schemes approach. The fingering strategy is presented as the second part, entitled *Stringprovisation*, of the present study.

The development of this fingering strategy could have been conducted as an independent artistic project, which would have not necessarily included any references to relevant literature. It seems that many of the recent pedagogical jazz violin publications are assembled in this way. Publications in which the content is exposed in any discussion of the preceding jazz or classical violin literature appear to be rare. To a critical reader, this seems very strange. Eclectic and innovative pedagogues (which most authors claim to be) could easily base their applications on classical violin literature and thus prove their eclecticism. The classical literature also offers a multitude of valuable pedagogical examples to which jazz violin pedagogues could refer to when designing their own exercises. If most jazz violin pedagogues have their background in classical violin education,²⁹ why they should not take an advantage of it, especially when most of their readers are violinists with a classical background as well?³⁰

I personally do not support the view that jazz and classical violin techniques are that different. Nor do I believe that the former would not benefit from being in closer discourse with the latter. To the contrary, I argue that jazz violin pedagogy should be more open towards the benefits of classical violin pedagogy.³¹ Therefore, when I began to develop my fingering strategy within a more formal, academic context, I believed it was imperative to research how much the strategy could gain from and connect to classical violin pedagogical literature. I did not see any reason to neglect such sources of valuable information; especially since they draw from a musical tradition which is several hundreds of years old! In this respect, I also wished to make some parts of my personal, professional experience and tacit knowledge, which the strategy design emphasized, more transparent. Subsequently, I expected the transparency to improve the communication of the strategy.³²

²⁹ The secondary research material of this study (explained in the following subchapter) included a survey of pedagogical publications for jazz violin. As a part of the survey, I examined the backgrounds of the authors as well. The majority of them had been educated in classical violin tradition.

³⁰ According to my experience in the field, most jazz violin students have first studied and played classical violin. However, it seems that the number of jazz violin students who have their background in various folk music traditions is slowly increasing.

³¹ I have approached this matter in my article, "Towards Eclecticism in Jazz Violin Education: Background Study on the Fingering Schemes Approach," in *Musiikkikasvatus – Finnish Journal of Music Education*, vol. 9, no. 1-2 (2006): 51-56.

³² In this respect, my work came to reflect some of the features typical to artistic research according to Hannula, Suoranta, and Vadén. Within my approach to the research object and research contribution it was characteristic to "continuously locate the research in relation to its own actions and goals, and at the same time to be localized in relation to the more focused context of the field." I was also to take "[a] diversity of research methods, presentation methods

Since I was already familiar, for instance, with many of Carl Flesch's and Ivan Galamian's publications and their significance, I knew that my project could only profit from the discourse in relation to these two prominent authors of classical violin pedagogy. While planning the project I went back to Flesch's and Galamian's works and soon found out that there were some common elements within the fingering schemes approach and the fingering principles they had applied to scales. A survey of some other related classical violin literature gave me reason to believe that my fingering strategy would be benefited a great deal from such wider and larger discourse. That discourse would provide, at least, examples, inspiration, models, tips, and evidence of the benefits of schematic fingering. During the early stages of the research I also realized that the schematic fingering approach could gain from the pedagogical literature of instruments other than violin. Moreover, I comprehended that the discourse with relevant pedagogical literature would prevent me from developing a fingering strategy which would include elements or parts which were already formalized somewhere else.

The above considerations led directly to my second research question.

How might scholarly analysis of previous publications inform the development of a systematic approach to jazz violin improvisation based on application of schematic fingering?

In order to answer this, I conducted a study, which is reported in the following chapters of this first part of the publication, entitled *Setting the Frame*. The special research procedures (which follow the following description of research materials) were designed for the various, multi-levelled analyses arising from this particular question. I summarize the report in Chapter 7.

2.4 Research Materials

When I had formalized my research questions, I could more carefully identify the research material. As the subchapter 1.5.1, "Key Definitions," already implies, Lockwood and Darizcuren's *Cordes & Âme* became a central focus of this research. Besides my own experiments with schematic fingering, Lockwood and Darizcuren's conceptualization of the system of scale fingering schemes became the most significant starting point. At the ground level of analysis (described below in subchapter 2.5.1), I focused solely on it. Without this ground level analysis, the various tasks and moves on the primary level of analysis would have not been possible. In a way *Cordes & Âme* was thus a part of the research materials. However, since this single publication was the beginning of the analysis I could not include it in the main selections of research materials. It needed a separate category, one which came to consist only of *Cordes & Âme*. I call this category the *ground level research material*.

and communication tools and their commitment to the needs and demands" into consideration. See Hannula and others, *Artistic Research: Theories, Methods and Practices* (Helsinki: Academy of Fine Arts, 2005), 20-21.

When the constructing of the main selections of research materials began, I presumed that the amount of relevant professional level methods and approaches on violin would not be substantial. It also seemed that I could find only very few references from the jazz violin literature. The majority of the references were thus expected to be found in the pedagogical literature of Western classical violin.³³ However, in such a special case as the present study, the research could not be limited only to violin literature; I assumed that the pedagogical achievements of other string instruments than violin might make valuable contributions to the subject. Actually, my personal experience with other string instruments suggested that this latter material might appear to be more important than some more apparent, clearly violinistic references.³⁴

The research included analysis of a variety of materials, which all represented different approaches and levels. The primary level of analysis, however, dealt with only a limited selection of research material. The focus in this study is in reporting the results of the work with the *primary research material*.

2.4.1 Primary Research Material

I had to limit the primary references of the study to actual (printed) publications. It was obvious that some interesting and important data could have also been gained through interviews of professional jazz violinists and analyses of their live and recorded musical performances. However, collecting data of that type would have been very expensive and time-consuming. In order to attempt to reach and interview at least some of the potential interviewees (i.e., jazz violin professional performers and pedagogues around the world) would have been too demanding.³⁵ The same challenge would have occurred if I would have attempted to observe artists' live performances. Only the observing of recorded performances could have been reasonable within the limits of a study of this size. However, according to my experience, it was likely that the kind of auditory analysis of music the research called for may have been problematic and ineffective at the end. Especially because such an analysis would have demanded, for instance, extensive transcribing of jazz violin solos and interpretation (in many cases pure guessing) of the fingerings in the solos, it was regarded to be a futile option.³⁶ I could naturally have gained some help from visual recordings of live performances.

³³ I was aware that the violin pedagogy of some ethnic music traditions employing violin or related instruments could offer interesting references in the matter. For instance, the violin tradition in the Indian (Carnatic or Hindustani) music is known to be very advanced. Indian music is also “modal” in its nature (I hope readers can forgive me here for employing this controversial term of Western music theory on Indian music tradition for simply practical reasons) and therefore its violin pedagogy likely includes many interesting aspects—at least what it comes to using “scales” (another apology!) as a basis for the improvisation. Unfortunately, as a violinist I am educated only in Western classical and jazz music traditions, and I could not confidently include any ethnic violin music traditions in this research.

³⁴ I play guitar and bass guitar, for instance.

³⁵ It would have been possible to limit the interviewed group, for instance, only to few Northern European professional jazz violinists. However, this group could have not represented well the field of jazz violin as a whole.

³⁶ As a part of my general artistic development I have done such transcribing extensively. According to my experience, to try to transcribe and indicate accurately the fingerings in a solo transcription, for example, is difficult—sometimes simply impossible.

However, it seemed that there was little such material available on important professional jazz violinists.

Therefore, in order to reduce the amount of references in a realistic and successful way, I focused the research on only printed material. Even with this limitation, the amount of material to include was too large. The history of Western classical violin instrument is currently almost 500 years long.³⁷ Therefore, I had to lay the focus only on the most popular and respected authors and their output. Given the limits of this study, it neither was possible to look further back in classical violin literature than to the end of the 19th century. Thus, I had to limit the selection of primary references to relatively recent literature, especially in the case of the pedagogy of classical violin literature.³⁸ In addition, I had to target the research to the most typical Western classical and jazz string instruments and their music. Unfortunately, I could not include any other (e.g., ethnic) violin traditions in the research.

Hence, I put the focus on Carl Flesch's *The Art of Violin Playing, Book 1 and Book 2; Scale System*; and *Violin Fingering* and on Ivan Galamian's *Principles of Violin Playing & Teaching; Contemporary Violin Technique, Volume 1*; and *Volume 2*.³⁹ Flesch and Galamian seem to represent the highest authority in the field of classical violin literature in many ways. Their outputs are widely respected. In order to deepen the understanding of Flesch's and Galamian's views, I included the central works of their immediate predecessors in violin pedagogy. In this respect, I included Lucien Capet's *La Technique Supérieure de l'Archet* and Joseph Joachim and Andreas Moser's *Violin School* in the selection of primary references. It is true that many other great classical violin pedagogues' outputs could have offered interesting additional supporting or opposing points of views.⁴⁰ However, to include such extra examples would have radically changed (perhaps biased) my analytical focus, since improvisation is so rarely discussed in classical violin literature.

Classical and jazz violin pedagogical literature that is targeted to beginner- or intermediate-level education could have offered some exciting references as well. However, it would have been

³⁷ According to David Boyden, *The History of Violin Playing from its Origins to 1761 and its Relationship to the Violin and Violin Music* (Oxford: Clarendon Press, paperback reprint, 1990), 30, the early violins came into being as a family in the 1520s, in Northern Italy.

³⁸ If Francesco Geminiani's *The Art of Playing on the Violin*, from 1751, is taken as the earliest example of advanced violin literature, as Boyden suggests (*ibid.*, 357), there would still have been an exhausting amount of 250 years of history of pedagogical violin literature to cover.

³⁹ Later I refer to the primary research material many times in this study. In order to avoid extensive footnotes in this subchapter, I do not list the publication details here.

⁴⁰ For example, Leopold Auer's and Otakar Ševčík's contributions could have been an interesting addition to the primary research material selection. I saw, however, that the works by these two authors would not have significantly enriched nor enhanced my research results. In respect to systematized classical violin education, Ševčík naturally was a great pioneer. The way he instructs finger stopping (through progressively varying the placing of the half-step between the four left hand fingers) right at the beginning of his *Opus 1*, is a good example of highly systemized approach to fingering. See Otakar Ševčík, *School of Violin Technic in Four Parts, Op. 1: Part 1* (Leipzig: Bosworth & Co., 1901), 2-4. Despite the frequent use of open strings, Ševčík's approach appears to be schematic. Consequently, when he introduces the second (*Op. 1: Part 2*, 2-15) and other positions (*ibid.*, 16-49), simultaneously excluding the use of open strings, he is clearly relying on fingering schemes in his thinking. It can be said that Ševčík also employs schematic approach in his beginner-level instruction. See, for instance, Otakar Ševčík, *Violin-Schule für Anfänger (Halbtönsystem), Op. 6* (Violin method for beginners (Half-tone system), Op. 6) (Leipzig: Bosworth & Co.), 2-3. The translation of the title is mine. Despite the historical value of Ševčík's method, I could not see it as adding anything particular into my research.

very difficult to gain any control over the vast amount of published beginner level classical violin literature. Therefore, I chose to exclude all lower level pedagogical violin literature from this study—even though George Bornoff’s or Géza Szilvay’s approaches, for instance, could have offered some interesting views and minor details.

Classical viola tradition is closely bound to violin tradition. Violists frequently play popular (transposed) violin etudes, finger their scales like violinists, read and apply the pedagogical violin literature, etc. Significant differences between the two instruments can be found only in their concert repertoire. Consequently, there is relatively little original pedagogical literature targeted to and created only for viola only. I could not find any relevant references among the specialized viola literature that could be included in my selection of research material.

The system of scale fingering schemes for violin may remind one of the certain, specific techniques used in jazz guitar improvisation and pedagogy. This similarity is also briefly mentioned by Lockwood and Darizcuren in *Cordes & Âme*.⁴¹ Consequently, I chose to extend the focus from violin literature to jazz guitar literature. From the vast selection of the jazz guitar literature, two very popular, original methods came into question. These were William Leavitt’s *A Modern Method for Guitar* (published in three volumes) and Mike Goodrick’s *The Advancing Guitarist*. My selection of jazz guitar literature was based on a verbal inquiry of professional jazz guitarists and from jazz guitar pedagogues. In this inquiry, I first described the system of scale fingering schemes on violin and then requested the jazz guitarists to suggest examples of guitar literature which would include a similar approach or subjects. The inquiry led to the above mentioned publications of Leavitt and Goodrick.⁴²

It also occurred to me that examples of pedagogical mandolin literature should be involved in my research. Violin and mandolin share the same tuning and open strings. Thus, any relevant fingering details from the mandolin literature would be easily applicable to violin. In order to locate the mandolin publications carrying the most potential information within my research, I inquired of professional mandolin players and mandolin pedagogues. This guided me to study Mike Marshall’s *Improvisational Concepts* and some other mandolin references.

In order to enlarge my understanding of the schematic fingering itself and its terminology, I examined some examples of violin literature resembling Lockwood and Darizcuren’s fingering schemes approach in particular. In this respect, the closest two references appeared to be Robert Gerle’s *The Art of Practising the Violin* and David Baker’s *Jazz Treble Clef Expressions & Explorations*. Both include examples of the application of schematic fingering. These publications were also designed especially for violin. Therefore, I chose to describe and discuss their contents in great detail.

⁴¹ *Cordes & Âme*, 10. This reference will be further discussed in Chapter 3.

⁴² It can be argued if the two chosen guitar methods really are for “jazz guitar” or just for “guitar.” It is true that their contents do not focus on jazz guitar playing only. However, it is clear that the methods serve best jazz guitar playing. They mainly rely on the concepts of jazz music theory as well.

During the research I also found out that jazz violinist Joe Venuti had expressed fingering ideas in his unpublished sketches that could have something in common with my fingering strategy. Venuti was undeniably one of the most influential representatives of early jazz violin. I was interested to see if my strategy could be connected to Venuti's legacy. Thus, as a small exception to my research material focus (i.e., actual publications), I analyzed and discussed Venuti's unique ideas and notes as well.⁴³

The pedagogical literature of the low string instruments, cello and string bass, had to be excluded from the research. Although inquiry of professional cello and bass performers and pedagogues concluded that the pedagogical literature of cello and bass might have offered some relevant references to the research, the possibility of gaining information which would have had a notable effect on my research results seemed to be minor. Moreover, many other variables pointed to the exclusion of the cello and bass literature.

First, the playing position of cello and bass is radically different from violin and viola. The way these two low string instruments are held has a direct influence on their fingering technique. In this respect alone, I argue that the difference in fingering between the low string instruments and high string instruments (violin and viola) is significant.

Second, since the low string instruments are much bigger in size, the physical distances between the pitches on their fingerboards are considerably larger than the distances on the fingerboards of violin and viola. This applies especially to the low positions. From this reason, it is very common that on the low string instruments the fingerings of diatonic scales (in the low positions) include shifts.

Naturally it is possible, but relatively rare, to finger scales without shifting on cello and bass. This kind of fingering, however, is still rather exceptional and usually considered uncomfortable and difficult.⁴⁴ Since the guiding principles of fingering schemes approach suggest forming and employing comfortable and easy fingerings, the approach cannot directly be applied to the low positions of the low string instruments. Or, to be more precise, it can be applied but the results will appear negative: Schematic fingering on the low string instruments would require either constant finger stretching or thumb employment, or both. In all cases, that kind of fingering could not be considered to be comfortable (i.e., not reflecting instrumental tactile and kinesthetic knowledge). Actually, in some cases it could result in physical pain.

⁴³ The particular subchapter on the sketches (5.4) includes the support for this minor exception.

⁴⁴ On bass, employing all four fingers for separate pitches in the low positions is exceptional, although not so rare anymore. The Danish jazz bass player, Niels-Henning Ørsted-Pedersen (1946–2005) was one of the first to succeed both technically and artistically in utilizing all four fingers in lower positions. According to my conversation (January 2007) with Professor, bassist Anders Jormin (University of Gothenburg)—who was Ørsted-Pedersen's private student in the late 1970s—Ørsted-Pedersen's approach was partly a result of his drive to play Charlie Parker's solos: In order to be able to play Parker's complex bebop lines, Ørsted-Pedersen had to break from conventional fingerings and fingering systems for bass (which would basically emphasize the use of three left hand fingers). For this reason, for instance, Ørsted-Pedersen is widely seen in Northern Europe as a pioneer in the development of string bass technique in jazz. I wish to acknowledge bassists Anders Jormin and Ari-Pekka Anttila for their enlightening discussions on string bass fingering.

It is positive that the fingering schemes approach can be applied to the so-called thumb positions of the low string instruments. However, to discuss such applications and the relevant references in literature would have somewhat increased the size of this research. In addition, such research could have failed to enrich the discussion since, according to professional pedagogues of the low string instruments, such references in the literature hardly exist and their relevance would consequently have been rather limited.⁴⁵ In addition, the fingering schemes should have been transformed to cover all five left hand fingers, instead of just four. That would have changed the original, four-fingers-based fingering concept fundamentally.

2.4.2 Secondary Research Material

I conducted some additional research on central classical solo violin etudes, caprices, and other works. I also performed some intensive listening and auditory analysis of jazz violin recordings and conducted an extensive study of jazz violin pedagogical literature. The objects of this latter kind of research I saw as the *secondary research material*.

In addition to the analysis of the primary research material, the process of developing my fingering strategy frequently encouraged me to examine carefully the core of the classical solo violin and viola etudes, caprices, and other works. During the process I studied—through practicing, performing, listening, and analyzing—a large selection of classical solo violin and viola music. I examined this particular music, for example, in order to minimize the risk of producing a fingering strategy which would have little new to give for violin education and tradition. Moreover, the examination played a significant role in motivating my artistic work and practice routine. However, already at the beginning I could presume that this extra part of research would not be reported within this study. Therefore, I did not design or construct a formal method or approach for analysis of the secondary material. Still, since this material significantly supported my general progress in violin technique, I believe it is of value to identify some of the major violin works and etudes I included in the selection. In addition, this discussion illustrates some of the tacit and personal knowledge of (classical) violin technique I accumulated while conducting my doctoral studies.⁴⁶

As a part of the secondary research, I studied many of the most important classical violin etude or caprice collections. The selection of this material included Jakob Dont's *24 Etudes and Caprices, Opus 35* and *Preparatory Studies, Opus 37*; Federico Fiorillo's *36 Etudes or Caprices*; Pierre Gaviniès's *24 Matinéés*; Rodolphe Kreutzer's *42 Etudes*; Pietro Locatelli's *25 Caprices*; Niccolò Paganini's *24 Caprices*; Pierre Rode's *24 Caprices*; and Henryk Wieniawski's *L'Ecole*

⁴⁵ Naturally the classical cello literature includes some examples of schematic fingering, just like the classical violin literature. For instance, the etudes number 8, 12, 22, and 33 in David Popper's famous *High School of Cello Playing: 40 Etudes for Cello Solo, Opus 73* serve as examples of this. This interesting point was stressed by Doctor, cellist Raimo Sariola (Sibelius Academy) in our informal conversation (11 February, 2008). I wish to acknowledge Sariola for sharing his expertise.

⁴⁶ Such visualization is an application of recommendations given in Steven Scrivener, "Reflection in and on Action and Practice in Creative-Production Doctoral Projects in Art and Design," *Working Papers in Art and Design 1*, 2000, http://sitem.herts.ac.uk/artdes_research/papers/wpades/vol1/scrivener2.html (accessed 31 January, 2008).

Moderne, 10 Etudes - Caprices, Opus 10. In addition, I studied Natalja Baklanova's *Intonation Studies*; Terje Moe Hansen's *A Modern Approach to Violin Virtuosity: The First Complete Method for the Intervals & Shifts, Part I*; and Eugène Ysaÿe's *Exercices et gammes* which seemed interesting and relevant. As a part of my earlier education in classical violin, I had naturally become familiar with some of the above etude collections (especially those by Kreutzer and Dont). However, I had never taken the time to play through all the etudes in all collections, for instance. In the light of this research, I saw the need to play them.

In addition, I studied several examples of the most important solo violin or viola repertoire. The selection of works in this category included Johann Sebastian Bach's *Sonatas and Partitas for Solo Violin* and *Six Suites for Unaccompanied Cello*;⁴⁷ Paul Hindemith's *Sonata for Solo Viola, Opus 25, Number 1*; Max Reger's *Four Violin Sonatas for Solo Violin, Opus 42* and *Seven Sonatas for Solo Violin, Opus 91*;⁴⁸ and Eugène Ysaÿe's *Six Sonatas for Solo Violin, Opus 27* and *10 Preludes for Solo Violin, Opus 35*. Again, some of the above material I was already familiar with before beginning this research. During the research period, however, I carefully analyzed each of these pieces by playing them through methodically and thoughtfully.

The majority of the above material was part of my daily practice routine for some four or five years.⁴⁹ I worked with certain pieces or compositions and their parts in great detail (e.g., Bach's famous *Chaconne* for solo violin),⁵⁰ while some of them I just went through quickly. A small portion of the works I studied only by reading the music while carefully listening several times to a representative recording.⁵¹ Few works I could study only by intensive listening, since no edition of the music was easily available.⁵² Besides the desire and striving to improve my technical capabilities as violinist (and violist), I wished to find ways to connect parts of the above works to my fingering strategy. However, this appeared to be very difficult or even irrelevant. I realized that connections between a schematic fingering technique and this particular secondary research material could not easily be made or that they would have been artificial.

In addition, the secondary, additional research included intensive auditory analysis of approximately 400 recordings, which had a string player as an improvising soloist.⁵³ Most of the recordings represented the category of "jazz violin" or "string jazz." Essentially, I laid the focus on players whose expression frequently includes (or included) elements of modern jazz or idiomatic modern jazz patterns. The violinists and violists whose output I studied in this especial respect were Darol Anger, Svend Asmussen, Elek Bacsik, Krzesimir Debski, Christian Howes, Kristian

⁴⁷ Bach's cello suites I played on viola. It is rather common that violists play these cello suites.

⁴⁸ The status of Max Reger's particular violin works among the classical solo violin literature can naturally be argued. I personally find many Reger's violin compositions interesting.

⁴⁹ In order to avoid extensive footnotes, I do not list here the reference details. They appear as Appendix 3.

⁵⁰ The last movement of Bach's Partita for Solo Violin No. 2 (D minor, BWV 1004).

⁵¹ Hindemith's *Sonata for Solo Viola, Opus 25, Number 1* and Reger's *Sonatas 1-4, Opus 42* and *Sonatas 5-7, Opus 91*. The recordings appear also in Appendix 3.

⁵² I had to apply this approach to Reger's *Sonatas 1-4, Opus 91*.

⁵³ Like any other jazz musician, I have attempted to become familiar with the many-sided recorded history of my instrument. This is the amount of recordings I was able to gain so far. For the lack of space I cannot list these recordings in this study. However, I can provide the approximately 25 pages-long listing of these recordings by request.

Jørgensen, Ola Kvernberg, Didier Lockwood, Harry Lookofsky, Dominique Pifarély, Jean-Luc Ponty, Zbigniew Seifert, Stuff Smith, Will Taylor, Michał Urbaniak, and Jörg Widmoser—just to name a few. It was difficult to gain access to many of these historical recordings and it took some years to collect a selection of the most essential jazz string albums. The recordings by present-day, living jazz string players were slightly more easily available.

Furthermore, I studied and played through the most popular publications in the field of jazz violin pedagogy. I gained an access to some 20 publications falling into this category.⁵⁴ I first paid highest attention to publications that would discuss modern jazz. Since such publications hardly exist, I had to study works which could include at least small references to modern jazz or something in that direction. The authors whose work I studied in this respect were, for example, David Baker, Charlie Bisharat, Pierre Blanchard, Matt Glaser, Hanno Gräßer, Fred Lipsius, Didier Lockwood, Martin Norgaard, and Dave Reiner and Glenn Asch. I also made a serious effort in researching some historical publications in jazz violin pedagogy and examined carefully examples of Paul Nero's, Eddy Noordijk's, Joe Venuti's, and Helmut Zacharias' output, for instance.

2.5 Research Procedures

My research method was especially manifested through the following research procedures. The structure of my research finally became to bear similarities with the one Steven Scrivener suggests for doctoral creative-production projects in his article “Reflection in and on action and practice in creative-production doctoral projects in art and design.”⁵⁵ My fingering strategy can be seen as an *artifact*, which is the name Scrivener gives for an object of a creative-production doctoral project. My strategy also fills the four norms that Scrivener sets for the artifacts: The strategy is original and innovative, it is a response to on-going issues and concerns, it is rooted in cultural context, and it contributes to human experience.

Through these norms Scrivener identifies a likeness between creative-production and problem-solving projects. In Scrivener's terminology, creative-production projects represent art design and problem-solving projects technological research. By comparing these two approaches, Scrivener attempts to show that creative-production projects actually have much in common with more conventional research approaches. The similarities established as common elements are, for example, rigor, reflection, self-consciousness, and systematicness.

My research procedures below demonstrate that I have employed, among others, the aforementioned four elements. The procedures involved three recognizable research tasks: preparatory research task, research task 1, and task 2. All tasks included moves and analyses of different kinds.

⁵⁴ I discuss the pedagogical jazz violin literature more in the second part of this study. The reference details are presented as Appendix 4.

⁵⁵ Steven Scrivener, “Reflection in and on Action and Practice in Creative-Production Doctoral Projects in Art and Design,” *Working Papers in Art and Design 1*, 2000, http://sitem.herts.ac.uk/artdes_research/papers/wpades/vol1/scrivener2.html (accessed 31 January, 2008).

2.5.1 Preparatory Research Task – Ground Level Analysis

Only few jazz violin publications have discussed the concept of fingering schemes or a similar subject. None of them includes a clear definition of the particular technical matter. It appeared that Lockwood and Darizcuren's *Cordes & Âme* is the only reference where fingering schemes were presented in a way which resembled a concept or a theory, and for this reason I chose the publication to be my main theoretical reference for schematic violin fingering.

Fingering schemes (i.e., the different combinations of the index, middle, annular, and little finger on a single violin string) were already an interesting subject and they called for a clearer definition than provided in *Cordes & Âme*. However, for my fingering strategy it was more essential to describe what Lockwood and Darizcuren indicated and implied with their scale fingering schemes and the system they had built around them. The idiomatic modern jazz patterns (to which I applied the fingering schemes approach in my strategy) would frequently employ more than just one string. Hence, it was natural to work with a more comprehensive concept than just fingering schemes. I thus devoted the main attention to the system of scale fingering schemes. Such a focus was further motivated by the fact that it is very common to refer to scales when idiomatic jazz patterns are categorized, learned, discussed, played, and taught.⁵⁶

Still, *Cordes & Âme* did not include any formal statements of the system of scale fingering schemes. The text, illustrations of the schemes, and related musical examples in the publication could be employed only as the basis for a discussion not as a distinct, clearly outlined term or entity. Therefore, as the *preparatory task* in my research, I analyzed what Lockwood and Darizcuren had actually expressed as their system of scale fingering schemes. Only after this extrapolation could I bring the fingering schemes approach into an academic discourse with other related approaches. I expressed this analytical task as punctuated, simple sentences in the following way.

Describe and define the system of scale fingering schemes in Lockwood and Darizcuren's Cordes & Âme. Reduce it into a list of guiding principles.

The act of describing and defining the system included naturally some analysis, which I called the *ground level analysis*. When reduced to the list of guiding principles, the different elements of

⁵⁶ Although it is very common to approach the melodic aspects of jazz improvisation through discussing chord and scale relations (most theoretical jazz publications do that), this particular approach and the consequent pedagogical model can be criticized as being a limited, ineffectual, misleading, and malfunctioning short cut. Like numerous jazz performance students, I was also taught by employing chord and scale relations as the primary theoretical and pedagogical model. Later, as a professional performer and teacher, I have seriously started to question addressing jazz improvisation through chord and scale relations. I have successfully employed other approaches instead. However, this issue, no matter how significant, falls way outside the scope of this study and I admit to communicating through the popular, ordinary chord-scale practice. Nevertheless, for examples of arguments against this practice, see Hal Galper, *Forward Motion: From Bach to Bebop – A Corrective Approach to Jazz Phrasing* (Petaluma: Sher Music Company, 2005), 29 and 36-37. The problems of the practice are also implied in David Sudnow, *Ways of the Hand: The Organization of Improvised Conduct* (Cambridge: The MIT Press, 1993), 1-33.

the system could be recognized more easily. The list would later represent Lockwood and Darizcuren's system in the primary, comparative analysis level. The ground level analysis included in the preparatory research task and its results (i.e., the list) I reported separately. They form the following Chapter 3.

2.5.2 Research Interests and Other Characteristics

Next, I conducted an investigation on the wider theoretical framework of the schematic fingering. When I was trying to apply the system of scale fingering schemes to modern jazz violin improvisation, it was relevant to try to find other methods or approaches which informed the system of scale fingering schemes. These related methods and approaches were my primary research material.⁵⁷ A study of the primary research material could benefit my fingering strategy in multiple ways. The research was thus inspired and motivated by many different interests. These interests were based on or derived from the three research goals stated earlier.⁵⁸

According to the first interest, I conducted the study in order to fulfil both the artistic and academic requirements for relevant references and support necessary to certain technical and pedagogical solutions in my fingering strategy. Based on the second interest, I examined if any specific models or applicable structures (or parts of structures) were available for the construction of my fingering strategy. Following the third interest, I wished to gain a general understanding of the history of the fingering schemes approach and other similar, schematic fingering approaches. I also studied this history in order to form a picture of the dissemination of schematic fingering ideas across time.⁵⁹ Through this inquiry I was able to define my fingering strategy even more precisely. According to the fourth interest, my research would also yield, for instance, positive, supporting practical details, examples, tips, inspiration, and ideas. In addition to the positive examples, the research could also yield as negative examples. The possible negative examples (e.g., pedagogical or conceptual flaws, inconsistency, vague presentations, etc.) would help me as "examples of things to avoid" in my fingering strategy. Finally, as the fifth research interest, I wished to gather and express a valid starting point for further academic discussion of schematic fingering on the violin.

I began my research from an assumption that an attempt to respond to the aforementioned five interests would significantly support the developing of the fingering strategy. In order to maximize the possible benefits of the primary research material, my research procedures had to be original in several ways. Since the selection of publications I included in the primary research material could hardly be called homogenous, my method also had to be very flexible.

⁵⁷ See subchapter 2.4.1.

⁵⁸ See the beginning of subchapter 2.3.

⁵⁹ I laboured to become familiar with the older pedagogical jazz violin publications in more general terms as well and to formalize a larger view on the history of jazz violin pedagogy. This appeared to be very difficult since the older material does not circulate anymore and has become collectors' items.

Flexibility and applicability were apparently the most characteristic factors, which manifest themselves as special requirements of my research method.⁶⁰ These two factors, together with the fact that the research involved a lot of musical practice (i.e., violin playing, practicing, and experimenting through playing) made it challenging to identify my approach as a conventional method, or as an analytical tool or key. It appeared that few preceding research theories, methods, or approaches took such special facts and factors into consideration. Therefore, in order to explain and reveal the complex research process, I was left with the option of describing the main parts of it, its continuation, and the various aspects and activities it necessarily included.

After the preparatory research task (i.e., the ground level analysis), I continued exploring those references which seemed to be the most meaningful and which employed a concept very close to Lockwood and Darizcuren's scale fingering schemes. Only examples of Robert Gerle's and David N. Baker's work met these criteria. Next, I studied published material by guitarists William Leavitt and Mick Goodrick and mandolinist Mike Marshall, and the sketches by jazz violinist Joe Venuti. Finally, I examined the outputs of the great classical violin master pedagogues, Carl Flesch and Ivan Galamian. In their cases, the main attention was laid on their scale fingerings and other related fingering ideas. These two authors naturally discuss a variety of matters connected to violin playing and teaching. Although many of them were highly interesting and well-stated, they fell outside the scope of the present study. From Flesch and Galamian I continued to Joseph Joachim and Andreas Moser's relevant publications and also to the one by Lucien Capet.

In *Cordes & Âme* Lockwood and Darizcuren apply the fingering schemes approach only to scales. They do not apply it to chord arpeggios, although chords and scales are strongly connected in jazz expression. However, it is not quite necessary to apply schematic fingerings to arpeggios, particularly because arpeggio fingerings can be easily derived from scale fingerings. In my fingering strategy, I decided to follow Lockwood and Darizcuren's lead and focus only on the scale fingering schemes. Although I was well aware how central arpeggios are in modern jazz, I chose not discuss them in detail. Discussing arpeggios would have multiplied the amount of examples needed, and I doubt if these examples would have notably improved the communication of the strategy. I also believe that if violinists are able to play the schematic scale fingerings, they should also be able to independently derive and construct arpeggios from them. Therefore, I excluded arpeggios completely from the description of the strategy.

However, I naturally did pay attention in my research to arpeggios and made notes on them, if any aspect occurred to be relevant. Some authors' arpeggio fingerings could appear to be schematic, while their scale fingerings were not. Still, in most cases the arpeggios were not of high interest. Especially in the publications representing the classical violin music, the arpeggios were mostly

⁶⁰ The primary research material was indeed very diverse: While Carl Flesch's publications are systematized and carefully punctuated the selected publication by Mick Goodrick includes jokes and deliberately vague, philosophical statements. While Leavitt's guitar method is carefully brought into practice as progressive exercises and little tunes, Joe Venuti's schematic fingering ideas exist only as unpublished, hastily handwritten sketches.

based on triads. That particular chord type, unfortunately, has little relevance in modern jazz where the harmony is based on four-note chords.

At times, I followed a reversed chronological order in my research. In order to trace appearances of schematic scale fingering and related phenomena, I started from the most recent, significant, or the best-known references and then tracked the origins of those phenomena as far back in history as was useful. I stopped when the source ran out or when the contents no longer contributed to the focus of my study. The reversed chronology manifested the most clearly within the Galamian–Capet lineage (Ivan Galamian was Lucien Capet’s student). Moreover, following the assumption that the schematic fingering is a relatively recent technical approach, it seemed practical to employ such chronology.

2.5.3 Research Task 1 – Primary Level Analysis, Textual Component

In order to be able to compare the publications selected as primary research material with Lockwood and Darizcuren’s system, I naturally first had to extract views on schematic fingering and its pedagogy from the other contents. This requirement applied to each and every publication. Often the extraction was not easy because the related schematic content was, for instance, scattered and only implied in the text or musical examples. Many authors had expressed their views only in short sentences, clearly addressing a very limited target group (i.e., readers who were specialized in the field or strongly motivated to study it). While most of the time the challenge was to sift the necessary information from very concise literal or musical expressions, sometimes the case was the opposite; to separate out the essentials from a welter of other information. This division of the research I called the *textual component*.

Conducting this textual investigation formed a considerable part of the primary level of analysis. There were many smaller, detailed analytical assignments involved in this level. The assignments rose from the five special research interests stated above. Naturally, not every publication was suitable for all of these interests. Some publications could be studied only in light of one or two such interests. Also, in this respect, each publication had to be faced as a case of its own, and I often had to be relatively creative and liberal in interpreting deeper meanings from the publications.

However, in order to succeed in the diverse analytical assignments and to control the process, I decided to reduce one particular part of the research, my first research task, into the following concise form.

Conduct a comparative analysis between Lockwood and Darizcuren’s system of scale fingering schemes and the primary research material. Analyze the material following the stated interests. Discuss the similarities and differences.

In addition to the actual contents of the material and the schematic fingering ideas expressed in it, I also paid attention to many other features. I made notes on pedagogical methods and communication, visual layout and continuation, the establishment and distribution of the contents, the style and expression, the level of argumentation, reasoning and logic, misconceptions, flaws, and errors, the pedagogical and artistic quality of the musical examples, references to other works, etc. In other words; I attempted to be open to all positive influences and learn from any problematic content and expression as well.⁶¹

When researching the primary material, in some cases I had to separate the specific model of instrumental technique I was interested in from the pedagogical approach. After such separation I could include the model of instrumental technique with analytical discourse about the system of scale fingering schemes. Reporting of this kind of results occupies the major part of the following chapters. The discussion of the pedagogical aspects was not entirely overlooked but it was necessarily of lesser importance since few of the publications were concentrating on instruction of idiomatic modern jazz patterns.

In the following report, the analyses appear among the subchapters devoted to a particular selection of research material (often a single publication).

2.5.4 Research Task 2 – Primary Level Analysis, Practice-Based Component

The research also included an extensive amount of violin playing. The only way to gain a deeper understanding of the research material and perhaps to become influenced by it, was to play through the various, relevant examples and exercises. In several cases it was not sufficient to become just familiar with the musical material through playing but it was necessary to practice and apply the musical issues outside the literal context in question. Without bringing the issues into practice, without experimenting, evaluating, and even toying and playing with them,⁶² the analysis of the publications would have unavoidably been superficial. Thus, a considerable part of the analysis was based on practice; on contemplation of the different matters “on the violin fingerboard.” Consequently, this division of the research I called the *practice-based component*.

This significant part of the research and the research procedures included merely musical activity, and thus this part, unfortunately, did not transform well into literal form. In this respect I subscribe Peter Dormer’s views on the craft knowledge and its characteristics, which he expresses in his *The Art of Maker*. According to Dormer, craft knowledge is “not easily described by language,

⁶¹ In this particular aspect my research resembled the techniques and procedures of Grounded Theory, the method of qualitative research popularized by Anselm Strauss and Juliet Corbin. For example, throughout the research, the interplay between the researcher and the material was maintained and central. The goals of the research were kept relatively open during the process of analyzing the primary research material, instead of attempting to define and close them right from the beginning. Such openness makes an important distinction between Strauss and Corbin’s Grounded Theory and other methods of qualitative research. See Anselm Strauss and Juliet Corbin, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 2nd ed. (Thousand Oaks: Sage Publications, 1998), 12-13.

⁶² By experience I support the common view that the origin of a creative idea or application may often lay in child-like playing; in unorganized, innocent, impulsive, and open dealing with the matter.

and in many cases resists a complete description,” and “is often difficult or even impossible to translate into theory...”⁶³

This, however, does not mean that I could not have designed a way for documenting this particular research component. Ann-Mari Edström’s article, “To rest assured: A study of artistic development,” for instance, includes some suggestive points from which a self-reflective method for the documentation of practice-based research could be designed.⁶⁴ Moreover, David Sudnow’s *Ways of the Hand: The Organization of Improvised Conduct* offers an interesting model for discussing the embodiment of fingering technique within jazz context. Sudnow begins by discussing his piano fingering as *pathways*. According to Sudnow, the pathways “give you ‘somewhere’ to be going (without telling you how to go places), and it is important to know where you are going in order to get there correctly...”⁶⁵ Schematic fingering on violin can naturally be seen as such pathway-designing, and consequently I could have attempted to apply Sudnow’s example and conduct a study of the embodiment of scale fingering schemes or similar matters.⁶⁶ I, however, understood that such scholarly documentation would have changed the focus of my research to even more subjective matters (e.g., my technical progress or artistic development). In my judgement, such personal reflections would hardly be interesting for most readers.

Despite the challenges of expressing the practice-based component of the research procedures in words, I certainly could present its results in words. Consequently, the practice-based results are communicated as discussions, together with the results of the textual analysis. I saw that the practice-based component of the research represented the highest level of the analysis and was the final move in the entire research procedures. In order to gain more control over the particular component, I articulated this second research task, in the following brief form.

Attempt to employ the results of the textual component of the primary level analysis for the benefit of your own fingering strategy. Apply and report.

Some of the analysis in this research was thus conducted through actually fingering the violin, as a part of my personal artistic practice. In cases where the textual component of the primary level analysis had revealed something I felt I could use to the benefit of my strategy development I picked up my instrument and tried to find ways of applying the idea.⁶⁷ Often this kind of

⁶³ Peter Dormer, *The Art of Maker* (London: Thames and Hudson, 1994), 11.

⁶⁴ Ann-Mari Edström, “To Rest Assured: A Study of Artistic Development,” *International Journal of Education & the Arts* 9 (3), 2008, <http://www.ijea.org/v9n3/index.html> (accessed 30 December, 2008).

⁶⁵ David Sudnow, *Ways of the Hand: The Organization of Improvised Conduct* (Cambridge: The MIT Press, 1993), xii.

⁶⁶ To apply Sudnow’s approach would actually have not been simple. Sudnow frequently relies in his description on visual sense; he often explains how he watches his hands and how the hands look on the keyboard (*ibid.*, 9, 13-14, and 32-33). With violin playing, such a visual sense cannot be employed as much; the focus in coordinating the motor movements necessarily lies in subtle tactile and kinesthetic information. This information is significantly more difficult to discuss in print than is visual information.

⁶⁷ Consequently, such application constantly called for improvisation—improvisation especially for the benefit of my fingering strategy. As a jazz musician and pedagogue, I am used to such work and never faced any challenges or problems in this respect. I see that, for most jazz musicians, improvisation is a very natural way of creating, finding,

experimentation did not take more than few minutes (i.e., the primary research material unfortunately did not offer too many applicable elements). There were, however, occasions where the development of my fingering strategy could directly profit from the research, and I took the time to apply that influence.

2.5.5 Discussion of Research Procedures

First, for the discussion of the research procedures (i.e., my research method), I will visualize it as the following table. The table summarizes the different tasks, materials, levels, components, analyses, and reports.

Example 2.6–1: “Research Procedures as a Table”

Task	Object	Material	Analysis	Report & Function
Preparatory research task	Lockwood and Darizcuren’s system of scale fingering schemes	Ground level material (only one publication; <i>Cordes & Âme</i>)	Ground level analysis	Reported at the end of Chapter 3. Employed in the research tasks 1 and 2.
Research task 1	Selected, various publications	Primary research material	Primary level analysis; textual component	Reported at the end of the subchapters in question. Employed in the task 2.
Research task 2	The relevant parts of approaches expressed in selected, various publications	Primary research material	Primary level analysis; practice-based component	Reported together with the results of task 1, at the end of the subchapters in question.
Not a part of the announced research procedures, no task identified	Editions and recordings of music, selection of pedagogical jazz violin literature	Secondary research material	Various analytical assignments; textual, practice, practice-based, auditory, etc.	Not reported. Employed as a general support for the research and the strategy design.

testing, and evaluating solutions. For some domains of the academic world, however, improvisation may appear as a fresh and perhaps a bit unreliable research strategy. However, the essence and meaning of improvisation within musical academic research methodology is nicely stated, for example, by Liora Bresler. See her “Research Education Shaped by Musical Sensibilities,” in *British Journal of Music Education*, vol. 26 (1), 7-25.

Although the research procedures can be illustrated as in the above table, where all the elements of the research appear to have their place, space, and order, in reality the actual research process could not be as organized. The research included constant trespassing across the above cell and row frames. I could not always perform research tasks 1 and 2 in that precise order. There were cases where disciplined following of the division of the textual and practice-based components could have had a negative effect on the results. Thus, I sometimes had to adjust the task order slightly.

For instance, when I studied the guitar methods by Leavitt and Goodrick, I began with textual analysis but soon had to change to practice-based methods and check my analysis on the guitar fingerboard. Sometimes I had to do this just to be sure that I had understood everything I read correctly. Then I had to take a step back and do more textual analysis, now studying the text again in order to apply the guitar concept on the violin. Finally, after reading the text as two different instrumental concepts (as an actual concept for the guitar and as a potential concept for the violin), I could at last realize the practice-based component, which I conducted on the violin fingerboard.

My following research report may appear to be partly descriptive. Readers, however, should bear in mind that the descriptions of the contents of the research material already include analysis—and often in considerable amounts. This can easily be recognized by anyone taking the time to become familiar with the various publications cited. In many, the musical material is rather “mute”; the literal advice or comments are sparse and short. Therefore, I often had to make an effort to translate and transform the contents of the music into an effective description. Such descriptions thus essentially include some analysis, interpretation, and also early results of the textual and practice-based analyses.

Describing the specific pedagogical goals in the primary research material was also essentially analytical by its very nature. References where the approach, pedagogical views, or pedagogical philosophy were clearly identified were few. Instead, many of the publications included inconsistent written textual advice and professional jargon or word play, which often implied matters remotely connected to the subject. The pedagogical approaches often had to be read “between the lines” as well. In this respect, the research resembles a type of “content analysis.” However, this was not the case in the way that is common of content analysis, for instance, in the social sciences.

The pedagogical approach often had to be delineated from extraneous contents. Consequently, the research also required some critical re-evaluation of the pedagogical approach. This helped to develop the pedagogical approach to my own fingering strategy. Since there were practically no preceding analyses of the pedagogy of the primary research material and since there were hardly any pedagogical models for addressing or promoting the types of technical issues in my fingering strategy, I had to develop my own pedagogical philosophy as well. I had to create my pedagogical base and choose my side and perspective. Although this was challenging and time-consuming, I am hopeful that it improved the strategy.

The various analytical assignments frequently employed my experience in the field of jazz violin as a performing artist, composer, pedagogue, student, and researcher, for instance. Without a background of extensive personal and professional artistic experience, most of these analyses could have not have been conducted, and the results would have been different in terms of both depth and value. According to Strauss and Corbin, the advocates of Grounded Theory, “the touchstone of one’s own experience might be a more valuable indicator of a potentially successful research endeavour than another more abstract source.”⁶⁸ Although not strictly sociological in approach, in the type of research which this study represents, the above view also seemed true.

As can be seen, the research method of this study was clearly characterized by its unique procedures and intentions. The diverse analyses were largely supported by practice-based actions. However, the results were expressed as logical statements. According to Scrivener and Chapman, “in many respects, a practice based doctoral scheme can be seen as an academic exercise designed to instantiate a given theory and practice of arts (and design) research.”⁶⁹ In this respect, my research sought to become a valid study on a particular violin fingering concept. Moreover, the research attempted to illustrate the potential tacit and explicit knowledge my fingering strategy conveys. It also intended to warrant many of the aspects and parts of the strategy. Most importantly, it desired to demonstrate that the strategy is a fresh approach to jazz violin fingering and that its design was culturally novel.

⁶⁸ *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 38.

⁶⁹ Steven Scrivener and Peter Chapman, “The Practical Implications of Applying a Theory of Practice Based Research: A Case Study,” *Working Papers in Art and Design* 3, 2004, <http://www.herts.ac.uk/artdes/research/papers/wpades/vol3/ssfull.html> (accessed 31 January, 2008).

CHAPTER 3

Cordes & Âme

Within its 280 pages Didier Lockwood and Francis Darizcuren's *Cordes & Âme: Méthode d'improvisation et de violon jazz* covers many aspects of basic and advanced jazz violin technique.¹ Their instruction begins with rhythm, holding the violin, and fundamental bow strokes, and continues as far as chromatic jazz lines and modern jazz harmony. *Cordes & Âme* is a very ambitious attempt to cover most of the essential subjects in jazz violin improvisation; it encompasses the principles of jazz music and the basics of jazz violin technique and history. The publication is full of musical examples and tips. It also includes an interesting play-along CD.

Cordes & Âme also includes some inconsistent information, however. Several ideas are presented and taught quickly and superficially. The publication does not literally include a comprehensive method for jazz violin or improvisation, although its subtitle implies this. The edition suffers from many typographical errors (especially in musical examples) and references are incomplete. Furthermore, *Cordes & Âme* leaves its greatest achievement, the system of fingering schemes, on the level of a brief introduction.² In this chapter, first I describe the system of scale fingerings presented in *Cordes & Âme*; then I analyze and reduce it to a list of guiding principles.

Schematic fingering and fingering schemes had been presented earlier, for example, in the pedagogical literature of classical violin. There is also another major example of schematic fingering in the jazz violin pedagogical literature³. However, I regard *Cordes & Âme* as being the most authoritative presentation of schematic fingering in the field of jazz violin. Thus, it can contribute the most to the theoretical framework of this study.

3.1 General Remarks on *Cordes & Âme*

Jazz violinist Didier Lockwood (born in 1956, in Calais) is one of the most influential, living, European modern jazz violinists.⁴ Beside his highly regarded artistic output and work, his status is supported by his recent pedagogical work. He has his own jazz school for strings, Centre des Musiques Didier Lockwood, located in Dammarie-lès-Lys, near Paris. Lockwood wrote *Cordes & Âme* with an internationally (but lesser) known violinist, Francis Darizcuren. In addition to violin,

¹ Didier Lockwood and Francis Darizcuren, *Cordes & Âme: Méthode d'improvisation et de violon jazz* (Strings and heart: A method for improvisation and jazz violin) (Paris: Éditions Salabert, 1998). Published only in French. The translation of the title is mine. The noun (*la*) *âme* has multiple meanings in French. It indicates, for instance, *heart*, *soul*, *spirit*—but also *soundpost*. For violinists the latter has a specific significance: Soundpost is the part which conducts vibrations from the front of the violin to the back, inside the body of violin. Taking all the above meanings in concern, *heart* appears to be the closest English equivalent for this beautiful French word.

² The term *fingering schemes* is derived by me from the section “Tables of principal diatonic modes and symmetric scales” (*Tableaux des modes diatoniques principaux et des gammes symétriques*) in Lockwood's and Darizcuren's *Cordes et Âme* (ibid., 60-70). The term is carefully defined below, in subchapter 3.2.

³ This publication, David N. Baker's, *Jazz Treble Clef Expressions & Explorations* is discussed in detail in Chapter 4.

⁴ André Clergeat and Barry Kernefeld, “Lockwood, Didier,” in *Grove Music Online* (accessed 4 November, 2008).

Darizcuren (born in 1938, in Bayonne) plays many other plucked string instruments (e.g., mandolin, guitar, and bass). He has published study books for some of these instruments. Darizcuren's long career encompasses both jazz and classical music genres.⁵

Lockwood and Darizcuren concisely discuss fingering schemes and their unique system of scale fingering schemes for jazz violin in *Cordes & Âme*. This presentation actually is a rather vague introduction since the authors offer little applications and evidence in support of their particular schematic fingering approach. They also fail to offer any theory, theoretical framework, or references. Their excellent, promising, and potential approach is basically left, then, at the level of an undeveloped concept.

For the purposes of my study, Lockwood and Darizcuren's presentation of fingering schemes and their system of scale fingering schemes is hardly sufficient. In order to reveal how the approach resembles discussions of similar matters in other publications belonging to my primary research material selection, Lockwood and Darizcuren's system must be defined in detail and factually. Moreover, by reducing the system into a list of guiding principles, its validity and reliability can be better examined.

Cordes & Âme was published only in French. According to my understanding, the publication has unfortunately remained relatively unrecognized in the wider, English speaking jazz violin community.⁶ Therefore, I find it useful to describe and explain the approach in some detail, especially in order to help readers who are not yet familiar with the publication or its particular contents. The fingering schemes approach is presented and discussed in two places in *Cordes & Âme*. The fingering schemes are introduced, displayed, and discussed on pages 10 to 22; the system of scale fingering schemes is again displayed on pages 60 to 69. In the following, I discuss these two presentations separately.

3.2 Fingering Schemes

The fingering schemes are introduced the first time on page 10, under the title "The imaginary frets of the fingerboard" (*Les cases imaginaires de votre manche*).⁷ In this particular subchapter, Lockwood and Darizcuren teach the basics of violin technique. On the preceding pages, for instance, they discuss the essentials of ear-training, independence of the four limbs, steady pulse and rhythm, and how to hold the violin. They lead readers towards the fingering schemes by bringing up some challenges the violin presents to players.

⁵ *Cordes & Âme*, 275 and "Biographie" at <http://www.darizmusic.com> (accessed 7 September, 2008).

⁶ While living, studying, and working in the USA, I came to understand that Didier Lockwood is not well-known among North American jazz string players. It happened, for example, that many professional jazz violinists heard of *Cordes & Âme* from me for the first time. This must be due to a very limited distribution of Lockwood's work outside Europe.

⁷ The translation of this title and all the following titles and quotations from *Cordes & Âme* are mine.

If compared to guitar (which has frets) or piano (which has keys), violin is a blind instrument; there are no markings or other visual aids on the violin fingerboard. In this particular aspect, violin is a difficult instrument to apprehend.

Indeed, it takes a lot of time to train your left hand fingers to work like the hammers of a piano or the keys of a saxophone. In other words; it is time-consuming to teach them to fall on the correct places on the strings—and in all the possible configurations.

In classical violin education and in the execution of classical repertory it is sometimes enough if you just manage to memorize the specific fingerings and produce a good sound. In improvised music, however, a violinist should know the fingerboard thoroughly. That is why his approach to fingering must be based on logic. In order to employ all of his creative potential, an improvising violinist should really know where and *when* to drop his fingers. Violin fingerboard is like a labyrinth, and you have to know its every corner. However, the fingerboard gracefully obeys a very simple logic in accordance with the symmetrical tuning of the strings (G - D - A - E).

I [Didier Lockwood] have worked with several guitarists (for example, John McLaughlin, Mike Stern, Christian Escoudé, and Philippe Catherine). Through working with them I got the idea of applying the principle of [guitar] tablatures on violin.

You should install *imaginary* frets on the violin fingerboard. First you may visualize them on a piece of paper. This way you can learn to move your fingers around the violin neck like you would move the pieces on a chess board. All responds to very simple logic. Pretty soon you also realize that the logic is based on ten different fingering schemes, which are presented below. The schemes utilize tones and semi-tones in particular.⁸

Lockwood and Darizcuren's approach thus seems to be based on two related aspects; seeing the violin fingerboard as a tablature (like the guitar fingerboard) and applying guitar left hand finger technique on the violin.⁹

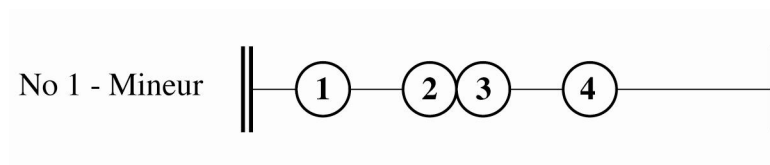
After the above quoted textual introduction, Lockwood and Darizcuren show the ten different, basic fingering schemes. The finger positions on a string are pictured as numbered circles on a horizontal line. The fingering schemes are also numbered from one to ten and they bear such characteristic names as “minor,” “major,” “diminished,” “chromatic,” etc. Below appear renditions

⁸ *Cordes & Âme*, 10. The italics follow carefully the original. The original French text includes relatively complex and long sentences, which do not translate easily into English. In order to express the authors' somewhat relaxed and liberal communication style in English, I had to break some long sentences into parts and conduct other tiny modifications. However, the meanings are not altered.

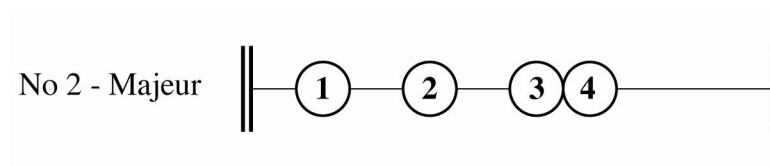
⁹ According to Lockwood, he got the original idea from jazz guitarist John McLaughlin, whom he met at the very beginning of his career. Lockwood writes shortly about the occasion in his French autobiography. See Didier Lockwood, *Profession Jazzman: La vie improvisée* (Profession jazz man: The improvised life) (Paris: Hachette Littératures), 84. The translation of the title is mine. Lockwood also repeated the story in a recorded interview with me, in Dammarie-lès-Lys, Melun (France), 22 April, 2008. To see or present the violin fingerboard as a tablature has been relatively popular since the beginning of classical violin education. For an early, mature example (originally from 1751), see Francesco Geminiani, *The Art of Playing on the Violin 1751*, facsimile edition, edited and introduced by David D. Boyden (London: Oxford University Press, n.d.), 1 (the first page including musical examples).

of the original first and the second fingering schemes, which are called minor (*mineur*) and major (*majeur*).¹⁰

Example 3.2–1: “The First Fingering Scheme”



Example 3.2–2: “The Second Fingering Scheme”



In the above examples, the circles represent the fingers one to four (from left to right) on a violin string (which is represented by the horizontal line). When the circles appear close to each other, their distance indicates a half step difference in pitch and the larger space between the circles represents a whole step. The first scheme is suggestive of the beginning intervallic pattern of a minor scale, the second of the beginning of a major scale—hence their names.

As it can be seen, the schemes are different configurations of the four left hand fingers on a string. The visual distinction of whole steps relative to half steps is fundamental in the construction of a scheme. When introducing the schemes, Lockwood and Darizcuren state that the ten different schemes employ only whole and half steps. However, two of their schemes, numbers 9 and 10, include a distance of one and half steps between fingers next to each other. By using the word “extension” (the French spelling of the word is the same) when describing the larger distances within the particular schemes, Lockwood and Darizcuren imply that these two are an exception to their larger rule.

According to Lockwood and Darizcuren, the ten different schemes form the basis of all violin fingering and fingerings.¹¹ This means, for instance, that by combining schemes, different scale fingerings can be created. An example of Lockwood and Darizcuren present a fingering for one-octave major scale. In this first example, a major scale is constructed of two major schemes (scheme number 2) following each other on adjacent strings.¹² In the second example, a Dorian scale is

¹⁰ Any musical example cited hereafter from a published source is my rendition of the original. Although the renditions are often close copies of the original material, I may sometimes edit minor details or modify the layout. The contents in focus, however, is never altered. I identify each rendition just as an *example*.

¹¹ *Cordes & Âme*, 11.

¹² *Id.*

constructed from two minor schemes (scheme number 1) following each other.¹³ After this Lockwood and Darizcuren continue to show a fingering for a two-octave major scale. In that fingering, two major schemes on the G and D strings are followed by two minor schemes on the A and E strings—all in the same position.¹⁴ Finally, Lockwood and Darizcuren show readers a fingering for a three-octave major scale. In this particular fingering six major schemes, separated by two shifts, follow each other.¹⁵

After giving few elementary exercises on one-octave A major and A Dorian scales, Lockwood and Darizcuren take a moment to focus on shifting technique.¹⁶ They quickly demonstrate how shifting can be linked to the idea of schemes through an approach they call “displacement” (*déplacement*).¹⁷ No other applications of the schemes are given but the authors continue discussing the right hand technique and the coordination of the left and right hands.¹⁸

As was stated in Chapter 2, Lockwood and Darizcuren’s fingering schemes are not in the focus of my study. The basis of my fingering strategy lays in their particular application of the fingering schemes; in the system of scale fingering schemes. Therefore, I will not analyze, comment, or discuss Lockwood and Darizcuren’s fingering schemes presentation any further. However, I would like to shortly note that the authors’ presentation is much to my personal liking. Although it has its minor flaws, such as somewhat illogical naming of the schemes, some small typos, and limited textual explanation, I consider it as a relevant, valid view of violin fingering. Similar views on fingering have been published earlier in classical violin pedagogical literature by Robert Gerle and George Bornoff, for instance.¹⁹ Although Gerle’s and Bornoff’s presentations and applications of the schematic fingering may appear to be somewhat more advanced than Lockwood and Darizcuren’s, I could not employ them as the origin of my theoretical framework for a simple reason: Gerle’s and Bornoff’s presentations are designed for performing written music, not for (jazz) improvisation.

3.3 System of Scale Fingering Schemes

After a quick introduction to the basics of jazz harmony and chord theory, Lockwood and Darizcuren return to their fingering schemes approach.²⁰ This time the focus is on various scales

¹³ Id.

¹⁴ Ibid., 12.

¹⁵ Id.

¹⁶ Ibid., 13-14.

¹⁷ Ibid., 14-22.

¹⁸ Ibid., 23-36 and 37-52.

¹⁹ See, for example, George Bornoff, *Bornoff’s Finger Patterns for Violin: A Basic Method for Strings* (Toronto: Gordon V. Thompson Music, n.d.) and *Bornoff’s String Education: Patterns in Position, Book 1* (Newton Highlands: Foundation for the Advancement of String Education, 1984). Bornoff’s finger patterns approach is discussed in more general terms in John Raymond Howell and Florence Currie Howell, *Bornoff: Breakthrough for String Education*, 2nd printing (Newton Highlands: Foundation for the Advancement of String Education, 2003), 55-57, 79-83, and 101-103. I discuss Robert Gerle’s contribution, *The Art of Practising the Violin: With Useful Hints for All String Players*, in Chapter 4.

²⁰ *Cordes & Âme*, 54-59.

and how they should be fingered in one position, within the frame of the first finger on the lowest (G) string and the fourth finger on the highest (E) string. Various scale fingering schemes are organized into three different categories and presented as tables.

The first table includes the “Greek Church Modes” (*modes ecclésiastiques grecs*).²¹ In this table scale fingering schemes for the seven different modes, each of which start and end on a different degree of the major scale, are given. The second table has the broad title of “Pentatonic, harmonic, melodic, blues and altered scales” (*pentatoniques, harmoniques, mélodiques, blues et altérées*).²² Here Lockwood and Darizcuren present fingering schemes for the major and minor pentatonic, harmonic minor, melodic minor, altered, and blues scales. In addition, they include four other scales, which they label as “oriental scales” (*gammes orientales*). Two of these are further defined; the second oriental scale (*gamme orientale 2*) is also called as “Hungarian minor scale” (*Hongrois mineur*) and the third (*gamme orientale 3*) as “double harmonic scale” (*double harmonique*).²³ No other specifications are given, although the scales obviously resemble, for instance, certain Turkish *maqams* and one of them is employed frequently in jazz.²⁴ The third table of scale fingering schemes includes fingerings for the four most common symmetric scales (*gammes symétriques*) employed in jazz improvisation; the chromatic, the whole-tone, the augmented, and the diminished.²⁵ The diminished scale presented in that discussion begins with a whole step.²⁶

Throughout their tables, Lockwood and Darizcuren relate most of the given scale fingering schemes to different jazz chord colors. In some cases they also describe the common harmonic function of the scale or the common chord connected to the scale, or both. Sometimes the authors supply small details, such as famous jazz compositions in which a particular scale could be employed and who popular jazz artists have specialized in using a scale. Most of this information

²¹ Ibid., 62-63.

²² Ibid., 64-67.

²³ Ibid., 66.

²⁴ The four “oriental” scales in *Cordes & Âme* can be related to Turkish *maqams* quite easily. According to Kurt and Ursula Reinhard’s listing of *maqams*, Lockwood’s and Darizcuren’s “oriental 1” is similar to *maqam Nikriz*, “oriental 2” to *maqam Neveser*, “oriental 3” to *maqam Hicazkâr* or *maqam Sedaraban*, and “oriental 4” to *maqam Hümayun*. See Kurt and Ursula Reinhard, *Musik der Türkei, Band 1: Die Kunstmusik* (Music of Turkey, volume 1: Art music) (Wilhelmshaven: Heinrichshofen’s Verlag, 1984), 200. Although these scales and related *maqams* seem to share approximately the same structure and intervals, it should be noted that the function a scale has in Western music can differ quite a bit from the function of a *maqam* in Turkish music. However, my main points here are that the four unidentified “oriental” scales in *Cordes & Âme* can be connected, for example, to a music culture very close to Europe and that the scales do not necessarily refer to other Eastern musics. I wish to acknowledge Doctor Jarkko Niemi and Doctor Risto Pekka Pennanen (both from the University of Tampere) for their guidance in Turkish music theory and help in identifying the above scales as *maqams*. The scale Lockwood and Darizcuren call “oriental 4” is the fifth mode of the harmonic minor scale and it appears in many jazz theory publications. See, for example, Richard J. Lawn and Jeffrey L. Hellmer, *Jazz Theory and Practice* (Belmont: Wadsworth Publishing Company, 1993), 40; Ron Miller, *Modal Jazz Composition & Harmony: Volume 1* (Rottenburg: Advance Music, 1996), 90; and Andy Middleton, *Melodic Improvising* (Rottenburg: Advance Music, 2005), 80. Although the mode appears to be popular in jazz, it does not have an established name.

²⁵ *Cordes & Âme*, 68-69.

²⁶ The diminished scale-type beginning with a half step is not shown in *Cordes & Âme*. This particular type is very common in jazz, and Lockwood himself frequently employs it. In jazz theory the scale is often called the *dominant diminished scale*, according to its functional use with dominant chords.

appears to follow the canon of jazz scale and chord theory. However, the oriental scales and their function and usage are left without detailed examination.

At the end of the third table Lockwood and Darizcuren write: “All these scales can be worked in all directions by changing the starting finger (the 2nd instead of the 1st or the 3rd...). Thus new schemes are created.”²⁷

This statement is somewhat vague. However, as I understand it, the authors suggest that they chose to present in their publication only scale fingering schemes that start with the first finger. However, other scale fingering schemes for the same scale types can be constructed by using the second, third, and fourth fingers as the starting finger. Thus, for any particular scale color there could be altogether four different scale fingering schemes.²⁸ Consequently, in the case of the major scale, for instance, in *Cordes & Âme* only the scheme starting with a first finger is shown. The three other major scale schemes (those beginning with the second, third, and fourth fingers) do exist but their construction is left for readers to complete on their own.²⁹

This feature opens up the approach and takes it a step further, towards many interesting applications. Unfortunately, Lockwood and Darizcuren do not present a single enlightening example (of scale use, for instance) in their publication. On the following page, which closes that particular chapter in *Cordes & Âme*, the authors abruptly continue on to another subject, explaining how the melodic minor scale can be divided into modes and how these modes work in the context of jazz harmony.³⁰

3.4 List of Guiding Principles

Lockwood and Darizcuren do not define their scale fingering scheme approach in detail. In order to be able to discuss their approach any further in this study, I will describe, analyze, and define it properly. I now take a closer look at the approach and extrapolate guiding principles from it. According to my research procedures, this represents the preparatory research task, the ground level analysis.

²⁷ *Cordes & Âme*, 69.

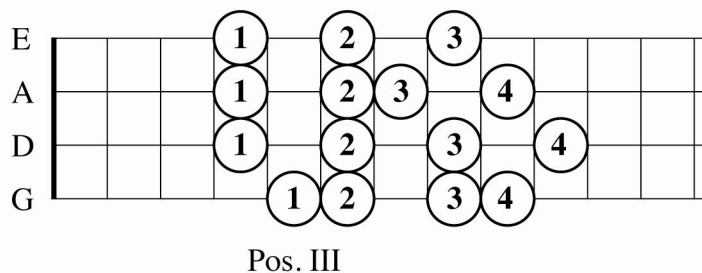
²⁸ In jazz theory and pedagogy, it is common to discuss chord alterations and extensions as changes in sound color. See, for example, Mark Levine, *The Jazz Piano Book* (Petaluma: Sher Music Co., 1989), 33; Michael Morangelli, *A Reference for Jazz Theory* (Lakewood: The Reel Score, n.d.), 35 (available at <http://www.thereelscore.com>, accessed May 15, 2009); and Andy LaVerne, *Handbook of Chord Substitutions* (New York: Ekay Music Inc., 1991), 14. It is common to approach the melodic aspects of jazz improvisation through discussing chord and scale relations (as is done in most theoretical jazz publications). In this popular chord-scale practice of jazz, two particular theoretical concepts (*chord* and *scale*) are so closely related that they are frequently seen just as two different perspectives on the same matter. According to Mark Levine, “the scale and the chord are two forms of the same thing.” See his *The Jazz Theory Book* (Petaluma: Sher Music Co., 1995), 33. Based on the common practice of viewing chord extensions and alterations as representing different *chord colors*, I often imply in this study that different scales represent different *scale colors*.

²⁹ Lockwood confirmed my interpretation and discussed this detail shortly with me in a recorded interview in Dammarie-lès-Lys, Melun (France), 22 April, 2008.

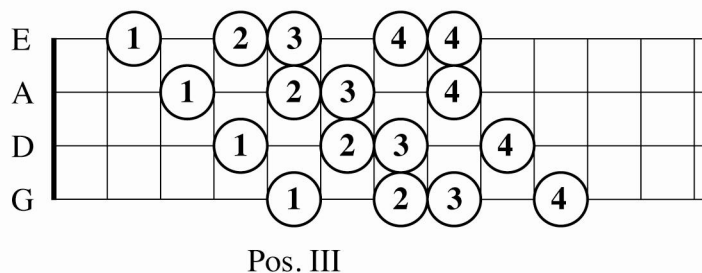
³⁰ *Cordes & Âme*, 70.

As an example, below I present examples (i.e., renditions) of scale fingering schemes for altered and diminished scales.³¹ I do not discuss these particular schemes in detail; they appear here mainly as illustrations for readers who are not familiar with *Cordes & Âme*.

Example 3.4–1: “The Scale Fingering Scheme for the Altered Scale”



Example 3.4–2: “The Scale Fingering Scheme for the Diminished Scale”



In the above illustrations, the four horizontal lines represent the four violin strings; the highest string (E) is on top and the lowest (G) below. The circles represent the placement of fingers on violin strings within the particular scale fingering scheme. As before, if two circles on a string are apart, the distance between them represents a whole step in pitch. If two circles are next to each other, the distance in between represents a half step.

The leftmost circle is always the first finger and the rightmost the fourth. However, exceptions may occur on the E string: The scheme for the altered scale reaches only two octaves higher from the lowest note and hence the scheme ends with the third finger on the E string (the fourth finger would exceed the two-octave range). In order to reach the full two octaves, the scheme for the diminished scale must include an extra note on the E string—and thus altogether five circles appear on the top line. In this case, the two circles at the far right both indicate the fourth finger (i.e., both notes are stopped with the fourth finger).

³¹ The altered scale is the seventh mode of the melodic minor scale. The scale is frequently employed in modern jazz improvisation. The diminished scale is a symmetrical scale, where the range of an octave is divided into whole and half steps. In jazz theory, the term “diminished” scale usually refers to the particular pitch order beginning (when ascending) with a whole step. See Glossary (Appendix 1) for further reference to these two scales.

In *Cordes & Âme* the lowest pitch in all but one presentation of the scale fingering schemes is middle C. That is, in most cases the leftmost circle on the G string represents the first finger in third position. This is indicated by both the tablature (i.e., frets marking the finger-stopping places) and the abbreviation “third position” (*Pos. III*).³² The only exception is the scale fingering scheme given for the whole-tone scale; in that particular scheme, the lowest note in the presentation is the lowest A on the G string. That is, the whole-tone scale scheme begins (for an unknown reason) in first position.

The above scale fingering illustrations can also be expressed on staves. Below the two scale fingering schemes are interpreted in notation as ascending and descending scales. Both scalar interpretations begin on the middle C, like the scheme presentations in *Cordes & Âme*. I have also indicated (via the *sul* markings) on which string the stopping occurs.

Example 3.4–3: “The Altered Scale Fingering Scheme in Notation”

Example 3.4–4: “The Diminished Scale Fingering Scheme in Notation”

Next, below appears the description of the scale fingering schemes in *Cordes & Âme*.³³ I have included some comments and analysis as well. The description is divided into ten points, each focusing on a single aspect.

1. All of the scale fingering schemes begin with the first finger on the lowest violin string (the G string). However, they could also begin with another finger (see the third point).
2. The first finger on the lowest string defines the name of the scale and its fingering scheme. The first finger acts thus as a *reference finger* and it cannot be stretched; it must stay inside

³² In *Cordes & Âme*, the pitch names are also presented together with the numbers inside the circles. This feature, however, is excluded in the above examples.

³³ This section refers respectively to pages 62 to 69 in *Cordes & Âme*.

the position (more about this in the sixth point).³⁴ For this reason, none of the schemes presented include any pitches below the first finger on the lowest string.

3. Every scale fingering scheme attempts to be the most convenient fingering for the particular scale.³⁵ Most of them are easy to internalize since they are built of simple finger patterns (i.e., fingering schemes) on adjoining strings. However, Lockwood and Darizcuren do not claim that these scale fingering schemes are either the best, or the only ones that exist for any particular scale. To the contrary, they mention that other schemes can be formed by beginning with other fingers than the first. This extension of the approach, however, is not discussed any further in the publication.
4. These scale fingering schemes are universal single settings of fingers in a position or in vicinity of a position.³⁶ For this reason, they can easily be transposed to most of the violin positions higher than the first. In other words, in order to play a particular scale in all twelve keys, violinists need only one scale fingering scheme.
5. No scheme includes any open strings. This is a necessary, natural consequent of the previous point. The use of open strings would make the act of transposing immediately more challenging. Even a single open string in the scale fingering scheme would increase the possibility of different scale fingerings per scale to at least two. In such a case, one fingering would include the open string while in the other fingering the open string would be excluded.
6. Most of these scale fingering schemes aim to stay in one position. A half step stretching outside the position, however, appears to be allowed and necessary. The stretching is allowed for the first and the fourth fingers. However, the first finger cannot be stretched on the lowest string because the finger in this case defines the position and acts as the reference of the scale fingering scheme (see the second point). As an example of such stretching, see the above reproduction of the altered scale fingering scheme (Example 3.4–1).
7. The stretching of the first finger can be employed in shifting. The schemes given for the chromatic, whole-tone, augmented, and diminished scales are good examples of this. According to the symmetric nature of these four scales, it is convenient to conduct small (usually no larger than a half step) shifts upwards or downwards in order to maintain the

³⁴ When I discussed the fingering schemes with Lockwood (recorded interview in Dammarie-lès-Lys, Melun (France), 22 April, 2008), Lockwood called the first finger as the *reference* or *driver*. With these words I understand that he was referring to the central role the first finger has in left hand technique. I apply Lockwood's wording and in this respect also call the first finger the reference finger.

³⁵ In most cases this ideal is fulfilled. However, my experience suggests that some of the schemes by Lockwood and Darizcuren are not the most convenient or most practical.

³⁶ Some of the schemes include small shifts. If the hand placements between the E and G strings are compared, it could be said that in some cases (e.g., the scale fingering scheme for the diminished scale) the scheme crosses the limits of a violin position. This depends on how a violin position is defined. Since my view on the limits of a violin position (presented in Part II, Chapter 5) may vary from those of readers', it is better to say that the schemes are universal settings of fingers in vicinity of a position. This compromise also respects the scalar aspect included in the scale fingering schemes (i.e., the schemes rely on ascending and descending scale-wise thinking or a mental model, instead of, for example, jumping directly from the lowest string to the highest, or vice versa).

symmetrical form of the scales within the scale fingering schemes as well.³⁷ This directly results in fingerings that are beneficially easy to internalize. As an example of stretching which results in shifting, see the above reproduction of the diminished scale fingering scheme (Example 3.4–2).

8. All the scale fingering schemes, except one, begin in the third position, on the G string, on the note C. The scale fingering scheme given for the whole-tone scale begins on the note A, in the first position, on the G string. It is likely that Lockwood and Darizcuren frequently employ C as the starting note in the scale fingering schemes since this makes it easier to compare different schemes with each other. Also, it simplifies the layout of the scheme illustration.
9. Only some of these scale fingering schemes (e.g., Ionian, Dorian, whole-tone) can appear in the half position. The fingering schemes for the Phrygian, Aeolian, Locrian, harmonic minor, altered, blues, oriental 2, oriental 3, and oriental 4 scales cannot appear lower than the first position since these schemes include one or more downward stretches of the first finger. The fingering schemes for augmented and diminished scales cannot appear lower than the second position since the augmented scale fingering scheme includes one whole step downward stretch (or shift) and the diminished scale fingering scheme includes more than two half step downward shifts. However, the fingering scheme for the chromatic scale (the four fingers always stop four consecutive half steps) can be applied in a way that it begins in a half position.
10. All the scale fingering schemes reach two octaves higher from their lowest note or the tonic. This means that some schemes do not employ all the possible pitches in one position (i.e., they do not exceed the two-octave range, even though that extension is possible within the position). One exception appears: The fingering scheme for the whole-tone scale reaches two octaves plus an augmented fourth higher from the lowest note of the scheme.

The above description and analysis itself implies important fundamentals of the system of scale fingering schemes starting on the first finger. Below these are more carefully extrapolated and reduced into a list of guiding principles.

1. The lowest note of a scale fingering scheme defines the tonic of the scale in question.
2. The lowest note of a scale fingering scheme suggests (or defines in most cases) the position as well. The finger stopping the string on the lowest note cannot be stretched.
3. No open strings are allowed in a scale fingering scheme.

³⁷ In the case of the whole-tone, augmented, and diminished scales and partly in the case of the chromatic scale, the position shift begins as a stretch or an extension, which is followed by an inaudible readjustment of the hand. In classical violin literature, this phenomenon is described by Ivan Galamian as a *creeping fingering* (see his *Principles of Violin Playing & Teaching*, 3rd ed. (Ann Arbor: Prentice-Hall, 1985), 34) and by Carl Flesch as *position-creeping* or *slinking from one position to another* (see his *The Art of Violin Playing, Book I*, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000), 108).

4. A scale fingering scheme should be comfortable to employ and easy to internalize.
5. A scale fingering scheme should be easy to transpose to any key.
6. Finger stretches are allowed anywhere in the scheme, except in the case of the finger stopping the lowest note.
7. A scale fingering scheme should reach at least two octaves higher from the lowest pitch.

This list of guiding principles is the conclusion of the ground level analysis (i.e., analysis of the system of scale fingering schemes starting with the first finger in *Cordes & Âme*). Henceforth, I regard the list as definitive of Lockwood and Darizcuren's system. The lowest note which defines the scheme in question is called the tonic. The finger stopping the tonic is called the reference finger.

Although the preparatory research task does not require any further discussion of the scale fingering system, some short additional notes are useful here. These notes could be of benefit, for instance, for future considerations and studies. Two major issues immediately arise: the first finger emphasis and the equalization of the four left hand fingers

The presentation of the scale fingering schemes in *Cordes & Âme* stresses the use of the first finger. If this cannot be seen as a direct intention of the authors, it is at least an obvious emphasis. Whether the emphasis is accidental or deliberate is not relevant. Neither is it useful to speculate if the emphasis is a part of the authors' pedagogical approach or perhaps just a solution for the best of the graphical formatting of the publication. It is more important and interesting to contemplate what this technical emphasis conveys.

The first finger has many positive, general natural features in strength, length, and width. Therefore, it is common that it receives a central role in the kind of technical approach that the scale fingering schemes of the authors' present. The use of the first finger on the tonic of a scale scheme can increase security in intonation and shifting technique, for instance. Violin position numbering is often based on the placement of the first finger as well; this particular finger is pivotal in the whole concept of violin position and in discussing positions. The first finger also has a fundamental role in the violin grip. The side of the finger is the other point of the left hand which is in contact with the instrument in the positions from one to three (the other point being naturally the thumb).³⁸ Many other physical and educational reasons—which I unfortunately cannot discuss here—seem to stress the role of both left and right first fingers in many human activities employing hands and instruments.

Although it is very appealing to allow the first finger to gain the highest status among the left hand fingers within the system of scale fingering schemes, I argue that this limitation can eventually begin to work against the system. In my experience with schematic fingering, some equalization of the left hand fingers seems necessary. When the open strings and their usage as a part of the left-hand technique are excluded, the ability to perform almost all tasks with any of the left hand fingers

³⁸ The side of the first finger thus acts as a counterpart for the thumb. I support this common (though not the only) view of violin grip. As an example of further support for this view, see Ivan Galamian, *Principles of Violin Playing & Teaching*, 16-18 and 21.

soon becomes essential. From their point of view, Lockwood and Darizcuren perhaps point in this direction at the end of their presentation of the scale fingering schemes, where they suggest constructing schemes which begin with the second, third, and fourth finger as well.

Unfortunately, in my study the role of the first finger cannot be examined and discussed in any further detail. However, it is clear that the topic should be investigated in depth in future studies of violin technique. Classical violin literature includes some references which can be employed as an inspiration and encouragement for further discussion on the roles of the left hand fingers.³⁹

As stated earlier, in *Cordes & Âme* Lockwood and Darizcuren do not bring their excellent technical approach to a practical level. The publication does not include any useful practical advice concerning how their system of scale fingering schemes could be employed in violin improvisation. Applying their system to modern jazz improvisation is not necessarily easy. My experience suggests that any such application should be supported by a fingering strategy, at the very the least. However, Lockwood and Darizcuren's system can surely be easily employed in modern jazz improvisation that focuses on modes and modal harmony. In modal jazz improvisation, the scales (or modes) are the primary source for melody construction. I believe that the system can be independently applied by many professional jazz violinists.

³⁹ Carl Flesch, for instance, briefly discusses the importance of strengthening the fourth finger at the elementary stages of study and recommends not becoming too accustomed to replacing the fourth with the third finger in the case of long, expressive notes. See his *The Art of Violin Playing, Book 1*, 93-94. Another place to begin the discussion on the equalization of the left hand fingers could be with one-finger shifting exercises. See, for instance, Simon Fischer, *Basics: 300 Exercises and Practice Routines for the Violin* (London: Edition Peters, 1997; reprint, London: Edition Peters, 2000), 149-156.

CHAPTER 4

Closest References

Fingering schemes or scale fingering schemes are not a new concept for bowed string instruments. Both have existed in different forms in some teaching of the instrument type. There are two examples of violin literature that closely resemble Lockwood and Darizcuren's system of scale fingering schemes. These are Robert Gerle's *The Art of Practising the Violin: With Useful Hints for All String Players* and David N. Baker's *Jazz Treble Clef Expressions & Explorations: A New and Innovative System for Learning to Improvise for Treble Clef Instruments & Jazz Violin*.¹ Both include a rather similar approach to fingering schemes, with rather similar technical goals. However, they employ slightly different technical terms.

Since the similarity between Gerle's and Baker's publications and Lockwood and Darizcuren's *Cordes & Âme* is considerable, my choice of using *Cordes & Âme* as the basis of the theoretical framework and focus is a relevant subject for discussion.² This applies especially to Baker's *Jazz Treble Clef Expressions & Expressions*, which has its emphasis in jazz music (Gerle's is in classical) and its contents are, in some respects, more advanced than the contents of *Cordes & Âme*. However, it appeared that Lockwood and Darizcuren's system was easier to define and express in an academic fashion. Below, I explain this and other warrants for my choice of relying on *Cordes & Âme* in greater detail. In addition, I examine the other relevant aspects of these two most similar references to the fingering schemes and the system of scale fingering schemes presented in *Cordes & Âme*. Consequently, I begin my reporting of the primary level analysis, both its textual and practice-based components.

4.1 *The Art of Practising the Violin* by Robert Gerle

Classical violinist Robert Gerle (1924, Opatija–2005, Hyattsville) was raised and educated in Hungary. Beside his performing career, he held several teaching and conducting positions, mostly in the USA. Gerle is remembered especially from his diverse choice of repertoire and brilliant interpretations.³ His *The Art of Practising the Violin* has gained a secure position in the canon of classical violin pedagogical literature.

The purpose of Robert Gerle's *The Art of Practising the Violin* is to present ways of improving the practice habits of classical violinists. Gerle thus mainly shares his advice on effective

¹ Robert Gerle, *The Art of Practising the Violin: With Useful Hints for All String Players*, 2nd ed. (London: Stainer & Bell, reprint, 2000). David N. Baker, *Jazz Treble Clef Expressions & Explorations: A New and Innovative System for Learning to Improvise for Treble Clef Instruments & Jazz Violin* (New Albany: Jamey Aebersold, 1995).

² Didier Lockwood and Francis Darizcuren, *Cordes & Âme: Méthode d'improvisation et de violon jazz* (Strings and heart: A method for improvisation and jazz violin) (Paris: Éditions Salabert, 1998). Published only in French. The translation of the title is mine.

³ "Concert Violinist Robert Gerle Dies," *Washington Post* (Arlington), 31 October 2005, <http://www.washingtonpost.com/wp-dyn/content/article/2005/10/30/AR2005103001203.html> (accessed 13 May, 2008).

practicing. The publication is clearly targeted to classical string players, especially violinists. The musical examples are from standard classical music repertory, and there is no discussion of improvisation. However, in his publication, Gerle introduces an approach which so closely resembles Lockwood and Darizcuren's fingering schemes that it must be carefully examined. Gerle calls the approach *finger-pattern practice*.

4.1.1 Finger-Pattern Practice

Gerle presents the principles of his finger-pattern practice in the second chapter of *The Art of Practising the Violin*. He begins by explaining that the violin fingerboard can be seen as a gridiron (or a tablature), consisting of approximately 100 different spaces.⁴ As an example of this, Gerle gives an illustration where the violin fingerboard is divided into slots, in the manner the metal frets divide the guitar or mandolin fingerboard. According to Gerle, altogether approximately 54 semitones can be played within the range of a standard 4-string violin. Gerle suggests that by visualizing the gridiron on paper (and in mind) readers should realize that every note has its own precise slot on the fingerboard, and that the slots grow smaller in the higher positions. All this should work as a mental guidance system in which the relative distances and their relationships can be identified. Gerle understands the gridiron of the violin fingerboard to be the counterpart of the piano keyboard.⁵

After introducing the fingerboard gridiron, Gerle introduces his system of finger patterns. He defines it simply as a “comprehensive organization and classification of the *infinite* number of note-combinations into a *limited* number of readily identifiable, recurring patterns.”⁶ Gerle leads readers towards the system through explaining that the astronomical figure of possible combinations and permutations of notes and fingers on the violin fingerboard can actually be reduced to a limited number of combinations of the four fingers.⁷ Gerle motivates readers by stating that “[t]he classification and condensation of all note and finger combinations into a few basic and recurring finger patterns will enable you to think and play in larger units, or groups of notes, instead of single notes. You can learn to recognize and read notes as words or paragraphs instead of single letters.”⁸ Gerle's practice system is thus primarily targeted for reading (and performing written) music.

⁴ Such visualizations have been employed since the early days of violin education. See, for instance, Francesco Geminiani, *The Art of Playing on the Violin 1751*, facsimile edition, edited and introduced by David D. Boyden (London: Oxford University Press, n.d.), 1 (the first page including musical examples). The particular treatise from 1751 is often referred to as one of the earliest examples of advanced pedagogical classical violin literature. While presenting an image of violin fingerboard divided into sections in the manner of a fretted guitar fingerboard, for example, Geminiani states: “I would recommend it to the Learner, to have the Finger-board of his Violin marked in the same Manner, which will greatly facilitate his learning to stop in Tune.” (Ibid., the first page of Geminiani's preface, capitalization in the original).

⁵ *The Art of Practising the Violin*, 25-27.

⁶ Ibid., 25. Italics in the original.

⁷ Ibid., 28.

⁸ Ibid., 26.

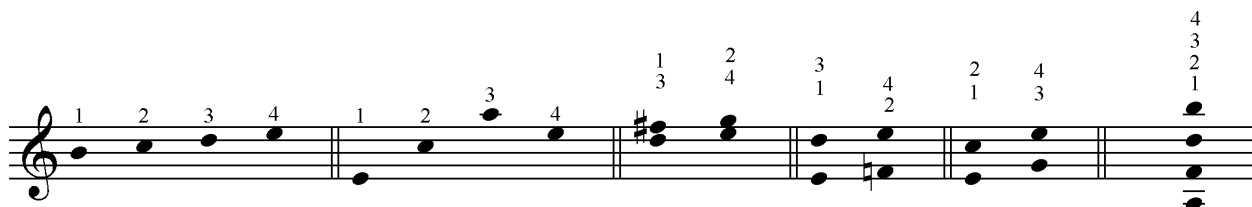
4.1.2 Discussion

Gerle's finger-patterns are determined by the whole and half steps between the fingers. According to the diatonic-chromatic nature of most Western music and the range between the first and the fourth finger (commonly an interval of perfect fourth), the number of different patterns is limited. Therefore, in this part of the publication (the second chapter) Gerle presents only four different finger-patterns. These all have equivalents in Lockwood and Darizcuren's presentation of their fingering schemes. Gerle also illustrates his patterns in a way which resembles the system used by Lockwood and Darizcuren. The patterns are shown as abstractions of all fingers on a violin string. The placements of half and whole steps in the pattern are also shown. In addition to this, Gerle gives a notated example of every pattern.⁹

After the presentation of the four different finger-patterns, Gerle explains how they can be identified and recognized in notated music. In this lies the fundamental difference between Gerle's and Lockwood and Darizcuren's approach. In Gerle's application, the finger-patterns are employed only for learning, studying, and memorizing written music. Gerle does not suggest any other usage for the patterns, such as improvisation. Lockwood and Darizcuren, again, do not limit the usage of their fingering schemes, either in the fingering of written or improvised music. Although Lockwood and Darizcuren do not put their approach into practice, applying them to improvisation is naturally strongly suggested by the fact that *Cordes & Âme* is, above all, a jazz method book.

The differences in the application of the finger-patterns presented by Gerle and the fingering schemes of Lockwood and Darizcuren results in another important dissimilarity: In Gerle's finger-pattern practice it does not make a difference if all the four fingers appear on one string or if they are distributed on several strings. For Gerle, only the physical whole and half step relationships between the fingers signify. Lockwood and Darizcuren's presentation of fingering schemes indirectly, but quite clearly, suggests that a fingering scheme consists of four fingers appearing on the same string. The example below follows Gerle's illustration of applying the finger-pattern concept on more than one string. The first measure introduces the finger pattern (in Gerle's terms "Pattern No. 3") while the other measures show different, possible pattern distributions.

Example 4.1.2-1: "Gerle's Application of a Finger-Pattern on More Than One String"¹⁰



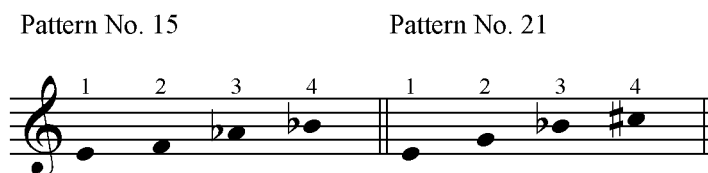
⁹ Ibid., 28-30. I should emphasize that Gerle's illustrations are very similar to those I presented in the Chapter 3.

¹⁰ *The Art of Practising the Violin*, 33.

In the second chapter of *The Art of Practising the Violin*, Gerle presents only four different finger patterns. The pattern selection is enlarged later, in the last chapter of the publication, where Gerle gives a more systematic table of finger patterns. Here Gerle also divides the patterns to three categories. In the first, the interval between the first and fourth fingers (if the distance is measured on one string) is no larger than an augmented fourth and the progression between adjoining fingers is no bigger than a whole step. In the second category, however, the range between the first and fourth finger is extended from the interval of a perfect fifth to a minor sixth and the progression between adjoining fingers includes one augmented second (enharmonically a minor third) or major third. The third category includes even greater extensions, and therefore Gerle recommends that the patterns of this category should be employed in higher positions. According to Gerle, these latter, unusual spacings occur more often in virtuoso works.¹¹

The example below presents the first (Pattern No. 15) and the last finger pattern (Pattern No. 21) in Gerle's third finger-pattern category. In the former pattern, the interval between the first and fourth fingers is a diminished fifth, while the interval between the second and third fingers is a minor third. In the latter pattern, the interval between adjoining fingers is a minor third. This results in a major sixth between the first and fourth fingers.

Example 4.1.2–2: "Gerle's Finger-Patterns of Third Category"¹²



Of the three of Gerle's categories of finger pattern, the first is the most interesting. Only it can be compared to Lockwood and Darizcuren's fingering schemes (which never exceed the interval of an augmented fourth between the first and fourth finger on a string). Altogether, Gerle presents seven different finger patterns in this category. The category includes three patterns in addition to the four Gerle presents earlier in the second chapter. All seven of Gerle's patterns have their equivalents in Lockwood and Darizcuren's presentation of fingering schemes. Since Gerle argues that only seven different patterns exist, it can be concluded that Lockwood and Darizcuren's listing of altogether ten different fingering schemes is more comprehensive. Consequently, in this respect Gerle's first category of finger-patterns is incomplete.

Gerle's categories two and three add an important aspect to the concept of finger patterns (or fingering schemes). I was able to find no other violin publication where such unusual extensions would be included in a schematic fingering approach. It seems that Gerle's extra patterns are needed

¹¹ Ibid., 89-94.

¹² Ibid., 93.

mainly for the challenging virtuoso classical violin music repertoire: Gerle frequently quotes Niccolò Paganini's music in his presentation. Whether Gerle's pattern (or scheme) extensions are practical or necessary in improvised violin music is arguable. If the musical information is determined on the spot by an improviser, it can be that the need for unusual, considerably extended spacing of fingers is rather rare. I personally seem to employ such extended patterns (or schemes) only when I perform a challenging, improvised solo violin piece or when I improvise within the so-called free jazz idiom. In the former case, I may employ extensions when I play chords; for example, in the latter case I often seem to attempt to reach for somewhat fresher musical expression by challenging my conceptions of instrumental (e.g., fingering) technique.

After analyzing the textual component of Gerle's *Art of Practising the Violin*, I spent some time studying the potential of his approach for jazz violin improvisation. Thus, I switched to the practice-based component of the primary level analysis with this particular example of primary research material. Correspondingly, I studied Gerle's approach through playing and attempted to apply it in modern jazz improvisation. Despite the fact that Gerle did not present his finger patterns for improvisation, there was no reason to doubt if they could be applied in it. I paid special attention in evaluating those two special categories of Gerle's (categories two and three) where the interval between the first and fourth fingers (on a string) extends the perfect fourth. I wanted to experiment with whether the extending (or stretching) of the finger pattern (or fingering scheme) could result in significant benefits for modern jazz violin improvisation.

Unfortunately, I found little relevance for the special Gerle's finger-pattern categories for formulaic jazz improvisation. The finger patterns, including extensions, did not appear to offer significant new or fruitful possibilities for fingering and performing in idiomatic jazz patterns. To the contrary, I frequently found them quite impractical since they often felt uncomfortable to play (due to the necessary finger stretching involved) and since they seemed to somewhat lessen my control of good intonation (though I must admit I am not quite used to such extreme stretching). It was naturally clear that both these obstacles could have been overcome by more intensive practicing and by adjustments of the left hand grip and technique, and that in time these special patterns could appear to convey more potential.

However, I still could not identify much benefit in practicing such stretching. I was striving to develop a fingering strategy which is, first of all, a practical approach and, secondly, hopefully applicable by any violinist. My intention was to develop a strategy that forces violinists to specialize in fingering which employs stretching any more than is really necessary. Although stretching is important, essential, and hardly unavoidable in any ambitious violin fingering approach, it nonetheless can be seen as a kind of extreme technique, especially when the stretches are as wide as in certain of Gerle's finger-patterns.

Nevertheless, I continue to find Gerle's second and third finger-pattern categories to be useful in improvising solo violin pieces (which may include large intervals as double-stops or wide chord voicings, for instance) and in performing free jazz. In respect to the latter especially, Gerle's further special concept of allowing the distribution of a finger pattern over several strings may offer an

inspiring potential. For instance, free jazz improvisation can be based on a finger pattern (or a fingering scheme) that is spread over all the violin strings.

Since Gerle's approach is especially advanced regarding finger patterns (or fingering schemes) including stretching, it naturally merits consideration as a prospective basis for the theoretical framework of this study. In the end, however, it was not. The following three arguments clearly warrant choosing Lockwood and Darizcuren's approach instead.

First, as stated above, the major difference between Gerle's finger-pattern practice and Lockwood and Darizcuren's fingering schemes is in the purpose for which they are designed. In Gerle's practice the aim is to approach written music in a systemized way, to be able to think and play in larger units or groups of notes, instead of single notes. Lockwood and Darizcuren's schemes are designed to help improvisers to visualize and employ the entire violin fingerboard in an effective way. Second, in Gerle's system a finger-pattern can be distributed across several strings, while in Lockwood and Darizcuren's system a fingering scheme can involve only one string. Although the Gerle's concept conveys some interesting potential, the latter appeared more practical in respect to the goals I had given for my fingering strategy. Third, Gerle fails to list all the possible finger-patterns for his first pattern category; his table of different patterns is incomplete in comparison to that of Lockwood and Darizcuren.

Together, these three considerations made relying on *Cordes & Âme* the better choice for the basis of my theoretical framework, rather than *The Art of Practising the Violin*. In the end, the basis of my framework was actually challenged considerably more by a specific publication by David N. Baker.

4.2 Jazz Treble Clef Expressions & Explorations by David N. Baker

David Nathaniel Baker, Jr. (born in 1931, in Indianapolis) is best known for his contributions in jazz pedagogy. He has published influential articles and works, given classes on multiple levels, held important teaching positions, and served in many central jazz music organizations. Baker received the National Association of Jazz Educators Hall of Fame Award in 1981.¹³ He plays trombone and cello. Among his most popular works are the series *How to Play Bebop* and *The Jazz Style of...*

Baker's *Jazz Treble Clef Expressions & Explorations: A New and Innovative System for Learning to Improvise for Treble Clef Instruments & Jazz Violin* came out in 1995. The publication is certainly one of the most advanced attempts to apply schematic fingering within jazz violin pedagogy.¹⁴

¹³ "Biography," The Official Website of Dr. David N. Baker, <http://www.davidbakermusic.org/bio.php> (accessed 14 May, 2008).

¹⁴ It is also possible that Baker's earlier work, *A Jazz Improvisation Method for Stringed Instruments, Volume 1: Violin and Viola* (published in 1976), included similar aspects and ideas. Unfortunately, the publication has been out of print for a long time, and I could not gain access to it.

4.2.1 Fretting Fingering Approach

It is likely that Baker was the first to discuss schematic fingering in the field of jazz strings. He introduced his schematic fingering ideas as early as in 1974, in a short entry published in *Down Beat* magazine.¹⁵ In this concise but interesting article Baker first stresses the importance of listening and imitating in acquiring the jazz language. For serious jazz string players who are learning scales and patterns he suggests a special technique, “playing and thinking frets.” In his particular concept, open strings are avoided; and universal, transposable fingerings are searched and employed for scales, patterns, or even entire compositions. “Playing and thinking frets” benefits in “freeing of the mind to handle musical problems while the ‘fingers do the walking through the mellow phrases.’” The musical examples Baker presents at the end of the entry include, for instance, a major scale fingering for the violin and cello. Both the violin and cello scale fingerings employ fingering schemes.¹⁶ In addition, Baker presents some common jazz patterns in which a schematic fingering approach is employed. These patterns, however, are fingered only for the cello.¹⁷

In *Jazz Treble Clef Expressions & Explorations* Baker presents musical examples designed for the violin. Thus, the publication (and presumably its earlier, out-of-print version) may well be the first larger example of schematic fingering in jazz violin improvisation. Given that *Jazz Treble Clef Expressions & Explorations* was published some three years before *Cordes & Âme* and was distributed by a rather effective and well-known publisher, Jamey Aebersold Jazz, the possibility exists that Didier Lockwood and Francis Darizcuren were influenced by Baker. However, in an interview with Lockwood, he denied being aware of Baker’s publication.¹⁸

Baker begins his *Jazz Treble Clef Expressions & Explorations* by stating that few publications are aimed at the problems of an improvising jazz string player. Therefore, he wrote his book especially for violinists.¹⁹ The common thread running through the content is a concept Baker calls *fretting*.²⁰ With this descriptive term Baker presumably wishes to emphasize the similarities between the violin technique in question and the left-hand technique of the guitar. These similarities, however, are not spelled out or discussed in the publication. Whatever the origins or relations were that Baker had in his mind when naming his approach, it is obvious that the approach applies

¹⁵ David N. Baker, “How to Use Strings in Jazz, Part II,” in *Down Beat*, Vol. 41, no. 8: pp. 38 and 40.

¹⁶ Since there are major differences, between the violin and cello, in the size and holding the instrument, the schemes must be different as well. In order to form a schematic fingering for the cello, Baker employs the thumb and the first three fingers.

¹⁷ The cello examples are interesting. They include, for instance, a fingering for a *Half Nelson* pattern. For information on the particular pattern type, see subchapter 2.3.

¹⁸ Recorded interview in Dammarie-lès-Lys, Melun (France), 22 April, 2008.

¹⁹ In the title and introduction, Baker addresses his publication to all treble clef instruments. On a page preceding the unnumbered preface page, Baker states that the material could especially be useful for the flute, oboe, saxophone, and English horn. It soon becomes clear, however, that the contents are addressed mainly to violinists.

²⁰ *Jazz Treble Clef Expressions & Explorations*, the unnumbered preface page.

fingering schemes. Baker's and Lockwood and Darizcuren's particular fingering ideas are almost identical.²¹

Throughout *Jazz Treble Clef Expressions & Explorations* Baker frequently derives and quotes material from his earlier jazz study books and often refers to his widely known *How to Play Bebop* series. The particular series was published in three volumes in the late 1980s. For some years the series was very popular among jazz pedagogues and students. Although Baker directly applies several features from *How to Play Bebop*, the new focus in *Jazz Treble Clef Expressions & Explorations* is violin fingering. Baker's goal is to "develop, through fretting principles, complete performance command of all information in all keys."²² The beginning of the publication includes some basic chord and scale exercises, but soon after these Baker leads readers to the fretting. In the fretting, according to Baker's concise introduction of the first exercise, "the intention is that the open strings be avoided and each exercise be realized using the exact same fingering suggested in the first pattern of each genre."²³ Later in the publication, Baker re-encourages readers to replicate a fingering or a finger pattern with as much uniformity as possible when playing identical structures in different keys by using position playing.²⁴

The first application of the fretting fingering Baker calls the "chord-to-scale" exercise.²⁵ This exhaustive exercise encompasses the most common chords and scales employed in modern jazz improvisation. Each chord is first approached as an ascending and descending one-octave arpeggio, starting from the root, followed immediately by the related ascending and descending one-octave scale. The example below shows how Baker proceeds. Baker presents the material (if necessary) in the twelve different keys. However, the example below shows only the C major seventh chord. Baker also presents the inversions of chords and their related scales beginning from the chord tone or scale degree in question.

²¹ It should be noted that both Baker and Lockwood (see subchapter 3.2) seem to refer to the guitar and guitar technique as the source of their approach. This supports the inclusion of the two guitar methods (analyzed in Chapter 5) as part of my selection of primary research material.

²² *Jazz Treble Clef Expressions & Explorations*, 1.

²³ *Ibid.*, 3.

²⁴ *Ibid.*, 84.

²⁵ In order to communicate clearer, I prefer to call Baker's approach as the *fretting fingering*, instead of just fretting. I employ my word choice in most parts of this subchapter.

Example 4.2–1: “Baker’s Chord-to-Scale Exercise Sample”²⁶

The image displays four staves of musical notation for a Cma7 chord-to-scale exercise. Each staff begins with a treble clef, a common time signature (C), and the chord symbol Cma7. The notation consists of eighth notes with various fingerings indicated above them. The first three staves each have a double bar line after the first measure, followed by a second measure, and then a final measure with a 2/4 time signature. The fourth staff follows the same pattern but does not have a double bar line after the first measure. The fingerings used include 1-3, 1-2-3-4, 1-4-3-2, and 2-3-1-3.

The listing below summarizes the different chords, scales, and some other related information included in Baker’s particular “chord-to-scale” exercise.²⁷

²⁶ *Jazz Treble Clef Expressions & Explorations*, 4-7.

²⁷ Unfortunately, space does not allow discussion of the scales and the scale names Baker employs. Nor can I address the scale and chord theory Baker relies on. Some of the scales, however, I have defined in the Glossary (Appendix 1). If readers are not familiar with scale names in the list, I encourage them to become familiar with, for instance, Mark Levine’s *The Jazz Theory Book* or Baker’s *How to Play Bebop* series.

Example 4.2–2: “The Appearance of Chords, Scales, and the Number of Chord Inversions in Baker’s ‘chord-to-scale’ exercise”²⁸

Chord	Scale	Begins from page	Inversions
ma7	Major	4	3
ma7	Major bebop	8	3 + 1
ma7(#11)	Lydian	13	6
ma7(#5)	Lydian augmented	20	3
mi(ma7)	Melodic minor	24	3
mi(ma7)	Minor bebop	28	3
mi7	Dorian	32	3
mi7	Dominant bebop	36	3
7	Mixolydian	40	3
7	Dominant bebop	44	3
7(f 5)	Whole-tone	48	3
7(#5)	Whole-tone	52	3
13(#11)	Lydian dominant	56	6
7(f 9)	Dominant diminished ²⁹	63	4
7(#9#5)	Altered	68	4
o7	Diminished ³⁰	73	0
7(f 5)	Locrian	75	3
7(f 5)	Locrian #2	79	3

The first fretting fingering exercise takes approximately a half of Baker’s *Jazz Treble Clef Expressions & Explorations*, since most of the chords and scales are printed in all twelve keys in an order following the cycle of fifths. The majority of the chords are shown in root position and in three inversions. The majority of the scales follow the particular presentation of the chords; the scales usually begin from four different places (from the tonic, third, fifth, and seventh scale degrees). However, as it can be seen from the example above, a few exceptions occur. At the end of the exercise on major seventh chords, Baker adds an inversion beginning with the sixth scale degree (both a chord inversion and scale).³¹ The major seventh chord with an augmented 11th gains inversions (built on the 9th, 11th, and 13th degrees) in addition to the three common inversions (built on the root, 3rd and 5th degrees).³² The same applies to the dominant seventh chord with an

²⁸ *Jazz Treble Clef Expressions & Explorations*, 4-82.

²⁹ Dominant diminished scale begins with a half step (when ascending).

³⁰ Diminished scale begins with a whole step (when ascending).

³¹ *Jazz Treble Clef Expressions & Explorations*, 12.

³² *Ibid.*, 13-19.

augmented 11th.³³ The dominant seventh chord with minor 9th is inverted to also begin from its altered 9th degree.³⁴ Likewise, the dominant seventh chord with augmented 9th and 5th degrees gains an inversion beginning on the altered 9th degree.³⁵ Due to the symmetry of the diminished seventh chords and related scales, Baker does not present any inversions.³⁶

Baker shows the fingerings (in some cases he offers two optional sets) only on the first staff, which always represents the material based on the C chord or its inversion. In the introduction of the long “chord-to-scale” exercise Baker explains that “[f]or the remainder of the book the various patterns, exercises, scales, etc. will be presented in a single key; they should be transposed (via fretting) and practiced in all keys.”³⁷

Baker clearly favors the first finger as the starting (and reference) finger. The majority of his fingerings begin with it. The second and third fingers appear sometimes as a starting finger; for example, when Baker gives fingering options. It seems that Baker has no other motivation for his fingering choices than an attempt to find the most convenient and practical fingering. In this respect, Baker’s fretting fingerings and Lockwood’s and Darizcuren’s system of scale fingering schemes seek the same goal. However, if Baker’s primary goal is to try to always find the most convenient and the most practical fingering, he sometimes seems to fail: It is often arguable whether Baker’s choice for a starting finger, especially in the case of scales beginning with another degree than the tonic, is the most practical and convenient. The same doubts apply to his use of glissandos, which are necessary in the case of major, minor, and dominant bebop scales. His finger choices for the particular glissandos, and consequently the practicality of these glissandos, are questionable (i.e., it can be argued whether his fingerings in this respect reflect well the tactile and kinesthetic aspects of violin playing). Furthermore, Baker’s fingerings for the whole-tone scale could be criticized for not being the most beneficial for violin playing (i.e., Baker relies on a scheme employing only three fingers while a scheme employing all four fingers might be considered more effective and practical).

In jazz pedagogy, it is common to encourage students to play and practice chord inversions and to begin a scale on a degree other than the tonic. This way the students can be expected to thoroughly learn, for example, the chord or scale colors or the chord or scale fingerings. Depending on the instrument in question, chord inversions may frequently have to employ the fingering pattern established for the chord in root position. The same can apply to scales (i.e., the fingering is the same whether the scale starts from the tonic or from another scale degree). This is common, for example, on wind instruments (e.g., saxophone). On certain instruments it is possible to create a new fingering for each chord inversion or scale degree. This type of fingering is possible, for instance, on the piano, guitar, and violin. Actually, on these last mentioned instruments, breaking the fingering pattern established for a chord in root position or a scale beginning from the tonic is sometimes recommended.

³³ Ibid., 56-62.

³⁴ Ibid., 67.

³⁵ Ibid., 72.

³⁶ Ibid., 74.

³⁷ Ibid., 3.

In most cases Baker's fingerings for chord inversions on the violin begin with the first finger. Thus, Baker prefers to change the chord fingerings according to the inversion. Consequently, Baker's fingerings for a particular scale vary greatly from one scale degree to another (i.e., often a chord and its inversions and the related scales are fingered in four different ways). This could be seen as a significant factor that conflicts with one of the fundamental aspects of Baker's fretting approach (i.e., the uniformity and replication of fingerings). However, since Baker does not specify any particular fingering priorities, this (potentially contradicting) feature might also be a deliberate application.

Nevertheless, in this particular respect Baker's fretting fingerings differ from Lockwood and Darizcuren's system of scale fingering schemes, in which the attempt to reduce the amount of scale fingerings is implied. I understand that all the scale degree fingerings in Lockwood and Darizcuren's system should employ the scale scheme established for the tonic. In other words, if the first finger is employed on the tonic of the scale, the third finger should be employed when the scale is begun from the third scale degree, the first again when the scale is begun from the fifth scale degree, and so forth. Lockwood and Darizcuren's system does not encourage varying the scale fingering scheme within a scale.

In the end, in this previous respect, choosing between Baker's or Lockwood and Darizcuren's approach was a matter of personal inclination. Both are useful and valid, stressing only slightly different aspects. The fact that Baker suggests that violinists change and vary the scale fingering scheme within a scale does not significantly decrease the total number of scale fingerings. To the contrary, it challenges violinists to rely more on their ears or memory. The impression is given, then, that Baker's fretting fingering approach only attempts to employ and cover the entire violin fingerboard and does not rely on violinists' tactile or kinesthetic knowledge as much as do Lockwood and Darizcuren.

In his long "chord-to-scale" exercise, Baker does not include any open strings in his fingerings. This suggests another resemblance that links his to Lockwood and Darizcuren's system. Unfortunately, the link seems to apply only to that particular exercise. In the next section of the publication, Baker abruptly brings back the open strings to his instruction. By doing this he aspires to free readers to employ their own fingering preferences, according to their wishes for realizing improvised musical ideas.³⁸ On the next pages of *Jazz Treble Clef Expressions & Explorations*, the major, melodic minor, and pentatonic scales are printed in all twelve keys. All these scales are presented in a special form; the scales begin from the lowest note that is suitable on the G string and continue upwards as far as Baker understands possible or practical (i.e., the entire violin range is not employed). In addition, the whole-tone scale is printed in two different keys and the diminished scales in three. No fingerings are given for any of this material since Baker's purpose is for readers to form their fingerings independently. In this they may freely employ open strings or the fretting fingering, or both.

³⁸ Ibid., 84.

4.2.2 Formulaic Applications

The rest of *Jazz Treble Clef Expressions & Explorations* focuses on some practical applications of the fretting fingering. Baker begins (in Chapter 3) by introducing some short melodic fragments, idiomatic jazz phrases, and two blues themes. The open strings are supposed to be avoided and Baker suggests transposing the material to all keys. Soon Baker sets the goal of applying the fretting fingering in mainstream jazz language, including the melodic elements (patterns, licks, and clichés) of bebop idiom, for instance.³⁹ As an intermediate step towards these higher goals, he recommends learning and playing standard pop and show melodies, even bebop tunes in all keys.⁴⁰

Baker continues progressively. He first shows readers many different ways for improving their position playing and understanding of scales using his approach. It seems that most of the contents in Chapters 5, 6, and 7 emphasize the ability to remember the different scales (or modes) as fingering patterns (i.e., as scale fingering schemes). However, this emphasis is only implied, not directly stated. Nevertheless, applying the fingering schemes approach leads to fast results with the particular material.

In Chapters 8 to 10, Baker brings his fretting fingering approach into practice through applying it in formulaic jazz improvisation. This happens through learning to employ *public domain materials*, as Baker calls them. In this context, Baker refers to patterns, licks, clichés and rhythmic, harmonic, and melodic formulas that have become the basis of modern jazz language. According to Baker, the use of such phrases and formulas is beneficial since they provide, for instance, “a high percentage of what musicians accept and expect to hear, even from the neophyte jazz performer” and “a stabilizing coherence that is almost always missing when there is no reference to this body of material.” Baker goes on to motivate readers to utilize public domain materials since “[t]hey were invented and/or popularized by acknowledged giants of jazz” and since “[t]hey have longevity as evidenced by their appearance in the playing of successive generations of players.”⁴¹

In Chapter 9, Baker concentrates on public domain scale patterns. The fretting fingering approach is applied. The whole-tone, diminished, pentatonic or blues, and dominant bebop scales are approached as different melodic patterns. However, it is difficult to say if all of the patterns really represent the public domain of modern jazz. A few of them clearly do, and it is easy to agree that these should be included in every jazz violinist’s melodic vocabulary. Still, many of the fingerings Baker supplies are very difficult, or at least challenging. Hence, it is arguable whether the patterns are practical to use and if they serve their intended purpose. Baker’s selection demands considerable practice and skill. In order to really evaluate the effectiveness of Baker’s scale patterns, they must be employed in jazz improvisation. As a part of this research, I did just that. But I found many of the patterns to be impractical, often not very suitable for the violin.

³⁹ Ibid., 101.

⁴⁰ Ibid., 102.

⁴¹ Ibid., 114.

Chapter 10 addresses different harmonic formulas, such as II-V, II-V-I, and III-VI-II-V progressions, turnarounds, and the cycle of fifths. Here Baker’s applications of his fretting fingering approach succeed much better.⁴² Many of the examples are reminiscent of the melodic public domain of jazz and some of the fingerings are very practical. Unfortunately, again a large part of the material is technically challenging and whether they substantially improve jazz violin improvisation is arguable. In addition, Baker’s selection of II-V, II-V-I, and III-VI-II-V progressions is actually relatively limited. Progressions in minor keys or progressions which include a half diminished seventh chord, mi7(f 5), hardly exist. Baker also does not approach the altered and dominant diminished scales very clearly—and these two scales should frequently appear in patterns that claim to represent the public domain. However, the idiomatic language of modern jazz is occasionally represented as tritone substitutions in examples of turnarounds and III-VI-II-V progressions.

The sample below shows two examples of Baker’s more representative idiomatic patterns. These patterns are both practical and violinistic (i.e., they reflect the tactile and kinesthetic knowledge of violin). When introducing the pattern on the first staff, Baker simply states that it is based on the chord progression F-Af -Df -Gf or C7.⁴³ However, the pattern can also be seen representing a common I-VI-II-V-I turnaround progression, where tritone substitutions have been used instead of the VI (e.g., D7) and II (e.g., G7) chords. When introducing the pattern on the second staff, Baker does not identify the chord progression.⁴⁴ However, the particular pattern clearly outlines a III-VI-II-V progression towards a C chord. I have added the implied chords in the below example which otherwise carefully follows the original appearances in the publication.

Example 4.2.2–1: “Baker’s Idiomatic Patterns Sample”

The image shows two staves of musical notation in treble clef. The first staff has five measures with chords F, A^b, D^b, C7(#9), and F. The second staff has four measures with chords E^mi7, A7(b9), D^mi7, and G7(b9). Fingerings (1, 3) are indicated above the notes.

⁴² *Turnaround* is a cadential chord progression that often appears at the end of a chorus or in another harmonically significant place of a jazz standard tune (or a composition of similar type). Typically, turnarounds are III-VI-II-V-I or I-VI-II-V-I progressions. Variants, however, occur. Such variants employ, for instance, a range of chord substitutions and chord alterations.

⁴³ *Jazz Treble Clef Expressions & Explorations*, 127.

⁴⁴ *Ibid.*, 135.

According to Baker, learning, analyzing, and memorizing bebop tunes is an effective approach to learning the idiom.⁴⁵ Baker concentrates on presenting this particular approach in Chapters 11 and 12. He first introduces an original bebop tune of his, called *Groovin' for Diz*, which he then splits into phrases to be transposed and employed in improvisation. The approach is ambitious and interesting. Unfortunately, *Groovin' for Diz* is technically rather challenging for the violin. The melody forces violinists into many string crossings. Furthermore, no fingerings are shown, although the fingerings would have a central role in a successful performance of the tune.

Baker has attempted to include idiomatic phrases and patterns in his *Groovin' for Diz*. However, it can be argued if the phrases he later chooses for closer discussion reflect well the modern jazz idiom. It is clear that these phrases are not practical for the violin. Thus, although Baker's goals and approach are both good, the material (the tune and the separated phrases) does not seem to be pedagogically effective. It just does not work that effectively on the fingerboard, unfortunately. The tune pushes a violinists' technical limits (especially regarding position playing), which is sometimes welcome and necessary. However, I argue that the challenges in the tune also create much potential confusion for readers who are not very familiar with bebop. In addition, it seems that the premise of the whole exercise somewhat contradicts the original goal of the fretting fingering (i.e., applying the same fingering in every position). Actually, at the end of the particular exercise, Baker admits that some adjustments in fingering are necessary when the phrases of *Groovin' for Diz* are played in the higher positions.⁴⁶

The final chapter of *Jazz Treble Clef Expressions & Explorations* briefly discusses bowing and phrasing. Baker states that the most effective way of studying jazz phrasing is through imitation. This is certainly true. It is hard to find a jazz study book where the value of intensive listening to records and live performances is not emphasized. However, I have found (first as a young jazz violinist and later as a jazz violin pedagogue) that just listening to jazz, no matter how extensively and exhaustively, will not automatically resolve the problems of jazz violin bowing. It seems that, in particular, students who have a strong background in classical music cannot adjust their skills simply through listening and imitating. Listening and imitation alone will not help such students break from their classical bowing habits. Experienced classical violinists often need some special exercises to be convinced that, for example, some classically "unorthodox" slurring is essential to jazz violin playing.⁴⁷

Besides the suggestions of assimilating phrasing and bowing through listening, imitation, and trial and error, Baker fails to give any other practical guidance for violin bowing. Actually, the entire *Jazz Treble Clef Expressions & Explorations* includes just a few slurs. Hence, although Baker's publication includes splendid ideas for scale fingerings and position playing, his ideas are not put into the practice in respect to bowing at all. Since all the bowings are basically left for

⁴⁵ Ibid., 137.

⁴⁶ Ibid., 144.

⁴⁷ I discuss the basics of jazz violin bowing in Part II, Chapter 3.

readers to decide, it is not unlikely that some will face serious challenges when studying and attempting to apply the fretting fingering.

Jazz Treble Clef Expressions & Explorations also does not include any instructions for shifting. Since the fretting fingering approach emphasizes shifting and playing in positions, the absence of shifting instruction seems even a greater flaw than omitting bowing instruction. In order to be able to maintain good intonation using Baker's approach, violinists need excellent shifting skills. Without the abilities to move smoothly up and down the fingerboard, to find and reach a desired position accurately, and to play in tune within a position, no violinist can succeed in applying Baker's fretting fingering. Unfortunately, he does not discuss any of the aforementioned technical matters.

In addition, there are some other minor subjects to criticize in Baker's publication. Firstly, there does not seem to be any consistent logic to Baker's fingerings. Sometimes he clearly suggests and encourages employing open strings, sometimes he does not. This lack of consistency can be confusing. Secondly, Baker's placement of glissandos in some scale fingerings and his choice of the fingers conducting the glissandos are clearly arguable. The same applies to the shifts, which are included in certain fingerings. It is naturally difficult, if not impossible, to discuss glissandos and shifts objectively and thus there is no final truth in respect to these matters. However, my personal experience strongly suggests that some of Baker's fingering and shifting choices are rather problematic.

4.2.3 Discussion

Although Baker's *Jazz Treble Clef Expressions & Explorations* has its problems, it still is indisputably one of the most advanced works in the field of jazz violin fingering. It is difficult to find another example of jazz violin literature which attempts to focus on this subject so frankly and innovatively. Despite the flaws noted here, I have a great respect for the publication. Research shows that Baker deserves to be credited as a pioneer of schematic jazz violin fingering. In this sense, his publication is one of the central references in my research on this particular fingering approach.

Nonetheless, I chose *Cordes & Âme* as the base for my theoretical framework of fingering. Why? The most important reason involves the way the fingering approaches are presented in Baker's and Lockwood and Darizcuren's publications.

First, the fact that Lockwood and Darizcuren did not put their approach into practice in *Cordes & Âme* left a gap for me to follow my creative impulses and strive for artistic progress. In other words, *Cordes & Âme* left me relatively little to work against and much to work with and add to. Second, since Lockwood and Darizcuren's approach was not comprehensive, their work allowed me abundant chance for open discussion. Third, Lockwood and Darizcuren's system of scale fingering schemes appeared to be easier to define and convey in an academic study than Baker's fretting fingering approach. While both presentations of the schematic fingering approach were

somewhat loose and incomplete, Baker's approach seemed to be slightly more so. Therefore, Baker's approach would have been a greater challenge to study in an academic manner. Fourth, the element of mental schemes is more clearly present in Lockwood and Darizcuren's approach (e.g., the authors' visualization of the schemes is highly illustrative).⁴⁸ In my case, the fact that Baker employs only traditional notation and fingering numbers made his approach somewhat more difficult to internalize and apply to jazz performance.

On the other hand, Baker's presentation was certainly more advanced than Lockwood and Darizcuren's. *Jazz Treble Clef Expressions & Explorations* included excellent views and examples of practical adaptations of the fretting fingering. Baker's publication was thus more developed since it included applications of schematic fingering within the context of modern jazz improvisation.⁴⁹ In this respect, *Jazz Treble Clef Expressions & Explorations* might well have been a better basis for the theoretical framework of this study. However, when all variables were considered, there unfortunately were far too many limiting issues in Baker's approach: Some of his examples and exercises were not applicable for improvisation. Some of his fingerings were not good or effective—at least from my perspective. And some of Baker's patterns did not represent the public domain. His approach was also incomplete, at least in not discussing bowing and shifting very much. Finally, although many of Baker's other applications were interesting, they still did not seem to be very violinistic. In terms of my tacit knowledge of the tactile and kinesthetic aspects of violin playing, they appeared inconvenient.

Thus, after considering the matter carefully, I decided to rely only on Lockwood and Darizcuren's system as the basis for my theoretical framework. By the end, my fingering strategy came to represent solutions and values so different from Baker's publication that I could employ it only as an important reference. Since some of the patterns Baker presented were quite good, I did carefully consider whether I could apply any of them in my fingering strategy. For example, both of the patterns of the previous musical example (Example 4.2.2–1) represented material which could have benefited my strategy. However, in respect to idiomatic patterns, I decided to begin from those already in my repertoire. If they did not work well, I would have returned to Baker's examples.

⁴⁸ The term *mental schemes* is employed by Stig Roar Wigestrang in his thesis on Lockwood and Darizcuren's fingering schemes. I am not specialized in cognitive musicology and wish only refer to this significant aspect of such schemes. For more discussion about the cognitive aspects involved in schematic fingering, see Stig Roar Wigestrang, *Lockwood's System: A Theoretical and Artistic Study of Didier Lockwood's System for Improvisation* (Oslo: Norges musikkhøgskole, 2004). For examples of Lockwood and Darizcuren's schemes, see subchapter 3.4.

⁴⁹ Baker refers mainly to bebop, which as a style and idiom, is naturally the bedrock of modern jazz.

CHAPTER 5

Jazz References

In addition to David N. Baker's contribution, it seems that there are no other jazz violin publications which discuss schematic fingering. Therefore, in order to research schematic applications in the jazz realm, I had to enlarge my scope to methods for string instruments other than violin (or viola). The low string instruments, the string bass and cello, seemed to be out of question.¹ However, discussions with professional jazz guitarists suggested that my research could benefit from jazz guitar literature. This, together with the fact that the influence of guitar technique on the fingering schemes approach is expressed in *Cordes & Âme* and further stressed in Didier Lockwood's autobiography, motivated me to examine pedagogical jazz guitar publications.²

Within the limits of this study, however, I could have not gained complete control over the huge amount of pedagogical material for jazz guitar. Therefore, in order to be able to identify the representative authors and publications faster, I conducted a small, informal survey among professional jazz guitar pedagogues. The results suggested focussing on William Leavitt's *A Modern Method for Guitar* and Mick Goodrick's *The Advancing Guitarist*, which I analyze and discuss in this chapter first.

Since the mandolin is tuned in fifths and has the same open strings as the violin, I also had to include its pedagogical literature among potential references. In order to identify pedagogical mandolin publications having relevant contents I conducted another informal survey, this time among professional mandolin players and pedagogues. In this respect I first was referred to Mike Marshall's publications. It appeared that in Marshall's *Improvisational Concepts* schematic fingering was discussed a bit and I included the publication in my primary research material selection. Thus, following the jazz guitar references, I examine Marshall's particular approach and other useful examples from some other important mandolinists.

During my research I was informed that the unpublished sketches of a jazz violin school by one the greatest swing jazz violinist, Joe Venuti, could be of some interest. These rare sketches seem to be relatively unknown to the world of jazz violin. I became aware of them by accident and was lucky to gain access to them through a colleague. The sketches include some interesting ideas that link my fingering strategy to this great and influential early jazz violinist. At the end of this chapter I examine these sketches and describe the coincidences which led me to them.

¹ The reasons for excluding the pedagogical literature of the low string instruments are explained at the end of subchapter 2.4.1 (of Part I).

² Didier Lockwood and Francis Darizcuren, *Cordes & Âme: Méthode d'improvisation et de violon jazz* (Strings and heart: A method for improvisation and jazz violin) (Paris: Éditions Salabert, 1998), 10. Published only in French. The translation of the title is mine. Didier Lockwood, *Profession Jazzman: La vie improvisée* (Profession jazzman: The improvised life) (Paris: Hachette Littératures, 2003), 84. Published only in French. The translation of the title is mine.

5.1 *A Modern Method for Guitar* by William Leavitt

William Leavitt (1926, Flint–1990, Framingham) was one of the first guitar students to study at Berklee College of Music. After his graduation, in 1951, he worked as a free lance guitarist and arranger. In 1965 Leavitt received the position of Guitar Chairman at Berklee and started to prepare and write the three volumes of *A Modern Method for Guitar*. His fellow guitar educator, Jack Peterson, contributed some material for the series. Leavitt's pedagogical approach and effort had a significant influence on the early development of pick-guitar education, and many accomplished jazz guitarists (e.g., John Abercrombie, Bill Frisell, John Scofield, and Mike Stern) feel they are indebted to Leavitt's teachings. It is said that thousands of guitarists around the world have studied Leavitt's method.³ In my selection of primary research material, Leavitt's output came to represent the most advanced application of schematic fingering, both as a well-established theoretical framework and as sophisticated instruction.

5.1.1 *A Modern Method for Guitar, Volume 1*

In *A Modern Method for Guitar, Volume 1*,⁴ Leavitt presents five different *fingering types*, an approach which is very similar to the system of scale fingering schemes for jazz violin. Leavitt introduces the subject quite early in his issue, when discussing the basics of guitar accompaniment in the eighth subchapter under "Rhythm Accompaniment." After covering the basics of music theory, guitar technique, and the G major, F major, A minor, and E minor keys, Leavitt hints at schematic fingering through "the principle of movable forms" while discussing the foundations of rhythm accompaniment and chords.⁵

Leavitt thus applies the schematic fingering first to chord playing and writes: "1. If you play F major, F minor, and F7 on the first fret, then (using the same fingering) G major, G minor, and G7 will be on the third fret (two frets above F). Moving still higher, A major, A minor, and A7 will be on the fifth fret, B major, B minor, and B7 on the seventh fret, and C major, C minor, and C7 will be on the eight—one fret up from B." Leavitt quickly states the major principles of his approach as, "2. All *movable* forms will have *no open strings*" and "3. Sharps and flats alter chord positions by one fret, the same as single notes." Leavitt does not illustrate the new information but frugally finishes the short direction: "On the following pages, all new chord forms will be movable."⁶

At the beginning of the Section Two of *Volume 1*, Leavitt applies his principle of movable forms to scale fingerings, while simultaneously introducing the basics of position playing (Section One of the publication concentrates only on first position). First, Leavitt explains that a position is determined by the placement of the first finger on a fret of the guitar fingerboard. He continues that

³ "William 'Bill' G. Leavitt," Alisdair Macrae Birch website, <http://www.alisdair.com/educator/williamgleavitt.html> (accessed 8 January, 2006).

⁴ William Leavitt, *A Modern Method for Guitar, Volume 1* (Boston: Berklee Press, undated reprint of 1966 ed.).

⁵ *Ibid.*, 45.

⁶ *Id.* Italics in the original.

a position usually occupies four adjacent frets (one fret for each left hand finger), but for practical reasons the reaching out from a position with the first or the fourth finger (i.e., finger stretches) is necessary. Then, after this very concise theorizing, Leavitt parenthetically qualifies that “(All scale fingerings introduced from this point on will not use any open strings, and therefore they are movable in the same manner as the chord forms presented earlier.)”⁷

After the short introduction to position playing, Leavitt moves to the first scale exercise that introduces the first fingering type in the second position. Leavitt’s fingering type concept is equal to Lockwood and Darizcuren’s scale fingering scheme concept (i.e., a fingering type is a setting of fingers excluding open strings and thus well transposable through shifting). Leavitt’s *A Modern Method for Guitar, Volume 1* includes five different fingering types (i.e., five different major scale fingerings). The fingering types are all first presented only in the second position. However, at the end of the *Volume 1* Leavitt shows how these types can be applied to the first, third, and fourth guitar positions.

To illustrate, below appears an example of Leavitt’s presentation of the C major scale and the fingering type 1. The numbers above the staff indicate the fingers and their order, while the circled numbers below the staff indicate the guitar strings. The marking “F.S.” indicates the place of an essential fingering stretch. According to the guitar standard, the notation sounds an octave lower on guitar.

Example 5.1.1–1: “Leavitt’s Fingering Type 1, C major scale”⁸

I have collected Leavitt’s presentation of the five different fingering types in the second position and some additional, relevant data into the table below.

⁷ Ibid., 60. Parentheses in the original.

⁸ Id.

Example 5.1.1–2: “Leavitt’s Five Different Fingering Types in the Second Position”

Scale	Page	Fingering Type	Scale begins with	Scale begins on ⁹
C major	60	Type 1	2nd finger	5th string
F major	70	Type 1A	2nd finger	4th string
G major	80	Type 2	2nd finger	6th string
D major	90	Type 3	4th finger	5th string
A major	100	Type 4	4th finger	6th string

The table shows how Leavitt’s five different fingering types resemble Lockwood and Darizcuren’s system of scale fingering schemes in attempting to systemize the use of scale fingerings. There are, however, also some significant differences between these two approaches.

5.1.2 Discussion

Leavitt’s system of fingering types for the guitar and Lockwood and Darizcuren’s system of scale fingering schemes for the violin share the same theoretical basis. In both approaches, the goal appears to be to limit the number of different scale fingerings for bringing logic and order to fingering. Instead of always starting a scale from a convenient low position and employing open strings in the fingering (which is a frequently followed approach in both guitar and violin methods), these two systems aim at a more universally applicable type of scale fingering. Through this particular feature, faster results in internalizing the scales can be expected, for instance. Although Leavitt’s idea of fingering types in the second guitar position is very similar to Lockwood and Darizcuren’s system, there are three important differences in the presentation of the subject.

First, when Lockwood and Darizcuren introduce their scale fingering schemes for different scales, they present schemes starting only with the first finger.¹⁰ The schemes starting with the second, third, and fourth finger are briefly mentioned in one sentence.¹¹ Leavitt’s five fingering types (in the second position) employ two starting fingers; the second and fourth, from the very beginning (see previous table in Example 5.1.1–2).

Second, Lockwood’s and Darizcuren’s scale fingering schemes always begin on the lowest possible string on violin (the G string). Leavitt’s fingering types begin on the lowest possible tonic of a particular scale in the second guitar position (without using a finger stretch). That is to say, Leavitt’s fingering types can and do also begin on other strings than the lowest guitar string. Consequently, Leavitt’s five fingering types start from three different strings (the fourth, fifth, and sixth).

⁹ The standard practice on guitar is to name the strings from the highest to the lowest. Thus, the highest string (i.e., in the standard tuning, the open E string) is the 1st string and the lowest string (i.e., in the standard tuning, the open E string) is the 6th string. The difference in pitch between the 1st and 6th strings is two octaves.

¹⁰ *Cordes & Âme*, 62-69.

¹¹ *Ibid.*, 69.

Third, Leavitt’s fingering types reach as high as possible on the first guitar string and as low as possible on the sixth. In other words, Leavitt’s fingering types employ all the possible pitches in reach within one guitar position and a particular scale. Lockwood’s and Darizcuren’s scale fingering schemes, again, frequently employ only a two-octave range; their scale fingering schemes reach two octaves higher from the lowest note (which is also the tonic of the scale fingering scheme). All the pitches in reach within one violin position are not employed for a scale fingering.

After the introduction of the five fingering types and the related major scales and exercises, Leavitt quickly moves on. At the end of *Volume 1*, the five fingering types are put into practice by applying them in the first, third, and fourth positions. Again Leavitt is very brief in his instruction.

You are now able to read and play in five major keys in the second position. Actually, you can now play in five (major) keys in any position by using these same fingerings (Types 1, 1A, 2, 3, 4) on the higher frets.... The following pages show the most used keys in the third position, first position (closed fingering, no open strings), and fourth position. You will be able to concentrate more on the notes, as by now, your fingers should know the patterns.¹²

Leavitt is very effective in introducing new major scales to his readers. Simultaneously, he offers alternative fingerings for several of the major keys (previously learned or new). His pedagogical approach is really focused, as the following summary illustrates. No space is wasted in presenting the new scales.

Example 5.1.1–3: “Major Keys and Leavitt’s Fingering Types in the Last Part of Volume 1”

Scale	Page	Fingering Type	Scale begins on	Position
Bf major	112	Type 4	6th string	3rd
Ef major	112	Type 3	5th string	3rd
Af major	113	Type 2	6th string	3rd
Ef major	113	Type 1	5th string	3rd
Af major	117	Type 4	6th string	1st
Df major	117	Type 3	5th string	1st
G major	119	Type 1A	6th string	4th
D major	119	Type 1	5th string	4th
A major	120	Type 2	6th string	4th
E major	120	Type 3	5th string	4th

¹² *A Modern Method for Guitar, Volume 1*, 111.

Since the five fingering types fulfil their function as components of a scale fingering system so perfectly, Leavitt can close his first volume with this statement:

Now, in addition to the five major keys in the second position, you should be somewhat familiar with the most used major scales in positions I, III, and IV.... I cannot overemphasize the importance of learning the four major scale fingering types well, as they are the foundation for other kinds of scales. We will gradually add more (major) fingering patterns until, ultimately, we have twelve—one for each key in each position. At the same time, we will learn how to *convert previously practiced* major forms onto jazz minor, harmonic minor, etc.¹³

Thus, the full potential of the fingering types is not yet revealed in *Volume 1*. The approach is developed further in the second volume, which I studied carefully as well.

5.1.3 *A Modern Method for Guitar, Volume 2*

A Modern Method for Guitar, Volume 2 leads readers directly to other practical applications, continuing from the place they were left at the end of *Volume 1*. In his introduction to *Volume 2*, Leavitt restates his method in few lines:

Most of the terms and techniques are directly evolved from material presented there [in *Volume 1*]. For example, the entire fingerboard is covered at once in the five-position C major scale study. This is accomplished by connecting the four basic fingering patterns (Types 1, 2, 3, 4) and one derivative (Type 1A) that hopefully were mastered from the first book. (The sequence of fingering types will vary from position to position up the neck, depending upon the key.)¹⁴

After the introduction, Leavitt reminds readers of the logic behind the naming of the fingering types. Type 1 refers to any fingering that includes first-finger stretches (i.e., “out-of-position scale tones,” in his terms); Type 4 refers to any fingering that includes fourth-finger stretches; and Types 2 and 3 refer to different fingerings that use no stretches.¹⁵ From this point, a journey of scales and fingering types over the guitar fingerboard indeed begins. The major and melodic minor keys appear in the following order and pages.

¹³ *Ibid.*, 125. Italics in the original.

¹⁴ William Leavitt, *A Modern Method for Guitar, Volume 2* (Boston: Berklee Press, undated reprint of 1968 ed.), iii. Parentheses in the original.

¹⁵ *Ibid.*, 3.

Example 5.1.2–1: “Major and Melodic Minor Keys in Volume 2”

Key	Page(s)
C major	4-6
F major	10-12
G major	18-20
D major	24-26
A major	30-32
Bf major	40-41
Ef major	46-48
C melodic minor	60
F melodic minor	66
G melodic minor	74
D melodic minor	82
A melodic minor	88
Bf melodic minor	98
Ef melodic minor	104

All these scales are shown in five different positions, employing all five fingering types. The melodic minor scale (Leavitt calls it the “real melodic minor scale”) employs the same notes when ascending or descending, the only difference to the major scale thus being the appearance of the minor third.¹⁶ Fingering types given for major scales are transferred to melodic minor scales by applying simple finger stretches within the fingering types. This application highlights the economy of Leavitt’s method. Readers do not have to learn a single new fingering in order to be able to play melodic minor scales: they just have to adjust the fingering types they have previously learned.

This economy is continued as Leavitt presents other new melodic features. In regard to my study, the way he approaches arpeggios is interesting. Leavitt leads his readers to the arpeggios gradually, first introducing the subject in the form of unarpeggiated triads and their inversions across the fingerboard. He discusses only four common triad types; the major, minor, diminished, and augmented. The first triads are based on the roots C, F, and G.¹⁷ Soon moving up the fingerboard comes into focus and thus the triads on the roots D, A, Bf, and Ef are covered in the similar fashion as well.¹⁸ Finally, as a conclusion to the first section of *Volume 2*, one-octave diatonic triad arpeggios, which can be found within a major scale (i.e., an arpeggio is based on each major scale degree), are presented in the major keys of G, F, Bf, and Ef.¹⁹

¹⁶ The melodic minor scale is commonly understood and explained this way in jazz music theory.

¹⁷ *A Modern Method for Guitar, Volume 2*, 9, 15, and 23.

¹⁸ *Ibid.*, 29, 37, 43, and 53.

¹⁹ *Ibid.*, 55-56.

At the beginning of the second section of *Volume 2*, Leavitt presents the major, minor, diminished, and augmented one-octave arpeggios. The fingerings for these arpeggios are derived directly from the scale fingerings (i.e., the system of the five different fingering types is again applied and put directly into practice in a truly effective manner). The scales and the fingering types learned this far are also reviewed quickly in a few arpeggio exercises; arpeggios rooted on G appear first, followed by those beginning on D and C, and finally by those on A and F.²⁰ Readers are simultaneously encouraged to transpose the arpeggio exercises to other key areas (i.e., the arpeggio fingerings are also applied without the help of notation).

The following example shows Leavitt’s presentation of one-octave arpeggios (and their inversions) on the root G. The numbers above the staff indicate the fingers and their order, while the Roman numerals below the staff indicate the guitar position. The “(s)” markings indicate a finger stretch.

Example 5.1.2–2: “Leavitt’s One-Octave Arpeggios on G”²¹

The image displays four rows of musical notation for one-octave arpeggios on G. Each row is divided into three sections: Root Position, 1st Inversion, and 2nd Inversion. The notation includes fingerings (numbers 1-4) and guitar positions (Roman numerals II, III). Finger stretches are marked with "(s)".

- G Major:** Root Position (II, 2 1 4 4), 1st Inversion (1 4 4 3), 2nd Inversion (4 4 3 2).
- G Minor:** Root Position (II, 2 1 4 4), 1st Inversion (1 4 4 2), 2nd Inversion (4 4 2 2).
- G Diminished:** Root Position (II, 2 1 3 4), 1st Inversion (1 3 4 2), 2nd Inversion (3 4 2 1).
- G Augmented:** Root Position (II, 2 1 4 3 4 1 2), 1st Inversion (III, 1 4 3 2 3 4 1), 2nd Inversion (III, 4 3 2 1).

Next, Leavitt explains the theory of diatonic seventh chords and leads readers to apply the fingering types in several arpeggio studies. These studies include four-note chords built on the seven scale degrees of certain major scales. The keys covered in this way are G, F, B \flat , and E \flat

²⁰ Ibid., 59, 65, and 69.

²¹ Ibid., 59.

major.²² Along the way, some triads are also presented in two-octave arpeggios, across and up the fingerboard. The keys covered with two-octave arpeggios are C, G, and F major and C, G, and F minor.²³ The third and fifth inversions are mixed in with selected arpeggios.²⁴ At the end, two-octave arpeggios of diminished triads are based on the roots C, G, and F and two-octave arpeggios of augmented triads on the roots B \flat , F \sharp , and D.²⁵ Readers are expected to frequently transpose these arpeggio exercises to all other possible keys, thus gaining familiarity with them.

Leavitt also presents some information on pentatonic scales. However, he discusses this interesting subject rather superficially, on only one page.²⁶ There, Leavitt quickly introduces five different major pentatonic scales (F, A, D, G, and C) in the second position, simultaneously implying that the fingering types of the major scales should be applied as well. If the pentatonic scales do not receive that much attention in *Volume 2*, chromatic and whole-tone scales are studied more deeply instead.

In the case of chromatic scales, Leavitt introduces two different fingering patterns (it is important to note that his word choice here is “fingering patterns”—not “fingering types”): one going across the fingerboard without any shifts, the other using shifts.²⁷ The latter fingering pattern is especially interesting since it represents the type of fingering where the logic and order of the fingers and the symmetry of the patterns are guiding principles. In this kind of fingering, glissandos are avoided by placing the four fingers in succession on each string. That fingering pattern naturally involves frequent shifting and hence Leavitt considers it less practical.

For whole-tone scales, Leavitt first presents two fingering patterns in the second position (without shifts).²⁸ Then he applies the patterns in other positions, from the second to sixth. Finally, Leavitt shows two additional whole-tone scale fingerings with shifts. In these fingerings, the placing of the fingers on the strings again follows a symmetric pattern. Again, what is won in logic and symmetry is consequently lost in ease of execution—at least in respect to shifts (i.e., the additional whole-tone fingerings force guitarists to shift frequently).

5.1.4 Discussion

In summary, in *Volume 2* Leavitt succeeds in quickly and effectively putting his five fingering types into effect. Simultaneously, his readers become familiar with a major part of the guitar fingerboard and they learn such important skills as transposing and shifting.²⁹ On the basis of the contents of *Volume 2*, I can discuss the similarities and differences between Leavitt’s and Lockwood and Darizcuren’s approach in greater detail. Three aspects arise.

²² Ibid., 72-73, 80, 87, and 94.

²³ Ibid., 77, 85, 91, and 101.

²⁴ Ibid., 85 and 101.

²⁵ Ibid., 108 and 113.

²⁶ Ibid., 44.

²⁷ Ibid., 103.

²⁸ Ibid., 110-111.

²⁹ Readers naturally learn many other necessary skills as well. These, however, are not the focus in this research.

Leavitt is very careful in employing his five fingering types. He does not make any abrupt, disturbing exceptions or additions to his approach and he effectively employs its potential. Leavitt's loyalty to his fingering types makes the approach a very convincing one. In *Cordes & Âme* Lockwood and Darizcuren do not make a serious effort to analyze or present the potential of their schematic fingering approach. They do not apply their scale fingering schemes, for instance, with arpeggios. However, according to Leavitt's example, it seems that the particular scale fingering schemes could also be employed as the basis for different chord arpeggios on the violin. A quick, empirical test on the instrument naturally proves this.

Leavitt's method seems to be popular among guitarists. On the cover of a newer edition of *Volume 1*, the publisher boasts that more than 500,000 copies have been sold.³⁰ Such claims of commercial success, however, does not itself prove anything about its actual quality. The acknowledgments of some leading jazz guitarists (see the beginning of subchapter 5.1 in this study) also do not say much about the practical and pedagogical value of the method. However, while developing my fingering strategy, I saw such evidence of its acceptance as an encouraging sign of its relevance. If a clearly schematic fingering approach appears to work on the guitar and if it seems to be respected and popular (at least to some extent), similar fingering applications on the violin could have the same potential.

It is safe to say that Leavitt's method is highly unique in its economy. As it can be seen in my preceding summary of his different listings of scales and arpeggios and their appearances, Leavitt is able to address a large number of important musical matters through his five different fingering types. His approach connects elementary technical phenomena to many practical goals of guitar playing. Moreover, his approach seems to be of great pedagogical benefit; it can be employed when learning to use the entire guitar fingerboard, when learning to play the most important scales and most important keys, and when learning to play the basic chords and arpeggios, for instance. This suggests that the first two volumes of Leavitt's *A Modern Method for Guitar* convey several interesting ideas—if not direct models—for the applications of schematic fingering on the violin.

5.1.5 *A Modern Method for Guitar, Volume 3*

The third volume of *A Modern Method for Guitar* attempts to directly continue the first two. "Most of the terms and techniques are directly evolved from material presented in them [Volumes 1 and 2]. Fingerings for (two octave) scales and arpeggios are developed to the ultimate...in that any other patterns that you may discover will consist of nothing more than combinations of two or more of those presented here," Leavitt states in his introduction.³¹ It is true that the material in the third volume is based on the previous volumes, but perhaps not quite as consistently as Leavitt claims.

³⁰ *A Modern Method for Guitar, Volume 1*. The reprint of the publication is undated. The copy, which is referred to in this case, includes ads with website addresses. This fact suggests that this particular edition could have been made at the earliest in the second part of the 1990s (because Internet advertising did not exist before).

³¹ William Leavitt, *A Modern Method for Guitar, Volume 3* (Boston: Berklee Press Publications, 1971), introduction.

Departures in the method described in the first two volumes already occur in the first pages of *Volume 3*. The first two volumes emphasized that only five different fingering types form the basis of the left-hand technique on guitar. However, in *Volume 3* Levitt suddenly breaks this firm and consistent base by introducing three new finger types derived from his original first fingering type, and four new derivations from the fourth fingering type.³² Levitt is thus forced to deviate from his original consistency and alter his fingering type framework in order to apply it to more advanced harmonic and melodic matters. The major part of *Volume 3* concentrates on fingering patterns for the rather sophisticated chords and chord alterations typical to jazz harmony.

Thus, first Levitt has to radically redefine the guitar position:

DEFINITION OF "POSITION"..... Because of the many finger stretches now encountered [with all the fingering possibilities that have been presented] I feel that a refinement of the definition of a position is now advisable. Therefore let's now say; ONE FRET BELOW THE PLACEMENT OF THE SECOND FINGER DETERMINES THE POSITION.³³

It seems that the goal in *Volume 3* is to become thoroughly familiar with the different guitar positions. The goal is achieved, for instance, through playing twelve major and nine melodic minor scales in every position, from the second to twelfth. Also, different chord arpeggios and related melodic phenomena are examined in a similar fashion. Levitt usually supplies precise fingerings for all the material presented (e.g., for the twelve major scales and nine melodic minor scales). He does not, however, continue to encourage readers to transpose the material, as he often did in the previous two volumes. This seems a bit strange since the fingerings for the *Volume 3* material are the same in every single position. Thus, in this respect Levitt departs slightly from his earlier pedagogical approach. However, he does not totally abandon the idea of transposing. When he introduces the four-note chord arpeggios (rooted on C), he suggests that readers practise the exercise through the second position to tenth—all this without notating the arpeggios.³⁴

Levitt is more loyal to his previous ideals when he discusses harmonic minor scales. After he has summarily explained on the previous page how the fingerings of the natural minor scales and other major scale modes are only applications of the fingerings of the major scales, he briefly suggests that the harmonic minor scales can be easily mastered because they are “nothing more than the relative major scale with one note raised.” Levitt continues, writing that “therefore all playing positions and fingering types coincide.”³⁵ This is quite true, of course. However, it can be argued that Levitt moves a bit too quickly in this particular section. If readers find the abrupt readjustment of their technical approach in *Volume 3* even a bit challenging, applying the new information to natural minor, modes, and harmonic minor can suddenly be too much.

³² Ibid., 1-3.

³³ Ibid., 4. Capitalization, ellipses, and brackets in the original.

³⁴ Ibid., 25.

³⁵ Ibid., 29.

5.1.6 Discussion

It seems, then, that Lockwood and Darizcuren's system of scale fingering schemes on the violin and the contents of Leavitt's *Volume 3* are not closely related. There are only two places where a connection can be made.

The first appears when Leavitt presents two additional diminished scale fingerings.³⁶ These fingerings are in addition to those diminished scale fingerings he presents previously in the publication (and these previous diminished scale fingerings have nothing in common with the system of fingering schemes on the violin). The second additional fingering pattern employs all four left hand fingers. The pattern appears once on every string and hence the scale fingering requires frequent shifting. The first additional diminished scale fingering also consists of a finger pattern. However, this fingering employs a pattern which covers two adjacent strings. In both of these diminished scale patterns only three of the left hand fingers are employed in succession per string. These additional diminished scale fingerings (like the fingerings for chromatic and whole-tone scales mentioned earlier in subchapter 5.1.3) focus on the symmetry and logic of the finger placement, and this feature precisely reflects the system of scale fingering schemes on the violin.

The second connection between Leavitt's *Volume 3* and Lockwood and Darizcuren's system is Leavitt's discussions of "repeated fingerings."³⁷ Leavitt's repeated fingerings are reminiscent of the fingering schemes in *Cordes & Âme*, and he uses them for the same purpose: as a tool for dividing a scale into smaller units that are easy to understand and remember.³⁸ Unfortunately, Leavitt writes very little on this matter in *Volume 3*. He only introduces the idea then skips immediately to another topic (viz., to chord construction).

It can be said that the chords (the chord theory, arpeggios, chord-scale relations, etc.) are the center of focus in Leavitt's *Volume 3*. Besides the repetitive scale exercises and the many different chord examples, approaches, and exercises, there are just a few tunes to play. Guitar is a polyphonic, chording instrument, and it is naturally necessary that a considerable amount of time and space is devoted to chord study. This can be seen by considering the index of *Volume 3*, where the various chord studies take more than half the space.³⁹ Consequently, for the purposes of my study Leavitt's *Volume 3* was not of much value. Violin is hardly a chording instrument in the manner of the guitar. Furthermore, I excluded violin chord and arpeggio fingerings from my strategy focus. The primary influence of Leavitt's guitar method I thus gained from the first two volumes.

³⁶ *Ibid.*, 44.

³⁷ *Ibid.*, 77.

³⁸ *Cordes & Âme*, 10.

³⁹ *A Modern Method for Guitar, Volume 3*, the last two unnumbered pages.

5.1.7 Other Publications by William Leavitt

In addition to *A Modern Method for Guitar*, I studied a selection of other Leavitt's later publications. It appeared that *A Modern Method for Guitar* is his major methodological and pedagogical work; his other output consists of collections of music editions and additional exercises.

For the purposes of this research extension, I studied the following six publications.

1. *Classical Studies for Pick-Style Guitar: Solos and Duets, Volume 1*⁴⁰
2. *Melodic Rhythms for Guitar: 42 Comprehensive Exercises and 92 Complete Harmonized Studies*⁴¹
3. *The Guitar Phase 1: A Modern Method for Class or Individual Instruction*⁴²
4. *The Guitar Phase 2: A Modern Method for Class or Individual Instruction*⁴³
5. *Reading Studies for Guitar: All Keys Positions One through Seven*⁴⁴
6. *Advanced Reading Studies for Guitar: Positions Eight through Twelve and Multi-Position Studies in All Keys*⁴⁵

I had to limit this selection to what was available when my research took place. Although Leavitt's entire output was not available, I was able to cover at least the most important part of it.

According to my examination, Leavitt does not extensively discuss the fingerings, fingering types, or related subjects in the above list. The only things worth mentioning in respect to my research in *Classical Studies for Pick-Style Guitar* and *Melodic Rhythms for Guitar* is that he briefly encourages readers to transpose certain exercises from one position to another.⁴⁶ In *The Guitar Phase 2*, he hints about "movable chord forms," which are to be presented in the next volume, *Phase 3*.⁴⁷ It seems, however, that a publication entitled *Phase 3* (or anything similar) by Leavitt does not exist. It might be that it was never published or just that I could not locate a copy. Nevertheless, it is probable that the "movable chord forms" that Leavitt mentions in *Phase 2* equal the "movable forms" he discusses in his *A Modern Method for Guitar, Volume 1*.⁴⁸

In *Reading Studies*, Leavitt presents the major and harmonic minor scale fingerings only in the second and third position and then suggests that readers learn and use the same "(movable)

⁴⁰ Boston: Berklee Press Publications, 1968.

⁴¹ Boston: Berklee Press Publications, 1969.

⁴² Boston: Berklee Press Publications, 1970.

⁴³ Boston: Berklee Press Publications, 1975.

⁴⁴ Boston: Berklee Press Publications, 1979.

⁴⁵ Boston: Berklee Press, 1981.

⁴⁶ William Leavitt, *Classical Studies for Pick-Style Guitar: Solos and Duets, Volume 1* (Boston: Berklee Press Publications, 1968), introduction. William Leavitt, *Melodic Rhythms for Guitar: 42 Comprehensive Exercises and 92 Complete Harmonized Studies* (Boston: Berklee Press Publications, 1969), 6, 51, and 61.

⁴⁷ William Leavitt, *The Guitar Phase 2: A Modern Method for Class or Individual Instruction* (Boston: Berklee Press Publications, 1975), 53.

⁴⁸ William Leavitt, *A Modern Method for Guitar, Volume 1* (Boston: Berklee Press, undated reprint of 1966 ed.), 45.

fingerings” in other positions as well.⁴⁹ The same applies to *Advanced Reading Studies for Guitar*, the sequel to *Reading Studies*. At the beginning of *Advanced Reading Studies for Guitar*, Leavitt presents the fingerings for major and harmonic minor scales (the publication starts with the eighth position), expecting readers to later transpose them to other positions (from eighth through twelfth) without any special instruction.⁵⁰ Here, Leavitt also presents the fingerings for a chromatic, whole-tone, and diminished scale.⁵¹ The fingerings for the chromatic and the whole-tone scales are the same as he presents in *A Modern Method for Guitar, Volume 2*.⁵² The particular fingerings do not include any shifts; they are thus “movable” (as Leavitt would have put it). The same principle is also put into effect in the diminished scale fingering. It goes without saying that the fingerings of the three aforementioned symmetric scales represent a fingering pattern and that, in this respect, they are connected with the system of fingering schemes on the violin, as was concluded earlier.

It seems that Leavitt continues to closely follow in his later publications the fingering approach he introduced in the three volumes of *A Modern Method for Guitar*. This shows great confidence in his particular fingering system. It also indicates that the system can be applied to diverse musical material; that it is a practical and broadly applicable tool. Although I could not find any use for Leavitt’s melodic material, his pedagogical example surely encouraged the development of my fingering strategy for jazz violin improvisation.

5.2 *The Advancing Guitarist* by Mick Goodrick

Electric jazz guitarist, Mick Goodrick (born in 1945, in Sharon) graduated from the Berklee School of Music. After his studies he taught at the Berklee School for four years. Goodrick is mainly known as a highly original musician (he is remembered from his collaborations with Gary Burton, Woody Herman, and Pat Metheny, for example) but he has also inspired and influenced the world of jazz guitar with his writings.⁵³ Within the focus of this study, Goodrick’s views on position playing were of special interest.

In short, *position playing* means playing in (or within) one position for a period of time. In the jazz context, position playing can imply, for instance, that players rely in their improvisation only on the pitches of a particular position. Frequent shifting is thus not necessary since the focus is laid on the melodic potential the position already includes. Subsequently, position playing can be regarded as interesting and inspiring, but a limitation; it functions as an artificial frame for improvised melody construction and as a pre-modifier of the melodic output. The amount of pre-modification naturally depends on the instrument in question and the player’s skills. Position

⁴⁹ William Leavitt, *Reading Studies for Guitar: All Keys Positions One through Seven* (Boston: Berklee Press Publications, 1979), 33. Parentheses in the original.

⁵⁰ William Leavitt, *Advanced Reading Studies for Guitar: Positions Eight through Twelve and Multi-Position Studies in All Keys* (Boston: Berklee Press, 1981), 3-4.

⁵¹ *Ibid.*, 5.

⁵² William Leavitt, *A Modern Method for Guitar, Volume 2* (Boston: Berklee Press, undated reprint of 1968 ed.), 103 and 110. These fingerings were discussed earlier in subchapter 5.1.3.

⁵³ Barry Kernfeld, “Goodrick, Mick,” in *The New Grove Dictionary of Jazz*, edited by Barry Kernfeld.

playing is clearly connected to schematic fingering since, for example, scale fingering schemes are usually limited by a range and that range can be a certain position.

5.2.1 Position Playing

In 1987, Goodrick published *The Advancing Guitarist: Applying Guitar Concepts & Techniques*.⁵⁴ This exceptionally original study book became popular among improvising guitarists who sought an alternative approach. Goodrick's special views, ideas, concept of teaching and studying guitar—together with his excellent sense of humour, present on almost every page—have also made the publication popular among other jazz instrumentalists. In *The Advancing Guitarist* Goodrick successfully built stimulating and creative connections between many aspects of jazz theory, instrumental technique, and performance.

Goodrick's writing truly stands out from the majority of pedagogical jazz publications, which often unfortunately appear to be rather dry and impersonal. Goodrick's style is already present in the first few sentences of the short introduction.

This is a do-it-yourself book. It's not a method book. You supply the method; you do it yourself. I may make some suggestions along the way — point out some things that seem important or relevant. But what you do with it is entirely your own business; it's totally up to you. Don't depend on anyone but yourself for your own musical growth.... By itself, a book has absolutely no value; it's a dead thing. But in conjunction with a living human being who can understand, work, and grow, a book can be very useful. I'm saying that *you* are what's valuable, not the book. I've taken the time to supply the book. You take the time to supply *you*. Then we'll both be happy. Guaranteed!⁵⁵

With the help of his easy-to-read, nevertheless well-reasoned and in-depth writing, Goodrick quickly reveals the goal of his approach: to learn the guitar well, in a fresh, intelligent, logical, and complete manner. Goodrick divides the study of the guitar fingerboard (under the subtitle “Fingerboard Mechanics”) into three aspects.

First Thing to Learn: Up and Down a String (Single String Playing)

Second Thing to Learn: Across the Neck and Back (Position Playing)

Third Thing to Learn: Combine All of Both Previous Possibilities (Combination Playing or “The Realm of the Electric Ice-Skating Rink”).⁵⁶

Starting with these, Goodrick's approach to playing in one position, his “Second Thing to Learn,” is closely related to the subject of this study. Goodrick's expression for position playing, “across the neck and back,” is illustrative. In guitar playing, position playing is a considerable

⁵⁴ Mick Goodrick, *The Advancing Guitarist: Applying Guitar Concepts & Techniques* (n.p.: Third Earth Productions, 1987).

⁵⁵ *Ibid.*, 5. Italics in the original.

⁵⁶ *Ibid.*, 9.

technical tool since the frets allow guitarists easily transpose to anywhere else on the fingerboard anything they have internalized within the limits of a position.

Soon after explaining his approaches to playing on a single string, playing on two adjacent strings, and playing in the open position (i.e., the position including the open strings and frets one to four) Goodrick presents his idea of position playing. First he explains what he means by a position.⁵⁷ As with William Leavitt (see above), in his position definition Goodrick allows stretches with the first and fourth fingers. Consequently, a position is primarily determined by the placement of the second and third fingers.

After the introduction of the theoretical framework of position playing, Goodrick lists eight innovative suggestions that apply to all position playing. Some include ideas applicable to the violin as well. In his third suggestion, for instance, Goodrick carefully describes the scalar possibilities that only one guitar position conveys.

3. Realize that a position contains the whole “chromatic universe” within the range (two octaves plus a perfect fourth). Consequently, this means that any position (and all positions) contains:

- Chromatic Scale (12 notes)
- Two Whole-tone Scales (6 notes each)
- Three Symmetrical Diminished Scales (8 note scales)
- Twelve Major Scales (7-note scales)
- Twelve Melodic Minor Scales (7-note scales)
- Twelve Harmonic Minor Scales (7-note scales)
- Twelve Pentatonic Scales (5-note scales)
- All triads and four part chord arpeggios in all keys
- Plus a whole lot more...

I’m sure by now you can see the vastness of this project called position playing.⁵⁸

The range of a violin position (without stretches) is approximately two octaves, plus a major second; almost the same as the range of a guitar position.⁵⁹ Consequently, the violin position contains the same features as Goodrick’s listing of the “chromatic universe.” This universe within one position can naturally be easily transposed with a shift. Goodrick illustrates this in his following suggestion.

4. In approaching all of this material, it would be good to keep in mind that (as often happens) there are two different approaches, both of which are important. For example, let’s take the major scale. The first approach would be to keep the major scale the same, and change the position (i.e., C Major Scale in each of the twelve positions).⁶⁰

⁵⁷ Ibid., 27.

⁵⁸ Ibid., 28.

⁵⁹ This is the minimum range that applies to all violin positions. In the extremely high violin positions, the range can naturally be considerably wider. In the first violin position, again, the range can only be a little wider, depending on how long stretches are considered comfortable.

⁶⁰ *The Advancing Guitarist*, 28.

Goodrick does not provide background reasoning for his views on position playing. However, some theoretical support is implied in the sixth suggestion, which briefly reminds readers how easily different scales and chord voicings can be internalized through the position playing.

6. Position playing involves a lot of what is often called “Finger-pattern memory”. It’s a very big and important part of guitar playing.⁶¹

Goodrick’s humorous writing style is present in the eighth suggestion, which motivates readers to study and employ position playing.

8. There is no direct relationship between how well you know position playing and how well you can improvise. On the other hand, it should be easy to see that there could quite easily be at least an indirect relationship! Or, to put it another way: if you improvise, knowing position playing very well sure helps.⁶²

After this, Goodrick proposes four “things to do.” These are four ideas which should help readers become familiar with position playing. He encourages readers, for example, to play and improvise on tunes representing the jazz standard repertoire while staying entirely within one position. The same can be applied to those chord structures known as *Rhythm Changes* and *Blues Changes*.⁶³

5.2.2 Discussion

Although the position playing section in Goodrick’s *The Advancing Guitarist* is rather short (in total only about three pages), it conveys a wealth of points to be discussed in respect to Lockwood and Darizcuren’s fingering schemes and their system of scale fingering schemes. In his approach to position playing, Goodrick shares Lockwood and Darizcuren’s idea of making the process of internalizing fingerings (for scales, for example) easier by relying on limited number of fingerings—or finger patterns, as Goodrick calls them.⁶⁴

Goodrick gives position playing—as an independent technical matter—a status equal to other parts of the left-hand technique. Goodrick thus sees that position playing is as significant as playing on a single string or playing in open position (i.e., the position where the open strings are employed

⁶¹ Ibid., 28.

⁶² Ibid., 29.

⁶³ Id. *Rhythm Changes* or *I Got Rhythm Changes* refer to a 32 measures long, AABA musical form which follows the chord structure introduced by George Gershwin in his composition *I Got Rhythm* (copyright given in 1930). The original *I Got Rhythm* chorus is actually 34 measures long. However, in modern jazz practice and in modern jazz tunes following the *Rhythm Changes*, the last two measures of the original Gershwin composition are frequently omitted.

Blues Changes term refers to a 12-measure musical form where the tonic, subdominant, and dominant chords typically appear as dominant seventh chords. Within the modern jazz context, *Blues Changes* often include more chords than is usual, for instance, in blues and rock music. In jazz, *Blues Changes* may also include four-note chord types (and their variants) other than just dominant chords.

⁶⁴ *The Advancing Guitarist*, 28.

more often). Goodrick liberates his readers by helping them to comprehend the fingerboard as a whole unit by equalizing these three different playing (and fingering) types, and by not beginning with teaching scales and fingerings in lower positions (as seems to be common in guitar methods; for example, in Leavitt's earlier-discussed method). Consequently, Goodrick's approach leads to a fast, full realization of the many possibilities available with the guitar fingerboard. In this respect Goodrick's publication appears to represent an original, alternative pedagogical approach to guitar technique.

Lockwood and Darizcuren's system of scale fingering schemes necessitates comprehending the violin fingerboard as a unit as well. In order to employ the system effectively, it also must be given a status equal (or higher) in importance to the lower positions and the use of open strings. In order to be able to take advantage of the entire range of the fingerboard (i.e., the whole potential of the violin instrument), violinists must become used to constant shifting. Instead of staying in the "safer area" of the fingerboard (e.g., the first and half positions) and visiting the higher positions only when necessary, violinists should regard any position as being equally useful. Although the significance of position playing is not discussed in Lockwood and Darizcuren's *Cordes & Âme*, it is clear that applying their system of scale fingering schemes calls attention to position playing. When schematic fingering is employed in jazz violin improvisation, the need for fluency in position playing immediately appears.

However, schematic fingering is not an all-purpose solution. It alone cannot resolve all the fingering and shifting problems on the violin. It has to be combined and supported by other approaches. Goodrick shares a similar view regarding guitar technique. In *The Advancing Guitarist*, his different approaches to the fingerboard are later mixed in *combination playing*. According to Goodrick, this is the "third thing to learn," after single string and position playing.⁶⁵ Goodrick stipulates that the careful preparation of all of playing (and fingering) approaches gives improvisers "the greatest possible feeling of freedom with respect of whatever area of the fingerboard the music happens to take us."⁶⁶

The essence of combination playing is as clear on the violin as it is on the guitar, although Lockwood and Darizcuren do not make any reference to such a feature. However, they highlight the logic within their schematic fingering and compare the approach to chess game.⁶⁷ While learning to employ the violin fingerboard effectively in improvisation, fingering schemes can bring order to the fingerings. At the early stages of learning modern jazz violin improvisation, certain types of fingerings typical to jazz may especially appear unorthodox, complex, and confusing. With the help of the logic and order gained from schematic fingering, the possibility of achieving artistic freedom can be sped up and improved.

Another interesting emphasis in Goodrick's approach is that it avoids dividing the fingerboard into sections (e.g., lower and higher positions, open string position, etc.). Dividing the fingerboard

⁶⁵ Ibid., 9.

⁶⁶ Ibid., 30.

⁶⁷ *Cordes & Âme*, 10.

into sections is very common, both in guitar and violin education. Goodrick abandons the idea of dividing the guitar neck and begins by asking his readers to play freely up and down on a single string. Through this simple but clever exercise, he encourages guitarists to learn to move flexibly from one part of the fingerboard to another. Even the bigger leaps from the lower to higher positions (and vice versa) are allowed and suggested. Through the exercise, any barriers for moving the left hand freely between the positions are largely diminished.

When the liberty of left-hand movement is later connected to the vast possibilities for position playing (it is possible to play almost everything within the “chromatic universe” of a position; see above), all the major challenges of approaching the fingerboard are basically overcome. If guitarists first learn to move their hand up and down the fingerboard (i.e., to shift freely), they should not have any problems later with transposing any of their musical ideas.

The concept of left-hand movement that is free from position barriers should be also applied in violin playing that employs schematic fingering. Instead of conquering the fingerboard step by step, as sections or positions (typically from the lower to higher), violinists will benefit from becoming familiar with the entire fingerboard at once. Although this concept is not entirely new to violin pedagogy, it still appears to be rarely discussed in pedagogical publications. The majority of pedagogical violin instruction for beginners, for example, suggests remaining in the first position for a relatively long time. Just few contemporary methods encourage teaching the basics of shifting at an early stage.⁶⁸

Although Goodrick’s *The Advancing Guitarist* did not really include musical material I could have employed in my own fingering strategy, the publication surely gave me a lot of food for thought. While studying Goodrick’s highly inspiring instruction, I became convinced that, overall, violin pedagogy was still far from being complete. As regards jazz violin education, which is still young and hardly canonized, I already knew this to be quite true. However, it was interesting to notice that classical violin pedagogy, a well-established tradition of over a hundred years, still takes for granted some matters that would profit from redefinition and reconsideration.

Earlier I may have seen the tradition of classical violin education as a colossal monument, standing on a firmly established foundation—and that this foundation was already thoroughly researched, secured, and guarded by almighty, historical pedagogues. In respect to position playing, as discussed and approached in the manner of Goodrick, for instance, it subsequently seemed that classical violin pedagogy has probably missed at least this one significant point of view and its pedagogical potential. I thus understood that my ideas of violin fingering might have something to offer in the field of classical violin education, as well. This surely gave me an extra impetus for developing and modifying my ideas of violin position-playing and shifting. I became motivated to study these issues in even greater detail and find extra support for my findings and recommendations.⁶⁹

⁶⁸ A representative example of the later is Géza Szilvay’s Colourstrings method, in which the first shifting exercises occur long before stopping with all four left hand fingers is instructed.

⁶⁹ I discuss position playing in Part II, Chapter 5 and shifting in Part II, Chapter 4.

5.3 *Improvisational Concepts* by Mike Marshall

Mandolin is tuned in fifths and has the same open strings as the violin. The similarity between these two instruments naturally encouraged me to search references of schematic fingering within pedagogical mandolin literature. It appeared that in this respect Mike Marshall's contributions were relevant and representative.

Mike Marshall (born in 1960) is an accomplished and respected mandolin and guitar player.⁷⁰ He gained wider recognition in the David Grisman Quintet, in the late 1970s and early 1980s. Grisman's group was influential in popularizing an acoustic music style (sometimes referred to as New Acoustic Music) that borrows freely and eclectically from various folk music traditions, keeping the focus on lively, earthy, and skilful performance.⁷¹ Marshall is also remembered for his collaborations with Darol Anger, Bela Fleck, Mark O'Connor, and Chris Thile, for example.⁷² Marshall's publication called *Mike Marshall's Mandolin Method: Improvisational Concepts* makes an interesting contribution to the schematic fingering approach.⁷³

5.3.1 Closed Position Scale

Marshall's *Improvisational Concepts* begins directly with fingering scales in schematic fashion. In his short introduction to the subject, Marshall states that the four left hand fingers mean "four ways to play everything." Marshall explains further:

If we learn to play a simple scale without open strings using your first finger on the root we have a nice easy scale position that we can then move around the fingerboard.... Using this basic closed position scale, it is quite easy to find any key. All you have to know is the name of the note that your first finger is landing on.⁷⁴

Marshall presents his closed position scale fingering in A major (see below). The actual fingering is not indicated in Arabic numerals but in tablature notation on the lower staff (a popular notation style for beginner-level plucked string instrument instruction). The strings employed in the

⁷⁰ It seems that qualified biographical information on Marshall is not easily available (from *The New Grove Dictionary of Music and Musicians* or from other similar sources). In the case of Marshall's year of birth, I am referring to entries appearing at http://rateyourmusic.com/artist/mike_marshall and <http://www.tomhull.com/ocston/nm/shop/bluegrass.html> (both accessed 13 October, 2008).

⁷¹ *New Acoustic Music* is not an established musical term but a loose and open reference instead. The expression was more in use in the 1970s and 1980s and was popularized, for example, by *Frets* magazine. New Acoustic Music appears to favor acoustic instrumentation, frequent references to diverse ethnic or folk music styles, and a high standard of musical technique or execution, or both.

⁷² "Meet Mike: Biography," Mike Marshall website, <http://www.mikemarshall.net/biography.htm> (accessed 13 October, 2008).

⁷³ Mike Marshall, *Mike Marshall's Mandolin Method: Improvisational Concepts* (Oakland: Adventure Music Publishing, 2005).

⁷⁴ *Ibid.*, 1.

fingering are indicated with Roman numerals (i.e., IV for the G and III for the D). The fingering matches Lockwood and Darizcuren’s scale fingering scheme for the major scale on the violin.

Example 5.3.1–1: “Marshall’s Closed Position (A major) Scale”



After the introduction of the closed position major scale fingering, Marshall immediately applies the fingering to Mixolydian and Dorian modes. In the Mixolydian application, the seventh scale degree (of the above closed position major scale fingering) is naturally diminished a half step. In the Dorian application, both the third and seventh scale degrees are diminished a half step.⁷⁵ These particular mandolin fingerings are like the Mixolydian and Dorian scale fingering schemes Lockwood and Darizcuren suggest for the violin.

Next, Marshall introduces closed position fingerings, beginning with the second, third, and fourth fingers. In his presentation he focuses on major scale fingerings; Mixolydian and Dorian fingerings are shown only as beginning with the third finger.⁷⁶ Through employing all four fingers as the starting finger, Marshall wishes to liberate his readers both to begin any scale from any location and to play in any key, anywhere on the mandolin fingerboard. He elaborates:

This should enable you to change keys without shifting positions or moving around the fingerboard. These shifts usually disrupt the melodic and rhythmic flow of our creative ideas.

The goal is to be able to begin a melodic or rhythmic idea and to continue it as the chords change around us. All we then need to do is adjust the notes that are necessary to accommodate the new key and our hands (hopefully) are free to accom[modate] the harmonic shifts.⁷⁷

If Marshall’s words are taken literally, it seems that his main goal is to show mandolin players how to attain proficiency in position playing. Reducing the number of scale fingerings or encouraging the use of schematic fingering for transposing musical material through shifting do not appear to be that relevant for Marshall. In this respect, his closed position scale fingerings seem to differ from those principles of schematic scale fingering implied in *Cordes & Âme*. The difference

⁷⁵ Ibid., 2.

⁷⁶ Ibid., 2-5.

⁷⁷ Ibid., 5. Parentheses in the original.

in the approaches is emphasized later in Marshall's *Improvisational Concepts*, in the form of various exercises that focus on position playing, deliberate employment of open strings in many arpeggio exercises, whole-tone scale patterns, and chromatic scale fingerings.⁷⁸

Under the titles "Charlie Parker Riffs" and "Chromatic Patterns for Jazz," Marshall presents some melodic patterns typical to modern jazz.⁷⁹ He also briefly discusses the altered scale and its modes.⁸⁰ These sections, unfortunately, appear to convey relatively little information applicable to modern jazz improvisation. The "Charlie Parker Riffs" are not fingered and Marshall does not show how to put them into practice. The latter applies to the material presented as "Chromatic Patterns for Jazz," as well. The altered scale is rarely divided into modes in jazz theory (instead, it is seen as the seventh mode of the melodic minor scale). Accordingly, the rest of Marshall's instruction for the altered scale appears somewhat problematic regarding jazz practices.

5.3.2 Discussion

Mike Marshall's *Improvisational Concepts* first appeared as an engaging publication that was within the scope of my research. A closer look revealed, however, that it focuses on position playing. In this respect, the publication certainly offers some valuable views and exercises, some of them naturally having some potential for jazz violin application.

I spent some time reflecting on the application of Marshall's material to the violin fingerboard, just to evaluate it from the position-playing point of view. Unfortunately, Marshall's mandolin exercises did not appear to hold benefit for developing my fingering strategy. The contents often addressed a more intermediate musical and technical level than was my intent. Therefore, Marshall's *Improvisational Concepts* remained as an interesting example of a reference on a plucked string instrument.

Just from curiosity, I studied Marshall's *The Chord Book*, which was published the same year as *Improvisational Concepts*.⁸¹ Although *The Chord Book* included some interesting ideas expressed as close position chords and chord voicings for *Rhythm Changes*, I could not refer to these in my research.⁸² Most particularly because barré chords (i.e., chords, where one or more fingers are employed to press simultaneously down multiple strings across the fingerboard) and stopping where two or more fingers appear simultaneously on the same line across the fingerboard are both technically difficult on the violin.⁸³ Both types of stopping are frequent in Marshall's mandolin chord voicings.

⁷⁸ Ibid., 6-11, 12-15, 27, 30, and 31-34.

⁷⁹ Ibid., 35-38 and 46-49.

⁸⁰ Ibid., 39-41.

⁸¹ Mike Marshall, *Mike Marshall's Mandolin Method: The Chord Book* (Oakland: Adventure Music Publishing, 2005).

⁸² Ibid., 5 and 26-29.

⁸³ On the violin, this kind of stopping calls for big changes in the left hand grip, increased finger pressure, and unfamiliar types of wrist rotation, for instance. All of these adjustments can feel very uncomfortable or result in physical pain. A risk of causing damage to the left hand is present and violinists should be very cautious if they wish to experiment with these particular adjustments (especially for longer time periods).

5.3.3 Other Pedagogical Mandolin Publications

Since I concluded that Marshall's input in the matter occurred to be rather limited, I reached even further and studied a selection of other pedagogical mandolin material to which I could easily gain access. It appeared that schematic fingering was discussed here and there in popular, respected pedagogical mandolin literature and instructional video material. However, such discussion was often rather concise, or the subject was only implied among other examples and exercises. In addition to scales and scale fingering, the approach was naturally introduced and discussed in connection with chords and chord arpeggios. Authors referred to the approach freely, with varied names and terms, according to their personal style and pedagogical purposes.⁸⁴

I found representative examples, for instance, in the following publications and DVDs. In the following list, the term(s) the author applies or the subject(s) in which the schematic fingering approach is discussed are in parentheses.

1. Sam Bush's *The Sam Bush Mandolin Method* (scale fingering and playing without open strings)⁸⁵
2. Jethro Burns and Ken Eidson's *Mel Bay's Complete Jethro Burns Mandolin Book* (closed or stopped position fingering)⁸⁶
3. David Grisman's articles in *Frets* magazine, in July 1979, October 1980, November 1985, and February 1986 (closed position scale fingering, arpeggio fingering)⁸⁷
4. Fred Sokolow and Bob Appelbaum's *Fretboard Roadmaps – Mandolin* (moveable chop chord, moveable major scale fingering)⁸⁸
5. Andy Statman's *Jazz Mandolin Taught by Andy Statman* (block chord position, whole-tone and pentatonic scale fingering)⁸⁹
6. Chris Thile's *Essential Techniques for Mandolin* (major scale fingering and arpeggio fingering)⁹⁰

⁸⁴ I wish to acknowledge Doctor Jouni Koskimäki (University of Jyväskylä) and mandolinist Petri Hakala for sharing their expertise in mandolin and mandolin literature and guiding me in search for the relevant mandolin references. I am especially grateful for Hakala for lending me important examples of this literature.

⁸⁵ Sam Bush, *The Sam Bush Mandolin Method*, Homespun Tapes, DVD-BSH-MN29; DVD 1, chapters 30-31; DVD 2, chapter 9.

⁸⁶ Jethro Burns and Ken Eidson, *Mel Bay's Complete Jethro Burns Mandolin Book* (Pacific: Mel Bay Publications, 1993), 20.

⁸⁷ David Grisman, four articles in *Frets*: "Position Shifts" (vol. 1, no. 5: 60), "Position Studies" (vol. 2, no. 10: 50), "Breaking 'Em up Is Good to Do!" (vol. 7, no. 11: 50), and "Minimum Daily Requirement" (vol. 8, no. 2: 51).

⁸⁸ Fred Sokolow and Bob Appelbaum, *Fretboard Roadmaps – Mandolin: The Essential Patterns that All the Pros Know and Use* (Milwaukee: Hal Leonard, 2002), 29-33 and 53-57. I wish to acknowledge jazz composer and guitarist Esa Ontonen for bringing the particular publication to my attention.

⁸⁹ Andy Statman, *Jazz Mandolin Taught by Andy Statman* (Woodstock: Homespun Tapes, 1982). The referred subjects are discussed in lessons 2-6.

⁹⁰ Chris Thile, *Essential Techniques for Mandolin*, Homespun Tapes, DVD-THI-MN21, chapters 23-29.

Although these references were interesting and inspiring, they unfortunately did not convey information which would have added anything new to the issue of schematic fingering on the mandolin. Consequently, I could not employ the material in developing my fingering strategy.

5.4 Octave Blocks Approach by Joe Venuti

Violinist Joe Venuti (1903, Philadelphia–1978, Seattle) first met guitarist Eddie Lang in grade school.⁹¹ They both became leading white jazz musicians on their instruments in the 1920s. Together they formed a superb violin and guitar duo, which was in great demand in recording studios. The small group recordings led by Venuti and Lang are original and interesting. Venuti and Lang were also employed by Red Nichols, Frankie Trumbauer, Benny Goodman, Jack Teagarden, and other famous white band leaders of the era.⁹² Venuti was one of the first popular, white pioneers of jazz violin. Through his extensive early recording career he became a model for several later jazz violinists. Venuti played with a strong drive and experimented with many special playing techniques. He remained rather productive throughout his long career.

Venuti was first and most a swing jazz violinist. His improvisations were relatively diatonic; they hardly conveyed any of the chromatic melodic or harmonic elements typical of modern jazz style. Therefore, at first it may appear strange that Venuti is included in this study. However, it happened that while collecting information and material for my research, I learned that Venuti's ideas about violin fingering might have been somewhat advanced for his time. I first got this impression from Matt Glaser and Stephane Grappelli's *Jazz Violin*.⁹³ From there, I followed a winding path to Venuti's late sketches of a violin instruction book he planned to publish. At the end of this exciting research project I came to realize that Venuti, the grand, white pioneer of jazz violin, had perhaps always been a step ahead of modern jazz violinists.

5.4.1 Framing the Octave Blocks

Indeed, my small Venuti research project began with Glaser and Grappelli's *Jazz Violin*. This publication has enjoyed wide distribution. It seems to be well known all over the jazz violin world, and it also was the first study book for jazz violin I ever got in my hands as a young jazz musician. *Jazz Violin* is mainly a collection of transcribed jazz violin solos played by Stephane Grappelli, with

⁹¹ According to Mike Peters and Venuti's birth certificate, (Guiseppe Joseph) Joe Venuti was born in Philadelphia on September 16, 1903. Venuti's place and date of birth appear to be very difficult to confirm. The exact year is uncertain, as is the question of whether he was born in Italy, Philadelphia, New Orleans, or on a boat to the USA. Venuti was very amused by this confusion, and he willingly added to it by inventing stories upon stories. Lacking a more recent reference, I quote here the facts Mike Peters offers in the Mosaic CD box booklet. See Mike Peters, "Joe Venuti and Eddie Lang," liner notes in Joe Venuti and Eddie Lang, *The Classic Columbia and Okeh Joe Venuti and Eddie Lang Sessions*, Mosaic Records, MD8-213, p. 1. Venuti's birth certificate can be seen at <http://www.joe-venuti.com/p2a.html> (accessed 15 August, 2008).

⁹² J. Bradford Robinson, "Venuti, Joe," in *The New Grove Dictionary of American Music*, edited by H. Wiley Hitchcock and Stanley Sadie.

⁹³ Matt Glaser and Stephane Grappelli, *Jazz Violin* (New York: Oak Publications, 1981).

Glaser's comments. In addition, it includes some transcribed solos of Svend Asmussen, Jean-Luc Ponty, and Joe Venuti, some basic technical information about jazz violin playing, and transcriptions of interviews with Grappelli and Ponty. By present standards, the contents of *Jazz Violin* can appear problematic: the solo transcriptions are not very accurate and the comments lack depth. For my Venuti project, however, *Jazz Violin* offered an interesting lead from which an exciting investigation began. The investigation came to reveal significant details about the history of jazz violin pedagogy.

In the jazz violin literature, *Jazz Violin* includes one of the earliest printed references to matters suggestive of a schematic fingering approach. The reference to such an approach appears in a short, written introduction to the transcription of Joe Venuti's solo in *I've Found a New Baby*.⁹⁴ This introduction (by Glaser) highlights an interesting aspect of Venuti's fingering technique.

In response to a question about improvising, Mr. Venuti once told me that he used his first finger like a capo. What he meant was that he placed his finger on the most important pitch (tonic or temporary tonic) which delineated a full octave of that particular chord. He would play across the strings, within that octave framework just as a guitar player would. (This is in opposition to the classical approach of shifting often to maintain the sound of one string.) This technique of Venuti's is quite evident in this piece especially in measures which include the high F, (played with the pinky in fifth position). It is a very good rule for improvising on the violin, and I guess we can call it "Venuti's Constant"; stay in position whenever possible, and play across the strings.⁹⁵

This section of *Jazz Violin* naturally encouraged me to carefully study the following transcription of Venuti's solo. Unfortunately, the transcription hardly matches the sound recording. The number of inaccuracies (both rhythmic and melodic) is surprising. Although some solo passages fitting to the description of "Venuti's Constant" can be found from the printed transcription, these passages do not appear on the actual recording.⁹⁶ Therefore, in order to study Venuti's particular fingering approach, I transcribed anew every tone played by Venuti on this recording.

Venuti's role in the performance can be summarized as follows: After a four-measure drum introduction, Venuti plays an introduction with saxophonist Zoot Simms. Then Venuti plays the melody once (the chorus is 32 measures long) and, after short saxophone and piano solos, he plays one solo chorus. Following this, he trades fours (i.e., alternates four-measure solos) with Simms and drummer Cliff Leeman for the total length of one chorus. In this exchange, both Simms and Venuti solo two times for four measures while Leeman solos four times for four measures. This chorus is followed by a chorus where both Simms and Venuti solo simultaneously (Simms perhaps taking the

⁹⁴ The solo appears on Joe Venuti and Zoot Simms, *Joe & Zoot & More*, Chiaroscuro Records, CR(D) 128, which is the CD edition of the original 1973 album *Joe & Zoot*. The tune, *I've Found a New Baby*, is by Jack Palmer Jack and Spencer Williams (copyright given in 1926).

⁹⁵ *Jazz Violin*, 82. Parentheses and punctuation in the original.

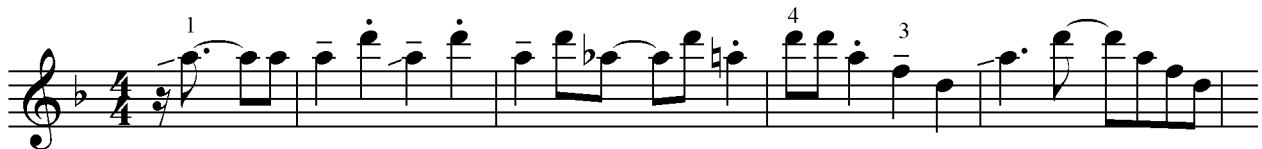
⁹⁶ In a recorded interview which took place in New York City (15 May, 2006), Glaser confirmed that I had the correct recording.

more secondary, but supportive role). At the end, as a coda, Venuti and Simms repeat the introduction.⁹⁷

According to my transcription of Venuti's performance, Glaser appears to be on the right track in terms of what he writes in the above quoted introduction. Venuti does employ his little finger on the high F and he does play in the fifth position. Measures 13 to 14 and measure 31 of Venuti's interpretation of the melody are clear examples of this.⁹⁸ The high F in the fifth position also appears twice in Venuti's solo chorus (in the measure 6 and measures 28 to 29),⁹⁹ once during the trading of fours,¹⁰⁰ and three times in the section where Venuti solos together with Simms.¹⁰¹ However, the passages where, according to Glaser's analysis, Venuti's special fingering approach should presumably appear are all short. Except for the two longer passages, the appearances of his special fingering do not include that much playing across the strings. Therefore, the passages are not quite convincing as evidence of the existence of "Venuti's Constant." In other words, the presence of the particular technical approach, in the places Glaser suggests, is not clear and their value as relevant examples of the technical device can be argued.

However, closer study of the recording and my transcription reveal that Venuti often stays a rather long while in the third position, thus employing his little finger on the high D (on the E string). Although the longest of these particular passages could be seen indicating the presence of "Venuti's Constant" slightly better (see the example below), unfortunately it is insufficient evidence of the particular fingering approach.

Example 5.4.1-1: "Venuti Soloing in the Third Position in *I've Found a New Baby*"¹⁰²



Since I could not verify the existence of the interesting fingering approach according to the reference implied in Glaser and Grappelli's *Jazz Violin*, I decided to contact jazz violinist Paul Anastasio. Glaser also suggested that I do this in my interview with him.¹⁰³ He presumed that Anastasio could shed some more light on the question since Anastasio had personally studied with Venuti.

⁹⁷ Unfortunately, the whole transcription cannot be presented in this study. However, just for clarification, on the CD edition of the recording (*Joe & Zoot & More*) the introduction runs 0'00''-0'38''; the melody 0'38''-1'09''; Venuti's solo 2'08''-2'38''; the trading 2'39''-3'08''; the simultaneous soloing 3'08''-3'39''; and the coda 3'39''-4'15''.

⁹⁸ *Joe & Zoot & More*, CD time indices 0'50''-0'52'' and 1'07''.

⁹⁹ *Ibid.*, 2'12'' and 2'34''-2'35''.

¹⁰⁰ *Ibid.*, 3'00''-3'04''.

¹⁰¹ *Ibid.*, 3'12'', 3'23'', and 3'31''-3'35''.

¹⁰² *Ibid.*, 3'08''-3'12.

¹⁰³ Recorded interview (15 May, 2006).

Jazz violinist Paul Anastasio (born in 1953, in Chicago) studied with Joe Venuti for two years, prior to Venuti's passing. In addition to jazz, Anastasio has extensively performed country music, western swing, and bluegrass, for instance. Anastasio has kept Venuti's style and memory alive in music and he also possesses some of Venuti's memorabilia, which he got from Venuti's close family friends. In the 1990s, Anastasio began to study Mexican violin music, specializing in the Tierra Caliente region and taking lessons from several noted artists, for example, from the legendary violinist Juan Reyonoso. Anastasio has written articles on Mexican violin music and published several albums of music by Reyonoso. His recent activities include frequent teaching at music camps and writing study material. Through Anastasio's help, which I hereby wish to gratefully acknowledge, I gained more relevant information on Venuti's fingering conceptions.

First, Anastasio suggested that I study the historical jazz violin publication called *Violin Rhythm: A School of Modern Rhythmic Violin Playing*, which is supposedly written by Joe Venuti. I succeeded in buying an original copy of this collectors' item.¹⁰⁴ This highly interesting publication, however, does not include anything related to schematic fingering but focuses only on rhythmic interpretations of swing jazz and bowing, as its title suggests. I also found out that Joe Venuti did actually not write the publication; he just allowed his name to be used for it, presumably for the sake of better marketing.¹⁰⁵ The real author of the publication was Dutch violinist Eddy Noordijk.¹⁰⁶ *Violin Rhythm* was first issued in Europe, rightfully under Noordijk's name.¹⁰⁷ In the North American edition (which includes only minor alterations to the European), Noordijk is credited as the editor.

In our e-mail correspondence concerning Venuti's teaching, however, Anastasio confirmed that Joe Venuti certainly had a schematic fingering approach. In answering my general questions about lessons with Venuti, Anastasio included a careful and enlightening description of Venuti's schematic fingering approach. Anastasio termed the approach *octave blocks*.

When I was studying with Joe Venuti in the 1970s he explained this concept to me.... For example, if Joe was playing over an A chord he would have available to him the octave of musical material found between the index finger on the A note on the G string in first position and the A played with the fourth finger on the D string. Joe had the option to then move to fourth position where he had another octave's

¹⁰⁴ Joe Venuti, *Violin Rhythm: A School of Modern Rhythmic Violin Playing*, edited by Eddy Noordijk (New York: Robbins Music Corporation, 1937). I also studied Venuti's booklet, *50 Hot Breaks for the Violin* (New York: Robbins Music Corporation, 1927), which includes a collection of his short, hot jazz violin phrases. The booklet did not appear to include any examples of schematic fingering. I wish to acknowledge mandolinist Petri Hakala for gaining me access to this latter, rare publication.

¹⁰⁵ My thanks go to jazz violin historian Anthony Barnett for his help in this matter. He shared information and evidence from his archives.

¹⁰⁶ Unfortunately, I could gain very little information about Eddy Noordijk (1905–1945). He seems to be largely forgotten in the Netherlands as well, presumably because of his early death and questionable activities during World War II. However, Noordijk clearly was an advanced jazz violin pedagogue. His *Violin Rhythm* is a well-constructed and well-written contribution to early jazz violin literature. It is highly accurate concerning jazz violin bowing and performance instruction. In addition to being among the earliest comprehensive jazz violin study books, it is a remarkable early example of European jazz education.

¹⁰⁷ Eddy Noordijk, *Violin Rhythm: A School of Modern Rhythmic Violin Playing*, (London: Keith Prowse and Co., 1937).

worth of musical material from A on the D string played with the index finger to A on the A string, played with the fourth finger. Moving to seventh position he had yet another octave available to him...

I call these root to root fingering shapes octave blocks, as within two strings all musical material from low root to high root is available within the block, using only two strings with the resultant economy of string crossings.

Knowing the way Joe fingered the violin makes it fairly easy to sleuth out the way he fingered specific passages. He would often slide up to the root of a given chord from a half step below with his index finger and then play an improvisatory phrase that is obviously within the octave delineated by the index finger on the lower of two strings and the fourth finger on the next higher string.¹⁰⁸

Anastasio's lively and careful recollection defines Venuti's particular fingering approach well. In addition, it describes how Venuti applied octave blocks and how he employed a small glissando when transposing (i.e., shifting) a block. All this implies that Venuti certainly had conceptualized the approach: He had defined its limits and guiding principles, and he employed it successfully in his performance. Moreover, he clearly could communicate the approach and employed it in his teaching.

Anastasio also informed me about sketches of a violin instruction book Venuti had begun to prepare in his later years. Anastasio kindly sent me a sample of photocopies of these sketches. This sample provided the extra evidence I needed to confirm the existence of Venuti's octave blocks approach.

5.4.2 Venuti's Sketches

The sample of Venuti's sketches I received does not include much text.¹⁰⁹ Much of the contents involves just music notation, with fingerings and slurrings. Most of it is literally sketches and notes; the material does not include any finalized exercises or examples, but instead presents matters Venuti was presumably planning to introduce in his forthcoming publication. In regard to schematic fingering, the octave blocks approach is present five times in the sample. Since there are hardly any explanatory comments by Venuti, I have concerned myself only with those notated occasions that clearly suggest he is employing the octave blocks approach.

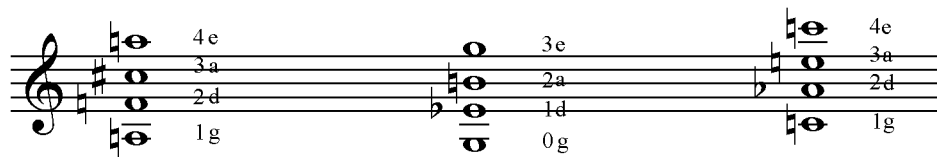
At the top of page "1 A," Venuti presents an arpeggiated A7 chord.¹¹⁰ The chord is first shown in root position and next in the first and second inversions. The root position chord appears in the first violin position. The first inversion appears in the third position and the second in the fifth position. Fingerings are included. The fingerings show that Venuti is clearly practicing his idea of octave blocks. He employs the first finger on the lowest note of the arpeggio and employs all the

¹⁰⁸ Quoted, by permission, from Paul Anastasio's e-mail to me (1 December, 2006).

¹⁰⁹ The original sketches are situated in the archives of American Heritage Center, which is administrated by the University of Wyoming. Unfortunately, due to the time limits of this research I could not study Venuti's original sketches on location; I had to rely on the photocopies I received from Anastasio.

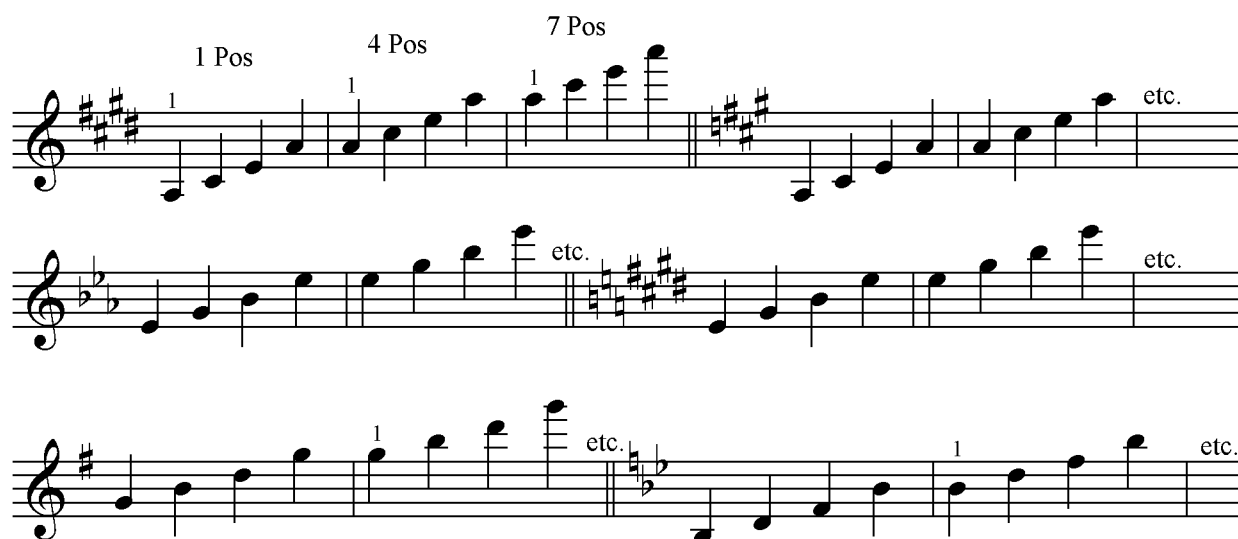
¹¹⁰ The numbering of Venuti's sketch pages refers to the filing system of the American Heritage Center.

Example 5.4.2–3: “Venuti’s Whole-Tone Chords”¹¹³



The last example of his octave blocks approach appears on page “1 D” of Venuti’s sketches. On the upper half of this particular page, Venuti presents five different ascending major triad arpeggios (A, Ef, E, G, and Bf).¹¹⁴ All the arpeggios appear in root position. The fingerings indicate clearly (see the example below) that the first finger should stop the root in any position. Thus, these arpeggios apparently reflect Venuti’s octave blocks fingering approach: The frame formed by the first and fourth fingers on the adjoining strings is clearly spelled out.

Example 5.4.1–4: “Venuti’s Ascending Major Triad Arpeggios”¹¹⁵



In addition to the examples presented and discussed above, the photocopy sample of Joe Venuti’s sketches include other material. Venuti has included, for example, other types of arpeggios presented as exercises and (presumably) notes for more soloistic purposes, material for double-stops,

¹¹³ In this sketch Venuti indicates the fingerings and strings simultaneously, on the right side of the chord.

¹¹⁴ The A major triad is presented with two different key signatures; first with the E major key signature and then with the A major signature. With both signatures the audible result is the same (i.e., the A major arpeggio). It is difficult to say why Venuti employs also the E major signature. It probably was just an oversight. After all, these are only his sketches, not published material, and the difference between E and A major is only one “#” sign.

¹¹⁵ In order to make the example more readable, I did some editing to the original sketch. The edits were minor: I only changed some stem directions, added or removed double bar lines, edited some extra text, and re-positioned some text, for instance. These edits have not changed the musical contents in any significant way.

voicings for basic four-note jazz chords, Venuti's notes on his own and popular melodies, and some three- and four-voice arpeggio material. Some of this material is quite interesting. However, since there is very little text material, one can only speculate as to the purposes and reasons Venuti might have had in mind.

5.4.3 Discussion

All told, there seems to be sufficient proof for the existence of Venuti's octave blocks. The Glaser reference, Anastasio's memories from lessons with Venuti, and Venuti's sketches together guarantee that Venuti must have conceptualized, to some degree at least, his particular schematic fingering approach. I was pleased to learn that this early master of jazz violin had approached the violin fingerboard in the same way I wished to. Although I could not take any particular advantage of Venuti's sketches in developing my fingering strategy (Venuti's sketches focus on rather simple, tonal material, while my focus was in more chromatic, modern jazz melody construction), they gave me extra assurance that I was on the right track.

When I began to listen to jazz more frequently as a child, Venuti was one of the first jazz violinists I became familiar with and I have had a great respect for his musical achievements ever since. I was delighted to find that my points of view about fingering could be linked to this jazz violin master. After studying Venuti's practices and ideas about octave blocks, I felt more connected with jazz violin history in general. At a certain level, Venuti thus came to represent the roots and tradition underlying my work. In regard to fingering, in my mind I could shake hands in complete agreement with good old "Four-String Joe."¹¹⁶

¹¹⁶ The nickname "Four-String Joe" is sometimes given to Venuti. It refers to Venuti's innovative use of bow in playing chords. In this technical approach, the bow stick goes under the violin body while the hair goes over the strings. (The bow nut has naturally to be unscrewed completely and the frog pulled away from the stick.) Venuti also recorded a tune called *Four String Joe* (composed by Joe Venuti and Eddie Lang) in 1927 and he employs this particular bow technique on that recording. The track is included in, for example, Joe Venuti and Eddie Lang, *The Classic Columbia and Okeh Joe Venuti and Eddie Lang Sessions*, Mosaic Records, MD8-213.

CHAPTER 6

Classical References

From a practical point of view, classical violin fingering is significantly different than jazz violin fingering. While in the former the aim is to find ways to perform pre-existing, notated material, in the latter the natural aim is to find ways to promote improvisation. Despite this significant conceptual difference, both fingering practices can gain from open-minded discourse. In this chapter, I discuss a selection of classical music violin publications conveying references to schematic or a similar type of fingering. I apply a mixed, reversed chronological order, beginning with the most recent reference and move on to the source preceding it.¹ Thus, the discussion starts with Ivan Galamian's output, then moves to his teacher, Lucien Capet. Next, I study Carl Flesch's publications, from which I continue back to Joseph Joachim and Andreas Moser's violin school.

As was stated in the description of my method, I analyze arpeggio fingerings in some respect as well, although arpeggios are not particularly discussed in my fingering strategy.² This exception is due to the fact that in the following material some authors' arpeggio fingerings can be of schematic character, while at the same time their scale fingerings show this considerably less.

6.1 *Contemporary Violin Technique* by Ivan Galamian

Ivan Galamian (1903, Tabriz–1981, New York) was one of the most influential classical violin pedagogues of the 20th century.³ Many of his students became internationally known violin virtuosos, members of leading string quartets, respected teachers, or orchestra musicians. Galamian's highly rational and effective teaching method focused on mental control over physical movement. In 1962, he summarized his approach in *Principles of Violin Playing & Teaching*.⁴ This publication has reached a high status in the canon of pedagogical classical violin literature. Galamian's other major publications,⁵ *Contemporary Violin Technique, Volume 1 (Part 1 & 2): Scale and Arpeggio Exercises with Bowing and Rhythm Patterns* and *Contemporary Violin Technique, Volume 2: Double and Multiple Stops in Scale and Arpeggio Exercises*,⁶ are among the most referred and respected violin scale exercise collections.⁷

¹ It seems that, as concerns classical violin literature, schematic fingering in its more systematized forms has appeared relatively recently. Therefore, I prefer to begin from references that are more substantial in this respect (i.e., with the more recent publications) and then trace the source, lead, or influence back in history.

² See Chapter 2.

³ Galamian naturally was also a competent concert violinist. However, already as a young man he gave up performing in order to focus on teaching. This interesting fact is discussed further in Elizabeth A. H. Green's, *Miraculous Teacher: Ivan Galamian and the Meadowmount Experience* (n.p.: Elizabeth A. H. Green, 1993), 11-22.

⁴ Ivan Galamian, *Principles of Violin Playing & Teaching*, 3rd ed. (Ann Arbor: Prentice-Hall, 1985).

⁵ Frederick Neumann worked as the co-author on the following works. However, it is likely that Ivan Galamian did most of the creative work and in the text I refer to him as the only author.

⁶ Ivan Galamian and Frederick Neumann, *Contemporary Violin Technique, Volume 1 (Parts 1 & 2): Scale and Arpeggio Exercises with Bowing and Rhythm Patterns* (Boston: Galaxy Music Corporation, 1966; reprint, Boston: ECS Publishing, n.d.). Ivan Galamian and Frederick Neumann, *Contemporary Violin Technique, Volume 2: Double and*

Galamian rejected rigid rules and he always preferred to support a student's individuality. This naturally applied to his approach to fingering as well. However, a closer look at Galamian's scale fingerings (in the above mentioned two volumes of *Contemporary Violin Technique*) reveals that his fingering approach resembles schematic fingering. Although Galamian wanted to avoid a closed, inflexible system in fingering, it seems that he nevertheless looked somewhat in that direction.

6.1.1 *Contemporary Violin Technique, Volume 1*

In an address at the String Conference, in 1950, Galamian stated: "I do believe in scale practice. It places the hand in all of the requisite positions of the violin. But always we should try to make music of the scale."⁸ Galamian's *Contemporary Violin Technique, Volume 1* is a significant effort to approach this issue of scale and arpeggio practicing from fresh and innovative angles. In his preface, Galamian writes: "Scales and arpeggios...are integrated [in this scale collection] in an entirely new way with a system of bowing and rhythm patterns.... By application to the exercises, the patterns are designed to help the student derive greater and quicker benefit from his scale and arpeggio practice."⁹ In order to effectively combine bowing and rhythm patterns with scales, Galamian classified the scale material into different note groupings. Then he designed a system of bow divisions and basic rhythms to each note grouping. He presented the system as a second, individual part, which was printed as a separate booklet. Through this extensive attachment of bowing and rhythm patterns, his scale exercises can be extensively varied.

Compared to other previous, popular classical violin scale collections, Galamian's effort in relating bowings and especially rhythm to scales was significant and successful. He brought long-sought fresh air to the essentials of violin scale practicing and took it to a more musical level. At the time the first volume of *Contemporary Violin Technique* was published (in 1962), Galamian's views were certainly progressive and modern, as the title suggests.

Still, the majority of the contents clearly reflect the tradition of classical violin education. Galamian commits much space for scales on one string, three-octave scales and arpeggios, chromatic scales, and scales as broken intervals. In order to create note groupings suitable for his magnificent bowing and rhythm pattern system, Galamian adds some extra notes, for example, to the three-octave scales.¹⁰ All of these tiny melodic embellishments, however, are very musical. Galamian also expands the set of scale colors by introducing whole-tone scale exercises and a few

Multiple Stops in Scale and Arpeggio Exercises (Boston: Galaxy Music Corporation, 1977; reprint, Boston: ECS Publishing, n.d.).

⁷ Boris Schwarz and Margaret Campbell, "Galamian, Ivan," in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

⁸ Ivan Galamian, "Some Principles of Violin Playing and Teaching, 1950," typewritten manuscript (photocopy), p. 8, Ivan Galamian Collection, Music Library, University of Michigan, Ann Arbor. The underlining appears in the original.

⁹ *Contemporary Violin Technique, Volume 1*, ii.

¹⁰ *Ibid.*, 5-13.

non-traditional scale exercises. Although the practical use of all these could be argued, they still are interesting enrichments of the classical violin scale education.

In *Principles of Violin Playing & Teaching*, Galamian states his liberal approach to fingering:

Scales, arpeggios, and other similar studies should be worked with different fingerings...Nothing is worse in violin playing than becoming a slave either to tradition or to habit and of being bogged down, thereby, in a sort of musical rut. Sticking rigidly to the same fingerings is one of the ruts that make for inflexibility in performance and prevent the playing from acquiring that quality of spontaneity and near-improvisation that is so eminently desirable.¹¹

Galamian follows this approach notably in *Contemporary Violin Technique, Volume 1*. He frequently presents two fingerings for a particular exercise; one above a staff, another below. Sometimes a third option is supplied in parentheses. Therefore, at first impression it really seems that Galamian's scale fingerings could hardly be connected to schematic fingering approach. A more careful look, however, reveals that, to some extent, Galamian's fingerings are repetitive. With this repetition, the fingerings suggest a neat, almost unnoticeable organization and consistency behind Galamian's flexible fingering ideals.

The structure is present most clearly as intentionally repeated, shorter finger patterns (i.e., fingering schemes). Essentially, scales and arpeggios on one string and one string exercises based on broken intervals, chromatic, and whole-tone scales include such finger patterns.¹² Galamian especially divides one string scales into four different categories, according to the number of fingers employed in the patterns. Although that particular approach was not new when *Contemporary Violin Technique, Volume 1* was published, in a way Galamian was notably more modern in his approach since he purposively stressed the pattern aspect. The difference may appear to be subtle (i.e., the difference lays in the way Galamian calls attention to the finger patterns by organizing them under subtitles) but still significant. In my opinion, this clearly shows how modern violin scale technique had begun to reflect the rapid development of classical contemporary music of the 20th century. Scale fingering also had to respond to the quickly emerging new timbres and pitch organizations.¹³ Since most avant-garde music no longer followed more conventional tonal rules or customs, diatonic scales could be split into small fingering units and settings. In other words, fingerings could rule over tonal hierarchy (if it was found necessary).

Despite this, *Contemporary Violin Technique, Volume 1* is a rather conventional scale collection. It is closely bound to history and tradition. Galamian's scale and arpeggio fingerings do not resemble schematic fingering approach as clearly as do those by Carl Flesch, for instance (of

¹¹ *Principles of Violin Playing & Teaching*, 36.

¹² *Contemporary Violin Technique, Volume 1*, 2-4, 50-54, 55-56, 58-60, and 62-63.

¹³ Galamian already reflected this change in an address at the String Conference in 1950, twelve years before the publication of *Contemporary Violin Technique, Volume 1*. In the address, for instance, he states that "our music tends today to become more and more polyphonic and the rhythms are becoming still more difficult and complicated." Ivan Galamian, "Some Principles of Violin Playing and Teaching, 1950," typewritten manuscript (photocopy), p. 3, Ivan Galamian Collection, Music Library, University of Michigan, Ann Arbor.

be conducted by rolling the finger tip) and the string tension is greater near the high end of the fingerboard. Consequently, Galamian presents his four-octave scale sequence in full only on the G, Af , A, and Bf tonics.¹⁸ Among these fingerings there is very little similarity. Unlike among the three-octave scale fingerings, no implications of any schematic fingering approach can be identified.

The fingerings for the arpeggios in one position, again, bear some similarities. In the material presented as groups of twelve notes,¹⁹ fingerings beginning from C and higher (up to G) are all alike. Only tiny differences appear in the optional fingerings (i.e., in the fingerings given in the parentheses). In the material presented as groups of sixteen notes,²⁰ fingerings beginning from C and higher (up to F#) show significant similarity as well. This resemblance is present in the arpeggios which are based on the four-note pattern, dominant seventh chord, diminished seventh chord, and dominant seventh chord in the first inversion.

In the case of three-octave arpeggios grouped into nine notes, a schematic fingering approach is quite clearly present. Arpeggio fingerings that begin with the first finger (usually this fingering option appears above the staff) include obvious similarities from the roots Af to F#. This applies especially in the ascending parts of the arpeggios. Arpeggio fingerings that begin with the second finger (usually this fingering option appears below the staff) include similarities to those with the roots from Bf to D. In addition, the fingering option that appears below the staff and begins with the first finger stays pretty much the same with the roots from Ef to F#.²¹ Surprisingly, there is less coherence in the three-octave arpeggios grouped into twelve notes. In this category, among those fingerings beginning with the second finger (below the staff) similarly can be found with the roots Df to F#. In fingerings that begin with the first finger (above the staff), some resemblance can only be found with the roots from Ef to F#.²²

Galamian presents his four-octave arpeggio sequence in full only for the G, Af , A, Bf roots—the material is barely hinted at for the B root. The arpeggio fingerings Galamian gives in the groups of twelve and eight notes, those based on the roots Af , A, and Bf , are rather similar. However, any similarity of these fingerings is not too clear (small but significant differences occur). Therefore, it cannot be claimed that schematic fingering approach was being systematically employed here. Furthermore, only four keys of the total twelve are covered.²³

Unexpectedly, Galamian relies very little on schematic fingering in chromatic scales.²⁴ Instead, he employs open strings frequently and allows finger glissandos. Hence, his chromatic scale fingerings are different than those suggested by Lockwood and Darizcuren in *Cordes & Âme*. In the case of the whole-tone scale, Galamian favors a three-finger pattern (1-2-3) instead of employing all four fingers (Lockwood and Darizcuren employ four fingers in their whole-tone scale

¹⁸ *Contemporary Violin Technique, Volume 1*, 17-19.

¹⁹ *Ibid.*, 20-27.

²⁰ *Ibid.*, 27-29.

²¹ *Ibid.*, 30-39.

²² *Ibid.*, 39-44.

²³ *Ibid.*, 45-49.

²⁴ *Ibid.*, 61-62.

fingering scheme). However, Galamian's approach to the whole-tone scale is necessarily somewhat schematic when the scale reaches the higher positions. Occasionally, he also mixes in the four-finger pattern (1-2-3-4).

Schematic fingering is indirectly expressed in *Contemporary Violin Technique, Volume 1* in exercises that are presented on one string but that are supposed to be transposed to the three other strings.²⁵ Galamian frequently recommends both practicing exercises in all major and minor keys and covering all positions. His exercises on broken intervals are a good example of this. A schematic approach (in the form of finger patterns) is in use in most of these particular exercises.²⁶

Galamian suggests position playing a few times, as exercises of scales in one position.²⁷ Although position playing is not stressed in any way, it seems that Galamian finds it important: He employs modes or symmetric scales as the practice material. Through these somewhat less popular tonalities he challenges violinists' to listen more carefully. That is a masterful, indirect way of promoting more focus on good intonation.

At a more general level, it is important to note that Galamian repeatedly relies on the first finger on the tonic, root, or the lowest note of a particular scale, arpeggio, or inversion. The first finger is rather systematically employed, especially in the ascending parts of scales or arpeggios. This may first seem as a small, unimportant detail. However, given that *Contemporary Violin Technique, Volume 1* is a many-sided, well-thought, and influential scale and arpeggio collection, this use of the first finger cannot be bypassed without further consideration. Galamian's example of giving the particular finger a central role in violin fingering could be of importance for new fingering strategies. Lockwood and Darizcuren also employ the first finger as a reference or guiding finger in their system of scale fingering schemes.²⁸

6.1.2 Discussion

After my analysis of *Contemporary Violin Technique, Volume 1*, I spent a considerable amount of time evaluating its contents in practice and especially in the light of the development of my fingering. Although Galamian's publication appeared to convey extremely valuable ideas, and although its exercises did improve my technique, I could otherwise take very little direct advantage of the contents.

One of the most important reasons was that Galamian often employs the open strings. In this respect, my fingering goals were significantly different than his. In addition, although I could clearly see the presence of schematic fingering in the publication, at the end I could not really relate to Galamian's particular fashion of fingering. I found his fingerings interesting but not helpful or inspiring for developing my strategy.

²⁵ Ibid., 2-4, 50-54, 55, 58-60, and 62-63.

²⁶ Ibid., 55-60.

²⁷ Ibid., 1, 20-29, 55, 57, 61, and 63-64.

²⁸ See the list of guiding principles, subchapter 3.4.

However, as a jazz violinist I was delighted to notice that Galamian frequently employed modes as practice material.²⁹ As a matter of fact, the very first exercise in the publication is based on modes! In this respect, I believe that *Contemporary Violin Technique, Volume 1* should be of interest to other jazz violinists as well (if they are not already familiar with it). Among the output of great classical violin pedagogues, Galamian's publication appears to be more "mode friendly." Still, none of Galamian's modal exercises takes any advantage of the beautiful, characteristic colors or melodic functions included in the modes. Galamian seems to employ the modes mainly for variation and as a material for learning hearing, listening, and sight-reading.

According to my understanding, Galamian is one of the few major pedagogues employing four-note patterns as practice material. The four-note patterns, which I discuss more in Part II, Chapter 4, appear in three places as the opening material for arpeggios on a given root.³⁰ The four-note patterns are rather important in modern jazz and are recommended as an easy melodic device for jazz violin improvisation. Although Galamian presents this pattern type in a very simple fashion (but not in a way which would promote jazz violin technique), just its existence is a delightful surprise.

In summary, *Contemporary Violin Technique, Volume 1* appeared to be a highly interesting collection of scale exercises, although I could not employ its contents in any particular way in developing my fingering strategy. The publication gave some support to my schematic fingering ideas (such as relying frequently on the first finger on tonic or as the reference of a position), however, not substantially so. Thus, given the interests of this research, the publication only gained the status of an important historical reference. Despite the fact that the value of Galamian's *Contemporary Violin Technique, Volume 1* for my strategy appeared to be minor, I continued to study its sequel.

6.1.3 *Contemporary Violin Technique, Volume 2*

In the preface of *Contemporary Violin Technique, Volume 2*, Galamian encourages readers to practice in different keys.³¹ However, he admits that in the case of double- and multiple stops it is not necessary to try to cover all key areas. His double- and multiple stop exercises are indeed quite challenging; the primary goal appears to be to play the written material well, not to transpose it. Galamian also recommends that his readers invent and employ their own fingerings.

In *Contemporary Violin Technique, Volume 2*, Galamian seldom repeats a fingering when an exercise is shown in different keys. This means that in this particular publication Galamian scarcely employs anything related to schematic fingering. However, a couple of exceptions occur.

²⁹ *Contemporary Violin Technique, Volume 1*, 1-4, 14-16, and 55-60.

³⁰ *Ibid.*, 27-29, 39-44, 47-49.

³¹ *Contemporary Violin Technique, Volume 2*, iv-v.

In the exercise “II D. Augmented Triads in Sixths,” Galamian employs a fingering that could be seen as representing a schematic approach.³² Also, both of the exercises given under the title “II E. Diminished Sevenths in Various Intervals” imply the employment of schematic fingering, although open strings are mixed into the fingerings.³³ In the chapter concentrating on triple-stops, only the inversions of the major triads (in the exercise “III A. Major Triads”) loosely follow a schematic fingering idea.³⁴ Similarly, the fingerings given for major triads as quadruple-stops appear to be schematic (exercise “IV A. Major Triads”).³⁵ In the case of quadruple-stops, naturally not too many choices can exist for each chord or inversion. If all four fingers are employed in a unique chord voicing, the fingerings for that chord will usually be identical in different keys.

In summary, *Contemporary Violin Technique, Volume 2* also did not offer much relevant, additional information or examples for developing my fingering strategy. The publication included, however, many inspiring and valuable insights concerning double- and multiple stopping. Nevertheless, these matters fell outside the scope of my research.

6.1.4 Principles of Violin Playing & Teaching

Principles of Violin Playing & Teaching is Galamian’s major work involving violin technique, performance, and instruction. Although the publication may not appear as convincing in size (it is only about 130 pages long) as the violin schools by Flesch or Joachim and Moser, for instance, it nevertheless is widely respected and esteemed. Due to Galamian’s exceptionally economical and clear, though nonetheless warm and encouraging style of expression, and his excellent choice of contents (practicing and teaching are discussed in detail as well!), *Principles of Violin Playing & Teaching* has become one of the most popular publications for classical violin education.

For my particular research, unfortunately, the publication was not of much use. Galamian’s original and famous example of a scale routine (presented in A major), for instance, does not include any traces of a schematic fingering approach.³⁶ At the end of the scale presentation, Galamian discusses the importance of transposing scales, arpeggios, etudes, and difficult passages of the repertoire.³⁷ His discussion, however, is very general. It does not reveal if Galamian saw his particular fingering of the A major scale example as fixed or not, for instance. According to Elizabeth A. H. Green, Galamian employed “The A Major Scale” exercise in his teaching as early as in the 1940s and 50s.³⁸ Thus, the exercise can be seen as a preceding stage of the scale concept he established in his two volumes of *Contemporary Violin Technique*.

³² Ibid., 37.

³³ Ibid., 37.

³⁴ Ibid., 39.

³⁵ Ibid., 41.

³⁶ *Principles of Violin Playing & Teaching*, 96-99.

³⁷ Ibid., 99.

³⁸ Elizabeth A. H. Green, “Galamian in the studio,” a postscript in Ivan Galamian, *Principles of Violin Playing & Teaching*, 3rd ed. (Ann Arbor: Prentice-Hall, 1985), 110. See also Elizabeth A. H. Green, *Miraculous Teacher: Ivan Galamian and the Meadowmount Experience* (n.p.: Elizabeth A. H. Green, 1993), 53 and 99.

The most important single aspect in *Principles of Violin Playing & Teaching* that I could relate to my fingering strategy was the concept of *finger frame*.³⁹ I already touched on this matter in my introduction, in subchapter 1.4.1. When relying on fingering schemes, the frame of a perfect octave interval (performed by the first and fourth left-hand fingers on adjoining strings) is essential; not only because it is of significant help in maintaining good intonation (especially in respect to position playing) but since it also defines the limits where the different fingering schemes may appear (i.e., schemes without stretches). The concept of the *octave frame* (as I prefer to call it) conveys several important elements of physical information: The octave distance between the first and fourth fingers is a clear and strong tactile message.⁴⁰ Through the frame it is easy and natural to gain a physical sensation and image (!) of the distances on the fingerboard. Consequently, the frame helps form a good grip of the violin neck and to attain a secure and active relation to it.

The octave frame seems to be very applicable in understanding (both physically and mentally) Lockwood and Darizcuren's system of scale fingerings schemes and in adjusting and relating to it. Lockwood and Darizcuren's scale schemes frequently employ most pitches within a particular position, thus covering all four violin strings.⁴¹ Therefore, it could be relevant to consider if, in this case, a frame of size other than an octave is more applicable to their system. For instance, if the scale fingerings cover all four strings and reach at least two octaves up from the tonic, as Lockwood and Darizcuren's scale fingering schemes do, should the finger frame be of that particular (or larger) size as well? Perhaps the frame should consist of the first finger on the lowest string (G) and the fourth finger on the highest string (E), for example.

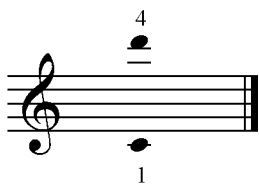
In the case of Lockwood and Darizcuren's system, it might appear relevant to refer to a frame of two octaves and a major second interval (see the example below, which shows the particular frame in the third position). A frame of that size would indicate the borders of a violin position and include all the pitches inside it (without finger stretches). However, according to my experience this, say, *position frame* does not convey as much valuable tactile information as does the octave frame. The position frame can take note of the limits of a position well, for sure; but in this particular frame the first and fourth fingers appear to be so distant from each other that the sensation of the connection (i.e., the sensation of the frame) is easily lost. Furthermore, the position frame cannot be practiced as simultaneously sounding double-stops—which, again, is possible and quite comfortable in the case of the octave frame.

³⁹ Ibid., 20.

⁴⁰ According to Carl Flesch, the perfect fourth interval between the first and fourth fingers (on one string) is the most *natural* setting of these fingers. See Carl Flesch, *The Art of Violin Playing, Book I*, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000), 96-97. There is no significant difference in performing the perfect octave on two adjoining strings and the perfect fourth on one string. Thus, the perfect octave is a very natural setting of the first and fourth fingers as well. Leopold Auer also saw that practicing the interval of a perfect fourth (in scales, for instance) was of the utmost importance for intonation. See his *Violin Playing as I Teach It* (New York: Dover Publications, n.d.; reprint, New York: Dover Publications, 1980; republication, Philadelphia: J. B. Lippincott Company, 1960), 46-47 (page citation is to the reprint edition). In this respect, see also Ottó Szende, *Handbuch des Geigenunterrichts* (Handbook of violin teaching) (Düsseldorf: Musikverlag Friedrich Karl Sandvoss, 1977), 88-90. Published only in German. The translation of the title is mine.

⁴¹ See subchapter 3.4.

Example 6.1.3–1: “The Position Frame for the Third Position”



Consequently, I chose to rely on Galamian’s octave frame in my fingering strategy. A frame of this particular size seems to respond well to the needs of maintaining good intonation; it offers a sensation of the limits of a position and the measures of the fingerboard. The octave frame also appears to be essential (or the most applicable concept and device) in reaching “double contact,”⁴² in achieving a comfortable wrist and hand position, in setting the fingers on the strings, in holding the instrument, and, finally, in maintaining good bodily posture while playing. The fourth frame recommended by Carl Flesch (i.e., the frame between the first and fourth finger on one string) is clearly not as flexible and practical a concept.

In conclusion, it appears that Galamian’s publications could not provide a considerable benefit in developing my fingering strategy. Still, his teachings have had a significant, general influence on my violin technique. I have found many of his exercises, such as the above mentioned “The A Major Scale,” to be very effective and inspiring. In my experience, Galamian’s method is often more applicable than the methods of certain other popular, great classical violin pedagogues. Galamian’s pedagogical approach and output responds more successfully to the special needs of developing jazz violin technique.⁴³

6.2 *La Technique Supérieure de l’Archet* by Lucien Capet

Lucien Capet (1873, Paris–1928, Paris) was a French violinist and composer. As a soloist and string quartet leader he was acknowledged throughout Europe.⁴⁴ Today Capet is perhaps best remembered for his contributions to violin pedagogy, especially his publication *La Technique Supérieure de l’Archet*, which concentrates only on violin bowing technique. Capet also worked as a professor at Conservatoire National de Musique de Paris.⁴⁵

⁴² According to Galamian, the term *double contact* “signifies that the left hand has to have two points of contact with the instrument in order to orient itself properly and securely.... In the lower positions, the double contact is provided by the thumb and the side of the first finger, each touching its corresponding side of the neck of the instrument.” See *Principles of Violin Playing & Teaching*, 21.

⁴³ In this respect, I wish to acknowledge classical violist and viola pedagogue, Helge Valtonen, with whom I have studied. We worked successfully on my viola and violin technique for many years. Through Valtonen I became familiar, for instance, with *collé* (a particular bow stroke) and many of Galamian’s other technical points of view.

⁴⁴ Marc Pincherle and Robert Philip, “Capet, Lucien,” in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

⁴⁵ Lucien Capet, *La Technique Supérieure de l’Archet* (Paris: Éditions Maurice Senart et Compagnie, 1916), unnumbered title page.

One of the most famous of Capet's students was the previously discussed Ivan Galamian. Galamian studied with Capet in Paris from 1922 to 1923.⁴⁶ As a part of my research into Galamian, I visited University of Michigan Music Library, located in Ann Arbor (USA). The University of Michigan holds the Ivan Galamian Collection, which includes Galamian's personal collection of music scores and editions. According to this collection, Galamian possessed an original copy of Capet's *La Technique Supérieure de l'Archet*. I browsed through it, just to see if Capet's potential influence on Galamian could be seen, for instance, as notes or markings.

On the basis of the copy in Galamian Collection (it was almost completely unmarked), no assumptions can be made of the influence Capet had on Galamian. Still, Capet's teachings could have had an influence on Galamian's method. In my judgment, this is suggested by the significant similarity in the scale fingerings of both. Capet's take on scale fingering can be discussed in some detail by studying his *La Technique Supérieure de l'Archet*. In the following analysis, I refer to the original, old French edition of the publication.⁴⁷

6.2.1 Fingerings in Scale-Based Bow Exercises

Capet's *La Technique Supérieure de l'Archet* focuses on bowing technique; no other aspects of violin technique are discussed in detail. Still, the publication includes a short section where the material for bowing exercises is based on scales. This section appears at the beginning of the second part of the publication, entitled "Complete Exercises for Each Bow Stroke" (*Deuxième Partie: Exercices complets pour chaque coup d'archet*).⁴⁸ The fingerings Capet presents for the scale exercises resemble schematic fingering.

In order to discuss the direction and division of the bow in this section, Capet begins by showing two-octave major scales in all twelve keys.⁴⁹ All these scales begin with the second finger on the tonic and apply the same fingering. The same scales—this time with a different rhythmic interpretation and with slurring that demands rather long bow strokes—appear again, several pages later.⁵⁰ Again all the fingerings are alike. As illustration, the example below shows Capet's two-octave B major scale fingering.

⁴⁶ Boris Schwarz and Margaret Campbell, "Galamian, Ivan," in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

⁴⁷ *La Technique Supérieure de l'Archet* (Paris: Éditions Maurice Senart et Compagnie, 1916). An English translation of the publication is available from Encore Music Publishers, with the title *Superior Bowing Technique*.

⁴⁸ In *La Technique Supérieure de l'Archet*, this section starts with page 61. Since the original French edition is rather rare today, for many readers it may be easier to refer to Lucien Capet, *Superior Bowing Technique*, edited by Stephen Shipps, translated by Margaret Schmidt (n.p.: Encore Music Publishers, n.d.). In this English edition, the particular section starts with page 73. In the following discussion, however, the page numbers cited refer only to the French edition.

⁴⁹ *La Technique Supérieure de l'Archet*, 61-62.

⁵⁰ *Ibid.*, 64-65.

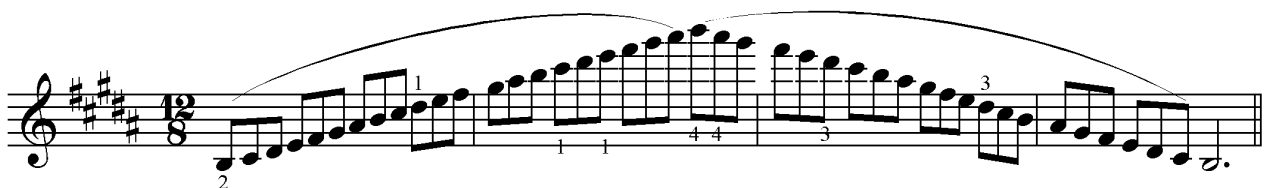
Example 6.2.1–1: “Capet’s Fingering for the Two-Octave B Major Scale”⁵¹



Some 30 pages later, Capet once again employs the same two-octave major scales, presenting the same fingerings for the third time. In this appearance, however, two major differences occur. First, some of the major scales begin with the third or fifth scale degrees instead of the tonic. Although all of the three different major scale derivations always begin with the second finger, there are actually three different fingerings in use for a major scale. Second, Capet also presents the relative harmonic minor scales. The harmonic minor scales likewise begin from the tonic and the third and fifth scale degrees. Since the second finger is also employed on the lowest note on those minor scales beginning from the third and fifth scale degree, there are altogether three different fingerings in use for the harmonic minor scales.⁵² The third appearance of the two-octave scales thus contradicts the fingering principle Capet applied to the first two appearances.

When Capet discusses matters concerning very long bow strokes, he employs three-octave scales as practice material. All twelve keys are presented as major scales and their related harmonic minor scales. Nine of the major scale fingerings are exactly alike; they begin with the second finger on the tonic, on the lowest string (G). A \flat and A major scale fingerings are identical, but they begin with the first finger on the tonic (on the G string). The G major three-octave major and harmonic minor scales begin with the open G string and their fingerings are not reminiscent of any of the previous fingerings.⁵³ An example of Capet’s three-octave scale fingering appears below:

Example 6.2.1–2: “Capet’s Fingering for the Three-Octave B Major Scale”⁵⁴



In the case of three-octave harmonic minor scale fingerings, Capet applies the same logic: All other harmonic minor scale fingerings are the same (i.e., they begin with the second finger on the tonic, on the G string)—except those given for G, G \sharp , and A minor. For these, the G \sharp and A

⁵¹ Ibid., 62. The scale is indicated to be played in the eighth position (*8me Pos.*), beginning from the fourth, the G string (*4me Cde*).

⁵² Ibid., 96-97.

⁵³ Ibid., 108-109.

⁵⁴ Ibid., 109.

harmonic minor fingerings begin with the first finger on the tonic. However, the fingerings are not identical. The G harmonic minor scale fingering, again, begins with the open string. In summary, the three-octave major and harmonic minor scale fingerings display many similarities, whether they begin with the second or the first finger or on the open G string. The fingering Capet gives for the G# harmonic minor scale is the only one which stands out as its own.⁵⁵

In the case of four-octave scales, Capet introduces only five major and five harmonic minor scales. The tonic of the G major and harmonic minor scales is the lowest starting point (the open G string), the tonic of the B major and harmonic minor scales being the highest. The fingerings Capet gives for the G-based scales (i.e., the aforementioned G major and harmonic minor) convey many similarities. The fingerings for A^f and A major, and the A harmonic minor are also very much alike. The same applies to the two major and minor scales beginning with either B^f or B. Thus, if the G# harmonic minor scale fingering is excluded, clear systemization can be found within the four-octave scale fingerings as well.⁵⁶

After the previous scales, Capet employs major and minor triad arpeggios as melodic material for his bowing exercises. If the small differences between the structure of major and minor arpeggios are neglected, the arpeggio fingerings bear similarities along the lines of the previously discussed scale fingerings. The following applies to the three-octave arpeggios Capet presents in all twelve keys: G major and minor arpeggios are alike. They start on an open string. Furthermore, A^f and A major, and G# minor and A minor arpeggios are alike; they start with the first finger on the tonic. The rest of the three-octave arpeggios, from the roots of B^f to F#, are all alike; all start with the second finger on the tonic. Between the three-octave arpeggios, Capet has inserted four-octave arpeggios for major and minor tonics from the roots of G to B. The (open) G based arpeggios are alike, the G# or A^f and A based arpeggios are alike (the first finger appears on the root), and the B^f and B based arpeggios (the second finger appears on the root) are also alike.⁵⁷

6.2.2 Discussion

According to the fingerings of his scale and arpeggio-based bow exercises, Capet seems to prefer to limit the number of fingerings to minimum.⁵⁸ Thus, in this respect his scale and arpeggio fingering approach resembles the system of scale fingering schemes by Lockwood and Darizcuren. Capet's fingerings are also very similar to those of Ivan Galamian. Although it can be argued whether Capet's fingerings had any influence on Galamian, it is worth noting that these two authors' fingerings are significantly similar. For example, the three-octave major scale fingering Galamian frequently employs is similar to Capet's equivalent. For evidence, readers can compare the

⁵⁵ Id.

⁵⁶ Ibid., 110.

⁵⁷ Ibid., 114-116.

⁵⁸ It can naturally be argued that Capet's only intention was to present the scale fingerings in concise form and, through this, to direct readers to focus on bowing. Within my research, Capet's true intention (which can be very difficult to determine) is not particularly relevant; I am primarily interested in his presentation and what it implies.

fingerings in the previous Examples 6.2.1–2 (a fingering by Capet) and 6.1.1–1 (a fingering by Galamian). Despite the rhythmic embellishment Galamian employs at the beginning of the scale, the fingerings are identical.⁵⁹

Subsequently, since Capet's and Galamian's scale fingerings are so similar, my conclusions about Capet's fingering in respect to my fingering strategy cannot be different than those I reached concerning Galamian. The discussion and conclusion of Galamian's *Contemporary Violin Technique, Volume 1* (subchapter 6.1.2) apply here as well. Within the interests of my research, Capet's *La Technique Supérieure de l'Archet* only gained the status of an important historical reference.

6.3 Scale System by Carl Flesch

Carl Flesch (1873, Mosonmagyaróvár–1944, Lucerne) received international acclaim in his day as a soloist and a chamber musician. He also became a well-known and respected violin teacher; he frequently gave master classes and offered private summer courses. Between 1928 and 1934 Flesch was a professor at the Hochschule für Musik in Berlin. As a classical violin pedagogue he was one of the greatest of the twentieth century.⁶⁰ Flesch's approach to the technical and musical problems of classical violin music was highly rational. Today his approach can be studied from his large output of publications, which forms the basis of modern classical violin playing.⁶¹ Most of Flesch's writings are carefully constructed and coherent.

Flesch's publications cover most of the important aspects of classical violin playing. In this study, I focused on Flesch's system of scale fingerings. Flesch presented his scale fingering approach in a separate publication, *Scale System*.⁶² In addition to scale fingerings, it includes Flesch's suggestions for chord arpeggio fingerings. Flesch first presented his famous approach to

⁵⁹ In the end, it is impossible to discover the source(s) of Galamian's scale fingerings. Violinist Konstantin Mostras (1886–1965), whose student Galamian was prior to Capet, is another and perhaps more likely origin. Mostras was a significant figure in Russian classical violin education and its development. See Elizabeth A. H. Green, *Miraculous Teacher: Ivan Galamian and the Meadowmount Experience* (n.p.: Elizabeth A. H. Green, 1993), 137-138. According to the Mostras section in Kathinka Koch-Rebling's *Violinspiel und Violinpädagogik*, Mostras' scale fingerings appear to be interestingly schematic and also similar to those by Galamian. Mostras' three-octave major scale fingering is equal to those of Galamian and Capet presented earlier. See Kathinka Koch-Rebling, ed., *Violinspiel und Violinpädagogik: Beiträge sowjetischer Autoren zum Instrumentalunterricht* (Violin playing and pedagogy: Soviet authors' contributions to instrumental instruction) (Leipzig: VEB Deutscher Verlag für Musik, 1979), 21. Published only in German. The translation of the title is mine. Unfortunately, I could not gain enough material about Mostras to examine his fingering principles further. He does not discuss scale fingering in great detail, for example, in his *Die Intonation auf der Violine: Eine methodische Skizze* (Intonation on violin: A sketch for method), translated to German by Karl Krämer (Leipzig: VEB Friedrich Hofmeister Musikverlag, 1961). Published only in German. The translation of the title is mine.

⁶⁰ Boris Schwarz and Margaret Campbell, "Flesch, Carl," in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

⁶¹ Peter Rummenheller, "Ein Geleit zu Ehren Carl Fleschs," in Carl Flesch and Kathinka Rebling, *Die Hohe Schule des Fingersatzes* (Frankfurt am Main: Peter Lang, 1995), 4. This is the first German edition of Flesch's *Violin Fingering*.

⁶² Carl Flesch, *Scale System: Scale Exercises in All Major and Minor Keys for Daily Study* (New York: Carl Fischer, undated reprint of 1926 edition).

scales in *Art of Violin Playing, Book 1*.⁶³ In this subchapter I discuss *Book 1* together with its sequel, *Book 2* and such other works as his *Basic Studies for Violin* and the posthumous *Violin Fingering: Its Theory and Practice* in the light of schematic fingering.⁶⁴

6.3.1 *The Art of Violin Playing, Book 1*

From the beginning of his performing and teaching career, Carl Flesch believed that many of the principles of violin pedagogy at that time were old-fashioned. The conventions of the violin technique and violin pedagogy, and the actual demands of the technically challenging, virtuoso material did not match. Therefore, Flesch began to observe and carefully study the dichotomy between theory and practice. This led him to the publication of his approach and method, which consequently were seen as very modern.⁶⁵

Carl Flesch believed that teaching was the noblest of artistic activities.⁶⁶ During the 1920s and the 1930s, he became one of the leading figures in classical violin pedagogy, especially after the publication of his massive *The Art of Violin Playing*. This two volume work covered practically all important areas of classical violin technique and it naturally had a strong influence on the development of classical violin technique, at least during the first part of the 20th century. Flesch introduced his particularly innovative scale fingering system in *The Art of Violin Playing, Book 1*, first published in German as *Die Kunst des Violinspiels, Band I*, in 1924.⁶⁷

In *The Art of Violin Playing, Book 1* Flesch asserts that he is not in favor of having or practicing scales with a variety of fingerings.⁶⁸ For this reason he presumably wanted to establish a precise system for practicing scales. Flesch's fingerings for major scales and different chord arpeggios are especially interesting for my research. Flesch suggested that the majority of the scale fingerings always were to begin with the same finger and always to use the same fingering. For its time, this idea still was relatively fresh. The influence of the idea was stressed by the fact that it came from such an authority, which Flesch already had become at that time.

However, Flesch was not the first pedagogue to suggest that all chord arpeggios and scales (or at least the majority of them) should begin with the same finger and to use the same fingering. One of the most influential predecessors promoting the particular idea was violinist Joseph Joachim.

⁶³ Carl Flesch, *The Art of Violin Playing, Book 1*, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000).

⁶⁴ Carl Flesch, *The Art of Violin Playing, Book 2: Artistic Realization & Instruction*, 2nd revised ed., English text by Frederick H. Martens (New York: Carl Fischer, undated reprint of the 1930 edition). Carl Flesch, *Urstudien für Violine* (Basic studies for violin) (Berlin: Ries & Erler, undated reprint of the 1911 edition). Carl Flesch, *Violin Fingering: Its Theory and Practice*, English adaptation by Boris Schwarz (London: Barrie and Rockliff, 1966).

⁶⁵ *Violin Fingering*, 1.

⁶⁶ Carl Flesch, *The Memoirs of Carl Flesch* (New York: The MacMillan Company, 1958), 66. Flesch's views on teaching are further enlightened, for instance, by his son's memoirs. See Carl F. Flesch, *And Do You Also Play the Violin?* (London: Toccat Press, 1990), 69-111.

⁶⁷ Earlier, in his first major publication *Basic Studies for Violin*, Flesch had presented similar scale fingering ideas. However, in *Basic Studies* he did not yet announce his approach as a system. My primary focus here is his particular systemization. However, I also discuss the fingerings he used in *Basic Studies* below, in subchapter 6.3.4.

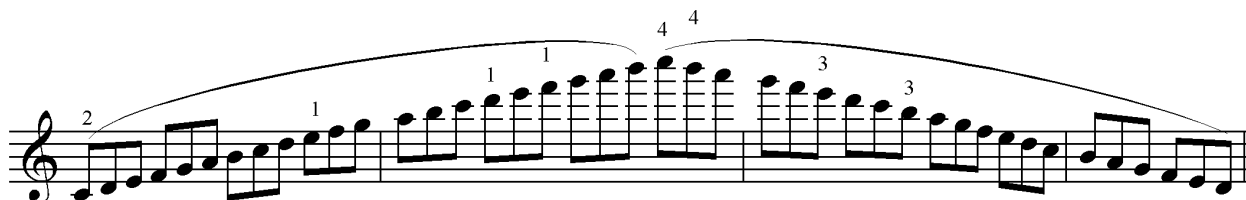
⁶⁸ *The Art of Violin Playing, Book 1*, 112.

According to Monosoff and Walls, Joachim had already suggested that all three-octave diatonic scales (except those scales beginning from G or A) should begin with the second finger.⁶⁹ The scales beginning from G and A could start with the first finger or with the open string.⁷⁰ Nevertheless, Flesch was the first to take this kind of scale fingering approach to the level of a system.⁷¹

Flesch's presents his scale system (exercise) only with the C major scale, in the second part of *The Art of Violin Playing, Book I*. Under the title "B. Practicing of General Technique: 1. Daily Practices (Scale System)," he encourages employing scales frequently. When introducing his scale system exercise, Flesch suggests that it should be transposed from C to other keys. Such transposition would naturally apply to fingerings. Flesch, however, does not give any information on the fingerings of the three-octave scales for G major and minor scales—although these scales could begin with an open G string. He also does not discuss the fingerings for three-octave A \flat , G \sharp , or A major or minor scales. These all could begin with the first finger as well.⁷²

The example below is a sample of Flesch's scale system exercise. The exercise begins with one-octave scales and arpeggios on one string. However, the below sample shows the beginning of three-octave scales and arpeggios section, which is more related to the research interests of this study.

Example 6.4.1–1: "Flesch's Three-Octave C Major Scale Fingering Sample"⁷³



This fingering itself does not convey anything which could be said to reflect schematic fingering. It is actually the textual information that Flesch supplies that connects his system to Lockwood and Darizcuren's system of scale fingering schemes. In the text, Flesch suggests in brief that "the tonality should be changed every day."⁷⁴ However, he does not mention anything about the

⁶⁹ Sonya Monosoff and Peter Walls, "Fingering: Violin: After 1800," in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

⁷⁰ Joachim probably also included in these exceptions scales beginning from G \sharp or A \flat . Monosoff and Walls, however, fail to notice this in their above cited article. They also neglect the contributions of Andreas Moser, who wrote most of the famous *Violin School*. More on this in the following subchapter 6.4.

⁷¹ Still, according to Schwarz's preface to *Violin Fingering* (p. 1), Flesch did not like an idea of a closed system. He suggested that his students follow his fingering ideas and logic, but he also encouraged students to employ their creativity in fingering matters.

⁷² *The Art of Violin Playing, Book I*, 84 and 90-91.

⁷³ *Ibid.*, 86.

⁷⁴ *Ibid.*, 90.

fingerings. This implies that he expects readers to apply the same fingering in all other keys as well. It could thus be that Flesch encourages, at least in the case of this particular exercise, somehow limiting the number of scale fingerings. The above three-octave major scale fingering is certainly transposable through shifting, since it does not necessarily include a single open string. Hence, it could be seen as a “scale fingering scheme for a three-octave major scale.”

Along with the scale system exercise in *The Art of Violin Playing, Book 1* Flesch presents fingerings for C chromatic scales. The fingering for the three-octave C chromatic scale also includes elements that can be connected to Lockwood and Darizcuren’s fingering schemes approach. My discussion of Flesch’s chromatic scale fingering is postponed to the discussion below (subchapter 6.3.2) of his *Scale System*, which includes interesting further details on this particular aspect of Flesch’s fingering.

Apparently, Flesch’s presentation of the scale system in *The Art of Violin Playing, Book 1* was not quite complete: He did not discuss at all the fingerings of the three-octave scales beginning from G#, A, and A. And these scales could all begin with the first finger. He also did not consider the options for scales beginning from G. These scales, again, could naturally begin from an open G string. Flesch considered these matters more carefully in his *Scale System*. This supplement was published only a few years after the *Book 1*. In light of the comprehensive *Scale System*, Flesch’s scale fingering ideals can be discussed in more detail.

6.3.2 Scale System

Scale System was published in 1926 (it was first published in German as *Das Skalensystem*). It took Flesch’s ideas for scale and arpeggio fingerings in daily practice a step further. *Scale System* is a compact collection of scales and arpeggios; no theoretical information is offered, not even in Flesch’s short preface. *Scale System* focuses on expanding (in notation) Flesch’s chord and scale fingering approach to all twelve major and minor keys. Although *Scale System* is thus mainly a supplement to *The Art of Violin Playing, Book 1*, it does include additional insights concerning his approach: Here Flesch combines one-octave arpeggios and scales with some simple bowing exercises. In the preface he suggests that these bowings can be used in broken double-stop combinations as well. He also gives some suggestions for adding nuances to the scale exercises.

Scale System was intended to address some problems Flesch had noted in connection with students’ use of the scale exercise of the prior book. The primary idea of his original scale system exercise had been to compel students to divide their practicing equally and effectively, between the usual and most necessary technical combinations. The original exercise summarized those technical aspects that Flesch saw as essential and beneficial. However, according to Flesch’s preface to *Scale System*, many students did not follow the advice he had given in *The Art of Violin Playing, Book 1*; too often students did not transpose the system from the C (the tonic of the original example) to

other keys centers.⁷⁵ This naturally turned his many-faceted, ambitious exercise into a stiff, less progressive scale routine. In order to stress the importance of transposing, Flesch admitted to the need to demonstrate it in printed form.

Since *Scale System* covers all the twelve different keys, it offers a chance to study Flesch's fingering preferences more carefully. The preferences can be discussed through counting the different fingering options. Some assumptions can be based on the fact that Flesch employs a relatively limited number of fingerings. Moreover, the exceptions to the larger rule also seem to be supported by logic. All this implies that Flesch really intended to construct a system. The system seems to reflect schematic fingering.

As with *The Art of Violin Playing, Book 1*, in *Scale System* the one-octave scales are also fingered in two different ways. The majority (18 out of 24) begin with the first finger. The six exceptions occur with the G major, G minor, D major, D minor, A major, and A minor scales. These also begin with an open string, when possible. The need for beginning the aforementioned scales with an open string arises from the very nature of the violin: The open strings are often seen as the bedrock of violin intonation, and in the one-octave scale exercises it is practical to employ open strings for the tonic.

The three-octave scales are fingered in three different ways. The majority (again 18 out of 24) follow Flesch's original idea (from *Book 1*): They always begin on the G string, with the second finger. This time, the six exceptions are the A[♭] major, G[♯] minor, A major, and A minor scales, which all begin with the first finger; and the G major and G minor scales, which begin with an open string. All these fingering exceptions could also start on the G string, with the second finger. However, if these scales were to begin with the second finger, they should be conducted in very high positions (consequently, the scales would begin from the seventh or eighth positions and climb higher). Flesch obviously prefers the lower positions and their practicality since he suggests employing the first finger and the open G string with the scales in question.

Flesch's fingerings for chromatic scales recommend both employing finger glissando and stopping each pitch in succession with a separate finger. In the following example, two samples of Flesch's chromatic fingerings are presented. Both are from the G major scale exercise.⁷⁶

The first shows the last three measures of the one-octave exercise of G major scale on the D string (and on the D string only; the exercise does not employ the A string at all).

⁷⁵ Carl Flesch, *Scale System: Scale Exercises in All Major and Minor Keys for Daily Study* (New York: Carl Fischer, undated reprint of the 1926 edition), preface.

⁷⁶ *Ibid.*, 111-115.

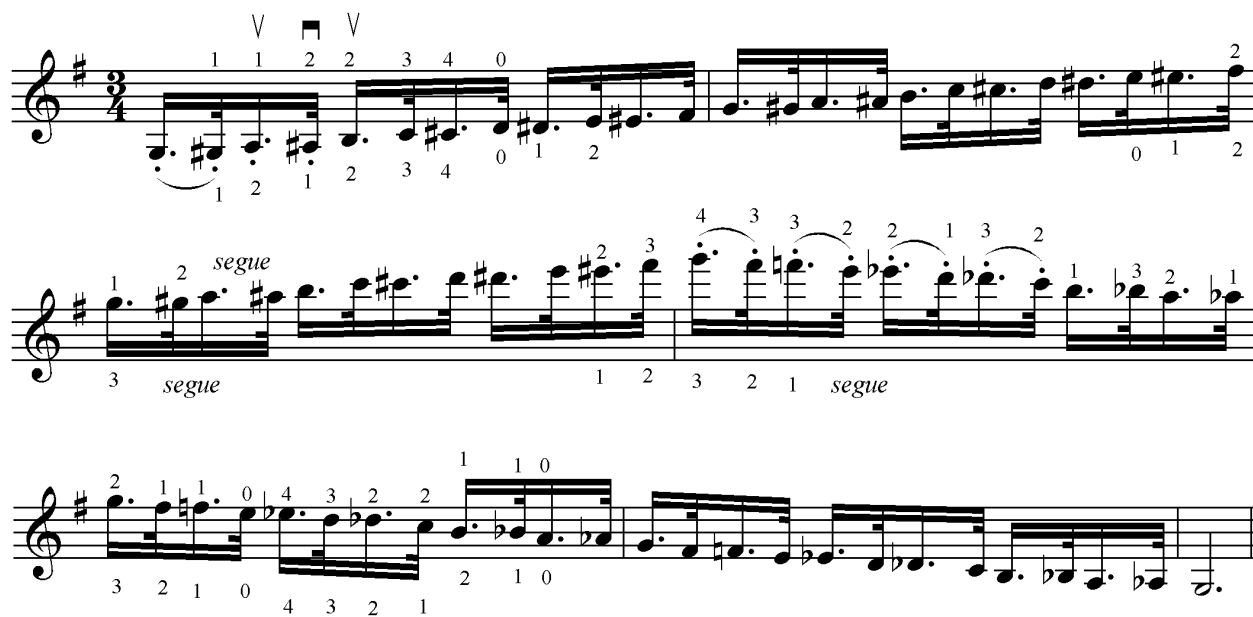
Example 6.3.2–1: “Flesch's One-Octave Chromatic Scale Fingering Sample”⁷⁷



As can be seen, for the first part of the ascending one-octave chromatic scale fingering Flesch favors employing the first and second fingers in succession (since the repetition of the fingers has been introduced earlier in *Scale System*, it is only implied in this part of the publication, not carefully articulated). At the end of the fingering for the descending part, Flesch recommends employing three fingers in succession. Both details show some reliance on schematic fingering ideals. Although a schematic approach can be seen in the background of Flesch’s fingering, this chromatic scale fingering is still rather different than Lockwood and Darizcuren’s more contemporary schematic fingering approach (in which all the four fingers are employed in succession until a shift is necessary).

In the three-octave chromatic scale fingering, Flesch’s system is a bit more similar to Lockwood and Darizcuren’s schematic fingering approach. The next example shows Flesch’s fingerings for the three-octave G chromatic scale. In the example, I have changed the layout somewhat, including only two measures for the first two staves (in the original, the entire scale is presented on two staves, three measures per staff). This change is only to help make the example more readable for the layout of this publication.

Example 6.3.2–2: “Flesch's Three-Octave Chromatic Scale Fingerings Sample”⁷⁸



⁷⁷ Ibid., 111.

⁷⁸ Ibid., 112. The Italian word “segue” is an established term in the fingering vocabulary of classical violin literature. It indicates *to perform in the manner of the preceding section* (literally *there follows*).

While the fingering indicated above the staff includes finger glissandos, the one appearing below the staff clearly suggests relying on the order of the fingers. Flesch does not suggest the latter fingering in his original version of the scale system exercise in *The Art of Violin Playing, Book 1*, but added it to *Scale System*. This particular fingering implies the use of a schematic fingering approach since the succession of the fingers is clearly central. However, the open strings are included in the fingering when possible.⁷⁹ In this respect, Flesch's chromatic scale fingering is still rather different than that of Lockwood and Darizcuren.

Flesch's arpeggio fingerings in *Scale System* seem to follow the systemization he employs with scale fingerings. One-octave arpeggio fingerings, whether following a major or minor scale, are mostly similar. There are only three exceptions; those alternatives which can begin from an open string (viz., G-, D-, and A-based arpeggios). However, these three exceptions employ the same (exceptional) fingering.

The three-octave arpeggio fingerings following a major scale are, again, all mainly alike. The exceptions are the arpeggios based on Af and A (which are similar) and the arpeggios based on G (which are different from each other). The three-octave arpeggio fingerings following a minor three-octave scale are frequently different than their equivalents among major scales. For example, when Flesch illustrates three-octave arpeggios based on F (within the section beginning as the three-octave F major scale), the arpeggios begin from the G string.⁸⁰ When he shows the same arpeggios, but within the section beginning as the three-octave F minor scale, the arpeggios begin from the D string.⁸¹ Still, it is obvious that the three-octave arpeggio fingerings are also systemized to some extent.

In summary, Flesch's arpeggio fingerings clearly support and reflect his scale system. Although my research focus was of Flesch's scale fingering systemization, it was important to notice that his arpeggio fingering is also quite systemized.

6.3.3 Discussion

Carl Flesch relies in his scale fingering system on the first and the second fingers. With most of the scale fingerings for the one-octave and three-octave scales, these two fingers are used on the tonic. Thus, Flesch clearly attempts to limit, or at least to control, the number of different scale fingerings. This, however, is only implied in his scale fingering, not directly described. Nonetheless, in respect to organizing the scale fingerings, Flesch's and Lockwood and Darizcuren's systems seem to share an important ideal.

Sometimes Flesch appears to rely on the idea of playing as many notes in one position as possible. In his fingerings for the three-octave scales, Flesch employs position playing to some

⁷⁹ In *Scale System*, the open strings also appear in the three-octave chromatic scale fingerings starting from tonics other than G.

⁸⁰ *Scale System*, 12.

⁸¹ *Ibid.*, 47.

extent and suggests only a few shifts. Typically, the shifts appear on the two highest strings, A and E.⁸² Here, as well, Flesch's and Lockwood and Darizcuren's ways of fingering are somewhat similar, since position playing is one of the most important principles guiding the scale fingerings in *Cordes & Âme*.

Flesch relies to some extent on the first finger on the tonic, root, or the lowest note of a particular scale, arpeggio, or inversion. In this respect, however, it is difficult to say how systematically the first finger is employed since variations occur rather frequently.

6.3.4 Other Publications by Carl Flesch

In order to deepen my understanding and interpretation on Flesch's fingering instruction, I also studied most of his other key publications. Although it appeared that his scale system was the most significant single reference concerning my research interests, parts of Flesch's other output conveyed some interesting additional details and references.

Flesch's first major publication, *Basic Studies for Violin* (published first in German as *Urstudien für Violine*, in 1911), includes a bowing technique exercise in which the melodic material consists of three-octave scales.⁸³ All 12 different major and melodic minor scales are presented. In both major and minor categories, seven of the scales begin with the second finger on the G string. The five exceptions (A \flat , E, A, D, and G major; A, G, G \sharp , C \sharp , and E melodic minor) begin on the open G string or with another finger than the second. This indicates that the scale fingerings of this early technical exercise appear to be more inconsistent than in the later scale system. When Flesch was preparing *Basic Studies for Violin* he may not have yet crystallized his approach to scale fingering, or he simply preferred not to mix the scale system with the *Basic Studies*. However, it is important to notice that the important elements (i.e., the frequent employment of the second finger and the scales beginning on the G string) are already implied there.

The Art of Violin Playing, Book 2 was published in 1928 (first published in German as *Die Kunst des Violinspiels, Band II*). This second volume mainly includes specific excerpts and examples of classical violin concert or solo works. The focus is on technical issues that arise within the classical violin repertoire represented in the book. Flesch discusses, for instance, entire violin concerto movements in great detail. While *The Art of Violin Playing, Book 1* focused on general technical theory and issues of violin playing, *Book 2* concentrates on artistic interpretation and expression. Hence, *Book 2* could not include that much of relevance for my research. However, I referred to the publication, for instance, while working individually on Bach's *Chaconne* (the last

⁸² Various aspects may have influenced these scale fingerings. One of the most important, of course, is the general sound ideal of classical violin. Flesch discusses this matter, for instance, as the ideal of *uniform timbre*. See Carl Flesch, *Violin Fingering*, 152.

⁸³ Carl Flesch, *Urstudien für Violine* (Basic studies for violin) (Berlin: Ries & Erler, undated reprint of the 1911 edition), 16-18.

movement of Bach's second partita).⁸⁴ When studying and practicing this piece, I found some of Flesch's remarks on it to be inspiring and valuable.⁸⁵

Flesch's last major publication was *Violin Fingering: Its Theory and Practice*. This extensive volume is considered to be Flesch most important work, although it was published posthumously. According to Kathinka Rebling, *Violin Fingering* is the culmination of Flesch's life's work.⁸⁶ Flesch also considered it at least as important as the two volumes of *The Art of Violin Playing*.⁸⁷ It seems that Flesch worked on *Violin Fingering* practically his whole professional performing and teaching career. He spent decades collecting and organizing examples of his own and his colleagues' fingerings. He worked at least for fifteen years on the manuscript alone and finished it just before he died (in 1944); only a little editorial work was needed to bring it to the public.⁸⁸ Flesch wrote the manuscript in German. However, the first published edition was in Italian, in 1960. The first edition in English was published next, in 1966, and the first in German (entitled *Die Hohe Schule des Fingersatzes*) as late as in 1995.

Violin Fingering is divided into four parts, and it appears to encompass most of the potential fingering issues in classical violin technique. The first part introduces fingering in the individual positions; the second part, fingering in the process of shifting; the third part, fingering for two or more voices (i.e., fingering of double-stops and chords); and the fourth part, fingering as means of expression.⁸⁹ Although the publication concentrates only on classical violin music (Flesch hardly refers to improvisation), the contents include aspects that can also be related to the art of jazz violin playing. Some points related to the focus of my research as well.

In *Violin Fingering*, Flesch briefly discusses schematic fingering. He calls it *parallel fingering* and defines it as "a sequence of fingers that repeats the same pattern in different Positions as far as possible."⁹⁰ Although in his other works Flesch mainly seems to advocate fingering approaches that are not schematic, here he devotes an entire chapter to the schematic concept of parallel fingering.⁹¹ At the beginning of the subchapter, he admits that "the repeated use of similar fingering patterns in different Positions" must sometimes be accepted.⁹² Flesch continues that "[p]arallel fingerings are particularly helpful to digital 'automatic' memory. Such a regular repetition of the same fingering tends to lessen the burden on the musical memory. Memory defects caused by unnecessarily complicated fingerings or changes of string can be avoided by this process."

⁸⁴ This particular work was included in my selection of secondary research material (see subchapter 2.4.2).

⁸⁵ *The Art of Violin Playing, Book 2*, 149-159.

⁸⁶ Carl Flesch and Kathinka Rebling, *Die Hohe Schule des Fingersatzes*, edited by Kathinka Rebling (Frankfurt am Main: Peter Lang, 1995), 6.

⁸⁷ *Violin Fingering*, 3.

⁸⁸ *Die Hohe Schule des Fingersatzes*, 614-615.

⁸⁹ *Violin Fingering*, 7.

⁹⁰ *Ibid.*, 109. Capitalization in the original.

⁹¹ *Ibid.*, 131-134.

⁹² *Ibid.*, 131. Capitalization in the original.

It is hard to describe parallel (or schematic) fingering any better than Flesch does. According to the musical examples cited as applicable for parallel fingering, Flesch finds the approach useful only in musical sections which are clearly sequential; most of the examples include rather simple chord arpeggios or scalar movement. Presumably the tonal, rather romantic and diatonic classical violin repertoire to which Flesch refers frequently in his publications (and which he knows well, no doubt), does not include the kinds of more complex and chromatic passages where parallel fingering could be applied. Flesch's discussion of parallel fingering is quite interesting. Nevertheless, since his examples focus on rather simple, tonal material, I could only see them as a selection of historical references in respect to my fingering strategy.

In the first part of *Violin Fingering*, Flesch goes carefully through all of the violin positions. First he deals with positions one to four. Next he examines the higher positions and soon continues to enharmonic changes (i.e., approaching the fingering of an interval according to certain enharmonic principles) and, finally, the mixing of positions. Immediately after the chapter on the first position, Flesch devotes a chapter to the half position. Flesch's ideas about the half position appear to be surprisingly relevant from a jazz violinist's point of view.

Flesch encourages violinists to employ the half position frequently. He especially recommends its employment to avoid finger glissandos, stretching, and oblique crossing of a finger from one string to another.⁹³ He also considers the half position equally important as the first position and thus very applicable for longer passages as well.⁹⁴ As support for this conviction, Flesch presents some enlightening musical examples. In these examples, the half position is employed in passages covering several measures.⁹⁵

Regarding jazz violin improvisation, Flesch's discussion of the half position is interesting. Many jazz violinists find the half position highly useful in jazz violin improvisation. Certain keys, key centers, and chords—typically those based on Af, B, Df, Ef, and Gf (or their enharmonic equivalents)—are often considerably easier to improvise in the half position. When employing the half position, jazz violinists can avoid, for instance, using the high, stretched fourth finger of the first position. The repetitive employment of the stretched fourth finger often appears impractical and uncomfortable; for example, when it should stop an important chord tone (like the third or seventh) and perhaps should be embellished with vibrato. Although jazz violinists frequently employ the half position, it seems that the position and its advantages are hardly discussed in pedagogical jazz violin literature. In this respect, Flesch supplies a significant reference.⁹⁶ Similarly, his view on the second position could be of importance.

⁹³ Ibid., 15, 19, and 23.

⁹⁴ Ibid., 23.

⁹⁵ Ibid., 23-24.

⁹⁶ While reading Flesch's arguments for the importance of half position, I was amused by some flashbacks from the very beginning of my career as a jazz violinist. In my early violin education (which was in classical music only), I was told that the half position was something a peculiarity and to visit it only briefly, and only when necessary. As a child, I was thus left with the impression that there was perhaps something wrong in employing the half position for longer periods. The impression was given that it hardly was a *real position* since it was only a position below first position, that dear home base of violin fingering. When taking the first steps as a young jazz violinist, I soon realized that I must

The second position has been a subject of endless debate in violin history. Most violinists see it as the equal of other positions, while others consider it to be almost as an oddity between the first and third positions. Flesch clearly promotes the second position in *Violin Fingering*. He admits that the position may at first appear challenging, since the hand will not find any physical support in it (if compared to the first and third position, in which the body and the neck of the instrument offer some tactile support). However, Flesch claims that modern violinists should frequently employ the second position in order to avoid unnecessary stretching and indiscriminate and repetitive shifting between the first and third position.⁹⁷ As a jazz violinist, I completely agree with Flesch: The second position is important and should certainly not be overlooked in violin improvisation. In particular, a fingering strategy that relies on schematic fingering should in principle regard all positions as relatively equal. The second position simply cannot be neglected.

When introducing the playing in higher positions, Flesch discusses position playing as well. However, he refers to it with the French word *restez*. “Restez” is an established term in the fingering vocabulary of classical violin literature. It is a conventional way of directing violinists to *remain in the position* (i.e., to continue playing in the particular position that has just been reached, typically by means of a shift indicated by the fingering). Flesch states that remaining in the same position sometimes can be of help in maintaining good intonation, in avoiding unnecessary glissandos, and in producing interesting or better timbres.⁹⁸ In my fingering strategy, relying on schematic fingering and excluding the use of open strings naturally lead to frequent position playing (or remaining in a position).

After studying *Violin Fingering* carefully, I arrived at the conclusion that my fingering strategy still had relatively little in common with Flesch’s ideas and instruction. Nevertheless, Flesch’s arguments for certain details of fingering gave me extra, enlightening views and food for thought. Given the analysis directly above, it seems that *Violin Fingering* could be a distinctive

be able to play fluently in all keys. While studying the keys and scale fingerings anew—now independently (i.e., without a violin teacher) and from the jazz improviser’s practical point of view—I noticed that it was often considerably easier to improvise in certain tonalities in the half position. For instance, in the case of Af, B, Df, Ef, and Gf major scales, I was much more confident in the half position than in the first. However, for most of those scales I had earlier internalized only fingerings in the first position (i.e., I was always taught to play them more or less in the first position, no matter how uncomfortable I felt with the frequent stretching of the fourth finger, for example). Since I had always been a polite and loyal classical student (perhaps too polite and loyal, I must admit), I first could not believe that employing the half position with the aforementioned scales was acceptable. I doubted if it really was *quite OK*. Although my own half position fingerings and chord solutions were an immediate success on the bandstand (i.e., they worked well for improvisation), I continued to worry that I suffered from a technical handicap or some strange type of incompetence as a violinist. It took a while to get rid of the biased image of the half position that my classical violin teachers had instilled in me and to realize that there was nothing questionable in employing it for extended passages whenever I wished to. While reading master Flesch’s careful reasoning in favor of the half position, I could not help but smile at these recollections. It occurred to me that, after all, perhaps my early classical teachers had not carefully read Flesch, although they often pointedly referred to his output in order to support their various claims concerning violin technique.

⁹⁷ *Violin Fingering*, 25-27.

⁹⁸ *Ibid.*, 34-35.

source of benefit for jazz violinists. I believe many sections can also offer inspiration for jazz violin pedagogy.⁹⁹

The other, minor publications by Flesch, such as *Problems of Tone Production in Violin Playing* (first published in German as *Das Klangproblem im Geigenspiel*, in 1931), also included sections of some relevance to my research.¹⁰⁰ However, these sections either repeated the contents of the major publications discussed above. Nevertheless, in *Problems of Tone Production in Violin Playing*, Flesch notably recommends that moderately advanced players should practice position playing.¹⁰¹

6.4 Violin School by Joseph Joachim and Andreas Moser

Another important violin method of the 20th century was written by violinists Joseph Joachim and Andreas Moser. Their bilingual *Violin Schule – Violin School* was first published in three volumes between 1902 and 1905.

Joseph Joachim (1831, Kitsee–1907, Berlin) was one of the most influential, international classical violin soloists of the 19th century. Joachim's early career was highly influenced by collaboration with composer Felix Mendelssohn. Joachim later also worked closely with many leading composers of the day. His friendship with composer Johannes Brahms was mutually beneficial, and Joachim is the dedicatee of Brahms' violin concerto. Joachim's importance as an interpreter of the violin literature of the second half of the 19th century stems partly from this his direct contact with composers.¹⁰²

Joachim also set his stamp on violin history through his work as a master teacher. However, his didactic output is limited to one large work, *Violin School*. He wrote it together with his former violin student Andreas Moser. Each of the authors was responsible for different parts. Moser wrote the major part (viz., the first two volumes that “levelled the ground and furnished the foundation-stones”) while Joachim prepared and arranged just the last, the third volume which contains discussion of standard, classical violin works.¹⁰³

⁹⁹ For instance, Flesch's views about mixing of positions (44-50); forward (80-89) and backward (90-96) stretching; creeping into position (96-101); glissandos (102-117); unisons (158-160); the sixth interval in the diminished chords (186); mixture of thirds and sixths (193-198); perfect fourths (199-201); sevenths (220-223); octaves (224-249); artificial chords (278-279); natural (308-316) and artificial (375-377) harmonics; and pizzicato (378-380) could be of benefit to jazz violinists. Flesch also repeats or re-expresses points from his earlier publications. Among the most interesting re-descriptions are of diatonic scale fingerings (55-59); the number of scale fingerings (56); chromatic scale fingerings (60-66); and triad arpeggios (67-75).

¹⁰⁰ Carl Flesch, *Problems of Tone Production in Violin Playing*, English text by Gustav Saenger (New York: Carl Fischer, undated reprint of 1934 edition).

¹⁰¹ *Ibid.*, 17.

¹⁰² Beatrix Borchard, “Joachim, Joseph,” in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

¹⁰³ Joseph Joachim and Andreas Moser, *Violinschule, Band I, Teil 1: Anfangsunterricht*, abbreviations and signs by Maxim Jacobsen (Berlin: N. Simrock, 1958; reprint, London: Boosey & Hawkes, n.d.), the first page of the unnumbered preface and introduction pages by Moser.

Andreas Moser (1859, Semlin an der Donau–1925, Berlin) was a promising concert violinist. However, due to an arm ailment, he had to give up his performing career and concentrate on teaching and writing. Moser is best known for his literary contributions about the violin, violin music, and its performers. He edited the Brahms-Joachim correspondence for publication and many standard works for string instruments, for example. Moser also wrote Joachim's biography, teaching methods for violin, and articles on violin music and playing. His and Joachim's collaboration, *Violin School*, was widely popular in its time.¹⁰⁴

Joachim and Moser's *Violin School* (or the *Joachim-Moser Violin Method*, as the work is often called today) has reached and maintained a respected position in the canon of pedagogical violin literature. Carl Flesch and his celebrated works, however, have perhaps overshadowed Joachim and Moser's contribution. Flesch's method cannot be seen as a continuation of Joachim and Moser's. Nonetheless, it is evident that Flesch was well aware of Joachim and Moser's efforts since he refers to Joachim's or Joachim and Moser's joint work in his publications, for instance.¹⁰⁵ In addition, Flesch worked as a professor in the Hochschule für Musik in Berlin.¹⁰⁶ Therefore, I find it useful to regard Joachim and Moser's *Violin School* as associated with Flesch's method. Together Joachim, Moser, and Flesch represent an important part of the rapid development of classical violin pedagogy in Germany at the beginning of the 20th century.

6.4.1 Church Mode Fingerings

From the extensive three-volume *Violin School* (each volume has 200 or more pages), only the parts focusing on scale and arpeggio fingerings are relevant to the criteria of the present study.¹⁰⁷ Joachim and Moser discuss scale fingerings in the first and second volumes. At the end of the second part of the second volume (entitled *Studies in Positions*), material is included that must be considered when researching references to scale fingering schemes. The first volume (*Instructions for Beginners*), however, does not include any material relevant to the scope of my research: Joachim and Moser employ open strings in their fingering of beginner-level scale and chord instruction and the inclusion of open strings naturally excludes these parts of *Violin School* from being connected to a schematic fingering approach.¹⁰⁸ However, it must be noted that the introductory exercises for

¹⁰⁴ Robert Pascall, "Moser, Andreas," in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

¹⁰⁵ See Carl Flesch, *The Art of Violin Playing, Book I*, vi and *Violin Fingering*, 156. The latter publication includes many references to Joachim's fingerings in both his compositions and cadenzas (see the index of musical examples of the publication).

¹⁰⁶ Boris Schwarz and Margaret Campbell, "Flesch, Carl," in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie. Joachim was, with others, significant in creating the Hochschule für Musik. See Beatrix Borchard, "Joachim, Joseph," in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

¹⁰⁷ *Violin School* appears to be a rarity. While conducting my research, I could gain access only to the second volume of the original *Violin School*. *Violin School* was first reprinted by N. Simrock and later by Boosey & Hawkes as seven booklets. Even from these I could only gain access to the first six. All the preceding publications, original and reprints, I have listed in detail in the reference list at the end of this study.

¹⁰⁸ As mentioned above, for this part of the research I could only gain access to the Boosey & Hawkes undated, reprint booklet edition of the abridged Simrock edition from the 1950s. It seems likely that the particular two-booklet version

positions four to seven include some exercises in position playing.¹⁰⁹ Still, it seems that the open strings are frequently employed, for instance, in the fingerings of minor and chromatic scales, and the diminished seventh chord arpeggios.¹¹⁰

In the second volume of *Violin School*, Joachim and Moser begin the subchapter “Studies in Scales and Chords” with two short examples by Viotti and Bach. Both include sequential, scalar phrases.¹¹¹ For both examples, Joachim and Moser suggest a fingering that resembles a scale fingering scheme (i.e., in the musical examples, first as much as possible is fingered and played in one position, then the same fingering is shifted to a new position). These examples suggest that a schematic fingering approach can certainly be applied to written music, not only to improvisation.¹¹²

In order to promote dexterity in the playing of scales over the four strings, Joachim and Moser next move to two-octave scale runs.¹¹³ These are especially interesting since they employ the Church modes. Joachim and Moser’s terminology for these modes differs slightly from present practice; they call the Locrian scale the Hypophrygian scale (see the following Example 6.4.1–1).¹¹⁴ In addition, Joachim and Moser’s presentation implies that a two-octave scale run can be heard as two different, one-octave runs representing two different modes. For violinists today, this may appear to be an unusual interpretation.

Nevertheless, it is significant to note that Joachim and Moser’s Church modes exercise is similar to the scale fingering schemes for the major scale modes in *Cordes & Âme*. Actually, the fingerings are identical! In this respect, Joachim and Moser’s mode fingerings bear the closest resemblance to Lockwood and Darizcuren’s mode fingerings I found in my research. For instance, I

of the first volume is incomplete and its contents thus problematic. See the discussion of the particular edition and its reliability in the footnotes that follow in this chapter.

¹⁰⁹ For examples of position playing, see Joseph Joachim and Andreas Moser, *Violinschule, Band II, Teil 1: Studien für die Beherrschung des Lagenwechsels*, edited by Maxim Jacobsen (London: Boosey & Hawkes, n.d.; reprint, Berlin: N. Simrock, 1959), 17, 31–32, 39–41, and 46–48 (page citations are to the reprint edition).

¹¹⁰ Such fingerings appear in the Boosey & Hawkes undated, reprint booklet edition of the abridged Simrock edition from the 1950s. The precise reference details are as follows: Joseph Joachim and Andreas Moser, *Violinschule, Band II, Teil 1: Studien für die Beherrschung des Lagenwechsels*, 2–15 and Joseph Joachim and Andreas Moser, *Violinschule, Band II, Teil 2: Fortschreitende Studien*, edited by Maxim Jacobsen (Berlin: N. Simrock, 1959; reprint, London: Boosey & Hawkes, n.d.), 10–11 and 14–15 (all page citations are to the reprint editions). However, it seems that these sections did not appear in the original 1902–05 Simrock edition of *Band II*. This leads one to question how reliable the later prints of Joachim and Moser’s *Violin School* actually are.

¹¹¹ The following discussion in this subchapter refers only to the original print of the second volume of *Violin School*, which luckily was available for this research. The undated Boosey & Hawkes reprint of the abridged Simrock edition from the 1950s, which would be more easily available for readers of this study, simply could not be considered to be a reliable, accurate source. This was due to the fact that Maxim Jacobsen’s editing of that edition is ruinous to it. First of all, Jacobsen excluded from the second volume parts of Joachim and Moser’s original, sophisticated scale and chord exercises. Second, he eliminated most of Joachim and Moser’s invaluable, historical, literary instruction and expositions—including in the reprint only music examples that are not further discussed. Jacobsen thus succeeded in turning a detailed, highly original masterpiece of classical violin pedagogy into an abridged and biased selection of isolated exercises.

¹¹² Joseph Joachim and Andreas Moser, *Violinschule in 3 Bänden, Band II* (Berlin: N. Simrock, 1905), 193.

¹¹³ *Ibid.*, 194–195.

¹¹⁴ Reference to *Church modes* is frequently made in classical music but rarely in jazz. Church modes and their definition are a unique topic in classical music theory and its history. In order to keep things simple, I suggest that Church modes be seen here as equal to the modes derived from steps of the major scale. This simplification does not bias my fingering analysis in any way.

could not find another example of such equivalence in any of the other classical violin literature reviewed for this study. However, although the mode fingerings of *Violin School* and *Cordes & Âme* are the same, it should be remembered that they are designed for different purposes. In the former they appear as material for an exercise in string crossing and finger dexterity, in the latter they are a suggested tool and aid for improvisation.

Below is an example of the first three staves of Joachim and Moser’s Church mode exercise. In it, I have corrected a typographical error in the second measure: in the original, the first fingering marking (the first “4”) is placed under the high F. This is obviously not what the authors would have meant. I have replaced the marking below the high E, where it belongs.

Example 6.4.1–1: “Joachim and Moser’s Church Mode Fingerings Sample”¹¹⁵

The resemblance between Joachim and Moser’s and Lockwood and Darizcuren’ approach to the fingering of the major scale modes encouraged me to study the remainder of the former authors’ scale fingerings, as presented in their second volume of *Violin School*. Unfortunately, I could not find much further similarity between the old classic and *Cordes & Âme*. For example, Joachim and Moser’s fingerings for three-octave major and minor scales, which appear soon after the above discussed Church modes, have relatively little in common with a schematic fingering approach.

Joachim and Moser divide their three-octave scale fingerings into two categories. The scales included in the first category have their lowest note, the tonic, placed on the G string.¹¹⁶ These scale

¹¹⁵ *Violinschule in 3 Bänden, Band II*, 194. The mode names appear only in German in the original. They translate as Aeolian (*äolisch*), Hypophrygian (*hypophrygisch*), Ionian (*jonisch*), and Dorian (*dorisch*).

fingerings are clearly systemized. Most of the fingerings utilize the second finger on the tonic (as the starting finger). Exceptions are the major and minor scales starting on G, Af, and A. The last two mentioned have the first finger on the tonic. For the major and minor scales beginning with G, Joachim and Moser present two fingering options; those beginning with an open G string and those beginning an octave higher (in sixth position), with the second finger on the tonic. Thus, it can be concluded that the majority of the fingerings in Joachim and Moser's first category of three-octave scales imply the idea of reducing the number of different scale fingerings. This principle is also shared in Lockwood and Darizcuren's system.

Joachim and Moser's second category of three-octave scale fingerings, however, is less systemized.¹¹⁷ First of all, in this category, the tonic of a scale is placed either on the G or the D string. This already leads to somewhat increased diversity in the fingerings. Moreover, the fact that the major or minor scales starting on D begin with an open string adds even more variety to the fingerings. Subsequently, Joachim and Moser's second category of three-octave scale fingerings have little in common with Lockwood and Darizcuren's schematic scale fingering principles.

However, before introducing their fingerings for chromatic scales, Joachim and Moser present some interesting fingerings under the subtitle "Some Scales with Fingering for Special Cases." With some of the fingerings appearing in this short section, the authors place the first finger on every tonic appearing in a scale (i.e., not only on the lowest tonic, the starting note).¹¹⁸ This particular approach is followed in the fingerings shown for the ascending Ef and E major three-octave scales, and for the ascending G, Af, and A major four-octave scales. (Naturally, the parts of the scales involving the E string include an extra shift within the final ascending octave.) In the descending parts of the aforementioned scales, the approach of using the first finger for the tonics is not systematically applied.

However, at the end of "Some Scales with Fingering for Special Cases," the first finger is indicated for the tonics again in most of the fingerings for two-octave major scales on one string.¹¹⁹ This time the first finger also frequently appears on the tonics in the descending parts of the scales. However, but not always; the authors present a few fingering options, and these options do not follow the first finger placement pattern at all. Nevertheless, it is important to note that the placing of the first finger on the tonics of a scale (i.e., employing it as a reference finger) is present both in the scale fingering schemes in *Cordes & Âme* and in the section of Joachim and Moser's *Violin School* discussed here.¹²⁰

The example below illustrates the application of Joachim and Moser's fingering to the Af major scale. They also mention that the same fingering applies to the A major scale on the G string,

¹¹⁶ Ibid., 199.

¹¹⁷ Ibid., 200-202.

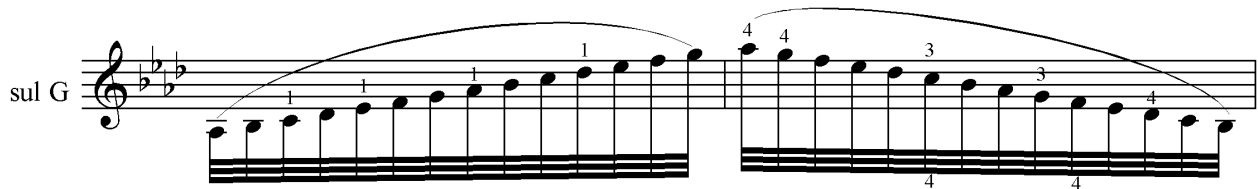
¹¹⁸ Ibid., 203.

¹¹⁹ Id.

¹²⁰ Regarding employing the first finger as a reference finger, see the list of guiding principles, subchapter 3.4.

to the E \flat and E major scales on the D string, to the B \flat and B major scales on the A string, and to the F and F \sharp major scales on the E string.

Example 6.4.1–2: “Joachim and Moser Sample of the First Finger on the Tonics Fingering”¹²¹



Next, Joachim and Moser discuss chromatic scales.¹²² In respect to these (symmetric) scales, where fingering patterns or schemes could be easily employed, the two authors take an approach where consecutive scale notes can be played with the same finger. This means that glissandos are allowed in the fingerings and that no finger patterns or schemes (in the strict sense) can exist. Hence, there is no resemblance between Joachim and Moser’s and Lockwood and Darizcuren’s chromatic scale fingerings.

After some exercises for “Scales in Broken Thirds,” Joachim and Moser continue to discuss three-octave major and minor arpeggios.¹²³ The fingering options they give for these include a wealth of options; arpeggios begin with an open string or with any of the four fingers. Although a majority of these fingerings begin with the second finger on the root, it cannot be said that the authors were attempting to systemize arpeggio fingerings. Therefore, it is not possible to build any connections between this section of *Violin School* and Lockwood and Darizcuren’s system of scale fingering schemes. The same conclusion applies to the three-octave, dominant seventh chord arpeggios, which are the next relevant topic in the publication.¹²⁴ These fingerings also include many variations.

However, in the introduction to diminished seventh chord three-octave arpeggios, Joachim and Moser suggest that diminished chords should be approached in a systematic manner. Referring to the symmetry of the diminished chord, they state that “a suitable and tolerably systematic fingering can be laid down for the playing of broken chords of the diminished seventh. Altogether irrespective of the manner in which the notes are written, and without regard to the question of their key, basis, or inversion, each of the four examples of the three diminished sevenths given below must be played with one and the same fingering.”¹²⁵ Their short example includes all twelve

¹²¹ *Violinschule in 3 Bänden, Band II*, 203. The optional fingering below the staff does not follow the first finger placement pattern.

¹²² *Ibid.*, 205-210.

¹²³ *Ibid.*, 210-213 and 214-215.

¹²⁴ *Ibid.*, 217-218.

¹²⁵ *Ibid.*, 218.

diminished seventh chords, arranged into three groups. They present only one fingering pattern for each group.

Unfortunately, in the following three-octave diminished seventh chord arpeggios, Joachim and Moser fail to apply their previous directive. Frequent variation appears in the fingerings of the diminished seventh arpeggios in the twelve different keys; there is little systematization.

Furthermore, Joachim and Moser employ the open strings to such extent that there is no common basis between their organization of fingering and the symmetry of schematic fingering.¹²⁶

Joachim and Moser close the second volume of *Violin School* with double-stop exercises. These exercises employ scales and chords as musical material. They do not include anything particularly interesting concerning the focus of my research since, for instance, the open strings are so frequently employed.

6.4.2 Discussion

In summary, Joachim and Moser's scale and chord fingerings display some interesting references to the schematic fingering. The most fascinating connection could be found among the Church mode fingerings, which are discussed above. Nonetheless, Joachim and Moser's method appeared to have very little to offer for my fingering strategy. The amount of systematization within their scale and chord fingerings was so small that it cannot be said that the authors were striving to reduce the number of fingerings to be learned. Therefore, in respect to my research and description of my scale fingering schemes approach, Joachim and Moser's *Violin School* also remains as only an interesting historical reference.

6.5 Classical Violin Literature and Jazz Violin Education

While conducting research on the above selection of classical violin pedagogical literature, I also contemplated, in more general terms, the relationship between classical and jazz violin, and in particular, that between classical violin literature and jazz violin education. Although it is clear that jazz violinists and pedagogues can benefit substantially from the classical violin pedagogical literature, it seems that very little discussion of this matter exists in published form. Nor does popular jazz violin pedagogical literature explicitly employ or reflect the contents of classical violin methods or schools. Although it is obvious that jazz and classical violin playing share the same fundamentals, their common technical ground seems not to interest jazz violin pedagogues. One naturally wonders why this is so.

It appears to me that jazz violinists are still concerned with identifying their practice as a unique specialty of its own. They are also rather preoccupied with establishing their field as a unique and thus exceptional craft. I agree that these issues are highly important; jazz violinists

¹²⁶ Ibid., 219.

should be better recognized, and jazz violin culture should be accorded more respect and greater status. However, in addition to concern with these important matters, jazz violinists should also maintain and improve their connections with other violin traditions that have a longer history—especially the Western classical violin practices.

My study of Galamian, Capet, Flesch, Joachim and Moser (and of several other major classical violin pedagogues not explicitly discussed in detail within this document) leads me to conclude that a considerably more lively discourse between classical and jazz violin pedagogical literature is presently needed. I was surprised how many inspiring, forward-looking views could be gained from simply browsing, reading, and playing the classical material. Although only a few points from the classical violin methods I studied could be immediately used to improve my jazz violin playing, there were, again, numerous entries and features in which I could see immediate potential for jazz violin applications (e.g., as exercises and expressive devices). It was also satisfying to gather supporting statements from the classical violin literature for some technical jazz solutions or routines which I had arrived at through my own artistic, intuitive working and experimentation. A good example of this was the support I discovered for the conclusions I reached as a young jazz violinist about the importance of the half position in jazz.¹²⁷

Despite the fact that classical violin literature could not significantly help with developing my schematic fingering strategy, I hope that the research discussed in this chapter encourages and motivates other jazz violinists to spend more time with the classical violin literature. Through open-minded searching and discovery, a firmer link between classical and jazz violin education could be constructed. I believe that this link would benefit both fields, in several different ways.

In modern jazz violin expression, for instance, developing and internalizing certain specific, unique technical approaches and applications in bowing and fingering is essential. Every jazz violinist knows that many of these issues are not easily identified, created, practiced, and mastered. To the contrary, they often call for an enormous amount of hard work. Jazz violinists should naturally be very proud of such efforts and contributions. However, concentration on development of jazz violin technique should not turn jazz violinists away from the technical contributions of other violin fields.

When reading the contemporary jazz violin literature, I get the impression, to my great disappointment, that jazz violinists have a tendency to forget, bypass, or perhaps intentionally ignore the many achievements of the classical violin pedagogical literature. I find this quite alarming and actually maintain that jazz violinists cannot afford to even accidentally imply a lack of relationship to the classical violin tradition. Jazz violinists should guard against regarding themselves as so unique that they become isolated from the concerns and benefits they share with other types of violin playing.

Perhaps jazz violinists are too familiar (or too accustomed) with the fact that their instrumental technique has a great deal in common with classical violin technique and, as a result,

¹²⁷ See subchapter 6.3.4.

they begin to neglect it and its benefits. That is surely a pity, since it seems that there is much interesting common historical ground which still remains un-researched; perhaps more than many jazz violinists are willing to admit. In addition, my experiences performing contemporary classical music reveals that there are many fresh technical approaches in use in that particular type of violin music (some of them being only trick-solutions, for sure) that could be influential for contemporary jazz violin composing, performance, and education. This naturally applies especially to the realm of free jazz improvisation on the violin.

I am convinced that more careful studies of the relations between classical and jazz violin technique are needed. I am sure that this would not only serve jazz violinists (in identifying the special features and characteristics of jazz violin technique, for instance) but also classical violinists. I believe that if jazz violinists involved themselves constantly in dialogue with the classical violin world, they would quickly gain even more understanding and respect for their own contributions. Such understanding and respect are needed for building and securing a better status for the jazz violin art. Jazz violinists should not wait for this dialogue to be initiated from the other side. The past shows that this dialogue comes slowly and by very few individuals—if it comes at all. Hence, jazz violinists should take the initiative and guide the links and connections.

I expect, in particular, that some fresh, exciting, and perhaps epoch-making pedagogical jazz violin material can be derived from the classical violin pedagogical literature or from the discourse between jazz and classical violin technique. My conviction is that this new material is the best way to build a bridge between contemporary jazz violin and classical violin education. Students who have a strong classical background and who are willing to apply such technical skills and capabilities in creative violin playing and improvisation will be served especially well by material based in classical literature. I anticipate increasing numbers of such people—and that these musicians of broad-minded artistry will come to occupy important positions in the field, for they will define the universal, common future of violin as an instrument.

CHAPTER 7

First Ending

My research and experience as a performing jazz violinist and jazz violin pedagogue both suggest that the fundamental challenges of modern jazz violin improvisation are grounded in technique. In this first part of this study, *Setting the Frame*, I have shed some light on the matter through focusing on left-hand violin technique, especially fingering. Now the first ending is at hand.

7.1 Summary

This study was based on two questions: How may the playing of idiomatic patterns typical to modern instrumental jazz improvisation be effectively accomplished on the entire violin fingerboard? And, how might scholarly analysis of previous publications inform the development of a systematic approach to jazz violin improvisation based on application of schematic fingering? The former I announced as my first research question, the latter as the second.¹

I started from the assumption that schematic fingering and applications of fingering schemes offer a solution to the technical difficulties violinists face, for instance, with modern, formulaic jazz violin improvisation. In order to enable playing idiomatic modern jazz patterns (which are essential to modern jazz idiom) using the entire violin fingerboard, I began to develop applications focusing on and employing schematic fingering. From these applications I designed a fingering strategy that I present in Part II of this document, *Stringprovisation*. For the benefit of both the development and design of this fingering scheme, I conducted the research reported in the previous chapters.

In this research, I wanted to examine whether my fingering strategy development could benefit from other, related technical methods and approaches. I chose to focus on a collection of representative examples from the pedagogical literature of classical violin, jazz violin, jazz guitar, and mandolin. However, first I had to define a theoretical framework and method. I based my framework on the scale fingering schemes of Didier Lockwood and Francis Darizcuren's *Cordes & Âme*.² Since their particular system of scale fingering schemes was not clearly identified in the publication, I first described and defined it in more systematic, formal terms. I reduced the system to a list of guiding principles (as my preparatory research task) in Chapter 3.

Next, I conducted comparative analyses of similarities and differences between their approach to scale fingering and a selection from the relevant literature. In respect that literature (i.e., the primary research material), I examined any relevant contents in relation to my stated research intentions. In discussing similarities and differences (research task 1), I focused first on the written texts and musical examples and then I attempted to apply and employ the results of this textual

¹ These questions were presented and discussed in Chapter 2.

² Didier Lockwood and Francis Darizcuren, *Cordes & Âme: Méthode d'improvisation et de violon jazz* (Strings and heart: A method for improvisation and jazz violin) (Paris: Éditions Salabert, 1998). Published only in French. The translation of the title is mine.

analysis to the advancement of my fingering strategy. This component of the research (research task 2) was largely practice-based, since it was conducted on violin.³ The textual and practice-based research results I reported in detail in Chapters 4 to 6.

I found some interesting connections, common elements, but also significant differences between Lockwood and Darizcuren's system and the primary research material. I could find only two references that resembled Lockwood and Darizcuren's system relatively closely: those by Robert Gerle and David N. Baker. I focused on Gerle's and Baker's publications in Chapter 4. As a result of that discussion, I could employ Baker's approach as an example of how to formalize a fingering strategy for jazz violin. Gerle's publication focused exclusively on (notated) classical music, however, and thus remained merely as an interesting literature reference.

William Leavitt's advanced guitar method demonstrated how a schematic fingering approach can be effectively employed for instrumental string pedagogy. Mick Goodrick's reflections on jazz guitar led me to balance the elementary aspects of position playing with schematic fingering, which calls for both position playing and frequent shifting. Examples of mandolin literature also included some interesting, although relatively succinct, presentations of scale fingering schemes. Jazz violinist Joe Venuti's late sketches, which included short examples that resembled schematic fingering, convinced me that I was on the right track with my ideas for jazz violin fingering. All the aforementioned references were examined in Chapter 5.

The parts of the classical violin methods of Ivan Galamian, Lucien Capet, Carl Flesch, and Joseph Joachim and Andreas Moser that related to my research interests did not provide much of direct significance for the development my fingering strategy. Nevertheless, these methods demonstrated that schematic fingering approaches (or elements thereof) exist, to some extent, in the classical violin tradition and pedagogical literature. Galamian's and Flesch's outputs were especially relevant in bringing my technical analyses into a more general consideration of violin technique. I investigated the examples of the pedagogical literature for classical violin in Chapter 6.

7.2 Conclusions

The textual and practical components of these analyses resulted in relatively little information, examples, and models that I could directly apply to my strategy design. At first this might seem to be an unfortunate, rather negative research result. However, this outcome did not come as a surprise. From the beginning I was to some extent already aware of the likely limitations of the primary research material and that the type of information and models it dealt with would not easily connect to the type of content and form needed for the fingering strategy I was developing. Still, it was essential to be certain that I would not accidentally overlook any relevant references.⁴

³ The primary research material and the research tasks were presented and discussed in Chapter 2.

⁴ According to my survey of contemporary pedagogical jazz violin literature, the contemporary pedagogy for jazz violin appears to be in some ways "in-bred" for not taking into consideration sources of input, for instance, from pedagogical classical violin literature. The troublesome amount of repetition of contents and "re-inventing of the wheel" in pedagogical jazz violin literature had made me very concerned regarding this matter.

In this respect, the research results were therefore positive. They made me well aware of related pedagogical and technical achievements and at the same time considerably widened my perspective on the entire subject of violin technique. The results also helped me, for instance, to conceptualize the essential parts and elements needed in order to communicate a new technical approach. After researching these various sources, I had a better sense of the potential of my strategy and of how to most effectively advance my own creative contributions.

This research also helped with attaining a better understanding of the typical methodical faults I could fall into if not careful. Through this research I understood that, in addition to communicating my fingering innovations as a strategy, I should also formalize and follow certain guidelines of technical decision-making and application. These guidelines could make my strategy communication slightly more formal, but certainly also clearer and more transparent to readers. In addition, employing such guidelines would force me to define and describe aspects of jazz violin technique that have seldom been clearly expressed in the pedagogical literature. Success in expressing these aspects of jazz violin technique should benefit the jazz violin community in general and the field of jazz violin research and education in particular.

My reduction of Lockwood and Darizcuren's system of scale fingering schemes appeared to be satisfactory.⁵ That reduction (i.e., the list of guiding principles) seems to offer considerable potential as an alternative violin fingering approach. However, this particular reduction alone was hardly a sufficient basis for my attempts to apply schematic fingering to modern jazz violin improvisation. In order to succeed with the many other artistic and pedagogical challenges (i.e., challenges that arise in applying the list), additional, supporting technical approaches and devices had to be generated. Schematic fingering necessarily called for, for instance, redefining and developing both shifting technique and position playing. In addition, it was essential to reconsider the limits of a position. The concept that is often called *creeping fingering* could offer an interesting starting point in this respect.⁶

Besides being an inspiring, multi-faceted, and truly interesting project, the research reported in Part I also offered a special opportunity for approaching the system of scale fingering schemes from a theoretical and pedagogical point of view. The research process allowed me to express in formal terms many of the insights and practical results gained over the years that I had independently worked with the subject as a part of my own artistic development. It was the premier time to sit down and put those thoughts and little discoveries into words. The move from diverse sketches, notes, remarks, and scribbles towards a more conventionally reasoned argument brought forth several new creative ideas. At last, a scheme began to take form on paper.

⁵ Presented in subchapter 3.4.

⁶ A shift can begin as an extension or a contraction, which is followed by an inaudible readjustment of the hand. Such an approach in the classical violin literature is called a "creeping fingering" by Ivan Galamian. See his *Principles of Violin Playing & Teaching*, 3rd ed. (Ann Arbor: Prentice-Hall, 1985), 34. Carl Flesch calls the same approach "position-creeping" or "slinking from one position to another." See his *The Art of Violin Playing, Book 1*, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000), 108.

7.3 Turnaround

Now that this exploratory research nears its end, I must admit an inability to fully enjoy sensations commonly associated with a final conclusion. Actually, the end of the first part of this study reminds me more of reaching the moment for a turnaround in a jazz solo chorus. Instead of being ready to close my work, I find myself still in the midst of an expressive whirl. A brief moment for collecting my thoughts, resetting my expectations of the continuation, and updating my plans may be in order. However, I am still moving on and soon must gather myself for the ignition of another chorus.

During the research reported so far, I gained some ideas for future studies. Some of them have been hinted or pointed out along the way. The beginner-level of violin pedagogy is surely one of those areas that should be addressed in future research. I believe that the largest potential target group for further applications of schematic fingering approach is at this level of violin pedagogy.

In addition, it is probable that useful comparisons can also be made with instrument methods other than violin, guitar, and mandolin. As an early, modest background research project (which I later excluded from this report), I analyzed Franz Simandl's string bass method. I also conducted an informal survey among jazz bass players for other potential references. It seems that both classical and jazz literature of that particular instrument could offer some interesting, though minor references.

Another natural next step would be to study contemporary jazz violinists and the schematic fingering approaches they employ. I am positive that there are many jazz violinists who have made a personal effort to employ schematic fingering (although perhaps not calling it such) in formulaic modern jazz improvisation.⁷ From these violinists one could easily find or produce additional information and deliberation on the subject. This material could be collected through interviews or correspondence. Interesting discussions could be derived from studying recorded performances as well.

The fact that schematic fingering has not been discussed much in the pedagogical jazz violin literature necessarily leads one to wonder why. It seems possible that schematic fingering still is, after all, a relatively fresh approach. If this is true, schematic fingering applications have a good chance of making a pivotal contribution to the development of contemporary jazz violin improvisation and pedagogy. Hopefully this opportunity will motivate other jazz violinists, pedagogues, and researchers to become familiar with the subject as well. I expect my research results could be employed, for instance, as a basis for future studies of schematic fingering on violin. In addition, my research effort (a relatively initial one in this field, it seems) could contribute to classical and jazz violin as an example of an applied, practice-based research method.

Schematic fingering is discussed in only a few jazz violin pedagogy publications. It seems, however, that those publications largely fail to put the approach into practice. Thus, the

⁷ My informal conversations with colleagues around the world suggest that many have spent at least some time contemplating technical considerations similar to those I present in this study.

development of my fingering strategy had largely to be based on my own experience and experimenting. In this respect, the strategy will necessarily represent, more or less, my personal views on jazz violin technique. I cannot refer to any other research or reports in support of my conclusions. Therefore, the evaluation of my work will be left for other jazz violinists and future studies.

In *The Art of Maker*, Peter Dormer has put in words something of the challenge that applies to artistic, practice-based research: “Writing about an action, talking about an action, and reflecting upon the nature of an action are not the same thing as the action itself, nor do they provide much insight into how it feels to act and how it feels to know for oneself how to act.”⁸ In the case of my research, the difficulty of expressing the artistic process and its results was certainly experienced. I could enjoy the freedom of an introductory work at times but, in the end, I also had to adjust to some unanticipated challenges.

I hope that this first “solo chorus”-like research of mine was as interesting to others as it was for me. I hope no members of the audience have walked out on me, although I had to play these “academic chord changes” and, accordingly, employ some “idiomatic, formal phrases.” If the contents of this first part seemed slightly too traditional and perhaps slow to develop, I am to blame: I picked the tune and counted off, although I could not predict what exactly was to result and how fast. As a jazz musician, I am much more familiar with the focal points of Part II of this study, my “second chorus.”

The second part responds to the first research question: How may the playing of idiomatic patterns typical to modern instrumental jazz improvisation be effectively accomplished on the entire violin fingerboard? Please, tune yourselves up anew. The frame is now set—but take that only as a warm-up.

⁸ Peter Dormer, *The Art of Maker* (London: Thames and Hudson, 1994), 11.

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PART II

Stringprovisation

CHAPTER 1

Introduction

Maintaining good intonation is an on-going challenge for violinists. There are no frets or keys on violin (as there are, for instance, on guitar, piano, and saxophone) that help one to play in tune. The violin fingerboard offers only two spots which can be of any tactile support for finding the correct hand placement: the lower end of the neck and the joint between the neck and the body of the violin. While the former is employed frequently and successfully, the latter is useful less often.¹ The violin fingerboard also does not offer any reliable visual aids. In normal playing position (i.e., with the violin resting on the shoulder), the fingerboard is seen from an angle, which makes it difficult to measure and mark the neck or the strings by eye. Consequently, to maintain good intonation violinists are forced to rely mostly on their aural acuity and on their sophisticated kinesthetic and tactile knowledge.

According to Robert Gerle, “perfect” intonation on a bowed string instrument is almost impossible to achieve. “It is like trying to hit the bulls-eye of a small, moving target every time with a bow and arrow, from a bicycle on a tightrope.”² Gerle discussed the same issue in a more serious tone as well and listed the many facts explaining why intonation can become such a concern for violinists. Among these facts are the flaring of the fingerboard toward the higher positions; the widening and deepening of the neck toward the body of the instrument; the narrowing of the distance between similar intervals in higher positions; the body of the instrument being physically felt from third position upwards; the increasing height of strings and their spacing above the fingerboard when moving toward the bridge; the strings being of different thicknesses; the strings being at various distances from the palm of the left hand; the distance of each note from the nut or bridge differing according to the various angles formed between the forearm and the upper arm, the upper arm and the player’s body; and the varying the rotation of the left arm.³

Every violinist knows that Gerle’s list of challenging facts is painfully correct. Indeed, violin playing often appears to be a constant process of searching and finding of good intonation. Violin playing is more like skating on ice than walking on flat, solid ground; the balance and accuracy (i.e., the intonation) are typically supported only through constant movement. In commenting, at least half seriously, on the diverse, never-ending problems and worries of violin intonation, the

¹ The lower end of the neck “tells” the violinist when the hand is in the first position. Usually, the hand also lightly touches the joint between the neck and the body of violin from the third position upwards. This latter touch, however, has traditionally not been relied on as a marking for or sensation of the hand placement.

² Robert Gerle, *The Art of Practising the Violin: With Useful Hints for All String Players*, 2nd ed. (London: Stainer & Bell, reprint, 2000), 36.

³ *Ibid.*, 37.

great classical violin pedagogue Ivan Galamian advised: “After all, instant adjustment is also part of the technique.”⁴

1.1 Modern Jazz Violin Improvisation and Positions

Jazz violinists are no less familiar with the challenges of intonation than are classical violinists. In contrast, however, jazz violinists sometimes clearly let such intonation challenges guide their improvisation and instrumental technique. Many professional players frequently employ a rather limited part of the fingerboard in their improvisations. Study of famous jazz violinists’ live performances or of visual documentations of their live performances (videos, films, and such) reveals that they appear to spend most of their time in the first and half position. The other lower positions (positions two to four) are seldom employed for long periods and the higher positions (positions four to ten) are only visited when necessary.⁵ If violinists choose to improvise chromatic, melodically complex modern jazz, any kind of shifting and position playing in higher positions seem to appear even less often.⁶

Modern jazz violinists are rather keen on staying in the low part, the “safe area” of the fingerboard. This habit is undoubtedly acceptable and warranted; it is only natural to employ any instrument in an “easy way.” Relying on technical applications that feel secure liberates instrumentalists to channel their energies towards something more creative. However, frequent reliance on what is merely comfortable can also become a limitation. It may begin to prevent using the full expressive capabilities of the instrument (and of the instrumentalist). Therefore, it is important to approach any instrument with an open mind and search for alternative technical approaches as well.

In this second part of the study, I propose such an alternative technical approach for the violin. This approach is a result of free and open-minded exploring. In order to enrich and improve jazz violinists’ playing in general and their fingering technique in particular, I present *Stringprovisation*—a fingering strategy for jazz violin improvisation. This strategy enables employing the entire fingerboard in modern jazz improvisation.

1.2 Fingerings and Shifting in Pedagogical Jazz Violin Literature

As a background research project for my strategy, I surveyed a selection of popular pedagogical jazz violin literature.⁷ Most of the publications that I could obtain were relatively contemporary, less than 20 years old. However, I also collected and analyzed some older, historical publications.

⁴ Elizabeth A. H. Green, “Galamian in the studio,” a postscript in Ivan Galamian, *Principles of Violin Playing & Teaching*, 3rd ed. (Ann Arbor: Prentice-Hall, 1985), 122.

⁵ I refer here to Lajos Garam’s definition of lower and higher violin positions, as found in his dissertation *The Influence of the Spatial-Temporal Structure of Movement on Intonation during Changes of Position in Violin Playing* (Helsinki: Sibelius-Akatemia, 1990), 218.

⁶ For the definition of “modern jazz” used herein, see Glossary (Appendix 1) or Part I, subchapter 1.6.1.

⁷ A listing of the selected works I studied appears as Appendix 4.

The survey revealed that, so far, very little has been published on fingering or shifting for jazz violin improvisation; only few works offer any theoretical or practical advice in these matters.⁸

In (contemporary) classical violin pedagogy, fingering and shifting are brought up very early; no later than at the intermediate level. In some more advanced pedagogical literature, the basics of shifting are covered even before finger stopping on all left hand fingers.⁹ According to my survey, it appears that most of the pedagogical jazz violin literature deals with beginning or intermediate level subjects. Surprisingly, it seems that fingering and shifting instruction are excluded from the pedagogical jazz violin literature at the beginning level and, strikingly, even from the literature for the intermediate level.

Jazz improvisation allows violinists complete freedom to choose their technical approaches, methods, or strategies. This seems to lead to instruction that frequently neglects higher positions. It is commonly agreed and admitted that playing in the higher parts of the fingerboard is challenging (at least for beginners). But is the challenge really that great? And, even if playing in the higher parts appears to be more difficult, should it not still be taught and practiced? I am convinced that jazz violin pedagogues should also invest more time discussing the challenges of left-hand technique in print. Those challenges must not be passed over unremarked but should be humbly faced and taken into consideration. In this respect, open-minded studying and (re)searching will surely be of benefit and perhaps result in overcoming such problematic aspects of violin technique.

Standard violin tuning (all four strings tuned in perfect fifths) naturally offers possibilities for systematizing left hand fingering. My experience suggests that if this feature is taken into consideration in technical decision-making, the entire range of the violin fingerboard can be more effectively employed. Very few jazz violin publications, however, take any advantage of this symmetry as a result of the tuning in perfect fifths in their teaching and discussion of fingerings. The two major pedagogical jazz violin publications that do examine such fingering are David N. Baker's *Jazz Treble Clef Expressions & Explorations* and Didier Lockwood and Francis Darizcuren's *Cordes & Âme*.¹⁰

⁸ According to my informal conversations with several professional jazz string players around Europe and the USA, some advanced players have concentrated on fingering and shifting techniques as a natural part of their artistic work and development. Unfortunately, their achievements seem to be unpublished. They can be only observed, for instance, in live or recorded performances. These formats are, unfortunately, rather demanding to discuss formally. However, the situation is improving. As an example of a recent study discussing a schematic fingering approach, I wish to mention violinist Stefano Pastor's interesting *Violinjazz: Analisi degli aspetti esecutivi e tecnico interpretativi* (Violin jazz: Analysis of the aspects of execution and interpretation technique) (Monza: Casa Musicale Eco, 2008). Published only in Italian. The translation of the title is mine.

⁹ For instance, in the famous and successful Colourstrings method (a beginning level violin method by Géza Szilvay), up and down movements on the fingerboard are taught long before finger stopping using all fingers. The early change of a position, for instance, is taught through harmonics, before stopping with the second finger is introduced. Learning to employ shifting frequently is emphasized by encouraging transposing. See Géza Szilvay, *Violin ABC*, completely revised edition with additional material (Suffolk: Colourstrings International Ltd., 2000), 93, 103, and 106-107. See also the related exercise pages 5, 41, and 49.

¹⁰ David N. Baker, *Jazz Treble Clef Expressions & Explorations: A New and Innovative System for Learning to Improvise for Treble Clef Instruments & Jazz Violin* (New Albany: Jamey Aebersold, 1995). Discussed in detail in Part I, Chapter 4. Didier Lockwood and Francis Darizcuren, *Cordes & Âme: Méthode d'improvisation et de violon jazz* (Strings and heart: A method for improvisation and jazz violin) (Paris: Éditions Salabert, 1998). Published only in French. The translation of the title is mine. Discussed in detail in Part I, Chapter 3.

Although both publications introduce interesting and significant ideas for jazz violin fingering, they fail to teach how to apply the special fingering approaches in the practice of improvisation. Moreover, they scarcely examine shifting and position playing, both of which are essential in succeeding with their particular fingering approaches.

1.3 Employing the Entire Range

Jazz improvisation is often about being bold and taking risks—at least ideally. Acceptable jazz improvisation is also about making and relying on safe choices. And such choices can involve technical matters as well. It is common for jazz musicians to rely on technical approaches they trust, techniques that guarantee their desired artistic results.

However, there is no appropriate reason why the entire violin range should not be employed in modern jazz violin improvisation. Limiting improvisation to any “safe area” of the violin neck is quite unnecessary. However, given that many professional jazz violinists do not seem to frequently employ higher positions and that the issues of fingering and shifting are seldom addressed in print, I will offer an alternative fingering strategy that focuses on just such considerations. The strategy aims to provide the basis for a more versatile modern jazz violin improvisation technique.

My fingering strategy is based on a schematic fingering approach and on the particular application called *scale fingering schemes*.¹¹ Schematic fingering approaches appear to be relatively novel in the field of jazz violin. However, approaches conveying similar aspects or elements can be found, for instance, in the pedagogical literature for classical violin, jazz guitar, and mandolin.¹² The source of the theoretical framework for my fingering strategy was the abovementioned Lockwood and Darizcuren’s *Cordes & Âme*. Unfortunately, the schematic fingering approach in *Cordes & Âme* is not connected to modern jazz improvisation. Through experimenting, I have concluded that if such a connection is to be established the approach requires considerable application to the particulars of modern jazz improvisation.

According to my professional experience in jazz violin performance and teaching, the schematic fingering approach can be employed with great benefit, especially to modern jazz improvisation that relies on idiomatic patterns.¹³ In functional modern jazz harmony, idiomatic patterns are highly practical for dominant chords, cadential progressions including dominants (e.g., II-V-I progressions), and tonicizations.¹⁴

¹¹ For definitions, see Part I, subchapter 1.6.1. For illustrations and discussion see also Part I, Chapter 3.

¹² These references were discussed in Part I, Chapters 4 to 7.

¹³ This is also called *formulaic improvisation*. See Part I, subchapter 2.3.

¹⁴ For definition of *tonicization*, see Glossary (Appendix 1).

1.4 Introducing the Potential of Schematic Fingering

In order to introduce the potential of schematic fingering for idiomatic patterns, I propose the following, simple example. The example focuses on an archetype of the II-V-I pattern in a minor chord or key area.¹⁵

In the example below, I transpose the pattern to all twelve different keys. In fingering the transpositions, I focus only on the first and half positions but allow the employment of open strings. Since open strings are included, in some keys it is possible to finger the pattern in two or more different ways. In such cases, I present only the fingering that I find to be the easiest and the most practical. In order to be very clear about the position in question, I always indicate the starting finger. When there is a choice between two different starting fingers (this is often the case between the “high” third and the “low” fourth fingers, and between the fourth finger and an open string), I employ the one I find most convenient. When I finger the particular pattern according to the previous principles, the pattern transpositions present altogether six different fingerings. These I indicate in the example as well.

¹⁵ I believe readers can easily recognize this pattern; it has been frequently employed by numerous jazz legends. I remember learning it from Miles Davis' solo on *Straight, No Chaser* (a jazz blues that appears on his classic *Milestones* album from 1958). In this particular solo, the pattern appears (although in a slightly different rhythmic and melodic form) in measure eight of the last (the eighth) solo chorus of Davis. There are several CDs that include this solo. On Miles Davis, *Milestones*, CBS, 460827 2, the pattern appears at CD time indices 3'52''-3'54''.

Example 1.4-1: “A II-V-I Pattern to Minor in First and Half Positions”

The musical score consists of six systems, each representing a different fingering for a II-V-I pattern in first and half positions. Each system includes a fingering label, chord names, and a staff with notes and fingerings.

- System 1:** Fingering 1. Chords: Cmi7(b5), F7(b9), B^bmi. Notes: C4, E4, G4, B4, A4, G4, F4, E4, D4, C4.
- System 2:** Fingering 2. Chords: Dmi7(b5), G7(b9), Cmi. Notes: D4, F4, A4, B4, A4, G4, F4, E4, D4, C4.
- System 3:** Fingering 3. Chords: E^bmi7(b5), A^b7(b9), D^bmi. Notes: E4, G4, B4, A4, G4, F4, E4, D4, C4.
- System 4:** Fingering 4. Chords: E^bmi7(b5), A7(b9), Dmi. Notes: E4, G4, B4, A4, G4, F4, E4, D4, C4.
- System 5:** Fingering 5. Chords: Fmi7(b5), B^b7(b9), E^bmi. Notes: F4, A4, B4, A4, G4, F4, E4, D4, C4.
- System 6:** Fingering 6. Chords: F[#]mi7(b5), B7(b9), E[#]mi. Notes: F4, A4, B4, A4, G4, F4, E4, D4, C4.

According to my understanding, many jazz violinists finger idiomatic patterns in the above fashion (i.e., employing only the first and half positions) just to secure their intonation. At first it may seem that this is also the best way. I disagree, however. I argue that there actually is an easier and more practical way to finger (and employ) idiomatic patterns. The alternative approach excludes open strings and relies on schematic fingering and frequent shifting. The approach is supported by the following four important issues which arise in conjunction with the above fingering examples.

The first issue is the number of fingerings. If the pattern is internalized employing only the first and half positions, six different fingerings must be internalized. What if there was only one fingering to internalize? Such economy is available if the use of open strings is excluded and focus

is put on shifting. Through such a change of preferences, it is possible to create a single fingering that is suitable to all keys.

Second, some of the above fingerings in the first and half position force a player into string crossing that is neither necessarily easy nor smooth. In the case of Fingerings 3 and 4 in particular, such string crossing seems especially impractical since these fingerings include a jump over a string. What if there was only one fingering that did not include any string crossing challenges or jumps over a string? If the unique characteristics of the violin are taken more into consideration and allowed to take on a central status in fingering patterns, unnecessary string crossing and jumps can be easily avoided.

Third, the six different fingerings suggest several different ways to slur as well.¹⁶ What if there was only one slurring to learn and employ instead of many? That simplification should also increase the ease of utilizing the pattern, although, to some extent, competent jazz violinists can be expected to apply their bowing technique fluently in real time improvisation. If slurring is taken more into consideration in fingering the pattern, all issues of slurring (and other relevant technical aspects of bowing) could be overcome at once.

Fourth, in Fingering 6 above, a successfully swinging and well-articulated performance of the pattern leads to a fingering which includes, in the middle of the pattern, a temporary contraction of the hand position. Smaller contractions and their counterpart in fingering, stretches, are not (and should not be) a significant problem. They are a natural part of violin fingering. However, violinists avoid using them frequently since they can be somewhat uncomfortable. Contracting and stretching can be totally avoided, if necessary and desired, by creating one fingering that can be transposed to all keys through shifting.

It is arguable whether the above four issues create sufficient challenges to be concerned with in the case of fingering this particular II-V-I pattern. However, if they all can be avoided and more attention be paid at the same time to both the tactile and kinesthetic aspects of violin performance, I conclude that there already is a fair number of reasons and support for attempts to find an optional approach for fingering this pattern (and other patterns as well). It is logical to begin the search within schematic fingering, which aptly takes the tactile and kinesthetic knowledge well into consideration.

It can also be expected that internalizing the pattern of the example in twelve keys, with all the six different fingerings and related technical challenges, will take more time than internalizing only one fingering and transposing it to all keys through shifts. Furthermore, it can be safely assumed that the situation with other patterns (and jazz violinists have to master several more, many that are potentially considerably more musically and technically demanding) would not be

¹⁶ In designing the slurring of the example, I have employed certain bowing guidelines. I discuss bowing and these particular guidelines of mine in detail, in the following Chapter 3.

significantly different. It thus appears that employing schematic fingering can fundamentally reduce the amount of work—and in more than just one way.¹⁷

It can still be argued that skilled and ambitious, competent jazz violinists achieve good results rather quickly with fingering patterns only in the first and half position, ending up internalizing different fingerings for a single pattern (according to the complexity of the pattern, of course). Actually, this is exactly what most violinists do (and have done). However, can all of these fingerings be performed well in all tempos; including also the fastest ones? The diverse technical difficulties, those already introduced in connection with the previous pattern example, will surely increase in number and magnitude in more chromatic patterns. At faster tempos, the number of impractical string crossings and slurrings will at some point begin to work against only employing the first and half positions. Hence, it would seem rather unusual not to take schematic fingering in consideration—at least as an option.

1.5 Towards an Alternative Fingering Strategy

As is the case for improvising on other instruments, chords and scales have gained a central role and high status in jazz violin. Improvised melodic ideas are frequently based on, derived from, and discussed in terms of chords, chord arpeggios, and various scale colors.¹⁸ Modern jazz also requires jazz violinists to learn and master a large number of different scales.¹⁹ Furthermore, they must be able to change very quickly from one scale to another. In order to make chord and scale based improvising comfortable and easy, it seems practical to create, learn, and rely on simple scale fingerings. The most effective scale fingerings (i.e., fingerings easily internalized and applied) are likely to be those that effectively reflect players' tactile and kinesthetic knowledge of the violin. My experience suggests that scale fingering schemes work the best in this respect as well.

In order to be able to improvise modern jazz (i.e., to articulate its advanced melodic, harmonic, and rhythmic concepts) it is common to rely on idiomatic patterns. Idiomatic patterns capture and deliver a significant part of the modern jazz expression, especially in such musical idioms as bebop and hard bop. These patterns also help in expressing certain types of functional, tonal chord

¹⁷ In the case of Example 1.4–1, the most practical fingering (i.e., the one I suggest employing regarding my fingering strategy) is the one I have indicated as “Fingering 1.” I refer to and apply this particular fingering later in the study, in subchapters 6.4 and 7.3.

¹⁸ In jazz theory and pedagogy, it is common to discuss chord alterations and extensions as changes in sound color. See, for example, Mark Levine, *The Jazz Piano Book* (Petaluma: Sher Music Co., 1989), 33; Michael Morangelli, *A Reference for Jazz Theory* (Lakewood: The Reel Score, n.d.), 35 (available at <http://www.thereelscore.com>, accessed 15 May, 2009); and Andy LaVerne, *Handbook of Chord Substitutions* (New York: Ekay Music Inc., 1991), 14. It is common to approach the melodic aspects of jazz improvisation through discussing chord and scale relations (as is done in most theoretical jazz publications). In this popular chord-scale practice of jazz, two particular theoretical concepts (*chord* and *scale*) are so closely related that they are frequently seen just as two different perspectives on the same matter. According to Mark Levine, “the scale and the chord are two forms of the same thing.” See his *The Jazz Theory Book* (Petaluma: Sher Music Co., 1995), 33. Based on the common practice of viewing chord extensions and alterations as representing different *chord colors*, I often imply in this study that different scales represent different *scale colors*.

¹⁹ According to the special nature of the strategy expressed in this study, I see that the arpeggios can be easily derived from the scale fingerings (or more precisely, from the scale fingering schemes). Therefore, hereafter I discuss and stress only learning and employing the scale fingerings.

progressions and related voice-leading. The patterns can be beneficial in fast tempos; when the chords are changing rapidly, passing through more challenging keys or tonal centers.

In this study, I propose a fingering strategy in which popular idiomatic patterns (or applied patterns conveying idiomatic character and quality) are fingered schematically. The demands of left-hand technique (fingering, position playing, etc.), but also certain demands of right-hand technique (slurring), are given special focus. Applying schematic fingering approach to idiomatic patterns puts an emphasis on shifting technique. Consequently, violinists willing to take advantage of my strategy have to become secure and sound with all aspects of shifting. To progress in this respect, I propose a systematic shifting approach. In addition, I discuss some other related matters in moving up and down the fingerboard.²⁰

All solutions and applications are based on a limited number of factors, and I express these as lists of guidelines. The lists aim to bring the strategy to a higher artistic level. The fingering strategy is targeted to professional jazz violinists and jazz violin pedagogues. However, studying it—whether as a proposed technical or artistic goal or just as an implied benefit for violin pedagogy, for instance—should be of interest to readers outside of jazz violin or its pedagogy.

1.6 Structure and Study Conventions in Part II

Although this second part, *Stringprovisation*,²¹ does not attempt to be a violin method per se, its presentation loosely follows the great tradition of classical violin treatises. In that tradition, first a definition and a supporting example are given, followed by technical exercises. At the end, the new information is applied to musical performance.²² Most of the contents of this part are presented in this fashion.

1.6.1 Structure

In what follows, in Chapter 2 “Focus,” I explain important aspects that define the framework of my fingering strategy. The more practical part begins with discussing the most necessary, relevant aspects of jazz violin bow technique. That particular chapter, Chapter 3 “Bowing” also includes discussion of slurring. Next, in Chapter 4 “Shifting,” I present my “Replacing” shifting approach, which is a relatively fresh view of shifting. The limits of a violin position and position playing are the focus of Chapter 5 “Position Playing.”

²⁰ The following Chapter 4 focuses only on shifting.

²¹ In the word *stringprovisation*, the words *string* and *improvisation* are melded. This wordplay stresses that my fingering strategy is designed for bowed string instrument improvisation, and that the final product is based on professional experience both in jazz violin performance and education. Since the tactile and kinesthetic knowledge of violin define the final product to a great extent, and the strategy appears to be a fresh technical approach, it deserves an original word as well.

²² The first in-depth treatise conducted in this manner was Pierre Baillot’s *L’Art du violon*, which was published in 1835. Baillot announces and describes this approach at the beginning of his masterpiece. See Pierre Marie François de Sales Baillot, *The Art of the Violin*, edited and translated by Louise Goldberg, 3rd paperback printing (Evanston: Northwestern University Press, 1999), 15.

After discussing the most essential technical aspects, I am finally able to introduce the core of my fingering strategy. I present numerous idiomatic jazz patterns, those which represent the most popular and common scale colors. The schematic fingering approach is naturally employed. This takes all of Chapter 6 “Patterns.” Consequently, I put the fingering strategy into practice in Chapter 7 “Applications.” First this is implemented through an application called “All Over,” where the patterns are employed in various positions within a solo example of a tune from the standard jazz repertoire. Next I offer an application called “Where It’s At,” in which position playing and schematically fingered patterns are connected within a solo example on blues. When all is said and done, I summarize and close this part and the whole study in Chapter 8 “Second Ending.”

Since *Stringprovisation* mainly presents my fingering strategy, a product of my practice-based research, the text includes somewhat less conventional academic argumentation than the first part, *Setting the Frame*. At times, however, I introduce and discuss connections to relevant sources of literature, especially in footnotes. I submit that the quality and amount of discourse within jazz violin pedagogical literature must be considerably improved, and that it is essential for the future of the genre to bring it closer to the achievements within other types of violin playing and teaching.²³ I also hope that this supplementary information offers readers inspiration for further investigations and makes my conclusions more transparent.

This second part employs the same key definitions as the first part. All the other practices announced in the introduction of the first part apply as well.²⁴ However, there are some new conventions which concern, for instance, the notation of examples.

1.6.2 Fingering, String, and Shifting Marking, and Notation Conventions

In marking the fingerings, strings, shifts, and positions, this study closely follows the common customs and rules of classical violin literature.

The fingering markings always appear on top of the staff and in Arabic numerals only. Any relevant alternative or optional fingerings are given below the staff. All exceptions in fingering markings are explained in the text.

Roman numerals—I, II, III, and IV—indicate the violin strings on which the particular musical example or a passage of an example should be played or started. Numeral I indicates the highest (E) string, numeral II the second highest (A) string, numeral III the second lowest (D) string, and numeral IV indicates the lowest (G) string. These Roman numerals appear always below the staff and only when necessary (e.g., when the music appears or begins in a high violin position or when it is possible to interpret the fingering beginning from another position or another string). When no Roman numeral is given, the fingering is to be played in the lowest possible position. Also

²³ For details of the argument, see Ari Poutiainen, “Towards Eclecticism in Jazz Violin Education: Background Study on the Fingering Schemes Approach,” in *Musiikkikasvatus – Finnish Journal of Music Education*, vol. 9, no. 1-2 (2006): 51-56.

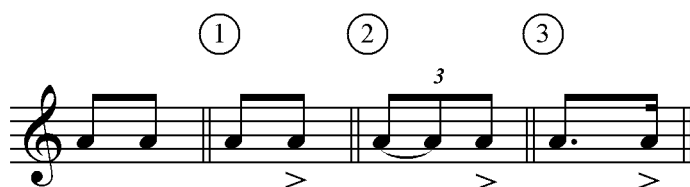
²⁴ See Part I, subchapter 1.6.

the common *sul* marking (an Italian word with equivalent meaning in English of “on”) is sometimes employed when it is necessary to indicate on which string the passage is to be played. Thus, “sul A” means “on the A string.” The length of a *sul* passage is indicated with a line, if necessary.

Shifts are not indicated in any way other than fingerings. Positions are indicated only when there is a possibility of alternative interpretations. In such cases, positions are indicated with Roman numerals (e.g., numeral V indicating “the fifth position”) and they appear below the staff.²⁵ If nothing else is indicated, the hand stays in its present position until the next fingering calling for a shift appears.

Throughout the text the music examples sound as they are written, which is the standard for the violin. The notation of rhythm follows the custom of jazz notation. In that tradition, two consecutive eighth notes are not necessarily equal in length; to the contrary, the three interpretations below of the rhythm shown in the first measure are typical.

Example 1.6.2–1: “Swinging Eighth-Notes”



The first interpretation applies especially to medium and fast tempos. The second interpretation, which appears to be the most popular, can be applied to medium and slower tempos, while the third is usually applied to slower, ballad tempos.²⁶ The musical examples can also be played without swinging (i.e., as “straight eighth notes,” without interpreting the rhythmic notation as above). Sometimes it may be practical to practice the material in that way. I discuss rhythm interpretation and jazz phrasing a bit more in Chapter 3.

Most of the musical examples in this study are in 4/4 time. I have often omitted the time signature (markings) in order to simplify the notation and to save space.

²⁵ Since the Roman numerals are employed both for indicating a string and a position, there naturally is the possibility of accidentally confusing the two. However, this common system is so much an established part of the tradition that alternative markings are unlikely to be widely accepted. In violin literature, it is common to let readers conclude which meaning applies in each case. In the contents of this study, occasions where the two meanings of a Roman numeral could be mixed are few. In such cases, readers should refer to the corresponding text in which the special features of notation are always explained.

²⁶ The interpretation of “swinging” eighth notes in notation is an on-going debate among jazz musicians, pedagogues, and theorists. The second interpretation, although it is the most popular and consequently most commonly employed and referred to, appears to be very problematic: It may lead to certain misunderstandings and misconceptions about jazz rhythm and swinging. Unfortunately, in this study I cannot get involved in that debate and accept all the three interpretations shown for present purposes.

1.6.3 General Matters

In order to avoid favoring certain keys or key areas (e.g., C major or A minor), I deliberately vary the keys of my musical examples. However, I avoid keys that include many sharps or flats, so that examples are more readable. Readers ought to bear in mind that most of the musical examples can be transposed to any of the twelve keys simply by employing a shift. Transposing the examples should be begun as soon as a player is secure with the basic material. Only through transposing can my fingering strategy be of any benefit!

As this study is not intended to be a theory or exercise book per se, to a certain extent readers are left on their own to apply the information and musical material. I do not present the strategy as a sequence of lessons. The subject in focus often calls upon professional level violin technique and experience, together with deep understanding of jazz expression. At that level, I believe a study book type of format is no longer needed. Consequently, I expect readers to be somewhat creative and design their own exercises and etudes based on the contents.

In order to insure the communication of the melodic and technical aspects of the musical examples, I must simplify them rhythmically. Therefore, some examples may appear to convey, for instance, less than the authentic rhythmic sense of modern jazz. In order to achieve melodic and technical clarity, at times I have to make compromises in the melodic expression as well. If some melodies seem somewhat rudimentary, it is only to clarify the essential points at stake.

The sources of such simplifications are thus in my pedagogical goals. For instance, if violinists wish to apply II-V-I patterns in their improvisations—and in tune!—they first have to be able to hear them (and perhaps to sing them as well) rather precisely. In this respect, I agree with Hal Galper, who stresses that “[c]omplexity is based upon a foundation of simplicity. If one can’t hear and execute simple musical ideas then one hasn’t yet established in the ear the foundation required upon which to execute more complex ideas.”²⁷ As a general rule, the more chromatic the lines, the more difficult they are to perform in tune. Therefore, in order to take into consideration readers who have less or little experience in employing idiomatic patterns in their improvisation, I use material that is rather basic, not too chromatic. As soon as readers are comfortable with the level of examples in this study, they are encouraged to find and employ other, more complex patterns. There seems to be no shortage of such published material in books about jazz.

²⁷ Hal Galper, *Forward Motion: From Bach to Bebop – A Corrective Approach to Jazz Phrasing* (Petaluma: Sher Music Company, 2005), 27.

CHAPTER 2

Focus

My fingering strategy is a product of practice-based research. Its development and design have involved an array of informal experiments and actions. The practical aspect involved the improvising, practicing, sketching, composing, and nursing of ideas on the violin. I arrived at many solutions through trial and error. With the help of such empirical procedures I aimed to formalize a strategy that works in practice instead of just looking good in print.

I do not thoroughly document the development and design process of my strategy. Parts of this process are rather difficult to document, and an attempt at rigorous documentation would have significantly altered the contents of the study. However, I seek to put into words those parts that most closely parallel of the reasoning and development typical of more conventional academic research, and below I present matters that define the (theoretical) framework and focus of my strategy.

2.1 Focus of Strategy

When approaching the complex melodic construction typical to modern jazz improvisation through a schematic fingering approach, the approach has to be naturally applied. In order to succeed in such an application, I employed a simple focus that directly influences the communication of my strategy.

My strategy for improvisation is designed to follow functional, tonal modern jazz harmony.¹ In tonal modern jazz expression, the melodic outlining of different II-V-I chord progressions, in all twelve keys, is central.² While concentrating on such outlining, the strategy simultaneously attempts to take advantage of the entire violin range, employing all the areas of the fingerboard.

In jazz pedagogy, improvised melody construction is often presented, discussed, and taught in terms of chord and scale relations. In such chord-scale practice, common scale types are matched to common chord types. It is then suggested and expected that the melodic improvisation over the chord progressions is based on selected scales (i.e., scales are seen as a collection of related pitches). Thus, “[i]mprovising is the reordering of the notes of a scale into their strongest melodic possibilities,” as Hal Galper states in *Forward Motion*.³

¹ Functional, modern jazz harmony is tonal harmony. It includes clear tonal tensions and releases. These appear often as dominant-tonic relations and other prolonged cadences. In modern jazz, major cadential movements may frequently appear; the key centers may (and often do) change every few measures. Typically, cadences occur as very short chord progressions, which often (however, not necessarily) include common tonal chord functions; the subdominant, dominant, and tonic. The progressions frequently follow the cycle of fifths and rely on the degrees of the key or tonality in question. Consequently, for example, II-V-I or III-VI-II-V-I are progressions that appear repeatedly.

² I exclude so-called modal jazz harmony from this study. Consequently, I do not discuss applications of schematic fingering within modal jazz harmony and improvisation.

³ Hal Galper, *Forward Motion: From Bach to Bebop – A Corrective Approach to Jazz Phrasing* (Petaluma: Sher Music Company, 2005), 67.

However, producing improvised melodies in the modern jazz tradition is not usually quite that simple. Being aware of and knowing various scales is often not adequate for melody improvisation that reflects, for example, the voice-leading conventions of modern jazz. Actually, at worst, superficially incorporated chord-scale practice produces melodically weak, scalar improvisation with little substance.⁴ Since scale runs are so easy to conduct on violin, it is unfortunate that jazz violinists frequently appear to exhibit this pitfall.

A scale is basically only a theoretical tool; an organized selection of pitches or notes. In a typical, simple scale illustration (i.e., notes organized in ascending or descending order, or both), the notes may appear to be relatively equal to each other. They rarely are, however. If a typical scale illustration is not further explained in some way, the relations, functions, and characteristics of the scale notes (tonic, leading-note, the hierarchy of the other scale degrees, etc.) can remain vague. A scale illustration typically neither conveys nor suggests information on matters related to melody construction; the special tension and release relations between the notes are not revealed. Consequently, a scale alone is rarely sufficient for teaching melodic improvisation.⁵ Therefore, in order to bring the chord-scale practice closer to its goal (i.e., to succeed in modern jazz improvisation), it is important that scales are introduced, discussed, instructed, and internalized also as representative *melodic fragments*.

Melodic fragments that reflect the jazz conventions of a particular scale color can effectively show and suggest how a scale is employed in an improvisation. In the modern jazz tradition, the established ways of employing a scale (i.e., melodic fragments) are strikingly manifest as *idiomatic patterns*, as they are often called.⁶ Through idiomatic patterns, scales and their character can be rapidly internalized and the final step of chord-scale practice (i.e., employing scales creatively and within the style) can be achieved. Although most professional jazz musicians and pedagogues are ready to agree with this fact, far too many pedagogical jazz publications (especially in the field of jazz violin) still seem to fail to notice and respond to it.

A significant component of modern jazz tradition reveals itself in formulaic improvisation.⁷ In my fingering strategy, I apply the schematic fingering approach to formulaic improvisation, where idiomatic patterns are naturally in constant use. Employing idiomatic patterns demands great accuracy and discipline; in this respect, my fingering strategy should also be perceived as a kind of technical tool or aid. The strategy is not a complete approach or method for performing idiomatic patterns on jazz violin but, rather, a specific way of studying, controlling, and aiming at their successful performance and beyond.

⁴ Here I refer only to the level of melodic contents, not to interpretation or other similar aspects of performance.

⁵ Most jazz musicians have experiences of this, I presume. While the fourth scale degree of the major scale may already challenge some beginning jazz improvisers, the more advanced jazz scales most certainly are challenging. A good example of the latter is the altered scale. It sounds relatively strange to the modern jazz tradition if it is applied, for instance, in purely scalar fashion.

⁶ Idiomatic patterns are defined and discussed in Part I, subchapter 2.3.

⁷ See Part I, subchapter 2.3.

2.2 Idiomatic Patterns

Through studying idiomatic patterns, violinists (just as with any other jazz instrumentalists) quickly gain control over scale colors and absorb the ways they are commonly employed in functional, tonal jazz harmony. The patterns often convey essential elements of the jazz tradition: details of voice-leading, idiomatic use of rhythm, popular melodic contours, etc. The patterns are thus a truly powerful, many-sided pedagogical device.

These patterns can also be beneficially employed, for instance, in developing instrumental technique. Several tactile and kinesthetic aspects of playing can be addressed and stressed through them. Mark Levine briefly refers to this matter in his *The Jazz Theory Book*.

You should practice licks and patterns to get your fingers, brain, and eyes all in synch, so that you are comfortable in as wide a range of musical situations as possible. Licks and patterns should become part of your musical unconscious, kind of like an inner library you can draw upon.... Use licks and patterns to get to know your instrument, but try not to use them exclusively as you solo.... [N]ote that virtually every great soloist has practiced licks and patterns.⁸

Moreover, the patterns are especially useful in hearing and recognizing the ways the different scale colors sound. This has been noted, for instance, by Coker, Casale, Campbell, and Greene in their introduction to *Patterns for Jazz* (one of the most popular, early pedagogical jazz publications).

The care and feeding of the ears cannot be overemphasized. If an improviser pre-hears an idea, he must know exactly where those pitches are on his instrument—a sort of instant music dictation—or he cannot successfully realize his pre-hearing. The *names* of the pitches may carry little importance at this rapid tempo of thinking and feeling, but the fingerings or positions need to correspond to the pre-heard pitches. Practicing patterns is one way to make such correlations. An unusual scale, for example, may be too new to be heard, but practicing patterns which use that scale unlocks the door to hearing it.⁹

In describing my fingering strategy in the context of an academic study, I naturally desire to avoid promoting material the usage or popularity of which cannot be objectively judged. Idiomatic patterns are material which is shared by many (if not the majority of) professional jazz musicians. Through focusing on presenting my strategy as idiomatic patterns, I may thus work on a relatively neutral, common ground. This significantly decreases the risk of interfering with readers' diverse, personal ways of expression. In addition, when communicating through the use of shared musical material, I am better able to avoid potential clashes with jazz aesthetics.¹⁰ Furthermore, such neutral material offers the potential for my strategy to be approached and received by a larger audience.

⁸ Mark Levine, *The Jazz Theory Book* (Petaluma: Sher Music Co., 1995), 250.

⁹ Jerry Coker and others, *Patterns for Jazz*, 3rd ed. (Miami: Studio P/R, 1970), the second page of the unnumbered introduction. Italics in the original.

¹⁰ I understand that an idiomatic pattern reflects and obeys general jazz aesthetics if, for instance, there appears to be a consensus on the idiomatic character of the pattern in regard to its melody, rhythm, and harmony.

Through communication which reflects the public domain of jazz, readers can also easily evaluate the relevance of the strategy.

2.3 Coloring the Dominant Chords

In fingering and presenting idiomatic patterns, I focus my scope, further, on patterns that are employed over dominant chords. The dominant chords naturally enjoy a high status in functional tonal harmony; they are used for creating tonal tension. In jazz, in order to enhance the dominant chord tension, the chords are extended and altered (or both) by altering the chord tones (typically the fifth and ninth) and employing various scales (e.g., a dominant diminished, altered, or dominant bebop scale) as the basis of the melodic improvisation.¹¹ In this study I call this kind of enhancement *coloring the dominant chords*.

With chord-scale practice, several of the most significant ways of coloring dominant chords can be neatly organized as a discussion of employing different scale colors. Although many jazz musicians (including me) find chord-scale practice somewhat problematic and direct certain criticism towards it, I agree that, in respect to categorizing the discussion of dominant chord coloring, such chord-scale practice is, however, relatively functional. Consequently, in the presentation of my strategy I especially employ and refer to scales, and scale colors when examining the dominant chord coloring.

Implying different scale colors in improvisation over (and around) dominant chords is an important element of melodic modern jazz expression. In my opinion, jazz violinists could be more sophisticated in their coloring of dominant chords (e.g., in this respect, jazz violinists might want to attach themselves more closely to the modern jazz tradition). Coloring the dominant chords appears to be an issue that frequently occupies jazz violinists. It is also a subject that engenders representative discussion of the essential elements in my fingering strategy.

In addition to coloring the dominant chords, my discussion includes some other relevant aspects of tonal modern jazz harmony. I examine and present, for example, how the fingering strategy can be applied to enclosure patterns, voice-leading, and fundamental types of II-V-I chord progressions. Additionally, I show ways of taking advantage of schematic fingering in some slightly more chromatic melodic devices (e.g., as a *Countdown* superimposition). Within these limits it is possible to cover a focused and limited but, nevertheless, an essential and significant amount of formulaic modern jazz melody improvisation.¹²

¹¹ Depending on the particular theoretical point of view, the ninth can be seen either as an extension of a chord or as a chord tone. This distinction is not relevant to my study; either interpretation can be applied.

¹² I exclude pentatonic scales from discussion in this study, despite the fact that these scales are obviously an important part of modern jazz. I see that pentatonic scales would not necessarily add to the communication of my strategy but, to some degree, would steer the discussion towards more modal melody construction. It seems that modal jazz improvisation (and the possible position playing it involves) is not a considerable challenge for jazz violinists. My experience as a jazz violin performer, pedagogue, and researcher suggest that jazz violinists face difficulties more frequently when improvising within functional tonal harmony (which can involve less position playing, but constant shifting).

2.4 Advanced Framework of Scale Fingering Schemes

As a consequence of admitting and agreeing to a certain relevance of chord-scale practice, I understand that idiomatic patterns rely on scales or at least imply them. Therefore, my fingering strategy is based on scale fingering schemes.

In the first part of this study, I reduced Lockwood and Darizcuren's system of scale fingering schemes into a list of guiding principles.¹³ For the purposes of my fingering strategy, the particular system had to be both modified and further developed. These modifications resulted in the advanced framework of scale fingering schemes shown below. This advanced framework summarizes the most important technical principles of my fingering strategy.

1. No open strings are employed anywhere in the fingering. This principle makes all the material transposable to any other key through shifting.¹⁴
2. The scale fingering schemes are seen as universal finger settings on strings. Appearances of a particular scale fingering scheme should be the same in all (lower or higher) violin positions.
3. A scale fingering scheme should be a comfortable setting of fingers. It should also be easy to internalize, employ, and apply. It should closely reflect and rely on tactile and kinesthetic knowledge of the violin instrument and its playing (i.e., the scheme should be "violinistic").
4. A scale fingering scheme should extend at least one octave from its lowest pitch (or note).
5. The scale fingering and fingering strategy relies on the so-called octave frame. The octave frame is formed by the first and fourth fingers performing a perfect octave interval on adjacent strings. This frame is the key to maintaining good intonation in position playing.¹⁵
6. In the scale fingering schemes employed, the first finger does not have to appear (but it may) on the lowest pitch (or note) of the scale in question. Nor does the first finger have to (but it may) appear on the tonic of the scale.
7. Temporary finger stretches are allowed anywhere in a scale fingering scheme and within a position. This applies to the first finger as well (even if it represents the lowest pitch or note of a scheme).
8. A position should be understood as a rather flexible placement of the left hand. Temporary extensions or contractions that imply positions a whole step higher and lower are acceptable. All four fingers of the left hand can take part in such (temporary) extending or contracting. However, the thumb should stay put; that is, it should remain in the position.

¹³ See Part I, subchapter 3.4.

¹⁴ This applies to my strategy only. In this study there are some musical examples where open strings occur. These exceptional appearances are always indicated and explained in the text.

¹⁵ For definition of the octave frame, see subchapter 1.6.1. I discuss the frame further in Part II, Chapter 5.

9. The focus of the fingering strategy is on idiomatic patterns. In this particular presentation, I employ mainly the first and second fingers as the bases or reference fingers for the patterns. The first finger is employed the most often, since it guides the shifting and indicates the position.¹⁶ The first finger also defines the position, even if the particular finger would not be applied in a fingering.

While the first two principles can be found from the list of guiding principles of Lockwood and Darizcuren's system, my Principle 3 already includes an important addition and redefinition. By bringing the tactile and kinesthetic knowledge into the list of principles, I want to emphasize, for example, that my strategy aims at improving jazz violin performance, not just theorizing it.

Since I employ a scale as the basic unit for schematic fingering, a scale fingering naturally has to cover at least an octave (Principle 4). Consequently, it is practical to employ the octave frame as the basis of intonation (Principle 5). Since the octave frame is performed with the first and fourth fingers, it would be natural to rely on the first finger as the lowest note (or tonic) of a scale fingering. This is often preferable; however, it is optional (as expressed within Principle 6).

Applying schematic fingering to modern jazz improvisation leads to more frequent finger stretching and contracting. Therefore, both have to be allowed in a scale fingering scheme (Principle 7). Consequently, the limits of a position have to be redefined and a position has to be seen as a relatively flexible concept, often determined more or less by the thumb (Principle 8).¹⁷

Although a scale fingering scheme can be begun with any of the left hand fingers, in this study I focus on presenting fingerings that rely on the first and second fingers (Principle 9). In my experience, it is easier to refer to these two fingers at the early stages of schematic fingering. The first finger is an obvious choice, since most violinists refer to it in shifting and as the indicator of a position. The second finger is the next most popular basis for fingering choices. The third finger is not considerably less popular than the second, while the fourth, again, certainly is less popular. These two last mentioned fingers and their (necessarily potentially higher) status in schematic fingering, however, I exclude from the discussion of this study.

2.5 Discussion of Differences and Preferences

My fingering strategy conveys and stresses aspects that can differ, for instance, from some common ideals of classical violin playing and technique. Accepting and admitting these differences are the result of various careful technical considerations. I discuss the most important ones below, together with certain other preferences.

The advanced framework and the strategy encourages equalizing the four left hand fingers. In classical violin teaching, however, the fourth finger is often regarded and treated as a weaker finger. Its use is frequently avoided, for instance, on longer note values employing the vibrato effect. In

¹⁶ For more information on the definition of a position, see subchapter 1.6.1.

¹⁷ These matters I discuss further in Part II, Chapter 5.

Violin Fingering, when examining the fingering in musical climaxes, Carl Flesch discusses the differences between the third and fourth finger at length and states, for instance, that for a “climactic note we should reserve the strongest and most expressive finger: the third.”¹⁸

In a fingering strategy based on schematic fingering, it is essential to rely more often on the fourth finger. Often there is no substitution for the fourth finger; substituting another finger would break or alter the fingering scheme. Consequently, the fourth finger frequently has to perform tasks that are as significant as the other three fingers. If the fourth finger is not taken and treated as equal with the others, the fingering schemes would stress or deal only with three fingers. It might be interesting to experiment with that option more, but perhaps in a separate study.

My employment of the fourth finger may confuse or challenge some readers. Frequent reliance on the fourth finger can lead to fingerings in which the best timbre qualities cannot be achieved, for example. I am convinced, however, that this adjustment will not significantly work against my strategy, especially since the common sound ideal in jazz is somewhat more liberal and tolerant than, for instance, the common sound ideal sought in classical music.

In my fingering strategy, frequent stopping of the interval of a perfect fifth on two adjoining strings, with the same finger, is unavoidable. From the perspective of classical violin fingering this also may be seen as a notable flaw. Carl Flesch, for example, opposes such fingering. In *Violin Fingering*, he states that stopping broken fifths on two strings by the same finger is not always technically feasible. Nor is it often satisfactory in regard to tonal quality. Therefore, Flesch prefers fingering broken fifths with different fingers, if possible.¹⁹ In jazz, the status of such sound qualities as clarity or carrying tone and the status of perfect intonation can vary considerably more liberally than in classical music.²⁰ In my fingering strategy, maintaining and protecting a scale fingering scheme are more important than the details of sound and intonation. Therefore, stopping broken fifths with the same finger is essential and recommended here. This, however, does not mean that the strategy purposively encourages the neglect of good sound production and intonation.

Additionally, it seems that the ideal of *uniform timbre* (a term employed by Carl Flesch, for example) is rather rarely desired in jazz violin improvisation. Sometimes striving for a uniform timbre suggests avoiding string crossing and conducting a shift instead of staying in a position.²¹ In jazz, in contrast, violinists are free to decide individually how much value they wish to give to uniformity of timbre. Recordings by great, historical jazz violinists suggest that the ideal does not enjoy a high status in their expression. Accordingly, in my fingering strategy, scale fingering schemes obviously take precedence over the ideal of uniform timbre. The scale fingering schemes

¹⁸ Carl Flesch, *Violin Fingering: Its Theory and Practice*, English adaptation by Boris Schwarz (London: Barrie and Rockliff, 1966), 317.

¹⁹ *Ibid.*, 150.

²⁰ In a jazz (club) environment, the violin frequently has to be electronically amplified. Most of the microphone, pick-up, amplification, transmitter, and speaker systems do not yet serve the acoustic violin sound well in a typical small band formation, for instance. This unfortunate fact, however, should never be used as an excuse for producing a poor, acoustic jazz violin sound.

²¹ *Violin Fingering*, 152.

include frequent string crossing. If string crossing was not allowed, very different scale fingering schemes would be constructed.

In the advanced framework of the scale fingering schemes, I state (as Principle 2) that the scale fingering schemes are universal settings of fingers on strings. This principle forces violinists to employ precisely the same scheme anywhere on the fingerboard; the scheme (i.e., fingering) in use in a lower position must apply to the higher positions as well—and vice versa. According to the design of the violin fingerboard, the physical distances between stopped pitches in higher positions are smaller than those in lower positions. There is less space available for finger tips to perform stopping in the highest positions. If a fingering is not following a fingering scheme, fingerings for the same melodic material could vary between the highest and lowest positions. This is rather common in classical violin playing.²² However, in my fingering strategy such fingering inconsistency is not permitted; the scale fingering schemes should stay the same in every position.

This principle might be seen as a weakness. However, in my experience, the principle produces challenges and problems only in extremely high positions. Up to the tenth position most violinists should not have any problem performing the same schematic fingerings they employ in the lower positions. This implies that my fingering strategy is highly applicable at least for two thirds of the violin range. I see that as a major advantage and, to some extent, as an advance of some kind. Furthermore, performing the same schematic fingerings in the extremely high positions is not impossible. It may appear difficult, but only if violinists are unaccustomed or unwilling (or both) to perform stopping in that small fingerboard space.

Still, I naturally admit that stopping in that small space may appear to be uncomfortable. In this respect, it may seem that the principle of universal schematic fingering contradicts one of the most important principles of my fingering strategy, namely, the easy and comfortable fingering that reflects the tactile and kinesthetic knowledge of violin playing (Principle 3). Yet I want to stress that the anatomically uncomfortable fingerings appear only in the positions near the top end of the fingerboard. Although that particular area is quite suitable for expression, it seems to be rather rarely employed in improvisation. Why? Just because the left hand and arm positions, the bow contact on the strings, the sound quality, and sound producing are more difficult? If so, perhaps the employment of schematic fingering could supply a way that leads towards more successful execution. Although stopping according to fingering schemes can be a bit more difficult in extremely high positions, perhaps the general issue can be notably lessened by the logic and clarity that schematic fingering brings to finger movements.

The fundamental goal of employing fingering schemes lies in the ease of internalizing them. Such systemization is central to the advanced framework and practice of the scale fingering schemes: Through organizing different fingerings into schemes, there is less need to remember fingerings. Ottó Szende and Mihály Nemessuri's careful studies of the physiology of violin playing "have shown that the logic inherent to the subject has considerable impact on the rapidity and

²² Carl Flesch, for instance, recommends that violinists systematically employ a different fingering for a broken minor triad arpeggio in low and highest positions. See *Violin Fingering*, 85.

endurance of commitment to memory.... Generally speaking, the basic condition for success in memorizing is a clear arrangement and consistency of internal relationships.”²³ I believe most of my readers are very familiar with this, in the context of violin playing.

The main reason for striving for systematization and easier internalizing is the desire to liberate jazz violinists to focus on other elements than fingering in their improvisations. Having the scale fingerings systemized and memorized as scale fingering schemes, violinists can become significantly more secure in improvisation that involves scales. This security is partly achieved due to the fact that the schemes work well as pre-established images of physical actions. The images (i.e., the schemes) help significantly in motor performance, as they can be rapidly transformed into motor schemes.

When discussing the process of different neuronal actions in learning a new piece of music, Szende and Nemessuri emphasize the level at which motor schemes are constructed.²⁴ If in an improvised musical performance, motor schemes are supported by and based on fingering schemes, then better artistic results can be achieved. Through applying schematic fingering, jazz violinists can invest more time in other important aspects of expression. The extra time can be employed in improved focus on, for instance, timing, phrasing, sound, intonation, etc.

In jazz violin improvisation, scales are an important concept and device. The number of different scales that modern jazz violinists should master is quite large.²⁵ Therefore it is practical to systemize the fingerings of different scales. A schematic scale fingering system has the benefit of a much reduced number of different scale fingerings. My experiences as a performing jazz violinist and jazz violin pedagogue suggest this conclusion.

2.6 Further Directions

All musical examples in this study appear in 4/4 time. In order to maintain focus on communicating my fingering strategy, 3/4 and other time signatures are excluded. Little attention is devoted to techniques for rhythmic variation.

My fingering strategy is highly applicable to at least the first ten violin positions. In positions higher than the tenth the strategy may seem to be somewhat more challenging to apply. This naturally depends on the size and features of a violinist’s hand and fingers and level of technique

²³ Ottó Szende and Mihály Nemessuri, *The Physiology of Violin Playing*, translated by I. Szmodis (London: Collet’s Ltd., 1971), 166.

²⁴ *Ibid.*, 170.

²⁵ Naturally, no absolute figure can be given. However, just as an example: If violinists limit their playing only to the first and half positions and finger the most popular scale types of modern jazz, the total number of different scale fingerings could be 57. This figure would include 12 different major scale fingerings, 12 different melodic minor scale fingerings, 12 different blues scale fingerings, 12 different major or minor pentatonic scale fingerings, 3 different diminished scale fingerings, 2 different whole-tone scale fingerings, and 4 different augmented scale fingerings. (When the fingerings employ the whole four string range, I conclude that the overlapping of fingerings does not have a significant effect.) If the fingerings for the different modes of major and melodic minor scales are understood as separate fingerings (and, according to my discussions with professional violinists, many tend to see these modes as separate “scales” and fingerings), the number immediately increases by another 144 scale fingerings. Thus, the total number of scale fingerings to learn could be 201.

development. For wider or “fleshier” finger tips there is naturally less space available in the highest positions for schematically fingered idiomatic patterns.

My experience suggests that with practice and small adaptations of finger stopping conventions (e.g., adjacent fingers must give room to each other), the schematic fingerings can be kept the same in the highest positions as well. This is not as easy, but certainly possible. For some violinists it may be beneficial to invest some time in experimenting with finger stopping in high positions. I also recommend weighing certain personal views and perceptions as various questions: How much finger pressure is actually needed? Perhaps considerably less than first comes to mind? What is the sensation expected from stopping at the top end of the fingerboard? Should the stopping feel quite the same as in lower positions? These are only examples of questions to begin exploring. Answers and conclusions may vary considerably from one violinist to another; they depend completely on each violinist’s playing experience and technique.

Some violinists may decide that the stopping requirements of my strategy in the highest positions are too demanding. In this light it might appear that my strategy fails. In this respect, I want to reiterate that the strategy allows *more than two thirds of the fingerboard and all twelve keys to be fluently and creatively employed*. This fact promotes many potential benefits, despite the challenges of stopping in the highest positions.

In order to improve the readability of the strategy, I frequently employ relatively low positions in the musical examples. Through this accommodation I hope to encourage violinists to play (not only read) the examples and apply the strategy. Additionally, my hope is that by such means playing fluency in the lower positions might simultaneously be improved. I believe that this pedagogical intention has no negative effect in communicating the strategy—especially if compared with a scenario where examples were written very high and presumably only a few violinists would be motivated to play and relate to them and their contents.

Since my focus is on idiomatic patterns, the connection between a pattern and the particular scale fingering schemes it involves can be difficult to identify at times. Few patterns include longer scalar movement from which the scale fingering scheme could be traced. I do not announce the scale fingering schemes anywhere in this study since I believe that this will draw too much attention to the scales (which, in my opinion, is a typical flaw in pedagogies oriented to chord-scale practice). Furthermore, readers in my primary target group (i.e., professional-level jazz violinists) should be able to mark the scale appearances independently, if they wish. The basics of the scale fingering schemes can be studied, for example, from Lockwood and Darizcuren’s *Cordes & Âme*. The other material I discussed in the first part of the study can also be of help.²⁶

According to the particular way of communicating my application of schematic fingering approach, it might actually have been more relevant to employ the term *pattern fingering scheme*, instead of *scale fingering scheme*. However, in this respect I chose to be faithful to the origin of the framework of my strategy, which is Lockwood and Darizcuren’s system of scale fingering schemes.

²⁶ See Part I, Chapters 3 and 4.

Moreover, while employing the popular chord-scale practice as a way of organizing my discussion, I believe that my presentation is in accordance with the theoretical background of interested readers.

The ideal of free personal expression, which is so important to jazz, makes it challenging (if not impossible) to formalize an all-encompassing or universal approach to jazz violin improvisation. Therefore, I only attempt to express a coherent strategy.²⁷ The attempt at such coherence suggests employing different guidelines for bowing, shifting, and fingering, for instance. Through these lists of guidelines, I believe I am able to pull together, support, and express in print most of the essential aspects of the strategy.

²⁷ I also find the lack of coherency being one of the biggest problems of contemporary, pedagogical jazz violin literature.

CHAPTER 3

Bowing

Producing sound with a violin bow is sophisticated art. Violinists control four variables when bowing. These are the bow speed (i.e., how fast or slow the bow strokes are), the bow pressure or force (i.e., how much the arm and hand press the bow on the string), the position of the bow on the string (i.e., which part of the string the bow touches), and the degree to which the ribbon of bow hairs is tilted relative to the string (i.e., how many hairs touch the string). In order to produce a desired combination of volume and tone quality, violinists must keep in mind three parameters; the bow position, force, and speed.¹

Since the bow is such a complicated tool and since this tool is controlled by very subtle, complex, motor movements, bowing is one of the most essential technical aspects of the instrument. Consequently, the way one articulates, accentuates, and employs slurs is a significant part of one's expression on the instrument. Naturally, jazz violin playing is no exception.

Rhythm is the most significant musical element of jazz. It is also the characteristic that most distinguishes Western classical music from jazz. Rhythmic expression is an important part of phrasing. Subsequently, phrasing is one of the most meaningful aspects of one's personal jazz violin expression. The way a violinist employs the various means of articulation while interpreting melodies is often simply called *phrasing*.²

Although jazz violin bowing in itself is a highly interesting subject, it is somewhat too large to be discussed in-depth in this study. My focus is on fingering. However, since I approach the matter in several musical examples and since most of these include to some extent markings indicating accentuation, I must also take certain parts of bowing and phrasing into consideration. In this chapter, I focus on discussing the most necessary aspect: slurring.

3.1 Basics of Syncopated Slurring and Bowing

A major part of the accentuation presented in the notation of this study is indicated as slurs. In music, *slurring* means combining two or more tones of different pitch by performing them without a break. In violin playing, this typically takes the form of playing two or more tones with one continuous bow stroke. In jazz, slurring is often referred to as *tonguing* as well.³ Jazz slurring is closely connected to syncopation and therefore it is among the most important technical aspects of

¹ J. Woodhouse, "Acoustics: String Instruments: Bowing," in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

² According to Geoffrey Chew, the different means of articulation are rhythmic placing, accents, other dynamic devices, and nuances of timbre and intonation. See Geoffrey Chew, "Articulation and Phrasing: General," in *The New Grove Dictionary of Music and Musicians*, 2nd ed., edited by Stanley Sadie.

³ Tonguing naturally refers to the accentuation of wind instruments, where the tongue has a significant role in separating tones and creating accents. In jazz, the accentuation of wind instruments (e.g., saxophone) is commonly accepted as a model for other instruments.

jazz violin bowing.⁴ Syncopation, one of the key elements of jazz rhythm, again, can briefly be defined in terms of two distinctive features: Firstly, it involves the stressing of beats other than the naturally strong beats of a measure (e.g., in 4/4 time signature, stressing beats other than the first and third). Secondly, syncopation also means stressing part of the beat other than the first (e.g., stressing the second half of the first beat, the second half of the second beat, the second part of the third beat, etc.).

In jazz violin playing, syncopation affects slurring in the following way.

Example 3.1–1: “Syncopated Slurring and Bowing in Jazz”



The syncopated slurring or *syncopated bowing* on violin is an adaptation of the way, for instance, jazz saxophonists use their tongue.⁵ The above example, however, is a generalization; syncopated bowing is seldom employed as repeatedly as above. In fact, knowing and deciding where to employ syncopated bowing and where to play separate bow strokes instead are among the most essential jazz violin bowing skills to be learned. Such skills are often simply referred to as *phrasing*. Certain parts of phrasing are best learned through listening to and imitating competent, representative performers. In this study, I do not discuss that particular learning process. Instead, I focus on presenting and explaining certain technical details of jazz violin phrasing.

Since the bow hand movements in syncopated bowing are often rather small and the length of the slurs and bow strokes rather short, bowing direction does not have a great significance.⁶ That is, it should not matter in which direction the first bow stroke is stroked, for instance. A far more important factor is the accent at the beginning of every new stroke. As indicated in the previous example, syncopated bow strokes are frequently accentuated. The accentuation emphasizes the syncopated (jazz) feeling. On some instruments (such as saxophones) a strong attack (e.g., on the accents in the example above) can be easily produced. On violin, however, the percussive attack

⁴ To string players, bowing can mean several different things. It indicates playing a string instrument with a bow. It also signifies, for instance, the personal way of employing the bow, the different types of bow strokes, the articulation and accentuation, the organization of bow stroke directions (down- or up-bows), and the manner of grouping notes into single bow strokes. The particular meaning of the word can usually be derived from the context. In order to be clear, here I am addressing bowing as grouping of notes into single bow strokes within the jazz context.

⁵ Later, I refer to this only as *syncopated bowing*. In this case, syncopated slurring could actually be a more precise term since the discussion is, above all, of notated musical examples. The meaning of “bowing” is much broader (see the previous footnote) and therefore somewhat vague. However, in my understanding, jazz violinists often prefer to refer to “syncopated bowing” in their communications, and in regard to notation.

⁶ The slurs can naturally connect more than two tones. I discuss this later in this chapter.

typical to jazz (and above, consequently, the necessary accents) calls for subtle technical applications.⁷

In modern jazz improvisation at medium and fast tempos violinists frequently employ only the upper part of the bow. In the upper part of the bow syncopated bowing is easier. The general volume level is kept low and not much bow pressure is employed (since electric amplification is frequently used in achieving the necessary volume level). Given such choices, accentuation can be produced just with the changes of pressure by the first finger of the bow hand. In some cases, however, the accent involves a bigger movement of the bow hand, wrist, or even arm. This latter kind of accentuation is common or needed, for example, in louder passages, at slower tempos, and for early jazz styles.

Accentuation is a highly important and subtle subject and, according to my survey of pedagogical jazz violin literature, it has seldom been discussed at length and in detail.⁸ Actually, I find it somewhat alarming how often it is bypassed in popular pedagogical publications.

3.2 Bowing Guidelines

Many jazz violin study books do not go much further than the basic example of syncopated bowing I presented above. For this reason, some instructional jazz violin material may often appear problematic and confusing, especially when it comes to matters of jazz rhythms and feel. In order to avoid misinterpretations in the phrasing of my musical examples I decided to include some slurs in the notation. However, since I cannot discuss syncopated bowing or right-hand violin technique at length, I had to settle for certain compromises. In order to understand these compromises and their origin and to discuss them transparently, I decided to present and explain my bowing guidelines.

When preparing the notation of the musical examples, I created and gave myself the simple guidelines listed below. I then followed them throughout the study. They were suggested by my personal experience and knowledge of jazz violin, as a performer and listener.⁹

1. When possible, the second part of a beat is slurred to the next.
2. The change of bow direction can be (and very often should be) accentuated, at least a little. However, since the size of the accent is a matter of personal taste and artistic choice, I do not show this accentuation in notation, unless it is necessary.

⁷ My experience suggests that necessary accents on violin are produced with the first finger of the bow hand. The technique shares some principles, for instance, with the *martelé* stroke of classical violin technique. However, *martelé* differs greatly from the jazz accent because of what occurs immediately after the attack.

⁸ Helmut Zacharias' short study book is an interesting, early example of jazz violin literature that discusses accentuation. See Helmut Zacharias, *Die Jazz-Violine: Eine praktische Anleitung* (Jazz Violin: A practical introduction) (Mainz: B. Schott's Söhne, 1951), 5. Published only in German. The translation of the title is mine. I wish to acknowledge cellist Susanne Paul for helping me gain access to this rare, special material.

⁹ I suggest that violinists who have not yet given much thought for slurring as a part of their bowing technique consider following these guidelines as a basis for their individual growth in the art of jazz violin bowing.

3. When the melody line requires string crossing, the slurring of the second part of the beat to the next is optional. Sometimes it is easy to apply a slur during a string crossing. Sometimes such slurring is technically challenging and therefore unnecessary and undesirable. Hence, slurring involving string crossing has to be optional as well. Since it is optional, I have not indicated any slurs in those places where the melody line calls for string crossing.
4. Slurring during a finger glissando (i.e., when the same finger appears at least twice in succession in a fingering) should be avoided, in principle. When the particular sliding sound effect is clearly desired, the finger glissando may be slurred.¹⁰
5. Bow directions (i.e., up- or down-bows) can be employed variedly and liberally. Consequently, I do not indicate any bow directions in the musical examples, since in this matter violinists should enjoy complete freedom.

As an example and discussion of the third and fourth guideline, below are two versions of the first eight measures of Miles Davis' *Donna Lee*.¹¹ Here the particular guidelines are studied in the light of bowing and fingering of a composed theme.¹² Later I discuss the same guidelines in the context of an idiomatic pattern.

¹⁰ In principle I have tried to avoid finger glissandos in my examples. However, it is not always possible to avoid a glissando but to employ it in order to keep the fingering reasonable and practical. In order to reduce the number of glissandos, it is preferable to change the bow direction during the glide. The change of direction should typically make the glissando inaudible.

¹¹ The composition was credited to Charlie Parker (copyright given in 1947). However, it has been proven, long ago, that the theme was written by Miles Davis. See Carl Woideck, *The Charlie Parker Companion: Six Decades of Commentary*, ed. by Carl Woideck (New York: Simon & Schuster Macmillan, 1998; imprint, New York: Schirmer Books, 1998), 221.

¹² It is recommendable to perform this particular, somewhat difficult up-tempo theme in the first and half violin positions and, accordingly, employ some open strings in the fingering.

3.3 Discussion

Through the employment of such relatively strict guidelines, I attempt to improve the communication of my fingering strategy. However, these guidelines may at first glance also appear to be limitations, for example, compared with the ideals of modern jazz. Therefore, I want to briefly provide and discuss some background and support for my guidelines.

The first guideline (i.e., frequent employment of syncopated slurring) arises from the observation that the type of melodic flow and legato needed in modern jazz improvisation is not that easy to produce on violin. This may partly be a consequence of the fact that the classical violin education rarely employs, or rarely encourages employing, syncopated bowing or similar slurring.¹³ Since many jazz violinists' bow technique relies on classical violin tradition, they can struggle at first in learning syncopated bowing. In order to help violinists familiarize themselves with this particular bowing type, I want to present it as often as I can. There is a small risk that I might over-employ the type and therefore I follow my third guideline (i.e., no slurring during string crossing).

Similarly, by adding slurs regularly and thus favoring syncopated bowing, I want to improve violinists' modern jazz performance in general. Violinists sometimes fail to achieve the flow typical of modern jazz phrasing. Instead, stiffer and less elaborate "pre-bop phrasing" can be frequently heard in performances. In my experience, jazz phrasing that sounds less flowing on violin correlates with sporadic employment of syncopated bowing. There is naturally nothing wrong in an interpretation which is less flowing, especially if it is a result of conscious artistic decision. However, since rhythmic flow is so essential to modern jazz, I believe that syncopated bowing should be employed rather regularly. Since this study attempts to help violinists make progress in modern jazz improvisation, I am purposively promoting such syncopated bowing. Consequently, the bowing type appears in the examples as frequently as possible, as a sort of secondary emphasis.

¹³ In some classical violin literature, an identical way of slurring and bowing is called *Viotti bowing* or *Viotti stroke*. However, in the most famous classical violin etude collection editions (e.g., Kreutzer, Dont, Fiorelli, Mazas, Wieniawski, etc.), Viotti bowing is seldom suggested. Actually, Viotti bowing appears to be more of a peculiarity than a frequently employed bowing type. Ivan Galamian encourages his readers to use the particular kind of slurring of two notes in the bowing patterns he suggests for his scale and arpeggio exercises. See Ivan Galamian and Frederick Neumann, *Contemporary Violin Technique, Volume 1, Part 2* (Boston: Galaxy Music Corporation, 1966; reprint Boston: ECS Publishing, n.d.), 3 and Ivan Galamian, *Principles of Violin Playing & Teaching*, 3rd ed. (Ann Arbor: Prentice-Hall, 1985), 98. Nonetheless, this bowing type appears only as an option among several other, quite different bowing patterns. According to Robin Stowell ("Violin bowing in transition," in *Early Music* 12:3 (1984), 324), composer and violinist Giovanni Battista Viotti (1755–1824) rarely employed the bowing bearing his name in his famous violin concertos. While conducting the research for this study, I gained access to Viotti's concertos nos. 20, 22, 23, 28, and 29. It seemed that Viotti employs the bowing only somewhat in the first movement of concerto no. 28 (A minor) and frequently in the first and third movements of concerto no. 29 (E minor). In the first movement of concerto no. 29, Viotti employs the bowing so repeatedly that it becomes one of the defining characteristics of the solo sections. Pierre Baillot (1771–1842) presents examples of a bowing type very similar to Viotti's bowing when he discusses *saccade* bowing, in his *The Art of the Violin* (published in 1835). See Pierre Marie François de Sales Baillot, *The Art of the Violin*, edited and translated by Louise Goldberg, 3rd paperback printing (Evanston: Northwestern University Press, 1999), 217-219. In the notes to *The Art of the Violin*, Goldberg states (p. 510) that Louis Spohr (1784–1859) called the bowing type *Viotti stroke* in his *Violinschule* (published in 1832). For additional references, see also Robin Stowell, *Violin Technique and Performance Practice in the Late Eighteenth and Early Nineteenth Centuries* (Cambridge: Cambridge University Press, 1985), 175-176 and 200.

I am aware that following the first bowing guideline can sometimes lead to problematic artistic solutions. This is likely to happen, for example, in passages that stay longer on just one string and where no string crossing occurs. In such cases it is arguable whether jazz violinists really would continuously employ syncopated bowing. I agree; syncopated bowing must not be employed too much. However, my experience suggests that it is quite challenging to objectively judge the correct number of syncopated bowing (i.e., the number of slurs involved) in passages that stay on only one string for longer periods of time. The nature of the judgment is unavoidably subjective since it can only be based on personal, professional experience in jazz violin improvisation and naturally no two professionals have had the same experiences. I presume and understand that my first bowing guideline can, in some rare occasions, lead to solutions with which some readers may not quite agree.¹⁴ However, in order to make the bowings in this study coherent, I have to take that small risk.

The second guideline (i.e., no accentuation presented in notation) is based on the fact that it is impossible to judge how much accentuation should be involved in syncopated bowing. Again, professional jazz violinists' opinions on how much is sufficient may vary considerably. Some would prefer to emphasize the amount of accentuation by repeatedly employing special accent markings (e.g., symbols such as >). However, since accentuation is closely connected to personal taste, I decided against over-representing accents in my musical examples, since, in my opinion, it would be an exaggeration to mark every syncopated bow stroke with a notated accent. Furthermore, frequent accent markings would make the examples more difficult to read. Therefore, I indicate accentuation only when the music requires violinists to pay special attention to it. In most cases, I believe the syncopated slurring itself is enough to convey the message of musical interpretation calling for bow accents typical in jazz phrasing.

String crossing is one of the most important issues in right-hand violin technique. As a purely technical matter, string crossing has inspired numerous classical violin pedagogues to discuss it in their publications. The issue is examined in hundreds of books and collections of exercises and etudes. In this study, I had to rule out any discussion of string crossing—no matter how important and central it also is for syncopated bowing. There were simple and nonetheless sufficient reasons for this.

By closely studying just a few live performances by different jazz violinists or by carefully transcribing (including slurring) a few solo passages from different jazz violin albums, one can quickly notice that no jazz violinist addresses string crossing identically. As with accentuation, string crossing is also a highly individual matter. One's personal sound and style are approached and created through string crossing as much as through accentuation, attack, etc. Therefore, in order

¹⁴ In modern jazz, it is common to accentuate the turning point of a melody line (i.e., the point where ascending motion changes to descending and vice versa) or the melodically lowest or highest note(s) in a phrase. My bowing guidelines may sometimes suggest a slur at such places. I have noticed that there is no agreement among professional jazz violinists if a slur or a separate bow stroke should be employed in these places. It seems that, in this technical matter, there is some variation even by an individual player and that such variation can simply originate in the player's creative mood. (Yes, this applies to me as well.) Since this single, small matter already appears to be so closely connected to individuality and personal taste, I cannot discuss it, or any other similar matters, in this formal study.

to avoid any kind of problematic interpretations and to avoid the possibility of guiding violinists in an uncomfortable direction, I decided not to include any slurring involving string crossing in this study.

I admit that it surely was appealing to suggest where and when I would prefer to employ slurring in string crossing. In regard to composing and editing the musical examples, it would certainly be much easier to present my personal ideals of slurring in string crossing. However, through playing and discussing with several competent colleagues, I have become aware that, as a jazz violinist, I probably represent the kind of type or “school” of jazz violinists that seems to prefer uninterrupted slurring to separate bow strokes. In other words, I often strive for a softer, smoother jazz violin sound and phrasing. I tend to strive for continuous rhythmic flow through employing legato (i.e., regular syncopated slurring) rather constantly in my performance. My desire for this legato quality naturally applies to string crossing as well. It is thus possible, if not assumable, that I play legato considerably more often than many of my colleagues. Therefore, in order to prevent exposing readers to unnecessary pressure based on my personal ideals of slurring and string crossing, instead I chose to be neutral in the matter and exclude the option from my bowing guidelines.

Similarly, I exclude all bow direction markings from the examples. In modern jazz improvisation violinists do not really have time to consider their bow directions in the fashion common in classical violin music. The choices concerning bow directions in jazz violin are (or should be) rather automatized; they (should) follow the desired musical interpretation instinctively, almost without notice. In jazz, bow directions seldom have any significant effect on phrasing, since the phrasing usually employs very short strokes in the upper part of the bow.¹⁵ On the other hand, I believe that the direction of bow strokes is also such a subtle part of individual expression that jazz violinists should be free to make their own decisions; especially given the material and level of musicianship discussed and referred to in this study.

In addition to the factors above, I must note in particular that my guidelines apply only for lines involving a succession of three or more eighth notes. The guidelines do not directly apply to slurring or tying of eighth notes with longer time values. They cannot be directly applied to slurring or tying triplets or any smaller time values (for example, sixteenth notes). Furthermore, they cannot be directly applied to slurring or tying triplets and smaller time values with eighth notes or longer time values. However, readers should notice that, in jazz violin bowing technique, syncopated bowing is among the most significant principles to be fully realized, and this also applies to slurring of the time values other than eighth notes (including the aforementioned triplets and sixteenth notes). Furthermore, syncopated bowing is also the basis for slurring more than two separate notes together. In other words, through learning to successfully employ syncopated bowing in particular, violinists will presumably succeed in their applications of slurring in general.

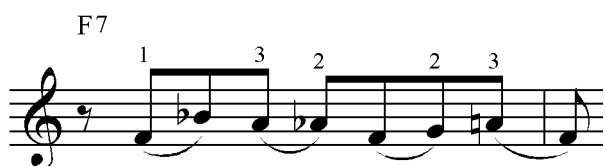
¹⁵ This naturally applies to solo playing only. In section work, the bow directions (as well as slurring) often have to be discussed in advance and in detail in order to achieve the desired ensemble sound and musical interpretation.

3.4 Bowing Guidelines in Practice

In order to crystallize the bowing guidelines and how they apply in practice, I present some additional examples.

The following short melodic fragment or phrase does not include any string crossing. Therefore, according to the first guideline (i.e., employ syncopated slurring frequently), syncopated bowing appears in every possible place.

Example 3.4–1: “Syncopated Bowing, No String Crossing”



The above example does not include a finger glissando but the notes are played with different fingers. However, some jazz violinists might prefer to employ a glide on the third finger on the consecutive A and A_f notes (the second part of the second beat and the first part of the third beat). The glissando would underline the slightly bluesy feeling of the phrase and in notation might look like the following.

Example 3.4–2: “Syncopated Bowing, No String Crossing, with Glissando”



I like the particular bluesy sound as well and agree that employing the glissando is quite possible and even desirable. Furthermore, the glissando does not make the particular phrase technically more challenging, and I assume that many jazz violinists would prefer the glissando to the fingering I suggested first. However, in order to create coherence in the fingerings of this study, I am obliged to follow my fingering guidelines. According to these guidelines, finger glissandos (especially for slurred notes) are to be avoided.¹⁶

¹⁶ I discuss the fingering guidelines in detail at the beginning of Part II, Chapter 6.

Next, in order to visualize and further discuss the third guideline (i.e., no slurring in string crossing), I present a very popular, highly idiomatic modern jazz pattern. Because of the frequent string crossing, syncopated bowing cannot be involved that much.

Example 3.4–3: “No Syncopated Bowing Applied in String Crossing”



It can be said that the above pattern is among the most frequently heard in modern jazz.¹⁷ In order to visualize my discussion of string crossing in the previous subchapter, below I present this pattern again. This time, however, syncopated bowing is also applied to string crossing, for the sake of comparison.

Example 3.4–4: “Syncopated Bowing Applied in String Crossing”



Violinists who already have experience and skills in syncopated bowing will notice that this latter version of the same pattern is not considerably more technically demanding. I agree; in this case, string crossing does not increase the challenge significantly. However, later in this study I present several melodically more complex idiomatic patterns in which syncopated bowing in string crossing would make the patterns much more difficult to perform, at least in fast tempos. In addition, in order to maintain a certain consistency in the bowings of the musical examples, I chose to follow my third bowing guideline (i.e., no slurring in string crossing).

I believe the above presentation and discussion of bowing guidelines creates sufficient consistency in the communication of my fingering strategy. At least they should explain and make transparent the reasons for the majority of my slurring choices and, in this respect, considerably lessen misunderstanding and confusion. I encourage readers to employ their creativity when approaching the musical examples in this study. In the end, the bowings and bowing guidelines I

¹⁷ I return to this popular pattern in Part II, subchapter 6.5.

have presented can be seen and taken as relatively subjective suggestions. I hope that jazz violin bowing issues will be discussed in greater detail in future pedagogical publications.¹⁸ The subject is of the highest importance—and so far very little has been expressed in writing.

¹⁸ The best discussions of jazz violin bow technique that I have found so far are by Pierre Blanchard. See his *Le Jazz au violon: Méthode pour jouer et accompagner, volume 1* (Jazz on violin: A method for playing and accompanying, volume 1) (Paris: Editions Henry Lemoine, 2003), 77-97. Blanchard successfully puts his approach and instruction into practice in the first part of his second volume as well. See *Le Jazz au violon: Méthode volume 2, L'Improvisation et ses développements* (Jazz on violin: The improvisation and its developments, volume 2) (Paris: Editions Henry Lemoine, 2007), 3-50. Both publications are published only in French. The translations of the titles are mine.

CHAPTER 4

Shifting

My fingering strategy necessitates a good shifting technique and therefore this study needs a chapter of its own on shifting. In order to become fluent and accurate with shifting, most violinists must study it regularly. Many works in the pedagogical classical violin literature include valuable analyses, exercises, and discussion of shifting. Carl Flesch, Ivan Galamian, and Simon Fischer, for example, have examined and explained the subject in detail in their publications. Violinists who are interested in developing their shifting technique in general should study at least the output of these classical violin pedagogues. However, shifting can hardly be studied from books only; the best way to make progress with its subtleties is naturally to study with a competent teacher.

I do not have anything to add to the achievements of pedagogical classical violin literature regarding complex technical aspects such as the physical shifting movement.¹ Hence, I leave these sophisticated issues to others. Within the limits of the present study, I cannot include all the different factors involved in shifting, or discuss the related literature in detail. I thus present only some essential views and examples focusing on those shifting issues which are closely connected to my fingering strategy. In the examples, aspects of jazz improvisation are naturally taken into concern.

4.1 Shifting in Jazz Violin Playing

The common ideals of jazz improvisation allow jazz violinists to pass or ignore to some extent, the challenges of shifting. The music that jazz violinists improvise is supposed to be fresh, composed at the exact moment.² Given the ideal of personal expression, jazz violinists are naturally allowed to shift exactly as they wish (or not to shift at all). This ideal has an effect on technical decisions and leads to a simple logic: If it sounds good—it is correct. If it sounds good and it is practical—it is even more correct. Since there are “no wrong” notes in jazz, there are “no wrong shifts” either.

This means that the shifts in jazz may be silent or audible—even if an audible shift would be a result of a technical shortcoming. If the musical results appeared to be poor, jazz performers can always pass the potential criticism by implying that this was the way they wanted and planned them to be. Hence, in jazz the technical aspects of shifting are not necessarily included as much in the discussion of the qualities of expression as they frequently are, for example, in classical violin

¹ A shift includes several sophisticated details: preparing the shift, smooth arm or wrist movements, timing of the movement, finger pressure, and relaxation, for instance. The influence of physical shifting movement alone on intonation is carefully studied, for example, in Lajos Garam's doctoral thesis, *The Influence of the Spatial-Temporal Structure of Movement on Intonation during Changes of Position in Violin Playing* (Helsinki: Sibelius Akatemia, 1990).

² For practical reasons I refer to a common view that defines improvisation as *instantaneous composing*. This short description is an arguable compromise. Accurate definition of improvisation, however, falls outside the scope of this study. I suggest that readers who are interested in the matter should familiarize themselves with, for instance, Derek Bailey's views in *Improvisation: Its Nature and Practice in Music* (New York: Da Capo Press, 1993 edition of the 1980 edition, supplemented with photographs), ix.

music. Consequently, for jazz violinists there is no distinction made, as there is in classical violin technique, between a technical versus an expressive shift.³ To the contrary, in jazz violin the shift can always be considered to be an expressive one.⁴ For this reason, attempts to formalize a comprehensive approach will surely fail since, in the end, a personal jazz style is always a combination of diverse technical approaches and applications.

Thus, in respect to shifting, any technical discussion of jazz violin has to remain open. Only in an open discourse can the ideal of personal expression be taken into consideration. Consequently, all glissandos and “bad” intonation (which could be heard as mistakes within certain types of classical music, for instance) must be allowed and their potential status as means of expression has to be acknowledged. Subsequently, the technical approach to shifting I present in this chapter should be understood as an alternative designed specifically for the needs of my fingering strategy. My shifting approach conveys elements and views which may seem somewhat extreme to some violinists. Therefore I want to remind readers that the approach need not be followed literally, and that it is not the only shifting approach through which my fingering strategy can be successfully applied.

4.2 Shifting Guidelines for Schematic Fingering

I call my shifting approach *Replacing*.⁵ Due to certain of its characteristics, Replacing may seem to be somewhat different than common shifting approaches popular in classical violin technique. The major differences, I assume, arise from the fact that Replacing frequently reflects the schematic fingering approach. According to my research, schematic fingering is not frequently employed in popular pedagogical classical violin literature.⁶

My fingering strategy relies on a considerable reduction of the number of fingerings. In reducing the number of fingerings, the strategy relies on systemization, and this systemization should be carefully applied to shifting as well. This is the fundamental difference between Replacing and more common shifting approaches. In order to articulate this clearly, I present below the major shifting guidelines that form the basis of Replacing.

³ Expressive shifts usually include an audible glissando while technical shifts do not. For further reading on the difference between a technical and expressive shift see, for example, Robert Gerle, *The Art of Practising the Violin: With Useful Hints for All String Players*, 2nd ed. (London: Stainer & Bell, reprint, 2000), 96-97.

⁴ Roughly speaking, in jazz, all acts having an influence on the auditory result are part of expression. Thus, the sound producing itself or all the sounds and *noise* resulting from the physical work needed for sound producing also can be or become a significant part of one's personal jazz expression. Classic examples of this are Miles Davis' trumpet sound and Ben Webster's tenor saxophone sound.

⁵ In short, Replacing means a shift that employs an intermediate note or a succession of intermediate notes between the points of departure and arrival. At the end of a shift a finger often takes the place of another. The origin of this term is explained below in detail, in subchapter 4.4.1.

⁶ See Part I, Chapter 6.

1. The schematic fingering and fingering schemes should guide decision-making in shifting. This means that any kind of shifting is accepted if it respects schematic fingering and helps to maintain the fingering schemes.
2. Consequently, the maintenance of the fingering schemes can lead to shifts which otherwise can seem “undesirable” from a more conventional point of view. For example, shifts from the fourth finger to the first, and vice versa, can occur often. In classical violin music, this kind of shift is often avoided since it increases the risk of an audible glissando.⁷ In my fingering strategy, the fingering schemes take priority in fingering decisions. Hence, the maintenance of the fingering schemes can take precedence, for instance, over challenging, risky, and “undesirable” shifts.
3. However, shifting should never intentionally be challenging or risky. Easy, smooth, unrecognizable shifting alternatives should always be considered. If good intonation and inaudible shifts are accepted as desired common goals (and in jazz violin playing they usually are and consequently should also be in regard to my fingering strategy), shifting should take them into consideration—immediately after first insuring the maintenance of the fingering schemes.
4. The goal of shifting is to become and remain aware, as often as possible, of the dimensions and relationships of the violin fingerboard, of the exact location of the hand, of the particular position played at the moment, of the locations of other positions on the violin fingerboard, and of how to reach and move to the other positions as exactly as possible.
5. Shifting movements should be as relaxed and smooth as possible. Any stiffness, awkwardness, tension, or other disturbing physical activity within a shift should be avoided.⁸
6. However, the ideal of personal expression typical to jazz still applies to shifting. Ideally speaking, ultimately, any shifting choice and decision is always an individual one—and therefore correct. Consequently, these guidelines should be taken as suggestions, not as prescriptions.

In order to shed light on the relation between schematic fingering and shifting, I present some practical examples. In what follows, I employ a simple melodic device typical to modern jazz, called *four-note patterns*.⁹ Although four-note patterns employ two adjoining strings, they can be

⁷ See, for example, Carl Flesch, *Violin Fingering: Its Theory and Practice*, English adaptation by Boris Schwarz (London: Barrie and Rockliff, 1966), 108.

⁸ The details of shifting movements should always be studied with a competent teacher. Shifting technique is addressed and discussed in detail in the classical violin tradition, which I recommend as a source of reference.

⁹ Although this melodic device is very popular in jazz, it does not have an established name. I have adopted the term from Lewis Porter. He employs it when discussing and analyzing Coltrane’s *Giant Steps*. See Lewis Porter, *John Coltrane: His Life and Music*, 1st paperback ed. (Ann Arbor: The University of Michigan Press, 1999), 145-170.

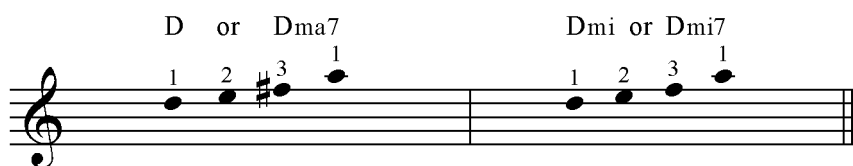
seen as applications of fingering schemes and are thus effective in visualizing and getting a feel for (i.e., “tactilizing”) my shifting guidelines.¹⁰

4.3 Four-Note Patterns and Cycle of Fifths

In jazz, four-note patterns were popularized by John Coltrane in his legendary *Giant Steps* solo.¹¹ In that particular solo, Coltrane frequently based his melody improvisation on a pattern composed of the first (i.e., the tonic), second, third, and fifth scale degree of the underlying harmony. Such four-note patterns have been popular among jazz musicians ever since. This pattern type is especially suitable for an instrument tuned in fifths, and violinists should become very familiar with it.

The example below shows the basic form of a major and a minor four-note pattern. Both are employed in the following exercises. In the example, I indicate the chord symbols of the triads that reflect the patterns. The patterns, however, can be also employed in outlining a major seventh and a minor seventh chord respectively, although they do not include all the characteristic chord tones.

Example 4.3–1: “A Major and a Minor Four-Note Pattern”



The four-note patterns spell out the triad of the background chord. The second scale degree (or the ninth of the chord) makes the patterns rhythmically suitable for modern jazz improvisation that often includes continuous even-numbered eighth note lines.

For violinists, the four-note patterns are easy to play, especially when the tonic is stopped by the first finger. When the first finger is set on the tonic, the fourth note of the pattern (on the upper adjacent string) can be found just by moving or rolling the first finger (see the above example). The reaching of the particular fourth note can also be prepared by simultaneously stopping the two adjoining strings right from the beginning. The second and third fingers fall into place almost without effort within this interval frame of a perfect fifth on two strings. If the fifth is to be altered (e.g., to a diminished or augmented fifth), the first finger falls on the upper string a half step lower or higher than the tonic. Consequently, even when the fifth is altered, the four-note patterns are relatively practical on violin.

¹⁰ In Robert Gerle’s terms they actually reflect fingering schemes (see Part I, Chapter 4.1), but in Lockwood and Darizcuren’s terms (see Part I, subchapter 3.2) they do not since they employ two strings instead of only one.

¹¹ *Giant Steps* was issued for the first time on Coltrane’s *Giant Steps* album, in 1959. There are many CD editions of the album. Most recommended is John Coltrane, *The Heavyweight Champion: The Complete Atlantic Recordings*, Atlantic Recording Corporation, R2 71984. *Giant Steps* is included in this box set of seven CDs.

My experience suggests that these four-note patterns are excellent melodic material for shifting exercises.¹² The first shifting exercise below employs the four-note patterns in their simplest form. The patterns effectively serve the most important goal of the exercise: becoming more familiar with the measurements of the violin fingerboard. Here, the basic form of a four-note pattern takes two beats, leaving a rest of two beats for the shift.

Example 4.3–2: “Four-Note Patterns Exercise #1”¹³

While playing this exercise, violinists should keep in mind that the first goal is to become more familiar with the fingerboard by shifting up and down. Shifting accurately is the second goal. In each measure, there is always a two beat rest available for hearing the next target note in advance and executing the shift to the new position. The intonation must be as accurate as possible. If problems of playing the exercise in tune are experienced, the tempo has to be slowed down until the whole exercise can be played in tune.

The third goal of the exercise is to learn to remember the places of the positions on the fingerboard. Simultaneously, the names of the reference pitches to be stopped should be internalized. Presumably, most violinists already know and effectively remember some positions and their reference pitches (e.g., the third position; the first finger on D on the A string in the first measure). Again, some positions and reference pitches (e.g., the fourth position; the first finger on Af on the D string in the eighth measure) some violinists may find difficult to find and recall. If violinists notice that they are insecure with certain positions and their reference pitches, they should

¹² Although the following three exercises are designed in connection with schematic fingering in modern jazz violin improvisation, I believe they can also benefit violinists of other music genres.

¹³ The four-note pattern fingering naturally remains the same throughout the exercise, although it is indicated in detail only in the first two measures. The chord symbols indicate major seventh chords. The four-note patterns are often employed for outlining them as well, although the patterns do not include the major seventh.

pay special attention to becoming better acquainted with them. A simple but effective way to do this is to slow down the tempo so that there is time to say the tonic before (or while) the particular four-note pattern is played.

I want to stress that being able to shift accurately and speaking the names of the reference pitches up to the fifth position (at least) is essential for the fingering strategy introduced in this study. If violinists wish to effectively apply the strategy in modern jazz improvisation, they should really be aware where their hand is on the fingerboard at any moment—and where it should be next (i.e., where to shift to, as necessary).

It is naturally possible to succeed through playing by ear (i.e., it is possible to succeed in finding the desired position approximately and then quickly correct the estimation by referring to the background harmony accompaniment, for instance). At least at the beginning stages, most violinists have to rely on their ears. However, if violinists plan to learn to apply advanced schematic fingering in modern jazz improvisation, “approximate shifting” that depends mainly on hearing and relying on the background harmony will not suffice. The following chapters will crystallize the support for this conclusion.

Timing is another essential part of shifting technique. Therefore, the fourth goal in the previous exercise is to shift in time. Keeping this goal in mind, I have kept the patterns rhythmically simple. In order to make progress in timing, I recommend playing with a metronome.¹⁴ There naturally is a danger that shifts can become tight or stiff when the focus is on timing. In my teaching experience, this can often happen. Thus, if violinists notice that their shifting movements are “sharp, edgy, and jerky” instead of “smooth, relaxed, and gliding” they should slow the tempo to a pace where they can shift without any tension.

At the beginning, it is not necessary to be that concerned about the accuracy of execution of the four-note patterns. Accuracy in shifting and other aforementioned four goals are far more important. Of course, later, as the fifth goal, the intonation of the patterns must be brought to the highest possible level of accomplishment. It is also important to focus on such things as phrasing and bowing.

As can be seen, the short “Four-Note Patterns Exercise #1” is actually not quite as simple as it may at first seem. It already conveys several aspects to become familiar with and to practice. The exercise also presents and “tactilizes” the shifting guidelines I presented earlier (i.e., the fingering schemes guide the shifting and the scheme is purposively maintained). Although it seems that there are already quite a few things to be concerned with in this first shifting exercise, violinists should not be afraid to continue to the next level. At the next level, the above four-note patterns and the cycle of fifths are played anywhere on the fingerboard, in high positions as well.

In order to proceed to this, violinists should, however, first try it without reading any further. They should stop here for a moment, accept a small creative challenge, and attempt to design,

¹⁴ The metronome can beat on the fourth notes (i.e., mark the 4/4 time), or just on the first and the third beats. However, a more common way in jazz practicing is to employ (i.e., to hear) the metronome beating on the second and the fourth beats.

compose, or improvise their own version(s) of the previous exercise. Many violinists will presumably find it easier to play the cycle of fifths, as they may rely on their hearing and do not need to read the music. To create an original exercise from a given model is the best way to internalize new information. In my experience, frequently investing something of one's own in exercises created by someone else (while still focussing on the same technical issues) leads to far more satisfying, enjoyable, and effective practicing.¹⁵

- *ad lib.* -

Those who attempt to employ their own versions of this exercise will presumably notice that following the cycle of fifths sometimes allows staying in the same position (but employing other strings) in order to play the next four-note pattern. They presumably will also notice that this happened in the previous notated exercise while playing measures 1 to 2, 3 to 4, 5 to 6, 7 to 8, and 9 to 10. Consequently, the cycle of fifths sometimes leads to shifting a whole step downwards. In the previous example this happened when moving from measure 2 to 3, 4 to 5, 8 to 9, 10 to 11, and 12 to 1. While trying to play the four-note patterns through the cycle of fifths in higher positions, these two features should be kept in mind. Violinists should feel free to rely on them since they are now learning important aspects about the violin fingerboard: they are learning its dimensions, relations, and inherent logic.

Below appears a version of the first exercise in which higher positions are employed. This time the sequence begins from the seventh position (on the third, the D string).¹⁶ This is simply for variation. Violinists should also vary the starting place in their own similar exercises. It is important to become familiar with frequent exercise variation since such variants provide a natural way of achieving a more flexible instrumental technique.

¹⁵ I recommend that readers try to frequently practice their own creativity and apply their creative impulses to other exercises and examples—and, naturally, in this study as well. I believe that imagination and inventiveness are among the most important qualities of a jazz musician. I subscribe to Kenny Werner's observations: "Innovation is jazz" and "Innovation is the [jazz] tradition." See Kenny Werner, *Effortless Mastery: Liberating the Master Musician Within* (New Albany: Jamey Aebersold Jazz, 1996), 8. The underlining appears in the original.

¹⁶ I follow the common procedure and indicate the strings with the Roman numerals appearing below the staff.

Example 4.3–3: “Four-Note Patterns Exercise #2”¹⁷

The musical score consists of three staves of music in 4/4 time. Each staff contains four measures, each with a four-note pattern. The chords and fingerings are as follows:

- Staff 1:**
 - Measure 1: $D^{\flat}ma7$, fingering 1 2 3 1, position III.
 - Measure 2: $G^{\flat}ma7$, fingering 1 2 3 1, position II.
 - Measure 3: $Bma7$, fingering 1 # # #, position II.
 - Measure 4: $Ema7$, fingering 1 # # #, position III.
- Staff 2:**
 - Measure 1: $Ama7$, fingering 1 # # #, position II.
 - Measure 2: $Dma7$, fingering 1 # # #, position II.
 - Measure 3: $Gma7$, fingering 1 # # #, position III.
 - Measure 4: $Cma7$, fingering 1 # # #, position II.
- Staff 3:**
 - Measure 1: $Fma7$, fingering 1 # # #, position III.
 - Measure 2: $B^{\flat}ma7$, fingering 1 # # #, position II.
 - Measure 3: $E^{\flat}ma7$, fingering 1 # # #, position III.
 - Measure 4: $A^{\flat}ma7$, fingering 1 # # #, position II.

There are two major upward shifts in this exercise; in measures 2 and 5. In these two places, violinists must shift two or three positions upwards. In both places the actual size of the shift is the interval of perfect fourth. However, according to the violin position numbering system and the way I have notated the exercise, the distance seems to be smaller when moving from the second measure to third.¹⁸ In this case violinists are encouraged to rely on their ears (the exercise does follow the cycle of fifths).

So far, only the major version of the four-note pattern has been employed. The minor four-note pattern differs from the major pattern by just one note. In the following exercise, the cycle of fifths is played again, this time using only the minor chords. In order to add more variety and to encourage violinists to shift more freely, I have included some larger shifts in this exercise.

¹⁷ The four-note pattern fingering naturally remains the same throughout the exercise, although it is indicated in detail only in the first two measures. The chord symbols indicate major seventh chords.

¹⁸ See Part I, subchapter 1.6.1.

Example 4.3–4: “Four-Note Patterns Exercise #3”¹⁹

The musical score consists of three staves of music, each containing four measures. The notes are written in treble clef with a key signature of one flat (B-flat). The chord symbols and fingering numbers are as follows:

- Staff 1:
 - Measure 1: E^bmi7 , fingering 1 2 3 1, position III
 - Measure 2: A^bmi7 , fingering 1 2 3 1, position III
 - Measure 3: D^bmi7 , fingering 1 2 3 1, position II
 - Measure 4: $F^\#mi7$, fingering 1, position III
- Staff 2:
 - Measure 1: $Bmi7$, fingering 1, position III
 - Measure 2: $E mi7$, fingering 1 2 3 1, position II
 - Measure 3: $A mi7$, fingering 1 2 3 1, position II
 - Measure 4: $D mi7$, fingering 1, position III
- Staff 3:
 - Measure 1: $G mi7$, fingering 1, position IV
 - Measure 2: $C mi7$, fingering 1 2 3 1, position IV
 - Measure 3: $F mi7$, fingering 1 2 3 1, position III
 - Measure 4: $B^b mi7$, fingering 1, position II

The reason I have relied on the cycle of fifths so far is that the dominant-tonic relations (i.e., chords moving a perfect fifth down or a perfect fourth up) are a highly important element in tonal modern jazz harmony. The dominant-tonic relation is therefore central in my fingering strategy as well, and I want violinists to become very accustomed to shifts that follow the related intervallic patterns.

I want to emphasize that the previous example is just one way of combining minor four-note patterns and the cycle of fifths. Some of the shifts above may appear unreasonable, and I agree that some of them really are. However, I decided to finger the exercise in this manner just in order to remind violinists that they should also learn to take advantage of the higher parts of the fingerboard. It is naturally appealing to “play it safe” and stay within the reach of just the first four or five positions. Such a desire is understandable at first, especially if the kind of shifting in question appears to make new demands. Nevertheless, the sooner violinists also familiarize themselves with the higher positions, the faster they will be able to master the entire violin fingerboard.

Still, no matter how fearlessly and bravely violinists play in higher positions, it may often appear rather difficult to shift to the higher pitches quickly and correctly. Anyone who is not used to employing the upper parts of the fingerboard frequently will at first be a bit lost. There is, however, an aid to this problem: my Replacing shifting approach. I introduce and discuss it in the following subchapter. The approach presents ideas, suggestions, and exercises to help violinists become more

¹⁹ The four-note pattern fingering naturally remains the same throughout the exercise, although it is indicated in detail in the first two measures only. The exercise begins on the D string, in the first position. The chord symbols indicate minor seventh chords. The four-note patterns are often employed for outlining them as well, although the patterns do not include the minor seventh.

secure in finding the higher positions. The approach also shows ways of managing certain of the more difficult shifts in the previous example.²⁰

4.4 Replacing – An Alternative Shifting Approach

In a fingering strategy such as mine, it is extremely important to be able to shift meticulously. Sometimes the ear can be the sufficient reference and aid. Sometimes, however, it is necessary to be able to shift silently or at least very quietly, without depending on any audible reference but relying only on tactile and kinesthetic knowledge of the violin fingerboard. For succeeding in shifting based on tactile and kinesthetic information, I have designed Replacing.

Replacing indicates shifting to a new position with the help of an intermediate note or notes. Since there are no frets indicating the location of pitches on the violin fingerboard, violinists have to rely on their physical sensations and awareness of the fingerboard and its dimensions and relationships. The intermediate note or notes help violinists to correctly gauge and mark distances on the violin fingerboard. In Replacing, a desired interval (i.e., a distance between the points of the departure and arrival of a shift) is first gauged and marked with an intermediate note or notes. When the desired position and place has been reached with a finger, another finger takes its place (i.e., another finger *replaces* it), if necessary. With Replacing violinists can reach greater accuracy in climbing or moving faster from a lower to a higher position.

Systemization is one of the most important aspects in Replacing. The approach relies on a very limited number of principles. Through these, the approach attempts to be logical and thus easy to internalize and apply. Although my Replacing approach takes into special concern the technical needs of jazz violinists, the approach is quite applicable to contemporary classical violin playing as well.

4.4.1 Background

Replacing is not entirely a new innovation, although it includes some fresh elements. Replacing draws from technical principles with which I presume most readers are already familiar. A similar shifting approach is examined and explained, for instance, in some pedagogical classical violin literature. The approach has been referred to with different terms; no established name exists for it. Therefore, I prefer to rename it Replacing, a word that effectively summarizes the essence of the approach. Replacing shares its basics with Lockwood and Darizcuren's and Simon Fischer's shifting approaches.

²⁰ The four-note patterns and employing them in jazz violin improvisation are interesting subjects. Here, only the major and minor four-note patterns were employed. However, there are other patterns where, for example, the fifth is altered. Readers who want to inquire further into the four-note patterns and their melodic possibilities may wish to study, for instance, Jerry Bergonzi's *Inside Improvisation, Volume 1: Melodic Structures* (Rottenburg: Advance Music, 1992). This publication includes a well-reasoned and well-presented method for four-note patterns and their permutations. The play-along CD includes many popular tunes from the standard jazz repertoire. In addition to employing the CD as Bergonzi advises, I suggest it as a background for creating one's own shifting exercises.

In *Cordes & Âme*, Lockwood and Darizcuren describe a technical approach very similar to Replacing. They call their approach *displacing* (*le déplacement*).²¹ With this term the authors refer to displacing or transposing a fingering to another position. In this transposing, a finger frequently takes the place of another (i.e., a finger substitutes or replaces another). The word I chose to employ in naming my approach originates with Lockwood and Darizcuren's displacing. However, with the use of the "replacing," I want to emphasize the final moves at the end of a shift (i.e., when a finger takes the place of another).

Lockwood and Darizcuren also introduce an approach they call *interpolation* (*l'interpolation*).²² Interpolation basically refers to playing the same fingering consecutively in different positions, without the abovementioned finger substituting or replacing. The distances of the shifts are not gauged or marked but are internalized as intervals. Consequently, Lockwood and Darizcuren's interpolation and the related exercises fail to teach violinists how to learn the inherent relationships of the violin fingerboard precisely, especially with regard to higher positions.²³ Interpolation does not significantly increase control of the fingerboard's physical relationships and dimensions.

There are some similar approaches in the pedagogical literature for classical violin. The subject is naturally discussed as a part of shifting technique. Carl Flesch, for example, discusses a similar type of shifting in *The Art of Playing Violin, Book 1*. There, he employs the term *intermediate notes* when explaining how to gauge shifts with the help of a note or notes falling between the departure and arrival position.²⁴ According to Flesch, the intermediate notes are employed in shifts; these can be called *technical shifts* or *glissandi*, in distinction to *expressive shift* or *portamenti*.²⁵ Flesch, however, does not systemize the use of intermediate notes in any way. In the classical music repertoire this is naturally not necessary since the fingerings are almost always connected to notation and thus designed, prepared, and practiced in advance. Subsequently, there is no absolute need for systematization of the intermediate notes because they can be variously employed according to the composition to be performed.

In *Violin Fingering*, Flesch briefly discusses the same matters, mostly using the same terminology and definitions.²⁶ However, this time he also writes of the *change of position by leaping* and *unprepared entrances*.²⁷ With a leaping shift, Flesch indicates a shift which has to be

²¹ Didier Lockwood and Francis Darizcuren, *Cordes & Âme: Méthode d'improvisation et de violon jazz* (Strings and heart: A method for improvisation and jazz violin) (Paris: Éditions Salabert, 1998), 14. Published only in French. The translation of the title is mine.

²² *Ibid.*, 16.

²³ *Ibid.*, 16-22.

²⁴ Carl Flesch, *The Art of Violin Playing, Book 1*, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000), 13. In an (presumably early) article in German, Flesch also briefly mentions such intermediate notes (*Zwischennote*) in connection with shifting. See Carl Flesch, "Wie soll man üben?" (How should one practice?), in *Der fortschrittliche Geigenlehrer* (Bonn: W. Blobel, n.d.), 4. Published only in German. The translation of the title is mine.

²⁵ *The Art of Violin Playing, Book 1*, 14.

²⁶ *Violin Fingering*, 51-54 and 329-370.

²⁷ *Ibid.*, 138-149.

accomplished so quickly that it resembles more of a leap than a glide.²⁸ In the case of a leaping shift, Flesch still recommends the use of intermediate notes, although they have to be employed very quickly. Flesch defines an unprepared entrance as “a change of Position in which the note to be reached is ‘taken’ out of mid-air, as it were.”²⁹ In jazz violin improvisation, unprepared shifts can occur sometimes as well; for example, when violinists’ creative impulses suggest shifting hurriedly, without allowing any time to plan and accomplish (slower, more prepared) shifts. Later Flesch wisely states that a leap should always to be avoided by replacing it with a prepared shift or by staying in a position if possible. This naturally applies to jazz violin expression as well.

In jazz, an improvised solo usually includes passages that are literally created *as* the performance is taking place. Hence, the fingerings for such passages cannot be prepared and practiced in advance. However, a shifting approach can be practiced that enables violinists to find the desired pitches and positions precisely. The shifting approach should be based, at least to some extent, on the employment of intermediate notes. Since the range available on a violin string is a bit more than two octaves, violinists consequently have to learn several successions of intermediate notes. It is desirable to arrange and systemize the successions in some way and thus diminish the need for memorizing. Therefore, for example, reliance on intermediate notes that are not systemized (in the manner of Flesch) could be ineffective in jazz violin improvisation. Consequently, Flesch’s influence in my Replacing approach is limited to the employment of his term “intermediate notes,” which I find perfect.

In *Principles of Violin Playing & Teaching*, Ivan Galamian refers briefly and indirectly to a shifting approach that is very similar to that of Carl Flesch. In explaining the technical details of left-hand movement in shifting, Galamian divides shifts into three different types. Two of the musical examples Galamian presents to illustrate these three types of shift include intermediate notes.³⁰ However, Galamian does not refer to these notes by any specific term and does not further explain or comment on them. However, later in that publication, Galamian mentions *substitution of fingers* as a valuable fingering approach.³¹ This device resembles finger replacing in my approach. However, Galamian examines the substitution of fingers rather quickly and mainly as an expressive device. He does not connect it to shifting that includes larger intervals, for instance. Hence, in this respect, Galamian’s thinking was only an interesting reference.

Terje Moe Hansen presents his relatively fresh point of view to the division of a violin string in *A Modern Approach to Violin Virtuosity: The First Complete Method for the Intervals & Shifts, Part I*. In his division, Hansen employs a range with an open string at the lower end and a pitch two octaves higher at the higher end. In Hansen’s terms, this two-octave range, or *zone*, is divided into

²⁸ Smooth gliding is always preferable in shifting. Such movement is possible with slower shifts. I discuss this detail more below, in subchapter 4.4.4.

²⁹ *Violin Fingering*, 138. Capitalization in the original.

³⁰ Ivan Galamian, *Principles of Violin Playing & Teaching*, 3rd ed. (Ann Arbor: Prentice-Hall, 1985), 25.

³¹ *Ibid.*, 36.

units. The units divide the zone into intervals of equal size.³² Hansen first divides the zone into two units (two perfect octaves), then into three units (three minor sixths), four units (four tritones), six units (six major thirds), eight units (eight minor thirds), and finally into whole steps and half steps.³³

Although Hansen's concept of dividing a two-octave range into interval units is interesting, this concept fails to support shifting since it suggests relying on an open string. My experience suggests that employing an open string as the basis for shifting and gauging of the violin fingerboard (or both) is highly risky and not recommended. The fingers should always be in contact with the string (if possible) when the distances on violin fingerboard are gauged and when a shift is made. In this respect, I lean on the support found, for example, in Carl Flesch's writings.³⁴ Hansen's approach is also not that well-presented; he offers little discussion of his relatively complicated system and exercises. Hence, his approach is somewhat difficult to understand and challenging to apply.³⁵

Simon Fischer, the author of *Basics: 300 Exercises and Practice Routines for the Violin*, has approached gauging the fingerboard in a systematic way. In discussing the challenges of violin intonation, Fischer introduces short successions of notes which "are a secure way to find the correct hand position or note." His secure way refers to *guide-notes*.³⁶ Fischer's guide-notes approach, which he presents also as notated examples, is similar to the one I present here as Replacing.³⁷ However, there are also certain significant differences between Fischer's approach and mine.

The major difference between Fischer's guide-notes and my Replacing approach lies in the range: Fischer's guide-notes do not reach beyond the interval of one octave (i.e., the eighth violin position). I argue that in jazz violin improvisation one should aim to master most of the violin fingerboard, even the highest positions. Thus eight positions cannot possibly be enough.

Some jazz violinists may find little use for the highest positions. It is true, for example, that while playing in the highest positions the arm and hand are positioned in an uncomfortable and impractical way. In the highest positions the sound of the instrument can also be so different from the sound typical for the lower positions that it appears less appealing and perhaps unsatisfactory. Needless to say, maintaining good intonation can be so demanding and stressful at the upper end of the fingerboard that violinists often prefer to avoid that particular section when improvising. Still, I am convinced that the first eight positions cannot be sufficient for modern jazz improvisation and

³² Terje Moe Hansen, *A Modern Approach to Violin Virtuosity: The First Complete Method for the Intervals & Shifts, Part I* (Oslo: Warner/Chappell Music Norway A/S, 1997), 10-11.

³³ According to the Western tuning system, a half step is the smallest interval. Thus the range of two octaves cannot be divided into five or seven equal units.

³⁴ I return to this below when discussing the minor seventh arpeggio as the basis of my Replacing.

³⁵ A small, informal survey among my colleagues suggests that Hansen's publication is to some extent regarded as problematic. Several colleagues agree that while Hansen's approach is obviously brilliant, the publication does not communicate effectively and clearly. The approach presumably reveals its full potential better when it is studied in Hansen's presence.

³⁶ Simon Fischer, *Basics: 300 Exercises and Practice Routines for the Violin*, (London: Edition Peters, reprint, 2000), 188. In his *Practice: 250 Step-by-step Practice Methods for the Violin* (London: Edition Peters, 2004), 159-171, Fischer discusses the same technical approach by employing terms *substitutions* and *intermediate notes*. When discussing Fischer's approach I refer only to his earlier work, *Basics*, where he examines this subject in more detail.

³⁷ *Basics: 300 Exercises and Practice Routines for the Violin*, 189-190.

therefore my Replacing encompasses the range of two octaves and a major second on one string (i.e., positions 2 to 15). This range takes the vast expressive qualities and possibilities of violin instrument fully into consideration.³⁸

The second major difference between Fischer's approach and mine can be found among the selection of *signposts*; that is, from the selection of trusted and dependable points of tactile and kinesthetic information and support on the fingerboard. Fischer obviously relies on the third and fifth positions, which are both frequently employed in his guide-note successions.

I agree with Fischer about the benefits of creating signposts on the violin fingerboard. Since there are no frets or any reliable visual aids on the fingerboard, violinists have to favor certain positions as signposts in order to be able to gauge the distances. The third and fifth positions are also employed as signposts in my approach. However, this is the case only because both positions are parts of the minor seventh arpeggio, which is the actual collection of signposts (the "ladder") as will soon be seen.

The third major difference between Fischer's guide-notes and my Replacing is the matter of systematic consistency. Fischer's guide-notes seem to apply scalar, arpeggiated, and other intervallic motion. Fischer's approach is thus inconsistent, not very systemized—and for this reason, difficult to internalize. For the purposes and goals of jazz violin improvisation, and my fingering strategy in particular, a considerably more systemized and logical approach is needed. The intermediate notes (or guide-notes in Fischer's terms) must adhere to rather simple principles in order to significantly reduce the challenges of shifting. In Replacing, the main principle is the use of a minor seventh arpeggio on one string. By depending mostly on this one and only arpeggio, the approach attempts to be more practical and concrete.

4.4.2 Theoretical Framework

In order to create a consistent shifting approach, I had to apply certain limitations and guidelines. These choices form the theoretical framework of Replacing and I want to present them first.

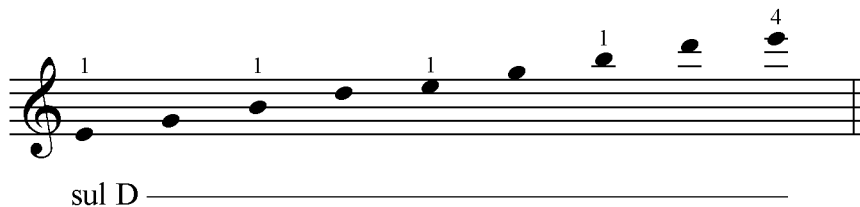
First of all, the goal of Replacing is to aid jazz violinists to find any of the pitches (and positions) on the fingerboard silently and accurately. However, the approach is limited to the range of two octaves and a major second higher than an open string. Naturally, on a violin fingerboard pitches even above this range can be reached and played. These extremely high pitches, however, are seldom employed. I thus conclude that the range of two octaves and a major second is sufficient. This range is neatly limited by the minor seventh arpeggio, which I employ as a signposting "ladder" within the approach.

³⁸ It is true that many jazz violinists may find little expressive use for positions higher than, for instance, tenth position. I believe, however, that the highest positions carry some great expressive potential, which could be employed better and more frequently in jazz violin music. Therefore, I chose to reach up to the 15th position in Replacing. The range could naturally be even larger than this. Depending on how one gauges the violin fingerboard, the range could reach approximately a perfect fifth above the 15th position (i.e., until the 19th position). Since the pitches above the 15th position are physically located very close to each other on the fingerboard, they become very challenging to stop. Therefore, I considered these pitches not worth to be included in the range of my approach.

The second important goal of Replacing is to help jazz violinists stop the string with the first or the second finger in any of the positions within the range of two octaves and a major second. The reason for supporting only the first and second finger lies in the musical material (i.e., idiomatic pattern examples) I present elsewhere in this study. According to the fingering guidelines I chose to follow for idiomatic patterns, the majority begin with the first or second fingers.³⁹ In this respect, the third and fourth fingers are not frequently employed.

Replacing relies on a minor seventh arpeggio on one string. The example below presents the Emi7 two-octave arpeggio which is the basis of Replacing on the D string. Accordingly, on the G string the arpeggio would spell out the Ami7 chord; on the A string, the Bmi7 chord; and on the E string, the F#mi7 chord.

Example 4.4–1: “E Minor Seventh Arpeggio on the D String”



The main reasons for employing the minor seventh arpeggio are as follows.

1. The minor seventh chord is one of the most common chord types in jazz harmony. Jazz violinists should be very familiar with its sound and color.
2. The chord is rather symmetrical; the minor third interval appears frequently in the arpeggio.
3. The interval of the minor third is very easy to play in the first position when stopped with the first and third fingers. The physical distance involved follows the anatomy of the hand and is thus more suitable than that of a major third, for example. Consequently, when stopping the minor third in the first position, the fingers can be dropped very comfortably; no special physical tension, stretch, or force is needed.⁴⁰ In upper positions, the physical distances between the notes are naturally smaller and there is little difference between the muscular tension when stopping a major or minor third. However, in order to maintain symmetry, the repetition of the minor third (the starting interval of the arpeggio) is preferable.
4. Employing the third finger in the first position aids in finding and maintaining an ideal wrist position for violin.⁴¹

³⁹ I present these fingering guidelines at the beginning of Part II, Chapter 6.

⁴⁰ For support see Carl Flesch's *The Art of Violin Playing, Book 1*, 96.

⁴¹ Szende and Nemessuri advocate that a good third finger foundation is beneficial in many fundamental ways. See Ottó Szende and Mihály Nemessuri, *The Physiology of Violin Playing*, translated by I. Szmodis (London: Collet's Ltd., 1971), 61.

5. The symmetrical chord structure should make Replacing more systematic and consistent by significantly reducing the number of intermediate note successions to be internalized.
6. The minor seventh chord emphasizes the first, fifth, eighth, and twelfth positions. The joint between the violin neck and body offers some tactile help when learning and remembering the place of the fifth position.⁴² The same does not apply to the fourth and sixth positions, for example, which could be seen as alternatives to the fifth position. It should be noted that the intervals (distances) the first finger glides through in the minor seventh arpeggio are a perfect fifth (from the first to fifth position), a perfect fourth (from the fifth to eighth position), and a perfect fifth (from the eighth to twelfth position). Being aware of such symmetry can also help.
7. This chord arpeggio is a highly melodic structure for moving from a lower position to a higher one. The melodic aspects of the arpeggio are very clear. My experience suggests that employing the arpeggio is also easier than employing intermediate note structures based on scalar motion or intervallic leaps greater than a third.
8. The employment of the arpeggio forces the fingers to maintain contact with the string. The arpeggio also encourages the hand to gauge the distance as a glide, instead of carrying out shifts as rapid movements in the air, for instance. Shifting without any finger contact with the fingerboard has been shown by many respected classical violin pedagogues to be highly risky.⁴³
9. The arpeggio allows violinists to employ easy finger *hammering* while making the shift.⁴⁴ Consequently, if violinists wish, they can make the succession of the intermediate notes faintly audible through hammering. The soft hammering sound can be used as an aid for checking the accuracy of a shift. The left-hand, hammer-like finger stopping is often enough for producing sound; the right or left hand fingers are not needed for plucking the string.⁴⁵

The Replacing approach is built on the idea and image of a “ladder” constructed of the minor seventh arpeggio on a string.⁴⁶ Instead of relying on other possible signposts (such as familiar

⁴² Among string bass players (in jazz at least), it is very common to purposively depend on the joint between the neck and the body of the instrument when learning and implementing the positions. In violin technique this is not as common. However, I suggest that this idea should be applied more frequently in violin instruction.

⁴³ See, for example, Carl Flesch, *Violin Fingering: Its Theory and Practice*, English adaptation by Boris Schwarz (London: Barrie and Rockliff, 1966), 147.

⁴⁴ *Hammering* is a word violinists frequently employ in describing finger stopping which is slightly more active and stronger than usual. Hammering commonly indicates dropping of the stopping fingers on the string with such strength that they create an audible but faint pitch or noise. This soft pitch is equal to the pitch produced (from the same place) with the bow, for instance. Hammering should always be relaxed and unforced. In hammering, the sound is produced only by the stopping finger. Consequently, hammering is not to be confused with left-hand pizzicato, for instance, since hammering does not include any plucking movement.

⁴⁵ It must be noted here that the hammering can be very strenuous for the muscles of the left hand fingers and hand, and left arm. Therefore, hammering should be employed only after careful consideration and yet preferably just for short time periods. Hammering should never be employed continuously or for long time periods, especially if it feels uncomfortable.

⁴⁶ I want to stress that the image of a ladder can already be of significant help in understanding and employing Replacing.

positions or harmonics) or their combinations, the approach refers to only this one melodic structure. For readers who are not familiar with the sound of the minor seventh arpeggio and with playing the arpeggio on one string, or both, Replacing may at first appear challenging.⁴⁷ However, I am convinced that once readers have accurately learned to play the chord arpeggio on one string, they will soon make progress with the rest of the approach.

The meaning and usefulness of the minor seventh arpeggio should be clear when moving to positions higher than the eighth. In the case of lower positions (i.e., when just the beginning of the “ladder” is employed or “seen”), the arpeggio typically appears slightly less relevant. Consequently, in lower positions, some other principles seem to guide Replacing when the arpeggio “ladder” has a minor role. For instance, the third position is frequently relied on since the position gets considerable attention in violin education and since readers presumably have a good command of it. The interval of perfect fourth (between the first and fourth fingers) and the interval of major third (between the first and third fingers) are also relied on when suitable and practical.

In Replacing, a shift to a higher position always begins from the first position. At first, this may appear as a restriction. However, the restriction is essential. In order to succeed in gauging any distance, there has to be one stable point or a place that does not (easily or frequently) change. In the case of left-hand violin technique, it is common to rely on the first position as the hand placement that all violinists can always find, trust, and depend on. In many violin pedagogies, the first position is seen as the bedrock or firm foundation on which the art of fingering is built. This is also the case in Replacing. The first position is thus seen as the base, the starting (stable) point of all shifting. No other position or aspect (such as an open string or a harmonic) will suffice in the case of a shifting approach with the particular goals (i.e., systematization and accuracy) I have in mind.

From the aforementioned conclusion, it follows that—if the approach is interpreted very strictly and literally—it is not possible, for instance, to shift directly from the eighth position to the fifth without visiting the first position in-between. Many readers may find this restricting, and it is true that sometimes it is not practical to shift from a higher position to a lower one via the first position. In Replacing, being able to gauge the fingerboard and to find any position accurately is stressed as an important goal and condition. In order to accomplish this, the approach must have a firm foundation for gauging, and in this respect the first position is the foundation.

In other words, the “ladder” in Replacing is mainly employed for climbing upwards. This naturally raises the question of why it cannot be employed for climbing downwards. Why cannot Replacing be employed for shifting accurately from the eighth to fifth position? In order to gauge distances downwards (i.e., to move accurately downwards between positions) without visiting the first position, the stable point or the base for gauging should naturally be something else than the first position. Within the limits of this study, I could not develop an approach which would have also taken this particular aspect into consideration, but had to leave it for studies to come. This exclusion, however, does not make Replacing incomplete or insufficient. To the contrary, as a

⁴⁷ For these readers, some rudimentary exercises are given later in this chapter.

shifting approach that enables accurate upward gauging of distance and movements, it introduces and conveys information and views that are significant improvements to preceding approaches. Furthermore, Replacing fulfils the requirements of my fingering strategy.⁴⁸

4.4.3 Replacing Approach

The following examples show how shifting to positions two through fifteen can be accomplished with the help of Replacing. Accordingly, the minor seventh arpeggio is continuously employed. In the examples below, the white note heads represent the destination, the *target pitch*. The intermediate note succession (or successions) that immediately follows the white note heads indicates how to move to the target pitch. Intermediate note successions appear as black note heads and their fingerings are precisely indicated. The double bar lines separate the different target pitches and the intermediate note successions related to them.

In the case of some target pitches, I have included an alternative intermediate note succession or successions. The alternatives are separated with a dashed bar line. When alternatives are given, the most recommended succession is shown first. Some examples are enharmonic; sometimes a succession presented in the previous position (often as the last measures of a staff) also appears in the following, higher position (often as the first measures of a staff). For such occasions, the same Replacing fingering is naturally employed and the enharmonically notated successions should sound the same. Less frequently appearing notes such as B#, Cf, E#, and Ff are not presented as target pitches.

Due to space limitations, the examples appear only on the D string. Transposing the examples to other strings is left to readers. I employ the D string in the presentation for convenience; showing the examples on the D string, requires fewer ledger lines and the examples are thus easier to read.

In the first example of my Replacing approach, the target pitch is stopped with the first finger.

⁴⁸ There are some alternatives available for certain elements of Replacing, of course, and some of these I discuss later in this chapter. This discussion also includes some ideas how other shifting principles could be applied together with Replacing.

Example 4.4–2: "Replacing, Target Pitch Stopped with the First Finger"

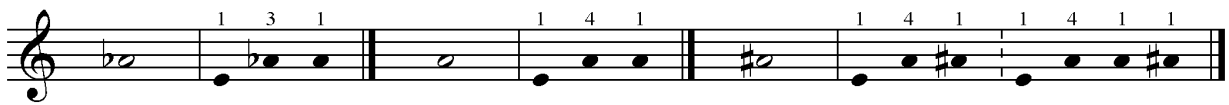
2nd Position



3rd Position



4th Position



5th Position



6th Position



7th Position



8th Position



9th Position

Musical notation for the 9th position scale run. It consists of two measures. The first measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (1), G5 (2), A5 (1). The second measure starts with a whole note A4 (finger 1) and is followed by eighth notes: B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (2), B5 (1).

10th Position

Musical notation for the 10th position scale run. It consists of three measures. The first measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (2), G5 (1). The second measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (3), B4 (1), C5 (3), D5 (1), E5 (3), F5 (1), G5 (3), A5 (1). The third measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (3), B4 (1), C5 (3), D5 (1), E5 (3), F5 (1), G5 (3), A5 (1).

11th Position

Musical notation for the 11th position scale run. It consists of three measures. The first measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1). The second measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (3), B4 (1), C5 (3), D5 (1), E5 (3), F5 (1), G5 (4), A5 (1). The third measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (3), B4 (1), C5 (3), D5 (1), E5 (3), F5 (1), G5 (4), A5 (1).

12th Position

Musical notation for the 12th position scale run. It consists of two measures. The first measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (4), G5 (1), A5 (1). The second measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (3), B4 (1), C5 (3), D5 (1), E5 (3), F5 (1), G5 (3), A5 (1).

13th Position

Musical notation for the 13th position scale run. It consists of two measures. The first measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (1). The second measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (3), B4 (1), C5 (3), D5 (1), E5 (3), F5 (1), G5 (3), A5 (1).

14th Position

Musical notation for the 14th position scale run. It consists of three measures. The first measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (2), G5 (1), A5 (1). The second measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (3), B4 (1), C5 (3), D5 (1), E5 (3), F5 (1), G5 (3), A5 (1). The third measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (3), B4 (1), C5 (3), D5 (1), E5 (3), F5 (1), G5 (3), A5 (1).

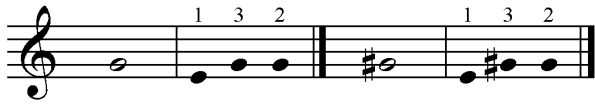
15th Position

Musical notation for the 15th position scale run. It consists of two measures. The first measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (1). The second measure starts with a whole note G4 (finger 1) and is followed by eighth notes: A4 (3), B4 (1), C5 (3), D5 (1), E5 (3), F5 (1), G5 (3), A5 (1).

Next, the target pitch is stopped with the second finger.

Example 4.4-3: "Replacing, Target Pitch Stopped with the Second Finger"

2nd Position



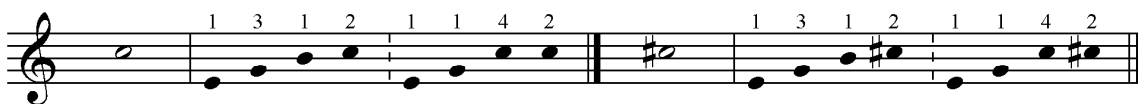
3rd Position



4th Position



5th Position



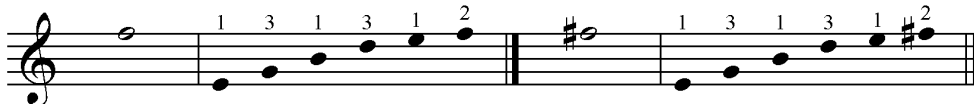
6th Position



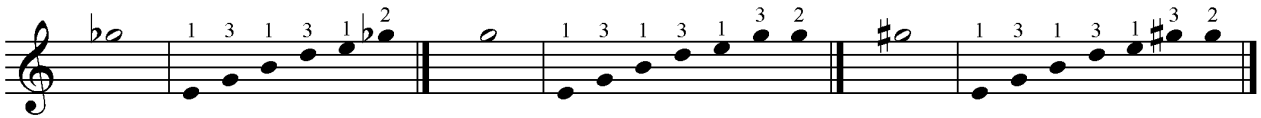
7th Position



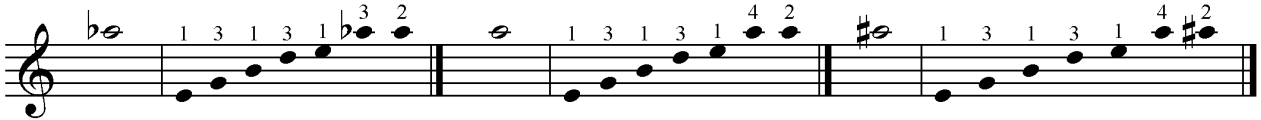
8th Position



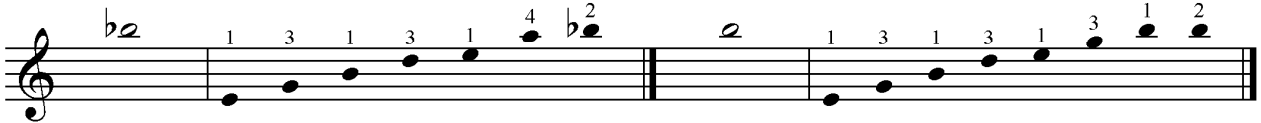
9th Position



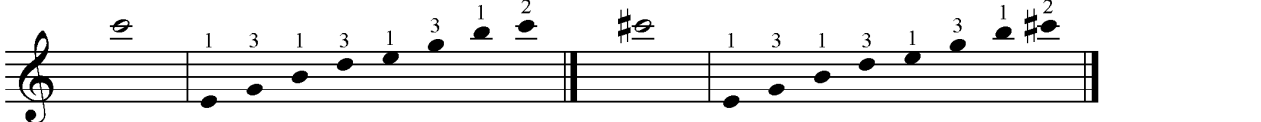
10th Position



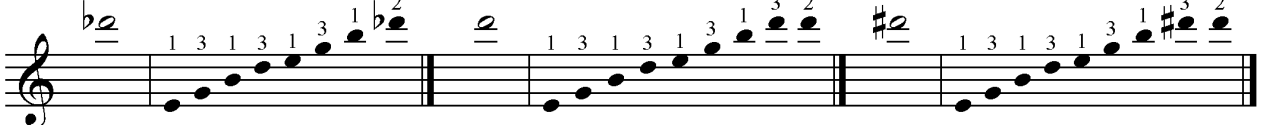
11th Position



12th Position



13th Position



14th Position



Altogether, Replacing encompasses 15 positions on one string, and the target pitch is stopped either with the first or second finger. Naturally, intermediate note successions which end with the third and fourth fingers could be shown as well. However, the fingering strategy I introduce in this study relies more on the stronger first and second fingers and therefore examples of Replacing that target the third and fourth fingers are excluded.

Some violinists may find some of the above intermediate note successions unnecessary. For example, when stopping the target pitch with the first finger there naturally is little use for employing intermediate notes to shift from first to second position. When shifting from the first to the third position (and having target on the second finger, for example), most violinists will presumably find no use for a single intermediate note. Most violinists can do the aforementioned shifts directly and correctly without Replacing. However, occasions may appear where Replacing is

also needed when approaching the most familiar positions. Therefore such shifts are included in the examples.

How to practice and apply the approach, then? First, violinists should practice and learn all the successions until they can play them from memory. The minor seventh arpeggio, as an image of a “ladder,” should be of help in internalizing the arrangement. Intonation is naturally the most important concern. The next important concern is to learn the names of the target pitches and how they can be reached through Replacing. Violinists should try to be patient, understanding that gaining control over the entire fingerboard may take a long time for those who have only employed the lower positions thus far. The entire fingerboard can hardly be mastered in just a week or two. The highest positions may seem to be a more difficult challenge, especially if violinists have not previously visited them frequently. However, I presume that most violinists can learn to reach the first eight positions rather quickly. No one should worry about slower progress with the higher positions; these are difficult for everyone. If reaching these positions is patiently practiced on a regular basis, progress should be achieved in a month or two. Meanwhile, violinists should enjoy being able to reach positions up to the eighth accurately.

As often is the case when practicing, just playing through the exercises (or the above successions) is not enough. The entire approach must mindfully be realized in the manner of a performance. In respect to the intermediate note successions, there is a very simple but effective practice routine available. In this practice routine, the first decision to make is whether the target pitch is to be stopped with the first or second finger. Then one of the twelve possible pitches is called into focus. Next the particular pitch is reached, stopped, and played with the chosen finger on all four strings, in all possible positions, employing Replacing to climb to the higher ones. First it may be necessary to play the climbing aloud. Ultimately, the climbing should be done quietly (e.g., employing soft hammering) or silently.

In this practice routine there are always at least two different pitches to stop for a given string. For instance, if an A is called for and the decision is to stop it with the first finger, the A can be found in the first, eighth, and fifteenth positions on the G string, in the fourth and eleventh positions on the D string, in the seventh and fourteenth positions on the A string, and in the third and tenth positions on the E string.

As is common in all violin practice, patience, discipline, and repetition are the keys to success. Just five short minutes per day is enough for the above routine. For some violinists it may at first be overwhelming to begin to see the violin fingerboard as a whole (and that is exactly the goal of Replacing). After the first impression, I believe many may soon enjoy the sensation of finally gaining control of the entire range of the instrument.

4.4.4 Preliminary Exercise for Replacing

Variations between different readers’ shifting technique can be considerable, and it is possible that the basis of Replacing (i.e., playing a minor seventh chord arpeggio on one string) may already

appear to be a challenge. There is thus a danger that this shifting approach might be misunderstood as impractical nonsense right from the beginning. In order to help readers to more readily comprehend Replacing, a preliminary exercise is helpful. The exercise increases the chances of success in applying Replacing.

The following exercise consists of a selection of simple four-note chord arpeggios played on one string. The first arpeggio is the minor seventh arpeggio discussed above. Next, other common chord four-note arpeggios occur. Instead of rehearsing only the minor seventh arpeggio, which obviously is important for success in Replacing, studying the other chords is recommended as well. On one hand, the other arpeggios suggest paying attention to the difference between the minor and major third interval between the first and third fingers. On the other hand, the other arpeggios include other intervals employed in the intermediate note successions; for instance, the major second and perfect fourth.

The seven different arpeggios in the exercise below can first be studied one at a time. I have included two different fingerings for each arpeggio. While the one presented above the staff represents a typical arpeggio fingering on one string, the fingering shown below the staff can be employed for practicing the shift up to the fifteenth position when the target pitch is stopped with the first finger. Readers should notice that on the last staff (below the E7#5 arpeggio) the second finger is employed for the minor seventh of the chord, because the distance between the augmented fifth and the minor seventh is enharmonically only a major second.

Playing the arpeggios very slowly and paying attention to the tactile and kinesthetic sensations in shifting and good intonation are highly recommended. When the sounds of the different chords are successfully internalized they can be played as a sequence.⁴⁹ I have arranged the chords of the exercise into an order which makes melodic sense as an arpeggio etude. However, the order can be changed according to a reader's preference. As was the case with the previous examples of intermediate note successions, the exercise employs only the D string but should be transposed and played on other strings as well.

⁴⁹ When moved from one staff to the next only one note changes in this sequence. However, there are two exceptions. Between the last two staves and between the last and the first staves more than one change occurs. My experience suggests that few violinists are used to playing an arpeggio that includes an augmented fifth. Therefore, it deserves special attention. In order to create a contrast between the chord including the augmented fifth and the chord preceding it, I placed the E7(#5) arpeggio after the Eo7 arpeggio. This way, violinists really have to learn to hear the augmented color in advance if they wish to play the E7(#5) correctly. The other reason for placing the particular arpeggio at the end was its fingering, which differs from the others: The fingering above the staff ends with the third finger instead of the fourth finger.

Example 4.4-4: "Replacing, Preliminary Exercise"

Emi7

sul D (from the beginning to the end)

Emi(ma7)

Ema7

E7

E6

Emi6

E°7

E7(#5)

Violinists who are not familiar with playing two-octave arpeggios on one string can take a step back and break each staff into parts. The lower one-octave arpeggio range can be practiced by playing only measures 1, 4, and 5 of each staff. Later, the higher octave can be practiced by playing only measures 2 and 3 of each staff. Finally, both octaves (i.e., the two-octave arpeggio range) should be combined, as shown in the exercise.

As soon as violinists have become familiar with the arpeggios, they should stop playing the ascending arpeggio. However, they should still keep on stopping it. This way they learn to do the actual gauging movement silently, as is done when Replacing is applied in performance. When the top note is silently reached, it is good to play it aloud and check the intonation. If the pitch was not correct, it is perhaps necessary to spend some more time practicing the arpeggios.

If greater difficulties appear with the arpeggios, I recommend that violinists include the short example as part of their daily practicing routine. The example does not take long time to accomplish and it is excellent material for warming up. Carl Flesch's *Basic Studies* (originally published in German as *Urstudien für Violine*, in 1911) is an advisable text to study when daily practicing is planned.⁵⁰ Flesch's idea of maintaining and working on violin technique through simple, short, and repetitive daily studies has been shown to be effective and is certainly applicable to jazz violin as well. The arpeggios in the above exercise serve well as alternative material for the harmonically simpler arpeggios suggested by Flesch.

4.4.5 Discussion

According to my background research, a similar shifting approach to Replacing has not been announced in the popular pedagogical violin literature. The early feedback I have gained from some colleagues suggests that Replacing may even appear to be something of a radical approach, both in the positive and negative meaning of the word. Next, then, I will discuss some special matters and concerns which the approach may bring up.

First, I have designed Replacing especially for gauging the fingerboard. The gauging can be done smoothly (e.g., as a continuous glide almost without the “ladder”) or it can be done as more “distinct” or “articulated” movements (e.g., a glide up the “ladder”). It is up to violinists to decide which they wish to apply. At first the measuring movement may include stopping or hammering of the intermediate note succession(s). Later, the measuring movement should become less distinct (e.g., including less stopping or hammering), more like a glissando. Although a glide-like movement is recommended, there is no particular reason to avoid climbing the “ladder”—as long as all action included in moving from one position to another remains smooth, round, unforced, and soft (i.e., as in an exemplary shift).

For many jazz violinists, the more “distinct” shifting option may often occur to be more practical and relevant, while classical violinists (for whom I believe my approach should also be of

⁵⁰ I have employed an old reprint of the particular issue, *Urstudien für Violine* (Berlin: Ries & Erler, n.d.; reprint Berlin: Ries & Erler, 1911). There are also newer, English prints available.

great interest) may see it only as an early step in mastering the approach. The musical purpose should naturally define the way Replacing is applied. In jazz, the approach should support improvisation across the entire fingerboard. Since improvised melodies may include rests at the discretion of the performer (at least roughly speaking), there is often enough time to stop the intermediate note successions precisely. In classical music, the approach should support the performance of a notated composition. As the rest durations are usually carefully limited in notated music, the successions necessarily often have to be just glided through, as there is no time for anything else.

Second, there are naturally some alternative principles upon which an approach such as Replacing could be built. It is very common to employ, for instance, natural harmonics as fixed, stable signposts on the fingerboard. The octave harmonic in the middle of an open string, for example, is frequently employed in classical violin playing and literature as a signpost for finding high positions. My experience suggests that natural harmonics (including the octave harmonic) can offer help in finding high positions—but only to a small extent.

There are only few natural harmonics that are easy to produce and useful in this particular respect.⁵¹ These could be employed only in finding pitches in the vicinity of those harmonics, thus offering little help in finding pitches which are more remote from the locations of the harmonics. Moreover in this respect, natural harmonics may actually increase intonation problems since they are in slightly different places than the actual stopped pitches to which they point.⁵² A well-known example of this is the octave harmonic that lays a bit higher than the same, properly stopped pitch. Therefore, I omitted all natural harmonics from my Replacing approach, as they would have decreased the level of consistency and accuracy.

Third, I present Replacing as an alternative to other shifting approaches (taught, written, or personal). As stated before, the needs of my fingering strategy, consistence, practicality, and logic were the focus of the approach design. Consequently, Replacing is an approach designed for a special purpose. Therefore, if violinists are already confident in their shifting and they are able to shift accurately to higher positions, they do not have a need for such a purpose-oriented approach. Presumably, Replacing best serves violinists who are still working on their shifting and who are open to fresh influences.

It is naturally possible (and perhaps recommendable for advanced violinists) to employ Replacing only partly. Violinists who have already gained confidence in shifting to some positions will presumably wish to apply Replacing only to those positions they do not yet know how to move to. That is, violinists who wish to rely, for example, on the octave harmonic as a signpost in moving

⁵¹ According to Joachim and Moser, it is practical to divide an open violin string up into five segments. This yields altogether nine natural harmonics on a string since, starting from the second overtone, a natural harmonic can be produced at both ends of the string. See Joseph Joachim and Andreas Moser, *Violinschule in 3 Bänden, Band II* (Berlin: N. Simrock, 1905), 5-7. Six of these nine harmonics could, theoretically speaking, serve as signposts within Replacing. However, my experience suggests that, of these six, only four could really be of significant help.

⁵² Only the octave harmonic in the middle of a string and the “two-octave harmonic” (i.e., the third overtone of an open string) near the top end of the fingerboard show the approximate places of the properly stopped pitches. The remaining harmonics do not indicate or refer to the locations of the properly stopped pitches.

to positions in its vicinity should feel free to do so. They may then employ the Replacing “ladder” when moving to some other positions.

Fourth, Replacing is not an easy approach and it may demand some time to master. Violinists are free to decide for themselves if they wish to practice and work with the approach until it can be employed smoothly. In some cases, it could be sufficient that violinists are just aware of Replacing. Awareness of a way of systematically approaching and shifting to 15 positions is already a major achievement. I conclude that such awareness is a significant improvement in situations where, for instance, one does not have a single relevant and reliable idea of how to move around the fingerboard accurately and precisely.

The Replacing approach can occur to be especially demanding when it is employed for very long shifts; shifts moving from a very low position to one of the highest. As in classical violin technique, in jazz violin technique such long-distance shifting also should always be preceded by careful artistic consideration. If Replacing appears to be malfunctioning in performance (i.e., not responding to artistic and technical needs), perhaps position playing should be employed instead, for instance.

4.5 Searching and Finding

The common ideals of jazz improvisation allow a great deal of freedom to jazz musicians. This also concerns instrumental technique. Since originality and individuality are highly valued in jazz, it is possible, for example, to play and perform with limited technical capabilities and still succeed artistically (and even commercially). Naturally, however, this happens rarely. However, there are examples of jazz musicians whose technical control over the instrument is limited, but since their expression is so strong (e.g., in presence or “spirit”) and thus musically convincing, they can bypass any criticism of instrumental technical matters.⁵³

The ideal of personal expression allows jazz violinists to apply different technical approaches liberally. This certainly also applies to shifting. Through their personal solutions and decisions in shifting, violinists can easily stand out from others if they wish to. Such personal choices can affect, for example, the number and range of glissandos and the audibility of the shifts. The way one approaches a position and the way one leaves a position can be achieved in different ways. In this, gliding offers a variety of possibilities for creating original timbres.⁵⁴

⁵³ An interesting, popular example of this (in the field of jazz violin) is Ornette Coleman. Coleman (whose main instrument is saxophone) began to frequently perform on violin in the 1960s. Although Coleman’s control of the instrument was limited, his violin performances often were (and still are) appreciated by professional jazz violinists as well. Despite the fact that Coleman could hardly be taken as a technically skillful jazz violinist, he managed to create highly expressive and unique jazz on the instrument. Listen to, for example, the track *Snowflakes and Sunshine* on his album *At the Golden Circle, Volume 2*, Blue Note, 7243 5 35519 2 6. I refer to an undated CD edition of the album which was issued for the first time in 1965.

⁵⁴ If readers are not yet familiar with Indian (Carnatic or Hindustani) violin music and they wish to gain inspiration for their glissando studies, I suggest that they familiarize themselves with the recordings of such superb violinists as L. Subramaniam and L. Shankar, for example.

Classical violinists are often encouraged to secure or check a demanding shift with a hardly audible pizzicato.⁵⁵ Jazz violinists as well might employ pizzicato for the same purpose if they wish. They can check their shift by plucking the string of the stopped note with their right hand finger. They can also employ their left hand fingers (i.e., left-hand pizzicato) for this. Moreover, they can use hammering in securing the accuracy of a shift (i.e., they can drop the left hand fingers down with strength producing some sound). The minor seventh chord “ladder” of Replacing is very suitable for such hammering. When performing with a small band accompaniment (e.g., with drums, bass, and piano) violinists can often count on the fact that above described checking sounds will be covered by the other instruments.

Other technical solutions developed and examined within classical violin technique and pedagogy are also at a jazz violinist’s disposal. One of the most popular solutions is to time shifts to changes of bow direction.⁵⁶ This practice is certainly valid for jazz violin improvisation and it may appear useful for long-distance shifts. In actual performance, however, introducing longer rests in improvisation for the sake of shifting is a more practical technical device.

In jazz violin shifting, however, violinists can give less or no attention to certain ideals typical of classical violin shifting. For example, they may not have to be concerned about not producing an accent with a shift.⁵⁷ To the contrary, sometimes an accent is desirable. In classical violin music, however, accents produced during shifting are rarely seen as pleasing, especially if they are not called for in the score. Carl Flesch devotes several pages in his *Violin Fingering* advising violinists to avoid accents caused by shifting.⁵⁸ In jazz, such accents are often warmly welcomed, especially if they are rhythmically interesting and well-timed. This, however, does not mean that jazz violinists are allowed to be any less concerned with their shifting and its smoothness, for instance.

Learning to hear the target note of a shift first in the head is important. Ivan Galamian writes that “[t]he role of the ear is of the greatest importance for the successful performance of any shift. By listening intently before the shift and by hearing, during the shift, the gradual approach to the new pitch, the ear most effectively supplements and supports the feeling of distance provided by the sense of touch.”⁵⁹ That is, the preparation of a shift should include an “auditory image” of the target pitch (one does not have to really hear the note, just sense it). For jazz violinists, I believe this should not be difficult at all.

Ultimately, it is not that interesting to discuss how perfect the shifts are but how quickly small mistakes in shifting are corrected.⁶⁰ Jazz violinists should practice the shifts slowly, with glissandos, in order to learn to approach the target pitch with a slight glide and to learn to judge when the target

⁵⁵ See, for example, Flesch’s *Violin Fingering*, 145.

⁵⁶ See *ibid.*, 146.

⁵⁷ I naturally refer here to an intentional musical accent. A musical accent should never result from a clumsy, bad, or tense shift. In other words, if a musical accent follows a shift, the shift must be performed naturally, with ease.

⁵⁸ *Violin Fingering*, 155-157.

⁵⁹ *Principles of Violin Playing & Teaching*, 27.

⁶⁰ Carl Flesch illustrates and explains the impossibility of “playing in tune” well in his *The Art of Violin Playing, Book 1* in the opening section on intonation ((New York: Carl Fischer, 2000), 8). Szende and Nemessuri’s research enrich Flesch’s statements through their careful examination of the physiology and responsiveness of hearing. See *The Physiology of Violin Playing*, 140-142.

pitch is reached. In jazz violin improvisation, listening is of the utmost importance. Violinists should remember that no matter how well they learn to employ or apply Replacing or other shifting approaches, they still have to rely, to some extent, on their ears when gauging the distances and conducting shifts. This is where essence of shifting (and intonation) lies; in the excitement and inspiration of continuous searching and finding.

CHAPTER 5

Position Playing

If shifting was the only major intonation challenge in violin playing, things would not actually be that bad. Unfortunately, even if violinists can find positions accurately and fast, they have only overcome half of the challenge. The other half is to play in tune in positions. Since the violin fingerboard is not symmetric, the size of a stopped interval in the first position differs greatly from the size of the same interval stopped in higher positions. Consequently, if violinists can play a fingering in tune in the first position, they have to learn to alter the finger placements for the same fingering in other positions. The alterations of finger placements are so minor that it is hard to internalize them in kinesthetic memory. Therefore, violinists have to rely on some relative, tactile guides that can be identified, for example, as interval frames.

I consider the octave frame (i.e., a perfect octave interval performed with the first and fourth fingers on adjoining strings) as the basis of intonation and the key to successful playing anywhere on the violin fingerboard. Since the origins and other aspects of the octave frame were discussed earlier in this study, in this chapter I focus only on showing how to practice it. My fingering strategy stresses playing in positions and I consequently need to discuss position playing and explain and show some ways of improving it. Finally, I concentrate on describing an approach called *creeping fingering* and I conclude by extending the limits of a position, both in theory and in practical examples.

5.1 The Octave Frame as the Basis of Intonation

The easiest and most effective way to practice the octave frame is, naturally, to practice octave double-stops.¹ This matter is taught well in many popular publications of classical violin pedagogy. If violinists are not quite comfortable with octave double-stops, they should pick up their favorite collection of exercises and begin to practice them again. The value of practicing octaves can never be overestimated.² The simple and indisputable truth remains that they are simply superb material for studies in violin intonation.

Playing basic octave exercises, however, may seem a bit boring after a while and a need for practical alternatives and variation may arise. The octave exercises in pedagogical jazz violin literature seem to be few in number. Therefore, I find it necessary to introduce two such exercises

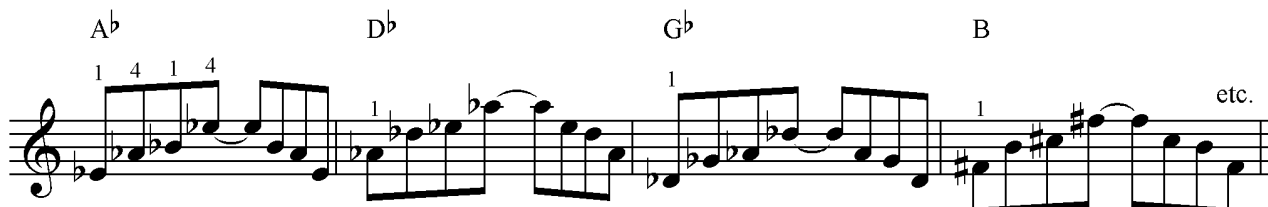
¹ For a detailed definition and discussion on the octave frame see Part I, subchapters 1.6.1 and 6.1.4.

² Although my fingering strategy relies on “ordinary” octave double-stopping (i.e., stopping in which the octave interval is performed only with the first and fourth fingers), I encourage violinists to familiarize themselves with fingered octaves as well. Fingered octaves (i.e., stopping in which the octave interval is frequently performed with the first and third and the second and fourth fingers, for instance) can do wonders for left-hand technique. Fingered octaves can make the fingers more flexible and independent. They can also be of help in refreshing hearing and listening to intonation and in loosening the left-hand grip.

closely related to modern jazz tradition. Both focus especially on performing the octave frame, not only performing the particular octave double-stops.

The two simple octave frame exercises below are both based on John Coltrane’s famous performance on his classic *A Love Supreme* album.³ The first exercise is based on the four-note pattern Coltrane employs right at the beginning of *Acknowledgement*, the opening tune of the album.⁴ This pattern can be played on violin by employing only the first and fourth fingers on two adjoining strings. In the exercise, the goal is to play the pattern in all keys, following, for example, the cycle of fifths (as is suggested below). A shift is conducted (if necessary) always before a new key. The chord symbols in the exercise indicate the key center implied by the pattern. While playing the exercise, the main focus should be on good intonation; both in the precise performance of the perfect fourth intervals within each pattern and in the precise performance of the perfect octave interval between the lowest and highest notes of a pattern. Although the example is written for rather low positions, it should be played all over the fingerboard (i.e., in higher positions as well).

Example 5.1–1: “*A Love Supreme* Frame Exercise #1”



The next exercise is derived from the same source. This time the melodic material quotes the bass vamp of *Acknowledgement*. Coltrane also employs this melodic material towards the end of his performance of the tune. As above, this exercise should be conducted in all keys, following the cycle of fifths, for instance. All the advice I gave for the previous exercise applies here as well.⁵ The chords above the staff refer to the original tune, which is based on minor seventh chord harmony.

Example 5.1–2: “*A Love Supreme* Frame Exercise #2”



³ Issued the first time in 1965.

⁴ There are many CD editions available of the album. One of the most recommendable is John Coltrane, *A Love Supreme (Deluxe Edition)*, Impulse!, 589 945-2.

⁵ At a glance it may seem that this exercise does not include the octave frame at all. The presence of the octave frame, however, is implied by the perfect fourth, which appears repeatedly. The perfect fourth serves the same purpose as the perfect octave. For further information on this, see Part I, subchapter 6.1.4.

These two exercises are examples of material derived from a classic modern jazz performance. Several others can be created; especially exercises based on examples from jazz violin history. For example, Jean-Luc Ponty, one of the greatest modern jazz violinists ever, has employed octaves creatively in his early performances.⁶ However, discussion of his and other great jazz violinists' contributions in this respect must be postponed to future studies.

5.2 Position Playing

It seems that position playing in particular is not a subject discussed much in violin literature. It is especially neglected in contemporary jazz violin literature, which unfortunately often appears to fail in its discussions of positions and shifting as well. In my fingering strategy, it is important to perceive the violin fingerboard in terms of positions. While learning this, some violinists may find it practical to employ the image of frets (i.e., to imagine or sense the fingerboard fretted in the similar fashion as, for instance, the guitar or mandolin fingerboard). In this respect, identifying similarities between violin and guitar appears to be common. For instance, Lockwood and Darizcuren do that in *Cordes & Âme* and David N. Baker in *Jazz Treble Clef Expressions & Explorations*.⁷ Baker goes as far as applying the word *fretting* when discussing his special approach to violin fingering.

In the first part of this study, I examined different mandolin publications and, in more detail, William Leavitt's and Mick Goodrick's jazz guitar publications.⁸ In both guitar publications, position playing was discussed in depth, and I especially found Goodrick's discussion of positions to be interesting. Although Goodrick's approach did not have much effect on the development of my fingering strategy, his ideas inspired my thinking about position playing. In general, my study of Leavitt's and Goodrick's writings convinced me that the contemporary jazz violin education can gain considerably from jazz guitar education.

There is too little acknowledgement that violin and guitar have been connected in jazz history. The blending of the two instruments seems to be exceptionally successful and slightly more popular than, for example, the blending of violin and piano. I advocate that guitarists, as collaborators with violinists, have played a significant role in the jazz violin history. In this respect, the most famous examples of historical, artistically celebrated duos and cooperations are certainly those by Joe Venuti and Eddie Lang, and by Stephane Grappelli and Django Reinhardt.⁹ The guitar-violin

⁶ I refer in particular here to Ponty's performances prior his change to jazz-rock fusion (the first changes appeared around 1968). Today, Ponty's early recordings are hard to find and partly for this reason his superb achievements with modern (straight-ahead) jazz are overshadowed by his more recent fusion output. I personally find Ponty's early modern jazz violin expression exemplary and recommend readers to familiarize themselves with it if they can. Hear, for example, Jean-Luc Ponty, *Sunday Walk*, MPS, MPS 15045 ST and Humair-Louiss-Ponty, *Trio HLP*, Dreyfus Jazz, FDM 36515-2. Both recordings are from 1968.

⁷ See Part I, subchapters 3.2 (Lockwood) and 4.2.1 (Baker).

⁸ See Part I, Chapter 5.

⁹ The most representative collection of the contributions of the first mentioned is the box set of 8 CDs issued by Mosaic; Joe Venuti and Eddie Lang, *The Classic Columbia and Okeh Joe Venuti and Eddie Lang Sessions*, Mosaic Records, MD8-213. In the case of Grappelli and Reinhardt, I have not yet found a satisfying compilation. One of the best,

connection is still alive today; it seems that many contemporary jazz violinists perform regularly with a guitar accompaniment.¹⁰ Since the violin-guitar combination is apparently popular, it is safe to assume that jazz guitar technique has to some extent influenced jazz violin technique. Perhaps even more than violinists are at first ready to accept. Here, I am not able to examine this hypothesis any further but I expect support could be quickly found from interviews and memoirs of historical figures among jazz violinists.

Nevertheless, to imagine or approach the violin as though it is a plucked string instrument, not only a bowed string instrument, can be of great benefit. My experience suggests that this applies exceptionally well to learning position playing. In my artistic work, I have invested a considerable amount of time in plucking the violin while holding it like a guitar. I have attempted to develop this playing technique further and I believe that, in this respect, my efforts have been successful; at least as an individual approach and for personal expression. While taking the first steps with this playing technique, I studied some mandolin materials just in order to gain more information on plucking and picking, and to enlarge my selection of chord voicings. I am convinced that the guitar-like plucking and picking techniques also serve several violin pedagogical purposes well. Different left-hand exercises become considerably easier when the bow is set aside. This way, the challenges of sound producing with a bow can be temporarily bypassed. In addition, a more palpable and percussive attack can immediately be achieved.¹¹ Through plucking the violin like a guitar, learning the dimensions of the violin fingerboard becomes highly practical (e.g., by achieving the image or sensation of frets upon it) and thus another angle (a different point of view) about the fingerboard and position playing is also gained.

Naturally, there are many other, more conventional ways to improve one's position playing. Below I present a simple exercise that features patterns based on a major and minor pentatonic scale. These work better if they are played with a bow. The following two patterns are among the most popular for those scales. The exercise involves the D major and minor pentatonic scales only in the third and fourth positions. However, through transposing the exercise the measurements of the fingerboard and the other positions (and their range and intonation) can be effectively internalized.

I have included two fingerings in my presentation; one beginning with the first finger (shown above the staff) and one beginning with the second finger (shown below the staff). In the case of the minor pentatonic patterns, the fingering beginning with the second finger can reach one note below the tonic and I have taken this into consideration. These extensions are indicated with the brackets above the staff and these bracketed sections should be excluded when the fingering option beginning with the first finger is played (e.g., the bracketed parts are omitted from the beginning; the part based on the first finger begins from the second note grouping). Any of the particular

however, is the box set of 5 CDs produced by Le Chant du Monde; Stéphane Grappelli, *Swinging with Django Reinhardt*, Le Chant du Monde, 574 1571.75. Still, the track selection and liner notes of this particular setting are both somewhat problematic. Furthermore, the box set is probably not widely distributed.

¹⁰ I have noticed that in my own artistic work I similarly tend to favor working with guitarists more than with pianists. As a violinist I find it easier to mix the violin sound with guitar since that instrument also allows producing a softer, less percussive attack, if desired. With a piano, such a blend is perhaps not that easily reached.

¹¹ For further discussion, see Appendix 2, "Comparison of Violin and More Common Jazz Instruments," subchapter 2.

patterns can be rhythmically interpreted in several different ways. Therefore, I have not indicated the rhythm in any special way but have presented only the most obvious note groupings.

Example 5.1–1: “Position Playing Exercise on Pentatonic Scale Patterns”

D major pentatonic

The image shows three staves of musical notation for a D major pentatonic scale exercise. The first staff starts with a treble clef, a key signature of one sharp (F#), and a common time signature. It contains two lines of eighth-note patterns. The first line begins with a '1' above the first note and a '2' below the second note. The second line continues the pattern. The second staff contains two more lines of eighth-note patterns. The third staff contains two lines of eighth-note patterns, ending with a double bar line and a repeat sign.

D minor pentatonic

The image shows three staves of musical notation for a D minor pentatonic scale exercise. The first staff starts with a treble clef, a key signature of one flat (Bb), and a common time signature. It contains two lines of eighth-note patterns. The first line begins with a '1' above the first note and a '1' below the second note. The second line continues the pattern. The second staff contains two more lines of eighth-note patterns. The third staff contains two lines of eighth-note patterns, ending with a double bar line and a repeat sign.

Another recommended, simple, and a bit more practical position playing exercise can be done with recordings. In this exercise, an album of popular music of one’s personal preference is chosen.¹² Then, a particular track is played and a solo, solos, or just short melodic fills are improvised on it in one particular position. While playing, the main concern is kept on good intonation; the improvised lines and rhythm do not have to be that important. Naturally, open strings should be completely avoided, and a different position can be chosen for each new track, performance, or practice session. This highly practice-based approach makes it easy and fun to become more familiar even with the extremely high positions.

¹² Often the harmony of so-called pop tunes is not that complicated and the tune structure can be quickly learned. Therefore, pop tunes are quite suitable for this particular type of exercise.

5.3 Creeping Fingering and Extending the Limits of a Position

My fingering strategy intends to encourage violinists to review their perceptions of violin positions and of playing in one position. While developing the strategy, I also had to considerably change my personal views about such matters. In this subchapter, I discuss the definition of a violin position, limits of a violin position, flexibility within playing in one position, and flexibility in shifting. All these aspects together form a technique I call *creeping fingering*.

The term is adapted from Ivan Galamian. In *Principles of Violin Playing & Teaching*, as one of the last things in the section considering the left-hand technique and shifting in particular, Galamian discusses creeping fingering.¹³ Earlier in this publication, Galamian refers to the technique as a *retarded shift*. In a retarded shift, “[t]he finger is first stretched to a new note outside of the position in which the hand is resting at the moment, and after the stretched finger is placed on the string, the hand follows thereafter into the new position.”¹⁴ It seems that in jazz violin improvisation, which is rich with sequential and chromatic melodic constructions, there is need for this shifting approach as well.

Galamian discusses the creeping fingering more substantially a bit later. He begins by introducing *extensions outside the frame*. With these extensions, Galamian refers to fingerings where one or more fingers stretch outside the position and the octave frame (i.e., the placement of first and fourth fingers on the octave interval in a position). The extensions are employed if smoother technical execution or better musical performance can be achieved through them. For example, by employing extensions, continuous small glissandos (or *slides*, as Galamian puts it) can be avoided.¹⁵

The extensions, contractions (the counterpart of an extension), and the aforementioned retarded shift, are all parts of Galamian’s creeping fingering technique.¹⁶ The technique “eliminates the shift and is based on extensions—occasionally on contractions—*followed by a readjustment of the hand*.”¹⁷ Galamian continues to explain that, with creeping fingering, “the finger places itself by stretching (or contracting) and then acts as a pivot for the establishment of a new hand position, a new frame. The hand follows the finger into the new position by a caterpillar-like crawling motion of adjustment.”¹⁸ In *Principles of Violin Playing & Teaching*, Galamian addresses creeping fingering mainly through examples from the popular classical violin repertoire. In *Contemporary Violin Technique, Volume 1*, he presents scale exercises in which creeping fingering is employed.¹⁹

¹³ Ivan Galamian, *Principles of Violin Playing & Teaching*, 3rd ed. (Ann Arbor: Prentice-Hall, 1985), 34.

¹⁴ *Ibid.*, 25.

¹⁵ *Ibid.*, 33-34.

¹⁶ *Ibid.*, 34-35.

¹⁷ *Ibid.*, 34. Italics in the original.

¹⁸ *Id.* Parentheses in the original.

¹⁹ Ivan Galamian and Frederick Neumann, *Contemporary Violin Technique, Volume 1 (Parts 1 & 2): Scale and Arpeggio Exercises with Bowing and Rhythm Patterns* (Boston: Galaxy Music Corporation, 1966; reprint, Boston: ECS Publishing, n.d.), 58-60.

My applications of creeping fingering that follow are based mainly on Galamian's terminology and perspectives. However, the same or a similar technique has also been discussed by many other great violin pedagogues. Parts of their thinking are relevant here as well.

Carl Flesch examined the particular subject in depth. However, in *The Art of Violin Playing, Book 1*, he makes a statement that at first seems to object to creeping fingering. Before discussing his similar fingering approach, Flesch states that he always prefers shifting to stretching (in this respect stretches and extensions are often the same thing). By avoiding breaking the frame of the interval of a perfect fourth (between the first and fourth fingers) and preferring shifting instead, Flesch seeks to insure and maintain good intonation.²⁰ However, Flesch agrees that stretches are sometimes inevitable, especially when attempting to avoid unnecessary shifts, glissandos, or string crossing.²¹ In *Violin Fingering*, Flesch does not object as strongly to stretches. There, he discusses *forward stretches* and *backward stretches* in detail, as separate subchapters. In addition, he briefly shares his interesting interpretation of the history of these particular technical aspects.²²

In *The Art of Violin Playing, Book 1*, Flesch admits that “[s]ometimes it is possible, by a forward or backward movement of the hand, to change positions absolutely inaudibly.”²³ Such shifting Flesch sees as *position-creeping* or *slinking* from a position to another.²⁴ Still, it seems that Flesch does not want to dwell on the subject too much; his examples and discussion of the matter are relatively brief. In *Violin Fingering*, he again examines the subject a bit more, devoting an entire subchapter to it.²⁵ Although Flesch presents several valuable musical examples, the only major difference from his discussion in *The Art of Violin Playing, Book 1* is that he now describes the matter as *creeping into position*.

Flesch is not enthusiastic about the creeping fingering technique. However, he makes an interesting remark on positions and position playing in general. He suggests that advanced violinists ought to free themselves from numerically designated positions. He accepts that position designations are necessary and advisable in elementary level instruction, but recommends that they should not be relied on in more developed violin playing. Flesch states:

The actual location of the hand is often quite contrary to the designation of the ‘position’. Enharmonic substitutions, simultaneous use of different positions, stretches, and above all, the steadily diminishing distances going up the fingerboard—in brief the differences between the actual and the assumed relationships—all this means that traditional position designations...can never be used as criteria for the hand location in situations of some complexity.²⁶

²⁰ Carl Flesch, *The Art of Violin Playing, Book 1*, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000), 98. The particular frame of perfect fourth is almost equal to Galamian's octave frame. See discussions in Part I, subchapters 1.6.1 and 6.1.4.

²¹ *Ibid.*, 100.

²² Carl Flesch, *Violin Fingering: Its Theory and Practice*, English adaptation by Boris Schwarz (London: Barrie and Rockliff, 1966), 80-95.

²³ *The Art of Violin Playing, Book 1*, 107.

²⁴ *Ibid.*, 108.

²⁵ *Violin Fingering*, 96-101.

²⁶ *The Art of Violin Playing, Book 1*, 95.

Flesch thus encourages violinists to be rather flexible with the concept of a violin position. The concept is only an aid for discussing and understanding certain parts of left-hand technique. However, violinists should attempt to reach beyond the concept of position if they wish to artistically take full advantage of the fingerboard.

Flesch's almost philosophical advice and point of view are worth taking into consideration in relation to my fingering strategy. In order to succeed with my strategy, creeping fingering must be employed without disapproval. In addition, a great deal of tolerance and freedom has to be applied to the concept of position and position playing. This is inevitable if jazz violinists want to develop their left-hand technique to fully respond to the needs and challenges of modern jazz improvisation. If violinists wish to express themselves freely, but at the same time within the complex melodic idiom of modern jazz, they should be prepared for constant shifting, stretching, extending, contracting, and creeping fingering.

In my experience, a violin position in modern jazz improvisation requires a slightly new conceptualization or approach. The new definition should answer to the particular needs and characteristics of the musical material played. As a redefinition of a violin position, I suggest the following expansion.

The violin position must allow and include extensions or stretches reaching a major second upwards, as well as contractions or stretches reaching a major second downwards. Naturally, during these extensions and contractions the thumb should not move. Consequently, in addition to the normal stopping area of a finger in a position, every finger is allowed to stop the area reaching a major second up or down. In many cases this basically means that any finger can stop the string on behalf of another adjacent finger (e.g., the first finger might stop on the area of the second finger and vice versa). However, this may happen only temporarily, briefly, or for a few notes (depending, naturally, on the melodic material and the tempo). Still, the temporary extensions or contractions may be employed for entire musical passages, if necessary.

This may first appear a bit radical for readers who do not typically employ extensions and contractions within a position. However, the above redefinition of the limits of a position is not all that new; it resembles certain technical applications commonly associated, for instance, with Niccolò Paganini's left-hand technique. Some of these special applications can be studied, for instance, through Francesco Sfilio's pedagogical violin publications. Sfilio was Camillo Sivori's student (and Sivori was Paganini's only disciple). Sfilio presented, broadened, and further developed some of Paganini's ideas in his bilingual *Nuova scuola violinistica italiana – New Italian Violin School*.²⁷ Sfilio's connection to Paganini's teachings is presented in his *Alta Cultura di tecnica violinistica*.²⁸

²⁷ Francesco Sfilio, *Nuova scuola violinistica italiana – New Italian Violin School* (Varese: Zecchini Editore, 2002).

²⁸ Francesco Sfilio, *Alta Cultura di tecnica violinistica* (Advanced violin technique), in collaboration with A. Bonisconti (Varese: Zecchini Editore, 2002). An English translation of the publication is available by the same publisher.

In *New Italian Violin School*, when teaching the left-hand movement from the first to second position, Sfilio forbids moving the thumb in the shift.²⁹ The thumb moves only when the third position is finally reached (from the first position).³⁰ It seems, thus, that the second position is more or less an extension of the first position for Sfilio. However, this is not quite the case, as can be learned from the more advanced, second part of his publication.

In the second part of *New Italian Violin School*, Sfilio explains that, instead of employing the forearm in shifting, he prefers employing the wrist: The forearm *follows* the shift instead of *preceding* it.³¹ In this, Sfilio's approach differs greatly from other popular violin pedagogies. Sfilio presents some basic exercises for this Paganini-influenced shifting and he shows how the technique can be utilized, for instance, in chromatic and diatonic scales and for large intervallic leaps.³² Sfilio encourages violinists to "become accustomed to sensing the distances" in shifting.³³ Violinists willing to apply the particular shifting technique can succeed in playing some complicated passages without any risk of glissando, as Sfilio demonstrates well in the case of some double-stops.³⁴

Another Italian classical violinist, Enzo Porta, also suggests giving the left hand wrist a more central role than is perhaps common. Porta encourages seeing the wrist as a pivot, especially in extensions. Porta presents his ideas about the wrist in the bilingual *Il violino: Movimenti fondamentali della mano sinistra – Violin: Basic Movements of the Left Hand*.³⁵ In the same manner as Sfilio, Porta forbids moving the thumb in shifts of a shorter distance, but allows flattening the fingers (completely, if necessary) in wide intervals.³⁶ Porta puts all this in practice through diverse examples; first as single voice preparatory exercises, then as several applications in double-stopping.³⁷ In the single-voice exercises, Porta goes so far as to ask violinists to make a temporary shift of a perfect fifth interval—on one finger, without moving the thumb!

Although my views of the creeping fingering technique and the limits of a position are not as radical as Porta's, they also may appear as slightly more elastic and tolerant—and thus perhaps a bit more complex—than violinists are used to. Therefore, I explain and support my views with two examples. Both extend the limits of a position through extending a major second upwards and contracting a major second downwards. The examples are presented in such a way that violinists can directly use them as short exercises. I want to stress that the thumb should not move at all when playing the examples (i.e., there is no shifting involved in the examples; only extending or

²⁹ *New Italian Violin School*, 20.

³⁰ *Ibid.*, 93.

³¹ *Ibid.*, 46 and 58.

³² *Ibid.*, 89-94. I have heard some violinists refer to the particular shifting approach as *Paganini shifting*. However, this term is neither widely employed nor well-established. It seems that the approach itself has unfortunately remained rather unrecognized as well.

³³ *Ibid.*, 98.

³⁴ *Ibid.*, 101.

³⁵ Enzo Porta, *Il violino: Movimenti fondamentali della mano sinistra – The Violin: Basic Movements of the Left Hand* (Milano: Rugginenti Editore, 1995).

³⁶ *Ibid.*, 66.

³⁷ *Ibid.*, 66-77 and 77-90.

contracting inside a position). These examples again employ the four-note patterns I introduced readers to in the previous chapter.

The first example concentrates on the usage of the first finger.

Example 5.3–1: “Extending the Limits of a Position #1”

The musical notation for Example 5.3-1 consists of two staves. The first staff contains six measures of music, each starting with a first-finger glissando (marked '1') and ending with a chord label: A, B^b, B, B^b, A, and A^b. The second staff contains three measures, each starting with a first-finger glissando (marked '1') and ending with a chord label: G, A^b, and A. The notes are connected by slurs, and the glissandos are indicated by a curved line with a '1' above it.

The example includes several first finger glissandos. In some cases, such frequent use of glissandos may not be artistically satisfying. In the previous example (and in the following one as well), however, the glissandos serve a pedagogical goal: they show and clearly mark where the extending of the position’s limits takes place.

In the next example, the extensions are conducted with the second finger.

Example 5.3–2: “Extending the Limits of a Position #2”

The musical notation for Example 5.3-2 consists of two staves. The first staff contains six measures of music, each starting with a second-finger glissando (marked '2') and ending with a chord label: B, C, C[#], C, B, and B^b. The second staff contains three measures, each starting with a second-finger glissando (marked '2') and ending with a chord label: A, B^b, and B. The notes are connected by slurs, and the glissandos are indicated by a curved line with a '2' above it.

In order to bring the extending and contracting included in the above examples into practice, following is an example where the four-note patterns are employed in a common III-VI-II-V-I chord progression. This four-measures-long pattern should be played in one position (below, the pattern appears in the fourth position). This example already includes, in a way, creeping fingering. The extensions or contractions are employed in order to change the form of the hand and the fingers in the position, although no shifting is actually done.

In this particular example, two tritone substitutions appear. Instead of outlining the chords conventionally (the chords follow the cycle of fifths), the melody outlines substitutions of the two dominant seventh chords. This is to say, in the melody, the F#7 is substituted with C7, and the E7 with Bf 7. A very similar pattern appears at the end of the theme of *Ornithology*—the famous bebop tune credited to Charlie Parker.³⁸ The example already demonstrates and justifies why the creeping fingering technique is necessary in jazz violin improvisation and how it can be applied in a simple way.

In the example, the fingering given below the staff is an alternative. Some violinists may find the alternative fingering better since it avoids the glissando preceding the first beat of the Bmi7 measure.

Example 5.3–3: “A Basic Example of Creeping Fingering in Practice #1”

The musical notation shows a single staff in 4/4 time. Above the staff, the chords are labeled: A, C#mi7, F#7, Bmi7, E7, and A. The melody consists of six measures. The first measure is a quarter rest followed by a quarter note A (fingered 1). The second measure contains a triplet of eighth notes: C#4, E4, G#4 (fingered 3, 3, 3). The third measure contains a triplet of eighth notes: F#4, A4, C#5 (fingered 3, 3, 3). The fourth measure contains a quarter note B4 (fingered 2) followed by a quarter note D5 (fingered 2). The fifth measure contains a quarter note E5 (fingered 2) followed by a quarter note G#5 (fingered 2). The sixth measure contains a quarter note A5 (fingered 2) followed by a quarter note A4 (fingered 1). Fingerings are also indicated below the notes in the second, third, fourth, and fifth measures.

The previous example is naturally transposable to any other key through shifting. A practical application of the pattern could take place in a situation where a violinist is already in a position, having the first finger on the tonic of the key (or on the tonic of the harmonic centre). If the violinist wants to enrich the tonic (or harmonic center) with a III-VI-II-V-I progression, the pattern above (or a variation of it) can be performed. In order to visualize this, I added the first measure to the example. The first measure quickly establishes that the violinist is already in A major. The material in the first measure also leads melodically to the second measure (i.e., the beginning of the III-VI-II-V-I chord progression).

Thus far, all examples have stayed in a position. No shifting has occurred; only the form of the hand was changed through extending or contracting. In order to present the creeping fingering technique in full and support its necessity, I introduce an application that includes shifting as well. It reveals the power of the technique within one of the most fundamental harmonic elements of jazz harmony; the cycle of fifths.

The chord progressions of standard jazz repertoire frequently follow the cycle of fifths. The dominant-tonic relationship is present more often than any other relationship in tonal harmony. If

³⁸ *Ornithology* was given a copyright in 1946. Parker’s role as the composer of *Ornithology* has been questioned. Trumpeter Benny Harris is often suggested, instead, as the creator of this tune. See Carl Woideck, *The Charlie Parker Companion: Six Decades of Commentary*, ed. by Carl Woideck (New York: Simon & Schuster Macmillan, 1998; imprint, New York: Schirmer Books, 1998), 30 and 200.

improvising violinists wish to carefully outline the chord color changes within a chord progression (and such outlining is a central procedure in the modern jazz expression, for instance), they soon notice that frequent shifting is necessary. The shifting becomes essential especially when the chords of a tune include longer progressions following the cycle of fifths (as in Charlie Parker’s *Confirmation* or Jerome Kern’s *All the Things Your Are*).³⁹ In such cases, it is rather impractical to attempt to stay in one position. It is more practical, and often also easier, then, to let the shifting follow the chord changes instead.

In order to illustrate this, I present an example where the creeping fingering technique is applied in the A section of Charlie Parker’s *Confirmation*. In the example, the chord progression of the composition is carefully outlined in the melody. However, the melody includes tritone substitutions for every dominant chord except the first. That is to say, the melody outlines Df 7 for G7, Cf 7 for F7, Af ma7 for D7, and Gf 7 for C7.⁴⁰ These substitutions allow the constant employment of the creeping fingering technique. The hand does not stay in a position for long but repeatedly shifts to another position. Sometimes, as in measures 3 and 4, the shifts can be done inaudibly, without any risk of a glissando.

Example 5.3–4: “A Basic Example of Creeping Fingering in Practice #2”

The musical notation consists of three staves in 4/4 time, all in the key of B-flat major. The first staff shows the following chord progression: Fma7, Emi7(b5), A7, Dmi7, G7, Cmi7, and F7. The second staff continues with: Bbma7, Ami7(b5), D7, G7, Gmi7, and C7. The third staff shows Fma7 and ends with "etc.". Fingerings are indicated by numbers 1, 2, and 3 above or below notes. Slurs connect notes across measures, and some notes have accidentals (sharps and flats) to indicate tritone substitutions.

³⁹ *Confirmation* was given a copyright in 1946. Lyrics to *All the Things You Are* are by Oscar Hammerstein II. The song was given a copyright in 1939.

⁴⁰ A tritone substitution chord is usually a dominant seventh, a major seventh, or a minor seventh chord. However, many other chord colors or types could also be considered. In this example, for variety I have employed one major seventh chord.

The creeping fingering technique occurs frequently in the example above; in the second half of measures 3, 4, 6, and 8; and while crossing the bar line to measures 4, 5, 7, and 9.

I assume that some jazz violinists would prefer not to employ the creeping fingering technique as frequently as I have above. I admit that the previous example is only a compressed demonstration of how the technique can be applied in a longer chord sequence that follows the cycle of fifths. In the case of *Confirmation*, which is often played very fast, it is possible to create rather chromatic, “beboppish” solo lines for the A sections just by letting the shifting follow the chords—sometimes even as much as shown in the example above.

Shifting is certainly one of the biggest challenges for violin left-hand technique. It has led classical violin pedagogues to write hundreds of pages about it. Carl Flesch’s publications are perhaps the most respected authority in this respect. In modern jazz violin improvisation, the limits of a position must be broken and extended, and both shifting and position playing have to be taken to another level. This surely is a challenge for jazz violinists, who already must work hard with several other technical aspects. I submit that shifting and the creeping fingering technique in particular are among the most important matters for future pedagogical discussion in the field of jazz violin. The creeping fingering technique is needed relatively often, especially when position playing is employed. Another study could be filled with further jazz examples and applications of it.

As a conclusion for my introduction of position playing and creeping fingering, I suggest that jazz violinists need to be unassumingly practical and flexible in facing the melodic challenges of jazz. Position playing is hardly any easier for jazz violinists than it is for violinists in other music genres. However, jazz improvisation allows violinists interesting liberties (in respect to melodic material, for instance). This should encourage regarding position playing as an effective and expressive device.

CHAPTER 6

Patterns

This chapter represents the core of my fingering strategy. In the following, I present some idiomatic modern jazz patterns that include schematic fingering. In the fingering of the patterns, I have continuously referred to my tactile and kinesthetic knowledge of the violin and to my professional experience in modern jazz violin improvisation.

Several of the patterns should appear familiar to readers; most of them clearly reflect the so-called “public domain” of modern jazz. This public domain consists of material that has been popularized and played in the past, but still frequently appears in contemporary jazz performances. Thus, the majority of the following patterns can be heard from old and new jazz recordings and live performances. According to many jazz educators and musicians, a performance that attempts to follow the modern jazz tradition has to include public domain patterns to some extent. In performance, the melodic form of public domain patterns is only somewhat formalized (i.e., they have to be recognizable to some extent). However, rhythmically, for instance, they can be considerably varied.

This chapter presents patterns in 4/4 time only. Here the patterns are just introduced; they are put into practice in Chapter 7. The majority of the patterns below outline progressions where a chord lasts four beats (i.e., one chord takes one 4/4 measure). However, I also present some examples of progressions where a chord lasts two beats (i.e., one chord takes a half of a measure in 4/4 time).

Readers should bear in mind that any of the patterns can be transposed to any of the twelve keys through shifting. In order to avoid favoring certain easy keys or key areas (e.g., the ever-popular C major or A minor), I deliberately present the musical examples in different keys. Still, in order to keep the examples more readable, I do not employ keys with too many sharps and flats.

6.1 Fingering Guidelines

I follow certain fingering guidelines in this study and I present and discuss these first. By following these guidelines, I have attempted to create a more concise fingering strategy. By presenting the guidelines I hope to make the strategy more transparent and thus avoid, for example, confusion concerning how and why the patterns are fingered as they are. My fingering guidelines are as follows.

1. No open strings are allowed in a fingering. The fingering must be transposable to any other key through a shift.
2. A fingering should always try to be as practical as possible. In this respect, the fingering should particularly take into consideration the anatomy of the hand and fingers, the tactile

and kinesthetic aspects of violin playing, and the fingering must be easy to internalize and apply.

3. A fingering should reflect the idiomatic modern jazz expression. However, in reflecting this expression, a fingering should also obey the previous guideline. This means that, ultimately, the fingering given is an artistically successful compromise between anatomic, practical, tactile, kinesthetic, and idiomatic musical aspects and features.
4. A fingering should rely on and employ the stronger left hand fingers; the first and second. These two fingers should be employed on harmonically and melodically central notes (e.g., the tonic of a scale). The two fingers should be also employed as reference fingers (i.e., as the fingers on which the fingering schemes are based or that can guide shifting, for instance).
5. Although the third and fourth fingers are not employed on harmonically and melodically central notes, they should not be avoided by the rule. Instead, both should be relied on if the material calls for it.
6. In principle, employing different fingers on consecutive notes takes precedence over a finger glissando (i.e., employing the same finger for consecutive notes). However, since it is not always possible to avoid a glissando, occasional exceptions are allowed; for example, in order to keep the fingering reasonable and practical. In order to reduce the number of glissandos it is preferable to change the bow direction during the glide. This change of direction should often make the glissando inaudible.

The first guideline is central in schematic fingering. Without excluding the open strings, the fingerings could not be transposed to all twelve different keys through shifts. Being able to play in all keys is frequently needed in modern jazz expression.

The practicality of a fingering depends on several factors. In the above guidelines, I focus on the most important ones (i.e., anatomy, tactility, kinesthetic, internalization, and idiomaticness). No two hands are anatomically the same; there are great differences in the size, shape, and reach of the hand and fingers. Therefore, I try to design fingerings which should be comfortable for a hand of average size. I do not employ any extreme stretches or contractions. Consequently, most violinists should find the musical material comfortable to play.

Tactile and kinesthetic considerations are of key concern in my fingering strategy. The entire design was based largely on them. Tactile and kinesthetic knowledge can be gained only through experience. Thus, all the technical solutions and applications arise from my personal, tacit knowledge of studying and playing the instrument. This knowledge exists as sensations and feelings of “what fits, what is good and right” in violin playing. In the fingering of the idiomatic patterns of modern jazz, I base the fingering choices on my best understanding of the challenges and needs of the given musical style. This naturally covers not only the particular pattern but also where and for what purpose the pattern can be employed. What usually musically precedes the performance of a pattern and what follows afterwards are taken into consideration as well. In this respect, the strategy attempts to be a true expression of a handicraft. Accordingly, the strategy is a kind of pedagogical

statement as well (e.g., I promote approaching scales as patterns). The diverse pedagogical aspects, however, I cannot discuss within the limits of this study.

The fingerings stress the use of the first and the second fingers. Both fingers are given an important role. In most violin pedagogies, the first finger is frequently seen as a strong finger. I give it a leading status as well. Certain aspects and choices within the framework of my strategy emphasize the status even further (i.e., Lockwood and Darizcuren's system of scale fingering schemes relies on the first finger).¹ In addition, the first finger is the lower counterpart of the octave frame, the basis of intonation in my strategy.² In my shifting approach called Replacing, I also chose to rely on the first finger frequently.³

However, while studying idiomatic modern jazz patterns and fingering them I soon realized that relying only on the first finger could bias my strategy. Many fingerings worked better if the second finger was relied on instead. Therefore, I decided to widen the scope of the fingering guidelines, and give the second finger an important status as well. I also became aware that, in the case of some patterns, the third or fourth fingers also needed to be given a prominent role. However, these occasions were rather rare. Therefore, in order to make my strategy concise, I decided to discuss and approach the patterns only by relying on the first and second fingers. I believe that, despite this limitation, I have been able to construct a functional strategy.

In addition, in my experience, the first and second fingers are not only the most practical choice for beginning a pattern, but also the best for ending it. A jazz phrase often requires an accent at the end, and accentuation is easier to do with the stronger first and second fingers. Moreover, when the continuation of an improvised solo line is considered, it seems that the first and second fingers are, again, better choices. Landing on them includes more potential for going on to what follows. Thus, in schematic pattern fingering these two fingers seem worth relying on as the starting, concluding, and pivoting fingers.

However, the use of the fourth finger, for example, should not be avoided because of any rule. In classical violin literature, the fourth finger is often regarded as a finger which should not be employed on a long note, for instance, since it is difficult to produce a beautiful vibrato with it.⁴ The vibrato issue does not really arise within modern jazz violin improvisation (or if it does, the criterion can always be dismissed by referring to the ideal of personal expression). Therefore, the fourth finger does not have to be neglected in jazz, because of vibrato, for instance. My fingering strategy encourages seeing all four left hand fingers as rather equal. Since all the open strings are

¹ See Part I, subchapter 3.4.

² See Part I, subchapters 1.6.1 and 6.1.4.

³ See Part II, Chapter 4.

⁴ See, for instance, Carl Flesch, *Violin Fingering: Its Theory and Practice*, English adaptation by Boris Schwarz (London: Barrie and Rockliff, 1966), 317-319 and Carl Flesch, *The Art of Violin Playing, Book I*, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000), 109-110. Fingering for the benefit of the third finger is supported by, for example, Ottó Szende and Mihály Nemessuri in their *The Physiology of Violin Playing*, translated by I. Szmodis (London: Collet's Ltd., 1971), 59-60.

excluded and the fourth finger is the higher counterpart in the octave frame, it gains a significantly more important status than appears to be common.⁵

In the patterns presented in this chapter, I have attempted to employ both the first and second fingers frequently and equally. I succeeded in this in the first four subchapters; “Voice-Leading,” “Enclosures Patterns,” “Chord Arpeggios and II-V-I Patterns,” and “Dominant Bebop Scale Patterns.” However, as I move on to discuss scales that introduce more melodic chromaticism to the patterns, I may present pattern fingerings which may favor either of the fingers. This is because I simultaneously respect and rely on two main principles: idiomatic modern jazz expression and my tactile and kinesthetic knowledge of the violin. I avoid giving pattern fingerings to which only one of those principles applies. This means, for instance, that I do not attempt to introduce pattern fingerings that rely on the second finger if the fingerings are not practical and comfortable.

6.2 Voice-Leading

Voice-leading is an essential element of tonal modern jazz improvisation. Internalizing basic voice-leading on the violin fingerboard can appear to be challenging at times; there are no visual aids available and leading the voices (typically by half and whole steps) is often conducted through relatively small physical movements. Consequently, violinists often have to rely on their ears and theoretical knowledge in order to succeed in voice-leading. It is a common practice to explain and teach the basics of voice-leading within soloistic melody construction through *guide-tones*; the movements between the third and seventh degrees of consecutive chords. There are many publications where the approach is employed successfully.⁶ Therefore, below I only concentrate on showing how the schematic fingering approach can be of use for internalizing the rules of voice-leading with violin. In the presentation, I rely on guide-tones.

I recommend first playing short III-VI-II-V-I chord progressions in all keys. In the following voice-leading exercise, G major is approached through that progression. The exercise consists of the roots of the chords and either of the guide-tones. The first staff presents a line that begins with the seventh of the first chord (the A in the Bm7), while the second presents a line that begins with the third (the D in the Bm7). The fingerings above the staves conclude with the first finger on the root, the fingerings below conclude with the second finger appearing on the root. Both fingerings stay in one position (here, in the third and second positions); there are no shifts in the exercise. The other keys can be reached through a shift.

⁵ See Part I, subchapters 1.6.1 and 6.1.4.

⁶ See, for instance, Hal Crook, *How to Improvise: An Approach to Practicing Improvisation* (Rottenburg: Advance Music, 1993), 48-52 and Mark Levine, *The Jazz Theory Book* (Petaluma: Sher Music Co., 1995), 22.

Example 6.2–1: “Voice-Leading Exercise #1”

The image shows two staves of musical notation for a voice-leading exercise. The first staff contains five measures with the following chords and fingerings: Bmi7 (3, 1, 3, 4), E7 (2, #4, 2, 3), Ami7 (2, 4, 2, 3), D7 (1, 3, 1, 2), and G (1, 3, 4, 2). The second staff contains five measures with the following chords and fingerings: Bmi7 (3, 1, 3, 4), E7 (3, 1, 3, 4), Ami7 (2, 4, 2, 3), D7 (2, 4, 2, 3), and G (1, 4, 3, 2). The key signature is one sharp (F#) and the time signature is 4/4.

Next is a somewhat more complicated exercise. The chord progression in the example below is the same as the one above, but this time the voice-leading is expressed as double-stops. Since it is somewhat difficult to execute double-stop voice-leading that include both guide-tone lines on the violin, I alternate between simultaneous use of both guide-tones and use of only one guide-tone along with another voice. The first and third staves focus on the line beginning with the third of the first chord. The second and fourth staves focus on the line beginning with the seventh of the first chord. The second voice attempts to follow the chord progression carefully. Sometimes the second voice supports the guide-tone line (of the top voice) with a chord tone, while at other times the other guide-tone (i.e., the third or seventh of a chord) appears in the second voice. In order to increase forward motion, I added two basic chord alterations to the exercise. The first two staves conclude with the first finger on the root (although the root is not stopped), the last two with the second finger on the root (although the one-octave lower root is not stopped in the last measure). Both fingerings stay in one position; there are no shifts in the exercise.

If the chord appearing on the third scale degree (here Bmi7) includes a diminished fifth instead of a perfect fifth (as is a common in a III-VI-II-V-I chord progression), an alteration has to be taken into consideration in the stopping. That is, in this example, the F# has to become F and, accordingly, the chord symbol should be Bmi7(f 5). These places are indicated with an asterisk (*) below the staff. These alterations, however, do not have any greater effect on the fingerings.

Example 6.2–2: “Voice-Leading Exercise #2”

When learning to hear the tension and release relations of functional jazz harmony, fingering schemes can be of great benefit. They can also be employed, for instance, when the chord progression of a tune is studied as double-stops or chords. As an example of this, below I present one chorus of *Rhythm Changes*.⁷ The mostly two-voice chords carefully follow the rules of jazz voice-leading.

The example can be plucked with fingers while holding the violin like a guitar. When the example is played with the bow, the triple-stops can be broken a little. The first A section follows the traditional chord sequence, while the second and third present two popular variations of it. In the case of double and triple-stops, the fingerings always indicate the top note of the voicing. The other fingers should be arranged accordingly (if the fingering is not shown in detail). When the exercise is plucked, all the chords can be played (with separate right hand fingers) or strummed as three-voice chords (i.e., the root and two upper voices of a chord are played together, as a half note or two quarter notes).⁸

⁷ For definition of *Rhythm Changes*, see Glossary (Appendix 1).

⁸ When strumming the chords, it is sometimes necessary to complete a three-voice chord by employing a fourth voice on a string between the root and the two upper voices. In this example, a perfect fifth above the root, stopped with the same finger as the root, is sufficient.

Example 6.2–3: “Voice-Leading and *Rhythm Changes*”⁹

A1 B \flat G7 Cmi7 F7 B \flat G7 Cmi7 F7

A1 B \flat B \flat 7/D E \flat E \circ 7 Dmi7 G7 Cmi7 F7

A2 B \flat B \circ 7 Cmi7 C \sharp \circ 7 Dmi7 G7 Cmi7 F7

A2 B \flat B \flat 7/D E \flat E \circ 7 Dmi7 G7 Cmi7 F7 B \flat A7

B D7 Ami7 D7 G7 Dmi7 G7

B C7 Gmi7 C7 F7 Cmi7 F7alt

A3 B \flat B \circ 7 Cmi7 C \sharp \circ 7 Dmi7 G7 Cmi7 F7

A3 Fmi7 B \flat 7 E \flat mi7 A \flat 7 Dmi7 G7 Cmi7 F7 B \flat

⁹ An auditory demonstration of the example can be provided upon request. The demonstration is only available in digital format as an MP3 file.

The above exercise is not easy, but it effectively demonstrates how the harmonic structure of this idiomatic modern jazz tune can be successfully studied on violin. The schematic fingering is present, for instance, as the repetition of the minor seventh chord voicing leading to the dominant seventh chord voicing in different positions (see, for instance, measures 7 to 8 and 29 to 32). Stopping the perfect fifth interval on adjoining strings with the same finger is occasionally necessary (e.g., in the first parts of measures 1 and 2). Depending on a violinist's finger tips, performing fifths in tune with such stopping may be difficult at first. However, with a little practice the fifths will be fine.

Voice-leading is a very popular topic in the jazz pedagogy literature. There must be hundreds of publications in which the subject is taught. My experience suggests that when basic theory of jazz voice-leading is internalized, schematic fingering can be easily applied to exercises that focus on it. Therefore, I prefer not to discuss basic voice-leading theory any further but focus, instead, on examples that represent slightly more sophisticated voice-leading features (e.g., tensions appearing as dominant chord alterations and how these tensions are resolved). These features are implied in the following various idiomatic patterns, beginning with subchapter 6.4.

6.3 Enclosure Patterns

Enclosure is a short melodic construction, a type of pattern that is employed to approach any note. According to a stricter definition, an enclosure includes only three notes: the target (or object) note and a combination of its chromatic leading and upper leading notes. It is, however, common to embellish an enclosure with notes a whole step above and below the target note as well. These embellishments typically increase the length of an enclosure to four or five notes. Herein, an enclosure and its embellishments taken together are called *enclosure pattern*. Enclosure patterns can appear, for instance, on up-beats, in pick-up measures, or in the course of an improvised melody line. The use of enclosure patterns is a highly practical tonicization device; the patterns include both the material creating melodic tension and its release.¹⁰

Since the bebop era, enclosure patterns have been a part of idiomatic modern jazz improvisation. David N. Baker was among the first to introduce enclosures to a larger audience in jazz instruction. He discussed them in his *How to Play Bebop* series, which has enjoyed world wide distribution and fame. In this series, however, Baker did not give a very precise definition of an enclosure and he also ended up including rather varied melodic constructions in his collection of representative examples.¹¹ However, Jerry Coker, for instance, has discussed enclosures in more

¹⁰ For a definition of tonicization, see Glossary (Appendix 1).

¹¹ David N. Baker, *How to Play Bebop 1: The Bebop Scales and Other Scales in Common Use* (Van Nuys: Alfred Publishing Co., 1987), 7-9.

detail in *Elements of the Jazz Language for the Developing Improvisor*.¹² My definition above is derived from the one given by Coker.

In my fingering strategy, enclosure patterns can offer a practical way to approach, leave, or establish a position, for example. In this respect they can be combined with my Replacing approach.¹³ From the previous three practical types of enclosure patterns, below I present only the latter patterns for establishing a position. In all the examples, the target note is stopped either with the first or the second finger.

When applying the following enclosure patterns in improvisation, I recommend first shifting properly and precisely to the desired position (perhaps with the help of Replacing), and finding the placement of the target note with the correct finger. Then the actual enclosure pattern can be performed. All the patterns shown below are designed to work in this way. Thus, applying them demands some preparation or “thinking ahead.”¹⁴ In order to emphasize this, the target note is presented in the first measures of the two categories as an empty, fingered note head. The target note can be any of the scale degrees. However, typically the target is on the first (i.e., the tonic), third, or fifth scale degree. Although I have notated all the patterns as pick-up measures, they can be quite freely placed rhythmically. Needless to say, the rhythms given can be altered as well.

First I present enclosure patterns where the target note is stopped with the first finger.

Example 6.3–1: “Enclosure Patterns Target on the 1st Finger”

When the target note is stopped with the first finger, occasionally some finger glissando has to be allowed and employed in the enclosure patterns. The gliding effect can be decreased to some extent by excluding the slurs. Approaching a target note stopped with a first finger may appear a bit

¹² Jerry Coker, *Elements of the Jazz Language for the Developing Improvisor* (Miami: CPP/Belwin, 1991), 50-54.

¹³ See Part II, Chapter 4.

¹⁴ The essence of “thinking ahead” is stressed for enclosure patterns that begin with a downward stretch from the position.

challenging at first, since the leading note and its embellishments necessarily reach below the position to be established (i.e., an enclosure pattern may employ a small downward stretch). This may result in some temporary insecurity in hand placement or in the actual position (or both).¹⁵

The following enclosure patterns have the second finger indicated for the target note. Some patterns show an optional fingering below the staff. In the case of a second finger target, it is easier to avoid gliding in the fingerings. Hence, only one of these particular patterns includes a glissando.

Example 6.3–2: “Enclosure Patterns Target on the 2nd Finger”

The two examples above are not intended to provide a comprehensive coverage of enclosure patterns in jazz violin improvisation since the preceding patterns are designed especially for establishing a position.¹⁶ Additional patterns that focus on approaching and leaving a position, or patterns that employ minor shifting or creeping fingering (or both), can be designed.¹⁷ Enclosure patterns are a highly interesting fingering topic that should be studied further. I assume enclosure patterns could be applied, for example, in designing a special jazz violin shifting approach.

6.4 Chord Arpeggios and II-V-I Patterns

Another important element in the modern jazz language is the frequent employment of chord arpeggios. A significant part of improvised melody construction is based on basic arpeggiated (e.g.,

¹⁵ If violinists are not familiar with employing enclosure patterns at all, the glissandos may interfere with internalizing the patterns and their general melodic idea. If this happens, they should begin with Example 6.3–2, where gliding occurs considerably less often.

¹⁶ Readers who want more information about enclosures and similar melodic phenomena may find Hal Galper’s discussion of appoggiaturas interesting. See, *Forward Motion: From Bach to Bebop – A Corrective Approach to Jazz Phrasing* (Petaluma: Sher Music Company, 2005), 103-110.

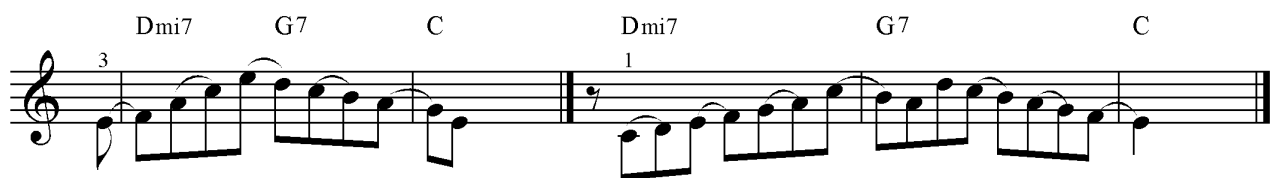
¹⁷ Creeping fingering was discussed in Part II, subchapter 5.3.

Emi7) and extended (e.g., Emi11) four-note chords. Modern jazz violinists, as with any other jazz musicians, have to be able to play chord arpeggios fluently in all keys. This may appear challenging, especially when the chords are changing quickly, lasting only two beats each. Again, schematic fingering approach can help succeeding in this.

Although I stated earlier that the focus in the communication of my strategy for patterns was defined by various scales,¹⁸ there is no denying that arpeggiated melody construction is present in several examples I introduce. Yet, instead of discussing how schematic fingering could be applied in chord arpeggios per se, I prefer to focus on the next highest level; that is, on various II-V-I patterns in which arpeggios are implied.

There are numerous jazz study books that teach how to employ chord arpeggios in the short, cadential chord progressions typical of jazz harmony. For instance, they often explain and show how, in a basic II-V-I progression, the Dorian scale can be played over the II chord (the minor seventh), the Mixolydian over the V chord (the dominant seventh), and so forth. Such information represents the theoretical basics of modern jazz improvisation. Employing the aforementioned scales in a II-V-I progression often results in improvisation that may closely follow the melodic principles of modern jazz but does not, however, include pitches from outside the particular key center. As an example of this, below are two rather diatonic patterns (i.e., in this case, all notes represent C major).

Example 6.4–1: “Basic Diatonic II-V-I Patterns”



This study focuses on slightly more advanced melodic material, and I believe that it is not necessary to teach the most basic diatonic theory, or how it can be brought into play in violin improvisation. I assume that most of my readers are already rather familiar with it. Therefore, I focus on chord arpeggio and progression issues that include some chromaticism. Below is a collection of common II-V-I and III-VI-II-V-I progressions outlined as patterns that employ the schematic fingering approach. These patterns include arpeggios to some extent. They also imply alterations of a dominant chord. Coloring of dominant chords is focused on in even more detail in the following subchapters.

Below appears a sample of common III-VI-II-V-I chord progressions where all chords last only two beats (except for the I chord, the duration of which can remain undefined). On the first two

¹⁸ See Part II, Chapter 2.

staves the first finger is employed on the tonic, while on the last two staves the second finger is employed on the tonic.¹⁹

Example 6.4–2: “III-VI-II-V-I Progression Patterns”

The image displays four staves of musical notation, each representing a different III-VI-II-V-I progression pattern. Each staff includes chord labels above the notes and fingerings (numbers 1-4) below the notes.

- Staff 1:** Emi7, A7(b9), Dmi7, G7alt, C. Fingerings: 3, 4, 3, 2, 1; 4, 2, 1; 4, 3, 2, 1.
- Staff 2:** Emi7, A7(b9), Dmi7, G7alt, C. Fingerings: 3; 1, 3; 4, 2; 3, 2, 3, 4; 1.
- Staff 3:** C#mi7, F#7(b9), Bmi7, E7alt, A. Fingerings: 4; 4; 4, 3; 4.
- Staff 4:** C#mi7, F#7(b9), Bmi7, E7alt, A. Fingerings: 4; 4, 3; 4.

The preceding patterns apply well to turnarounds.²⁰ All the III chords in the example (in this case, the Emi7 and C#mi7 chords) can be altered to minor seventh chords that include a diminished fifth (i.e., to Emi7(f 5) and C#mi7(f 5) chords). This alteration has little effect on the melody line (the perfect fifth has to be changed to a diminished fifth). However, the alterations do not have any additional effect on the fingerings of these patterns. They do not change the melodic construction very much; the patterns still work melodically when the diminished fifth is employed.

When chord arpeggios are employed together with chord substitutions, simple arpeggios can become powerfully effective for jazz melody construction. Earlier, when discussing extending of the limits of a position, I presented an example where four-note chord arpeggios were employed along with some tritone substitutions.²¹ Consequently, arpeggios can be employed in various superimpositions.²²

¹⁹ This is to say that, although the tonic is not necessarily stopped in the examples with the first and the second fingers, it could be reached with them. Consequently, the first and second fingers do actually work as reference fingers (i.e., they have a high status in the fingering), although they do not necessarily appear in the notation repeatedly. This often applies to the following pattern fingerings as well.

²⁰ For a quick reference, see Glossary (Appendix 1)

²¹ Part II, subchapter 5.3, Example 5.3–4.

²² Superimposition means placing a new musical element over another. The superimposed and the original (or already established) element are heard simultaneously. In solo improvisation, superimposing characteristically occurs when the

As an example of such superimposing, below appears a sample of Didier Lockwood’s solo in *Barbizon Blues*.²³ At the end of his first solo chorus (the tune is a traditional 12-measure jazz blues), Lockwood approaches the tonic (in this case, the F major) with a superimposition.²⁴ The superimposition follows the cycle of fifths and employs four-note patterns and simple chord arpeggios. Lockwood plays the superimposition over the turnaround.²⁵ In the notation, the chords simultaneously implied by the bass and guitar accompaniment are shown in italics. The chords shown below the implied italicized chords are the actual chord progression outlined by Lockwood in his solo melody. My transcription attempts to closely follow the fingerings and slurs Lockwood used.

Example 6.4–3: “Lockwood’s Superimposition”²⁶

In the above example, Lockwood’s superimposition of the cycle of fifths begins with the second beat of the second measure and ends with the second beat of the third measure. The fourth measure, where the superimposition is resolved and the phrase finished, is actually the first measure of the second solo chorus, hence the double bar line in the notation.

From Lockwood’s example I have derived a chord arpeggio pattern that follows the cycle of fifths. The logic within the pattern is simple and readers should not have any trouble applying it in all keys. The pattern can be employed as a superimposition, as material for cycle of fifths exercises, etc.

melody construction of the soloist follows a different chord progression than the originally given progression of chords. I define and discuss superimposition in more detail later, in subchapter 6.9.

²³ The solo appears on Didier Lockwood, *Tribute to Stephane Grappelli*, Disques Jazz, FDM 3661 1-2.

²⁴ *Ibid.*, CD time indices for the first solo chorus are 0’49’’-1’17’’.

²⁵ In the case of F major jazz blues, the turnaround typically includes the chord progression *Ami7-D7-Gmi7-C7* or *F7-D7-Gmi7-C7*. The progression (or its variant) appears in the last two measures of each blues chorus.

²⁶ *Tribute to Stephane Grappelli*, CD time indices 1’10’’-1’17’’.

Example 6.4-4: “Chord Arpeggio Pattern Following the Cycle of Fifths”

E A D G C F B \flat E \flat etc.

Next, I concentrate on patterns outlining II-V-I chord progressions. This material includes somewhat more chromaticism in the form of minor alterations that refer to the dominant diminished and altered scales.²⁷ In subchapters that include more substantial discussion of the dominant diminished and altered scales, the chords last four beats each. In the patterns below, the II and V chords last only two beats.

Example 6.4-5: “More Chromatic II-V-I Patterns”

Dmi7 G7(b9) C Dmi7 G7alt C

Dmi7 G7(b13) C Dmi7 G7alt C

Dmi7 G7alt C Dmi7(b5) G7alt Cmi

In the above sample, the first example represents a transition from a basic diatonic II-V-I pattern towards a somewhat more chromatic one. The second example shows how some chromaticism based on the altered scale can be applied. The third example implies the dominant diminished scale. The last three examples again employ the altered scale. The sixth and last example shows how a minor tonic can be approached in this context.

²⁷ For a quick reference, see Glossary (Appendix 1).

In the idiomatic patterns of the previous sample, the first finger is employed on the tonic; either in a high or low register. I leave it to readers to follow this approach in creating similar patterns that rely on the second finger on the tonic. From the above example, the fourth and sixth patterns for instance, can be easily modified for this particular purpose. Also, regarding Example 6.4–2, the measures outlining Emi7-A7 or Bmi7-E7 can be almost directly applied as separate II-V-I patterns, for instance, with the fingerings given. If none of the patterns given are to a reader’s liking, other patterns of this type can easily be constructed. In this respect, I hope the samples serve as a model or a source of inspiration.

6.5 Dominant Bebop Scale Patterns

Bebop scales, as a theoretical concept, did not exist during the bebop era but certain characteristic melodic innovations were identified as such later. Pianist Barry Harris is often referred to as one of the earliest promoters of these scales. I consider “bebop scales” to be mainly a theoretical term and pedagogical tool; reference to them may be of some help when explaining and understanding melody construction of bebop and they can be applied to improvisation which consists of continuous eighth note lines. Bebop scale theory, however, is not well established. The number and contents of the scales seem to vary considerably in the literature of jazz theory.²⁸ However, typically there is a scale corresponding to a major chord and to a dominant seventh chord. Sometimes scales corresponding to a minor chord and a dominant seventh chord with f 9 (minor ninth) and f 13 (minor thirteenth) are formalized as well.

In idiomatic bebop melody construction, chord tones typically fall on the beats, while non-chord tones are more often placed on the off-beats. Bebop scales respond to this principle by adding a chromatic passing note (or notes) to familiar diatonic scales. In the case of a Mixolydian scale appearing on top of a dominant seventh chord, for instance, this means adding a (leading) note between the tonic and the minor seventh scale degree. For illustration, the following example shows the D dominant bebop scale. The descending scale part appears first since it is employed more frequently. The fingering included in the example represents the one I recommend.

Example 6.5.–1: “Dominant Bebop Scale”



²⁸ Compare, for instance, the presentations by Baker in his *How to Play Bebop 1*; by Jerry Bergonzi in his *Inside Improvisation, Volume 3: Jazz Line* (Rottenburg: Advance Music, 1996), 9-20 and 32-41; and by Mark Levine in his *The Jazz Theory Book* (Petaluma: Sher Music Co., 1995), 171-179.

In addition to the fact that the theory on bebop scales is inconsistent between theorists, the entire concept involves a serious issue; namely the term “scale.” The use of the term may mislead jazz students to think that so-called bebop scales are frequently employed as longer scalar runs. This surely is possible (and Mark Levine, for example, has found some good examples of such use) but is not very common in improvisations in the bebop idiom.²⁹ The truth, instead, is that bebop scales mainly take the form of shorter segments or patterns.³⁰ These segments and patterns obey the above-mentioned bebop principle of placing chord tones on the beats and non-chord tones on the off-beats.

Bebop scales, or the applying of the bebop principle, is an interesting subject worth a book of its own. Given the limits of my focus, I restrict my attention to the dominant bebop scale, the most characteristic part of which (viz., the leading note between the tonic and minor seventh scale degree) is typically employed when outlining and coloring dominant seventh chords.

In discussing my bowing guidelines in practice, I briefly referred to a dominant bebop scale pattern that is popular enough to be seen as an archetype.³¹ Below I present this pattern again. This time, however, an optional fingering (the second staff), which employs the second finger on the tonic is given.

Example 6.5–2: “Dominant Bebop Scale Pattern #1”

Below is another rather popular pattern that again includes the characteristic part of the dominant bebop scale. This pattern can be seen either as outlining a II-V-I progression (indicated in the example) or just as a V-I progression. In the latter case, the whole measure is understood as a prolongation of the A7 chord and the corresponding scale is thus the A dominant bebop scale. Both interpretations are appropriate. This pattern works only when the second finger is employed on the tonic.

²⁹ *The Jazz Theory Book*, 176-179.

³⁰ Bebop scale runs which cover the full range of an octave were very rarely used by Charlie Parker, for instance.

³¹ See Part II, subchapter 3.4. While discussing the dominant bebop scale, David N. Baker, for instance, mainly employs this pattern. See his *How to Play Bebop 1*, 1-12.

Example 6.5–3: “Dominant Bebop Scale Pattern #2”

The image shows two staves of musical notation for Example 6.5-3. The top staff is for a major resolution, with chords Emi7, A7(b9), and D. The bottom staff is for a minor resolution, with chords Emi7(b5), A7(b9), and Dmi. Both staves show a scale pattern starting on the tonic (E) with a tritone alteration (F#) and a chromatic descent. Fingerings are indicated with numbers 1, 2, and 3.

Next, I present an adaptation of the same pattern. This time the pattern employs the first finger on the tonic.

Example 6.5–4: “Dominant Bebop Scale Pattern #3”

The image shows two staves of musical notation for Example 6.5-4. The top staff is for a major resolution, with chords Emi7, A7(b9), and D. The bottom staff is for a minor resolution, with chords Emi7(b5), A7(b9), and Dmi. Both staves show a scale pattern starting on the tonic (E) with a tritone alteration (F#) and a chromatic descent. Fingerings are indicated with numbers 1, 2, and 3.

Examples 6.5–3 and 6.5–4 both include separate versions that resolve to major and minor. Readers should notice, however, that both patterns appearing on the upper staves can be applied in approaching a minor tonic as well.

In closing, I show two additional patterns where the archetype bebop scale pattern (Dominant Bebop Scale Pattern #1, Example 6.5–2) appears as a part of a II-V-I chord progression.

Example 6.5–5: “Dominant Bebop Scale in a II-V-I Progression”

The image shows two staves of musical notation for a dominant bebop scale in a II-V-I progression. The first staff is for Cm7, F7, and Bb. The second staff is for Cm7, F7, and Bb. The notation includes fingerings (1-4) and slurs.

It seems that neither the bebop scales nor the bebop principle are often discussed in the literature of jazz violin pedagogy. In my opinion, the successful application of the bebop principle is one of the major issues occupying contemporary jazz violinists. I hope the matter is given more focus in future studies and publications.

6.6 Dominant Diminished Scale Patterns

Diminished scales are symmetrical, eight-note scales. They are typically employed on top of a diminished chord or a dominant seventh chord. In modern jazz harmony, a diminished chord frequently appears and is treated as a substitute, an inversion, or an altered form of a dominant chord (e.g., B \flat 7 can be seen as the first inversion of the G7(f 9) chord). This especially applies to ascending chord progressions.³²

The structure of the diminished scale differs according to the chord. The scale employed on top of a diminished chord begins (when ascending) with a whole step. The scale employed on top of a dominant seventh chord begins (when ascending) with a half step. Hence, jazz theory often identifies the diminished scale that begins with a half step as the *dominant diminished scale*. The examples below show the two different scales and the related chords.³³

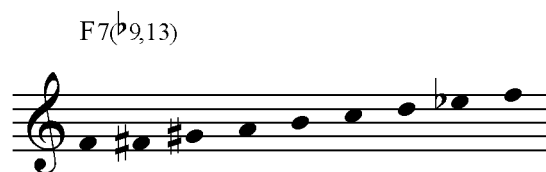
Example 6.6–1: “F Diminished Scale”

The image shows the F diminished scale on a single staff in treble clef. The chord symbol F $^{\circ}$ 7 is written above the staff.

³² In modern jazz harmony, diminished chords are seen and treated differently in descending chord progressions. For more information see, for instance, Mark Levine, *The Jazz Theory Book* (Petaluma: Sher Music Co., 1995), 84-88.

³³ The chord symbol in Example 6.6–2 reflects the dominant diminished scale precisely by indicating the minor ninth and the natural thirteenth. Later in the text, however, I shorten the chord symbol by omitting the natural thirteenth.

Example 6.6–2: “F Dominant Diminished Scale”

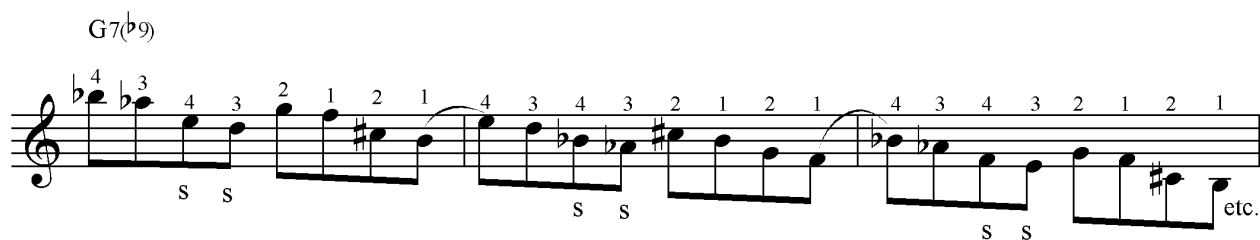


According to the focus of my study, I concentrate on the dominant diminished scale and how it is employed in coloring the dominant chord. The diminished scale is excluded from my discussion.

Perhaps the most famous dominant diminished pattern in jazz history was popularized by John Coltrane in his solo on *Moment's Notice*, in 1957. Just before his third chorus in this solo, Coltrane played a Bf dominant diminished scale pattern over a long (concert) Bf pedal that ever since has been learned and applied by jazz musicians.³⁴ Since this pattern is a rather inseparable part of modern jazz history and is in the public domain today, it is advisable that violinists also familiarize themselves with it.

In Coltrane's classic *Moment's Notice* solo, the pattern begins on Df. However, in order to make the pattern more approachable for violinists who are not yet familiar with it, the pattern appears below as transposed, over the G dominant seventh chord.

Example 6.6–3: “John Coltrane's Dominant Diminished Pattern”



The pattern above begins in the first position, then climbs upwards on the fingerboard. In this example, the half step shift always appears at the end of a measure, around the fourth beat (in the manner of creeping fingering). The two eighth notes that appear on the second beats (marked with “s”) are stretched.

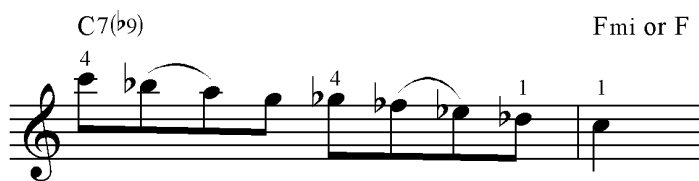
In my experience, in my schematic fingering approach, the above fingering is the most practical for this pattern (i.e., thus not employing open strings). However, the necessity of stretching

³⁴ Coltrane recorded *Moment's Notice* for his *Blue Train* album. The tune is in the key of E♭ major. The long Bf pedal at the end of the chorus has the same function as the Bf dominant seventh chord. There are many CD prints available of the classic album. I have employed John Coltrane, *Blue Train*, Blue Note, CDP 7 46095 2. On this print, the pattern at stake appears between the time indices 2'10''-2'12''.

makes the pattern rather demanding for violinists. Also, the half step shifts may at first appear difficult. For both reasons, it can be challenging to play the pattern in tune.³⁵ Although violinists should know this archetype pattern of modern jazz tradition well, it may be best to begin from less advanced patterns.³⁶ For violinists, the following dominant diminished patterns are easier material to start with since they are slightly simpler melodically and technically less challenging.

One of the most practical ways of employing the dominant diminished scale on top of a dominant chord is to play a one-octave descending scale run. The character of the scale is fully and clearly present. The example below presents the pattern in a basic form.

Example 6.6–4: “Dominant Diminished Pattern #1”



The above pattern begins with the upper tonic of the dominant diminished scale in question. The pattern can be employed in a harmonic situation that leads either to a minor or a major chord. In the example above, the dominant seventh chord is C7(f 9) and the scale is accordingly the C dominant diminished scale. Since the scalar pattern outlines the underlying chord so clearly, it is easy to identify by ear. The pattern also resolves promptly to the fifth of the following chord. Rhythmically, however, the above form of the pattern is not very sophisticated or interesting (it begins on the first beat). However, in order to learn to hear and play a dominant diminished scale, I recommend that violinists begin with this basic form.

In respect to the fingering of the pattern, it is advisable to think that the hand is already in the position of the tonic chord to which the dominant diminished pattern resolves (i.e., the pattern is performed in the position of the tonic, no shifting occurs). In the example above, the pattern begins and ends in second position (the first finger appears, although not in the notation, on the tonic F). Thus, the C dominant diminished pattern begins in second position as well and the four last notes of the pattern (beats three and four) are only a half step extension within that position (i.e., the pattern employs the creeping fingering technique). The extension ends (and the hand returns to the normal, unextended shape) in the first finger glissando.

³⁵ The pattern can easily be performed in tune if open strings are allowed in the fingering and only the first and half positions are employed. However, this study excludes open strings, and therefore fingerings employing them are not further discussed.

³⁶ For more traditional uses of the diminished scale in jazz violin improvisation see, for example, Pierre Blanchard, *Le Jazz au violon: Méthode volume 2, L'Improvisation et ses développements* (Jazz on violin: The improvisation and its developments, volume 2) (Paris: Editions Henry Lemoine, 2007), 33-36. Published only in French. The translation of the title is mine.

In the next example, the same pattern is presented in a context where a minor seventh chord (Gmi7 in this case) precedes the dominant seventh chord. Thus, the pattern is now a part of a II-V-I progression where each chord takes one measure. Small rhythmic elaboration appears at the beginning and the end of the progression. The upper pattern leads to the F minor chord, the lower to the F major chord.

Example 6.6–5 “Dominant Diminished Pattern #1 as a Part of a II-V-I Progression”

The image shows two musical staves in treble clef, 7/8 time. The upper staff is labeled with chords Gmi7, C7(b9), and Fmi. The lower staff is labeled with chords Gmi7, C7(b9), and F. The melodic line consists of eighth notes with slurs and fingerings (2, 4, 4, 1, 1). The first measure of each staff has a '2' above the first note. The second measure has a '4' above the first note. The third measure has a '4' above the first note. The fourth measure has a '1' above the first note. The fifth measure has a '1' above the first note. The sixth measure has a '1' above the first note. The seventh measure has a '1' above the first note.

As with the first example of the dominant diminished scale pattern, the above II-V-I progression begins and ends in second position (the position of the tonic). Likewise, the second part of the pattern (beats three and four of the second measures of both lines) should be seen as a half step extension that ends in the first finger glissando.

The II chord of a II-V-I progression can include a diminished fifth. This happens frequently in tunes in which the tonality is minor or when a minor chord is tonicized. Therefore, it is necessary to present a version of the same pattern where the dominant seventh chord is approached through a half-diminished chord. Again, the upper staff leads to a minor tonic, the lower to a major tonic.³⁷

³⁷ Although a half-diminished chord built on the second scale degree more often indicates that a minor key or chord is tonicized, in modern jazz practice the half-diminished chord color is frequently used in tonicizing a major key or chord as well.

Example 6.6–6: “Dominant Diminished Pattern #1 as a Part of a II-V-I Progression Including a Half-Diminished Chord on the Second Degree”

The image shows two staves of musical notation in treble clef. The upper staff contains three measures: the first measure is labeled Gmi7(b5) and has a note G with a fingering of 2; the second measure is labeled C7(b9)4 and has notes C, E, G, Bb with fingerings 4, 2, 3, 4; the third measure is labeled Fmi and has notes F, Ab, C with fingerings 1, 1. The lower staff also contains three measures: the first measure is labeled Gmi7(b5) and has a note G with a fingering of 2; the second measure is labeled C7(b9)4 and has notes C, E, G, Bb with fingerings 4, 2, 3, 4; the third measure is labeled F and has notes F, Ab, C with fingerings 1, 1.

In the pattern above, the notes appearing on top of the half-diminished chord are derived from a scale called “Locrian augmented second” (often abbreviated as “Locrian #2”) or just “half-diminished” scale. This scale can also be identified and described as the sixth mode of a melodic minor scale.³⁸ It is also common to employ just the Locrian mode (the seventh mode of a major scale) on top of a half-diminished chord. If readers want to hear the difference between the Locrian #2 and Locrian, they should substitute Af for A natural in the first measures above.

I now move to slightly more complicated examples of the dominant diminished scale harmony. In the following pattern the particular scale is applied in quite a different melodic shape. The upper staff leads to F minor, the lower to F major.

Example 6.6–7: “Dominant Diminished Pattern #2”

The image shows two staves of musical notation in treble clef. The upper staff contains two measures: the first measure is labeled C7(b9) and has notes C, Eb, G, Bb with a fingering of 2; the second measure is labeled Fmi and has notes F, Ab, C with a fingering of 3. The lower staff also contains two measures: the first measure is labeled C7(b9) and has notes C, Eb, G, Bb with a fingering of 2; the second measure is labeled F and has notes F, Ab, C with a fingering of 1.

³⁸ For a more elaborate explanation of Locrian #2, see Mark Levine, *The Jazz Theory Book* (Petaluma: Sher Music Co., 1995), 67-70.

This pattern ends in a different position than where it begins. Actually, the whole pattern includes two half step shifts; the first appearing on the third beat of the first measure (of either staff), the second appearing on the first beat of the second measure. When the dominant diminished scale is applied in this pattern, the resolution to the minor tonic (in this case F minor) may include a half step glissando with the third finger. When the pattern is resolved to a major chord, a similar fingering can be used. However, in the case of resolution to a major tonic, the third finger glissando would be the size of a whole step. A whole step glissando may appear to be challenging to play in tune. Therefore, I suggest avoiding it and recommend, instead, the fingering given above. The melodic contour is altered slightly, but not too much.

In order to show how the above pattern can be used in a II-V-I progression, first I present an example where the second degree is a minor seventh chord.

Example 6.6–8: “Dominant Diminished Pattern #2 as a Part of a II-V-I Progression”

The image displays two staves of musical notation in treble clef, 7/8 time. The first staff illustrates a II-V-I progression: Gmi7, C7(b9), and Fmi. The second staff illustrates a similar progression: Gmi7, C7(b9), and F. Fingerings are indicated by numbers 1, 2, and 3 above the notes. In the first staff, the Gmi7 chord uses fingering 3, C7(b9) uses 2, and Fmi uses 2 and 3. In the second staff, Gmi7 uses 3, C7(b9) uses 2, and F uses 1.

With a small alteration, this example can also exemplify a II-V-I progression where the II is a half-diminished chord.

Example 6.6–9: “Dominant Diminished Pattern #2 as a Part of a II-V-I Progression Including a Half-Diminished Chord on the Second Degree”

The musical notation consists of two staves. The first staff shows a progression of three chords: Gmi7(b5), C7(b9), and Fmi. The second staff shows a progression of three chords: Gmi7(b5), C7(b9), and F. The notes are written in a treble clef with a key signature of one flat (Bb). Fingerings are indicated by numbers 1-4 above the notes.

I suggest that violinists who are not familiar with the sound of the dominant diminished scale and who do not already include it in their improvisation should begin with the patterns above that I called “Dominant Diminished Pattern #1” and “#2”. My experience suggests that they are among the two most useful patterns of this scale type for modern jazz violin improvisation.

To end this subchapter, I show two additional dominant diminished patterns. Both appear directly as parts of a II-V-I progression and both take advantage of the symmetrical structure of the dominant diminished scale. The first pattern reflects the symmetry of that particular scale fingering scheme (i.e., in the terms of Lockwood and Darizcuren, the fingering scheme called “minor”) while the second pattern plays with the minor sixth interval.³⁹

Example 6.6–10: “Dominant Diminished Patterns #3 and #4”

The musical notation consists of two staves. The first staff shows a progression of three chords: Bmi7, E7(b9), and A. The second staff shows a progression of three chords: G#mi7, C#7(b9), and F#. The notes are written in a treble clef with a key signature of two sharps (F# and C#). Fingerings are indicated by numbers 1-4 above the notes.

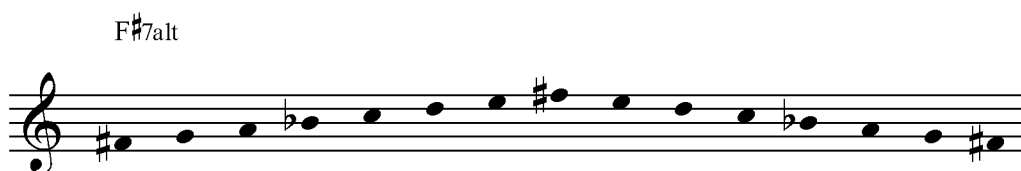
³⁹ See Part I, subchapter 3.2. Also, Carl Flesch noted a similar intervallic logic in the diminished scale—and how well suited it is to the violin. See Carl Flesch, *Violin Fingering*, 186.

These patterns are my own adaptations of the particular symmetric, intervallic use of the dominant diminished scale. However, the melodic device shown on the first staff is sometimes employed by Didier Lockwood, for example.⁴⁰ The device appearing in the second was sometimes employed by the late, great saxophonist Michael Brecker.⁴¹

6.7 Altered Scale Patterns

As was the case with the previously discussed dominant diminished scale, the altered scale is also frequently employed on top of a dominant seventh chord. The name of the scale is well-established and popular jazz theory books seem to agree on its definition. However, to be thorough, the example below spells out the notes belonging to the F# altered scale. The common chord abbreviation is also presented.

Example 6.7–1: “F# Altered Scale”



The altered scale can also be seen as the seventh mode of a melodic minor scale. Consequently, it can be said that, in the above example, the notes are derived from the G melodic minor scale. The definition of a melodic minor scale in jazz differs from its definition in classical music theory (i.e., in jazz there are no alterations in the descending part of the scale) and, for clarification, the example above includes both the ascending and descending F# altered scale. When the dominant seventh chord includes a diminished fifth (f 5), an augmented fifth (#5), a minor ninth (f 9), and an augmented ninth (#9) it is often just called an altered dominant chord.⁴² I employ the common chord abbreviation *alt* in this study.

The most popular pattern based on the altered scale is shown in the following example. Every jazz violinist should know this pattern well. Some jazz theorists suggest that the altered scale is

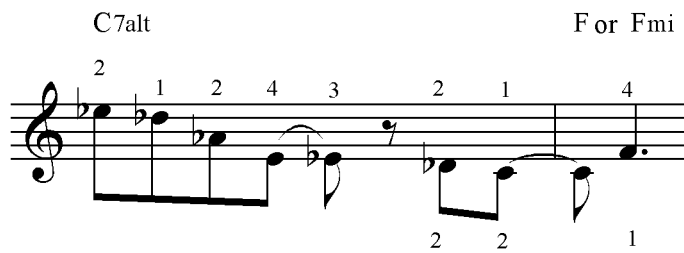
⁴⁰ It is easy to distinguish the device, for instance, from Lockwood’s *Four Strings Bitch* solo violin performance on *Live in Montreux* album (Disques JMS, JMS 11). The device appears within the time frame 1’03-1’05’’. I only possess an LP version of the album; hence the time reference is approximate.

⁴¹ I have discussed Michael Brecker’s melodic expression in detail (including the diminished scale device) with references to his recordings in “Brecker & patterns: Michael Brecker’s melodic and instrumental devices” (MA thesis, Sibelius Academy, 1999).

⁴² It seems that the presence of either of the altered fifths together with either of the altered ninths is often enough for achieving the chord color of an altered dominant seventh chord. This is especially true when the fifth and ninth are both augmented. Consequently, it could be said that the augmented fifth and ninth are very characteristic of an altered dominant chord.

more often employed when approaching a major tonic and less often when approaching a minor tonic. In modern jazz, however, the minor tonic also can be (and frequently is) approached with the altered scale. The end of the pattern below does not clearly indicate either the major or the minor tonality. Hence, it can lead to minor as well.

Example 6.7–2: “Altered Pattern #1”



This example employs the C altered scale. The altered pattern begins with the augmented ninth (here notated enharmonically as an E \flat , the minor third). The minor ninth (D \flat), augmented fifth (enharmonically notated as A \flat), and major third (E) are also included. The pattern resolves promptly to the fifth degree (C) of the following tonic chord. There are two different ways to end the pattern: the pattern can resolve to the position where it began (the fingering option above the staff) or it can conclude with a position a whole step lower (the fingering option below the staff). In my experience, both ways are practical and recommended.⁴³ The musical material following the pattern will determine which fingering to employ.

The above pattern can be interpreted rhythmically in several different ways. The one shown above begins on the first beat. The particular rhythmic placement and the rhythmic form of the example may not be the best artistic choice. The example, however, should benefit violinists who are not accustomed to including the altered scale in their improvisations.

Next, the same pattern is involved in a musical context that more closely resembles typical modern jazz practice; the pattern appears as a part of a II-V-I progression to major. In the following, a minor seventh chord (Gm \flat 7) precedes the altered dominant chord (C7alt). The optional fingering shown in the previous example can be applied as well, although it is not presented below again.

⁴³ I want to note that there is also a third fingering option for this pattern. The third option begins with the fourth finger. This particular option is not considerably more challenging than those shown in the example. However, given my fingering guidelines, a fingering that relies on the stronger first and second fingers is preferred to a fingering that relies on the weaker fourth finger. Therefore, the third option is not presented here.

Example 6.7–3: “Altered Pattern #1 as a Part of a II–V–I Progression”

Musical notation for Example 6.7–3. The piece is in G minor. The first measure is Gmi7, the second is C7alt, and the third is F. The melody is: G4 (1), A4 (2), Bb4 (1), C5 (2), D5 (4), Eb5 (3), D5 (2), C5 (1). Fingerings are indicated above the notes.

The next example shows how a minor tonic can be approached via the same pattern. This time the preceding minor seventh chord includes a diminished fifth (Df). Since the altered scale pattern includes that note as well (as a minor ninth), it is not advisable to employ the note in advance (the note repetition would significantly decrease the melodic tension). Hence, I suggest this melodic contour for the first measure.

Example 6.7–4: “Altered Pattern #1 as a Part of a II–V–I Progression Including a Half-Diminished Chord on the Second Degree”

Musical notation for Example 6.7–4. The piece is in G minor. The first measure is Gmi7(b5), the second is C7alt, and the third is Fmi. The melody is: G4 (1), A4 (2), Bb4 (1), C5 (2), D5 (4), Eb5 (3), D5 (2), C5 (1). Fingerings are indicated above the notes.

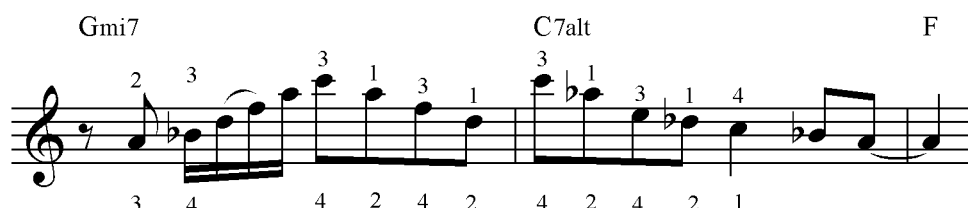
As was already stated, the altered pattern above is (and has for a long time been) very popular among jazz musicians. This pattern is such a central part of the modern jazz pattern vocabulary that it certainly represents an example of an archetype.⁴⁴ Some jazz pedagogues encourage their students to avoid this pattern, however, since it is so commonly heard.⁴⁵ I argue, instead, that the pattern has not yet become too popular among jazz violinists. In fact, I seldom hear contemporary violinists employing it. Examples of historical jazz violinists taking advantage of the pattern are relatively few as well. Therefore, I believe violinists should not be afraid to use it. I actually recommend learning the pattern thoroughly, since it captures the character of the altered scale well and summarizes important aspects of the usage of the altered scale on top of a dominant seventh chord.

⁴⁴ This altered pattern is commonly known, for instance, as the “Cry Me a River pattern,” since the pitches match to the opening of that particular tune by Arthur Hamilton (copyright given 1953). For a short discussion of the name, and the popularity and appearances of the pattern, see Jerry Coker, *Elements of the Jazz Language for the Developing Improvisor* (Miami: CPP/Belwin, 1991), 74–76.

⁴⁵ The pattern also has a nickname, “I Have Had Enough of That,” that criticizes the popularity of the pattern. The wording fits the melody line.

The next example presents another rather popular altered pattern. I find this pattern highly suitable for violin because the descending arpeggios that define the character and shape of the pattern are very easy to hear and play on violin. In accordance with the melodic contour of the pattern, it has to be presented as a part of a II-V-I progression. The progression should lead to a major tonic, since the version of its melodic contour that leads to minor does not sound good.

Example 6.7–5: “Altered Pattern #2 as a Part of a II-V-I Progression”



The descending four-note arpeggios are the essence of this pattern. In the example, I chose to rhythmically place the first arpeggio on top of the minor seventh chord (the third and fourth beats of the first measure). However, the first arpeggio could be placed on the first beat of the second measure as well, since the notes fit the sound of a dominant seventh chord. The reason for suggesting that violinists begin with the melodic form shown is pedagogical; this way the altered sound is more recognizable for those who are not yet familiar with it.

The above pattern begins and ends in the same position. The three last notes of the second descending arpeggio (in this case, the notes Af, E, and Df) should be taken as nothing more than a small contraction within the position. To play these notes it is not necessary to move either the placement of the left hand on the fingerboard or the thumb.

The pattern can be fingered in two ways and the alternatives are shown above and below the staff. According to my fingering guidelines, the fingering given above is preferred. However, in this particular case, the difference in difficulty between the fingering options is small. Sometimes, depending on the preceding or following musical situation (or both), the fingering given below the staff is more practical.

I close my discussion of altered scale patterns by including additional, technically slightly more difficult patterns. I present all of them as parts of II-V-I progressions. In the following patterns, only the first finger is employed on the tonic. These two patterns work best if a minor seventh chord is employed on the second scale degree and the melodic tension resolved to a major tonic (i.e., these patterns do not work as well in approaching a minor tonic and also employing a half-diminished chord on the second scale degree).

Example 6.7-6: “Altered Patterns #3 and #4”

The image shows two staves of musical notation for guitar. The first staff is for the Ami7, D7alt, and G chords. The notes are G, A, B, C, D, E, F#, G, A, B, C, D, E, F, G. The fingerings are 2, 3, 2, 3, 2, 3, 2, 1, 4. The second staff is for the Ami7, D7alt, and G chords. The notes are G, A, B, C, D, E, F#, G, A, B, C, D, E, F, G. The fingerings are 2, 3, 3, 3, 3.

The next pattern takes advantage of the two major triads that can be derived from the altered scale. It can be fingered by employing either the first or second finger on the tonic. The sequential employment of the major triad is the musical essence of the pattern. Consequently, the pattern resolves better to a major tonic; this allows a neat spelling-out of a third major triad.

Example 6.7-7: “Altered Pattern #5”

The image shows two staves of musical notation for guitar. The first staff is for the Bmi7, E7alt, and A chords. The notes are B, C, D, E, F#, G, A, B, C, D, E, F#, G, A, B. The fingerings are 2, 3, 2, 1. The second staff is for the Bmi7, E7alt, and A chords. The notes are B, C, D, E, F#, G, A, B, C, D, E, F#, G, A, B. The fingerings are 3, 4, 3, 2.

And finally, I present a pattern that works best with the second finger on the tonic.

6.9 Melodic Devices with More Chromaticism

So far, the majority of the patterns have been presented in a context which follows or implies functional, tonal harmony. Typically the patterns have colored the dominant chord. Schematic fingering approach is, however, also highly applicable for many other types of modern jazz patterns. In order to illustrate this, the following short selection of patterns represents categories that involve more chromatic and modal melodic devices. While a part of the material observes the focus I have stipulated (i.e., the material can be employed for coloring the dominant chord), most of it I submit as an essential extension of my discussion of schematic fingering and modern jazz patterns.

The patterns below are frequently employed as superimpositions. In jazz, *superimposition* means placing a new musical element over another. The superimposed and the original (or already established) element are heard together. Thus, a superimposition is not a substitution (which means a replacement of the original). Superimpositions are by nature temporary and they usually last for relatively short time periods (e.g., a few measures or seconds). Typically, superimpositions are accomplished harmonically, when two or more key centers appear simultaneously. However, superimposing applies to rhythm and melody as well.

In solo improvisation, superimposing characteristically occurs when the melody construction follows a different chord progression than the original set of chords. While the original chord changes remain the same and are played (or implied) in the accompaniment, the superimposed melody can result in strong melodic dissonance against the background harmony, depending of course on the difference between the superimposed and original chord progressions.

Sometimes the superimposed melody can be easily identified as a chord progression conveying harmonic functions (e.g., tensions and releases). For instance, a superimposed melody can follow or outline chord progressions jazz musicians identify as *Countdown* or *Giant Steps*.

6.9.1 *Countdown* and *Giant Steps* Superimpositions

The type of chord progressions John Coltrane popularized in his compositions *Countdown* and *Giant Steps* (both issued in 1959, on *Giant Steps* album) are both well-known chromatic superimposition devices.⁴⁹ In this study, I apply both *Countdown superimposition* and *Giant Steps superimposition* in order to distinguish the small but significant difference between them and in their usage.

The type of chord progression Coltrane employed (for the first time) in *Countdown* has become a popular device in modern jazz. In Coltrane's original example, the progression appeared as a reharmonization of a conventional II-V-I progression. The example below illustrates this practice with two chord progressions on separate staves. Both progressions resolve to E_f major.

⁴⁹ Many CD editions of the album are available. The most recommended is John Coltrane, *The Heavyweight Champion: The Complete Atlantic Recordings*, Atlantic Recording Corporation, R2 71984. *Giant Steps* is included to the particular box set of seven CDs.

The progression on the first staff shows the conventional II-V-I progression while the second staff shows the chord progression Coltrane used in *Countdown*.⁵⁰

Example 6.9.1–1: “II-V-I Progression and the *Countdown* Progression”

The image shows two musical staves. The top staff is divided into four measures with the following chord labels above them: Fmi7, Bb7, Ebma7, and Ebma7. The bottom staff is divided into seven measures with the following chord labels below them: Fmi7, Gb7, Bbma7, D7, Gma7, Bb7, and Ebma7. Both staves are empty of notes, with bar lines indicating the measure structure.

More recently it has become common to employ the *Countdown* chord progression on top of II-V-I progressions (Coltrane himself was naturally influential in this respect as well). Thus, the original reharmonization idea has been enhanced into an effective melodic superimposition device for coloring II-V-I progressions.

When a *Countdown* superimposition is performed, the accompanying parties (e.g., a bass player and a pianist) play the II-V-I progression (e.g., the upper staff of the above example), while the soloist’s (e.g., a jazz violinist’s) melody improvisation outlines the *Countdown* chord progression (i.e., the lower staff of the example).⁵¹ The superimposition is not tied to any particular chord rhythm or time signature. Therefore, in the above example a popular version of the chord rhythm is only implied with the bar lines while the time signature remains unspecified.

Countdown superimpositions in an improvised melody line are surprisingly easy to execute on violin as patterns—especially if the schematic fingering approach is followed. The next example shows how the same above chord progression can be efficiently expressed. The melodic contour of the pattern is based on four-note patterns.⁵² In the example below, the simplest forms of the four-note patterns appear on the first staff. The second staff, again, presents a variation which is not considerably more difficult but that is slightly more interesting melodically. Both patterns are superimposed over a II-V-I progression to G major (i.e., over the Ami7-D7-Gma7 progression).

⁵⁰ *Countdown* was a reharmonization of *Tune Up* (a tune by Eddie Vinson, often mistakenly attributed to Miles Davis). In *Countdown*, Coltrane reharmonized the frequent II-V-I progressions of *Tune Up* exactly the way I show in my example (although in different keys). Later Coltrane applied the same idea in his other reharmonizations. For more information on *Countdown* and the history related to this harmonic device, see, for instance, Lewis Porter, *John Coltrane: His Life and Music*, 1st paperback ed. (Ann Arbor: The University of Michigan Press, 1999), 146-149.

⁵¹ Some jazz musicians frequently call this superimposition the “*Giant Steps* superimposition.” This is misleading because the progression did not appear in the tune *Giant Steps*. Coltrane employed the progression for the first time in *Countdown*. In this respect, I want to be accurate and thus I make a distinction between references to *Countdown* and to *Giant Steps*, although my distinction may conflict a little with the terminology of other jazz musicians.

⁵² The four-note patterns were already discussed in Part II, subchapter 4.3. For a quick reference see Glossary (Appendix 1).

Example 6.9.1–2: “Countdown Superimposition Patterns”

The image displays two staves of musical notation in treble clef, illustrating 'Countdown Superimposition Patterns' over a chord progression. The chords, indicated above the staves, are $A_{mi}7$, B^b7 , $E^b_{ma}7$, $F\#7$, $B_{ma}7$, $D7$, and $G_{ma}7$. The first staff shows an ascending melodic line with fingerings 2, 3, 1, 3, 2, 1, 1. The second staff shows a descending melodic line with fingerings 2, 3, 1, 3, 2, 1, 1.

The original *Giant Steps* chord progression itself (i.e., the chord progression that actually appeared in the tune *Giant Steps*) is also another popular superimposition.⁵³ It can be employed in the middle of a more modal section, for instance, just for creating chromatic melodic tension against the background harmony. The next example presents three patterns, all of which outline a *Giant Steps* superimposition. The first staff shows how the progression can be prolonged as an ascending line, while the second shows a descending prolongation. On the third staff, the ascending and descending contours are combined. All these patterns can be employed, for instance, over the B major or minor key center.

⁵³ In the field of jazz violin, a representative recorded example by Didier Lockwood appears in his solo in *Don't Drive So Fast* on *New York Rendez-vous* album (Disques JMS, JMS 18669-2), between the CD time indices 4'59''-5'11''.

Example 6.9.1–3: “Giant Steps Superimposition Patterns”

The image displays three staves of musical notation, each representing a different superimposition pattern. Above each staff is a sequence of seven chords: B \flat ma7, D7, Gma7, B \flat 7, E \flat ma7, F \sharp 7, and Bma7. The first staff shows a melodic line with fingerings 1, 3, 1, 3, 1, 3, 1. The second staff shows a melodic line with fingerings 1, 3, 2, 1, 1, 3, 2, 1, 1. The third staff shows a melodic line with fingerings 1, 3, 1, 3, 2, 1, 1.

All the above examples of the *Countdown* and *Giant Steps* superimpositions are intentionally simplified for violin. To study this part of Coltrane’s legacy further, in formal fashion, interesting places to start are the *Countdown to Giant Steps* play-along CD set by Jamey Aebersold Jazz, David Demsey’s *Giant Steps* solo transcriptions, and Walt Weiskopf and Ramon Ricker’s instructive *Coltrane: A Player’s Guide to His Harmony* booklet.⁵⁴

6.9.2 Other Chromatic Patterns

When the violin fingerboard is approached in truly schematic fashion, it is easy to invent and play diverse patterns which include extensive use of chromaticism. While these patterns may create strong melodic tensions against the background harmony, technically, they can be surprisingly simple to perform. Such patterns are frequently employed by jazz violinists, for example, when they want to “play out”—that is, to construct melodic dissonance through reflecting harmonies from outside the key center in question.

In this study, the main focus is to show the efficiency of schematic fingering in functional, tonal jazz harmony. However, in order to briefly demonstrate how the schematic fingering approach can also be beneficial in improvisation that seeks to deviate from tonal harmonic functions, I present a selection of simple chromatic patterns. Due to space limitations, I cannot discuss how to

⁵⁴ Jamey Aebersold, *Countdown to Giant Steps, Volume 75* (New Albany: Jamey Aebersold Jazz Inc., 1996). David Demsey, *John Coltrane Plays Giant Steps: Complete Transcriptions of Every Recorded Solo by Jazz Master John Coltrane on His Legendary Composition Giant Steps*, transcriptions and analysis by David Demsey (Milwaukee: Hal Leonard Corporation, 1996). Walt Weiskopf and Ramon Ricker, *Coltrane: A Player’s Guide to His Harmony* (New Albany: Jamey Aebersold, 1991).

involve these patterns in improvisation but leave that to readers to explore. The possibilities for employing these patterns are great, especially in a modal harmonic environment. However, I provide short descriptions that indicate the origin of the patterns (typically a scale) or that hint at the structure of the patterns. Here, I make the exception of not providing bowing guidelines in the notation of these patterns and thus have omitted all slurs. Readers can easily design slurrings while they explore ways of employing the patterns.

The first, and perhaps the easiest chromatic pattern of all, employs four-note patterns and climbs by half step shifts. In order to enhance this fundamental melodic idea, I have interpreted the pattern in a rhythmic form that implies a 3/4 beat over 4/4. In the example below, the pattern shifts upwards, but the pattern can naturally shift downwards as well or can be transposed by whole steps, larger intervals, etc. The pattern can be employed in creating chromatic tension for a section that stays a while in one key center. Consequently, the pattern presentation below could be seen as creating tension over the E major tonality. However, the pattern naturally does not have to begin by spelling out the tonic (the E major), but it can be started from another place as well.⁵⁵

Example 6.9.2–1: “Chromaticism and Patterns #1: Four-Note Patterns”



The next pattern is not much more complex. This time the minor seventh chord arpeggio fingering climbs by half steps. The first staff shows a version which employs only two strings (E and A) while the version on the second staff employs three strings (however, two strings at the same time). As with the previous pattern, this one can also create chromatic interest in a section that dwells a while in one key center. In this case, the patterns could be seen as creating tension over a Bf mi7 chord or the Bf Dorian tonality. As the first staff pattern shifts upwards after each measure, the second staff pattern stays in one position for two measures before a shift (i.e., the lower pattern begins in the half position and shifts to first position at the beginning of the measure 3). The chord symbols in the example indicate the temporary tonal centers created by the patterns (i.e., they do not represent the required accompaniment, for instance).

⁵⁵ In order to reflect a minor tonality through this device, the minor four-note pattern could be employed.

Example 6.9.2–2: “Chromaticism and Patterns #2: Minor Seventh Arpeggios”

$B^{\flat}m7$ $Bm7$ $Cm7$ $D^{\flat}m7$ etc.

$B^{\flat}m7$ $E^{\flat}m7$ $Bm7$ $Em7$ etc.

sul E & A *sul A & D* *sul E & A* *sul A & D*

Symmetric scales have been a popular source of patterns for jazz musicians. Below appear two different patterns, both of which are derived from diminished scales. Both staves can be understood as prolonging just one diminished scale; the pattern on the upper staff ascends the B^{\flat} diminished scale, while the one shown on the lower staff descends the B^{\flat} dominant diminished scale. The pattern on the lower staff begins on the D string (in the sixth position).

Example 6.9.2–3: “Chromaticism and Patterns #3: Diminished Scale Arpeggios”

$B^{\flat\circ}7$ $B^{\circ}7$ $D^{\flat\circ}7$ $D^{\circ}7$ $E^{\circ}7$ $F^{\circ}7$ etc.

$B^{\flat\circ}7$ $A^{\flat\circ}7$ $G^{\circ}7$ $F^{\circ}7$ $E^{\circ}7$ $D^{\circ}7$ etc.

III

The following patterns, again, are derived from the whole-tone scale. Both examples can be understood as prolonging the A whole-tone scale. The pattern on the lower staff closely resembles the “Whole-Tone Pattern #2” presented earlier (in subchapter 6.8).

Example 6.9.2–4: “Chromaticism and Patterns #4: Whole-Tone Scale Arpeggios”

The musical notation shows two staves of music. The first staff contains six measures with the following chord labels above them: A+, C#+, F+, A+, C#+, and F+. Each measure contains a whole-tone scale arpeggio with specific fingerings indicated by numbers 1, 2, 3, and 4. The second staff contains six measures with the following chord labels above them: A+, G+, F+, Eb+, C#+, and B+. Similar to the first staff, each measure contains a whole-tone scale arpeggio with fingerings. The notation includes slurs, ties, and 'etc.' at the end of each staff. Below the second staff, the text *sul A & D* is written.

The number of chromatic patterns is naturally limitless. Several others could be derived, for example, from other scales (e.g., the pentatonic scales, harmonic minor and harmonic major scales, the augmented scales, and other types of symmetric scales); from established harmonic conventions of modern jazz (e.g., advanced chord substitutions, superimpositions, and reharmonizations); or from various sources arising from the character and physical design of the violin (e.g., tuning in fifths, the possibility of employing micro intervals, double-stopping, and different types of bow strokes and patterns). Unfortunately, all these interesting topics fall outside the scope of the present study. However, I encourage readers to explore them further since approaching schematic fingering from various perspectives is inspiring.

CHAPTER 7

Applications

The material presented in the previous chapter has no value, of course, if it is not applied in performance. Even if the schematically fingered idiomatic patterns were all learned by heart and could be fluently played in any position and in any tempo, they are virtually useless if they cannot be applied in practice, that is, if they are not correctly incorporated in real time improvisation. As Paul F. Berliner wrote in *Thinking in Jazz*: “It is in dramatic movements from formerly mastered phrases to unrehearsed patterns, from commonly transacted physical manoeuvres to those outside the body’s normal reach or hold, and from familiar frames of reference within compositional forms to uncalculated structural positions, that improvisers typically push the limits of their artistry.”¹ In short, that defines what the jazz art is about. Idiomatic patterns can be seen only as a section of modern jazz “vocabulary” (i.e., in Berliner’s sense, as formerly mastered “phrases”), a source, or a reserve for musical communication and expression. Now it is time to bring that section of vocabulary alive within a story.

This chapter describes and teaches two different applications for schematically fingered idiomatic patterns. Both applications aim at producing real time modern jazz improvisation. The first application, called “All Over,” encourages taking advantage of the entire violin fingerboard and shifting continuously. The second, called “Where It’s At,” suggests staying in one position for longer time periods, in the manner of position playing.

7.1 General Instructions of Applying the Patterns

The challenge of applying an idiomatic pattern to an improvisation can usually be divided into three phases. These phases appear chronologically and within a relatively short time-line. In musical terms, the section during which the phases occur is often just few measures long. According to the structure of the composition and the tempo of the performance, that short moment typically lasts a second or two. It can be that in “burning” tempos all three phases are passed through in just parts of a second.

The three phases involved in applying an idiomatic pattern are:

- 1) preparing the performance of a pattern,
- 2) performing of the pattern, and
- 3) concluding the performance of the pattern (or resolving the pattern) and continuing on with the improvised performance (or the solo).

¹ Paul F. Berliner, *Thinking in Jazz: The Infinite Art of Improvisation*, (Chicago: The University of Chicago Press, 1994), 217.

Often it is impossible to separate the phases clearly, since they overlap. The following musical example samples several such phases in an imaginary solo over the changes of the B section of the jazz standard tune *Have You Met Miss Jones*.² In this example, I have applied some enclosure patterns and a simple, diatonic II-V-I pattern that altogether is repeated four times. The three phases and their appearance are indicated as numbered brackets above the staves. In the example, the phases somewhat smoothly follow each other. Thus, the compressed example may not necessarily represent, artistically or technically (or both), the reality of jazz violin improvisation. As an exception to the larger rule of this study, in this example the first and half positions are employed a little, just for easier reading.

Example 7.1–1 “The Three Phases”

The example begins with the violinist’s hand in first position. This is underlined by the use of the open D string. For the start, the Bf ma7 chord of the B section is approached and outlined (the pick-up measure and the beginning of the first measure of the B section). At this part of the imaginary solo, it has occurred to the violinist to “clearly outline all the changes in the whole B section by repetitively employing a diatonic II-V-I pattern.”

The violinist prepares the playing of the first appearance of the II-V-I pattern with an enclosure pattern (the end of measure 1 of the B section). Next, the violinist performs the II-V-I pattern (measure 2) and concludes it (the beginning of measure 3). The performance of the second pattern appearance is similarly prepared with an enclosure pattern (the end of measure 3). The pattern is performed immediately (at measure 4, with some rhythmical variation) and concluded

² Composed by Richard Rodgers, copyright given in 1937. The tune is typically played in the key of F major. Its B section is particularly famous for its “fast modulations” or, in order to be more theoretically correct, its rapid tonicizations.

with a glissando (at the beginning of measure 5). The glide takes the violinist away from the previous position (i.e., third position) and, most likely for this reason, the next pattern appearance is prepared again in first position (the end of measure 5). However, this preparation allows performing the pattern again in the third position (measure 6). This time the pattern is slightly varied rhythmically and it gets a scalar ending (the beginning of measure 7). The fourth and last appearance (measure 8) is prepared with another enclosure pattern (at the end of measure 7). The II-V-I pattern is now performed in the original form but concluded with another melodic variation (the beginning of measure 9 in this example, which is actually the first measure of the following section of the tune).

Throughout this imaginary solo passage the violinist has taken advantage of the short rests for “thinking” and “planning” the next moves. These very brief moments (the third phase) are indicated as brackets with a number three above. Since in reality there is so little time available, the “thinking” and “planning” can actually only resemble the particular mental processes the words commonly indicate. Often these “thinking” and “planning” kinds of mental processes overlap with the last moments of actually performing a pattern. This I have implied in the bracketing as well.

The compressed example above effectively demonstrates the process of applying idiomatic patterns in improvisation.³ My experience suggests that being conscious of the three phases is of great importance when idiomatic patterns fingered in schematic fashion are employed. At the beginning, if violinists are not accustomed to constant shifting and are not secure about the placements of the positions, employing the patterns may appear challenging. Therefore, it is essential to break up the performance process into phases and become aware of the different moves and mental activity it requires.⁴

I believe that the three-phase process cannot really be taught but only suggested in literal form. Since no two violinists learn and internalize idiomatic patterns in identical ways, it is difficult to define and present a universal method for this purpose. However, I have strong faith that if readers internalize a single pattern I introduced previously in this study, they will eventually find ways to employ it. To confront a new pattern, study it, and put it into practice is the handicraft of jazz—and it is best and only learned by doing. The more the solutions to the challenges of applying the patterns are personalized, the better and more satisfactory the audible results will artistically be.

When internalizing and applying idiomatic patterns, violinists might want to pay attention to rhythmic displacement, augmentation, and diminution techniques. These are among the most recommended ways of adding variety in the application of idiomatic patterns.

Rhythmic displacement appears when a rhythm or a pattern is repeated, but starts on a different beat than the original appearance. The displacement can be one (or more) beat(s) early or

³ Roughly speaking, the particular three phases apply to any prepared material included in improvisation.

⁴ Simon Fischer, for example, discusses the essence of dividing technically challenging musical passages into units. The units are first practiced as separate entities, then in short successions, and finally as longer successions. Fischer calls this approach *ABC Practice*. See Simon Fischer, *Practice: 250 Step-by-step Practice Methods for the Violin* (London: Edition Peters, 2004), 275.

late (i.e., before or after the original rhythmic placement). Both augmentation and diminution are ways of rhythmic pattern embellishing. In augmentation, the melody notes or melodic shape of a pattern are usually kept the same (or recognizably similar, at least), while some (or all) of the note values are expanded or increased by a noticeable degree in the subsequent appearance of the pattern. Similarly, in diminution, the note values are contracted or decreased noticeably, while the melody or melodic shape usually stays the same (or recognizable).

I recommend readers to familiarize themselves, for instance, with Hal Crook's *How to Improvise: An Approach to Practicing Improvisation* or Jerry Bergonzi's *Inside Improvisation, Volume 4: Melodic Rhythms*. In both popular publications the above matters are discussed in a well-considered manner.⁵

7.2 “All Over” Application

Some applications of the idiomatic patterns and schematic fingering can be successfully expressed in writing and notation. To complete the communication of my fingering strategy, I propose two practical views on the matter. I have successfully experienced both applications during my artistic work and my pedagogical pilot experiments. The first application, called “All Over,” helps violinists improvise “all over” the violin's range (i.e., fingerboard).

For demonstration of this application, I present two choruses of an exemplary solo on the changes of the popular jazz standard tune *All the Things You Are*.⁶ In this example, several of the patterns introduced in the previous chapter are incorporated into the structure of the tune. Most of these appearances are in a position higher than the first or they include a shift to a position higher than the first. The patterns are, of course, promptly approached and concluded (i.e., resolved) as well.

In the notation of the example, the chord symbols above the staves indicate the harmonies outlined in the melody. The chord changes, which are normally followed by the accompaniment, are as follows.

⁵ Hal Crook, *How to Improvise: An Approach to Practicing Improvisation* (Rottenburg: Advance Music, 1993), 95-104. Jerry Bergonzi, *Inside Improvisation, Volume 4: Melodic Rhythms* (Rottenburg: Advance Music, 1998). Most of Bergonzi's publication discusses rhythmic-melodic development.

⁶ Composed by Jerome Kern, copyright given in 1939.

Example 7.2–1: “All the Things You Are Chord Changes”

The musical score consists of three sections, A, B, and C, each with four measures. The chords are as follows:

- Section A (Measures 1-16):**
 - Measure 1: Fmi7
 - Measure 2: B^bmi7
 - Measure 3: E^b7
 - Measure 4: A^bma7
 - Measure 5: D^bma7
 - Measure 6: Dmi7(^b5)
 - Measure 7: G7
 - Measure 8: Cma7
 - Measure 9: Cmi7
 - Measure 10: Fmi7
 - Measure 11: B^b7
 - Measure 12: E^bma7
 - Measure 13: A^bma7
 - Measure 14: Ami7(^b5)
 - Measure 15: D7
 - Measure 16: Gma7
- Section B (Measures 17-24):**
 - Measure 17: Ami7
 - Measure 18: D7
 - Measure 19: Gma7
 - Measure 20: F[#]mi7(^b5)
 - Measure 21: B7
 - Measure 22: Ema7
 - Measure 23: C7+
- Section C (Measures 25-36):**
 - Measure 25: Fmi7
 - Measure 26: B^bmi7
 - Measure 27: E^b7
 - Measure 28: A^bma7
 - Measure 29: D^bma7
 - Measure 30: G^b7
 - Measure 31: Cmi7
 - Measure 32: B^o7
 - Measure 33: B^bmi7
 - Measure 34: E^b7
 - Measure 35: A^bma7
 - Measure 36: Gmi7(^b5) C7

There are some popular but minor variations to the above changes. In these variations, for instance, minor seventh chords replace the half-diminished seventh chords in measures 6, 14, and 21. Again, some jazz musicians prefer to employ Df mi7 instead of the Gf 7 in measure 30. None of these variations have a significant influence on the voice-leading. They only indicate, more or less, different chord colors or variation in the bass line.

7.2.1 Patterns in All the Things You Are Example

Below, the entire example of the solo is presented; two full choruses, totalling 72 measures. The idiomatic pattern appearances are indicated with dashed, horizontal lines below the staves. Afterwards, I list, explain, and discuss the patterns involved.

I have attempted to make the example relatively easy to read, play, and understand. For these reasons, I frequently employ lower positions and simple rhythms. In the melody line, when spelling out the changes, I sometimes rely on the roots of the chords. This is only to also make the solo more suitable to practice without accompaniment.

Example 7.2.1–1: “*Patterns in All the Things You Are*”⁷ (next page)

⁷ An auditory demonstration of the example can be provided upon request. The demonstration is only available in digital format as an MP3 file.

1st Chorus

A

Fmi7 B \flat mi7 E \flat 7(b9) A \flat ma7

5 D \flat ma7 G7(ϕ 9) Cma7

9 Cmi7 Fmi7 Fmi7 Ema7 E \flat ma7

13 A \flat ma7 Ami7(ϕ 5) D7(b9) Gma7

B

17 Ami7 D7alt Gma7

21 F#mi7 B7alt Ema7 C7(b9)

C

25 Fmi7 B \flat mi7 E \flat ma7 A \flat ma7

29 D \flat ma7 G \flat 7 Cmi7 B \circ 7

33 B \flat mi7 E \flat 7alt A \flat ma7 C7(b9)

2nd Chorus

37 **A** Fmi7 B^bmi7 E^b7alt A^bma7

41 D^bma7 Dmi7(b5) G7 Cma7

45 Cmi7 Fmi7 Bb7 Ebma7

49 A^bma7 Ami7(b5) D7(b9) Gma7

53 **B** Ami7 Bb7 Ebma7 Gb7 Bma7 D7 Gma7

57 F#mi7(b5) B7 Ema7 C7+

61 **C** Fmi7 Bbmi7 Eb7 Abma7

65 D^bma7 Gb7 Cmi7 B°7

69 B^bmi7 E^b7alt A^bma7

7.2.2 Discussion

Throughout the solo, the schematically fingered patterns appear over the dominant chords. Thus, they are all employed in creating melodic tension that is later resolved following the modern jazz idiom (in voice-leading and other aspects).

The following table lists all the pattern appearances and at the same time indicates their function. In this listing, I use the names I gave the patterns in Chapter 6. If a particular pattern was not introduced and named before, it is identified it with a suitable, brief description. Any possible pickup measure, the pattern itself, and the melodic release are all included in the measure references. A pickup measure is indicated with an ellipsis which appears directly in front of the particular measure number (e.g., "...36" indicates "measure 36 and a pickup").

Example 7.2.2-1: "The Pattern Appearances"

MEASURE(S)	PATTERN NAME OR TYPE	FUNCTION
First Chorus – Section A (measures 1-16)		
3 to 4	Dominant Diminished Pattern #2	Tonicizes the Af ma7
...6 to 7	Dominant Diminished Pattern #1	Resolves the preceding measures to C major
11	A tritone substitution fingered in the manner of Altered Pattern #2 ⁸	Tonicizes the Ef ma7
...14 to 15	The pattern appearing in the first two measures of the second staff in the Example 6.4-2 ("III-VI-II-V-I Progression Patterns") ⁹	Resolves the preceding measures to G major
First Chorus – Section B (measures 17-24)		
...17 to 19	Altered Pattern #2	Emphasizes the modulation to G major
...21 to 23	Altered Pattern #1	Tonicizes the Ema7
24 to 25	Dominant Diminished Pattern #2	Tonicizes the Fmi7
First Chorus – Section C (measures 25-36)		
...34 to 35	Altered Pattern #5	Resolves the preceding measures to Af major
...36 to 37	The archetypical dominant diminished pattern appearing in the Example 6.6-3 ("John Coltrane's Dominant Diminished Pattern")	Turns the chorus back to the beginning through tonicizing the first chord of the structure (Fmi7)

⁸ The fingering scheme of the tritone substitution reminds Altered Pattern #2.

⁹ The pattern was also discussed in Part II, subchapter 1.4.

Second Chorus – Section A (measures 37-52)		
39	Altered Pattern #1	Tonicizes the Af ma7
42 to 43	A basic, diatonic II-V-I pattern	Resolves the preceding measures to C major
50 to 51	Dominant Diminished Pattern #1	Resolves the preceding measures to G major
Second Chorus – Section B (measures 53-60)		
53 to 56	<i>Countdown</i> Superimposition	Draws first away from the G major center with a strong chromatic tension, then resolves back to it
58 to 59	Dominant Bebop Scale Pattern #1	Tonicizes the Ema7
60 to 61	Whole-Tone Pattern #1	Tonicizes the Fmi7
Second Chorus – Section C (measures 61-72)		
62 to 63	The pattern appearing on the second staff in the Example 6.5–5 (“Dominant Bebop Scale in a II-V-I Progression”)	Tonicizes the Af ma7
70 to 71	Altered Pattern #4	Resolves the preceding measures to Af major

To provide more detail, below I expand the description and at the same time briefly discuss the patterns at stake. In addition, I note some other relevant features of the solo.

Section A (measures 1-16): The solo begins with two appearances of a simple melodic idea embellishing the ninth of the Fmi7 and Bf mi7 chords. Next follows the first appearance of an idiomatic pattern, “Dominant Diminished Pattern #2,” which tonicizes the Af ma7 chord. Another dominant diminished pattern, “Dominant Diminished Pattern #1,” appears almost immediately. Here (measure 6), this scalar pattern resolves to Cma7 chord, thus concluding this first, eight measures long part of the A section.

The following Cmi7 and Fmi7 chords are outlined simply, rhythmically emphasizing the (minor) third of the chords. In measure 11, the melodic and fingering idea that I called “Altered Pattern #2” is applied in the II-V progression, leading to the Ef ma7 chord. Here, the fingering is employed for creating a tritone substitution (i.e., the Bf 7 is substituted with Ema7). During the Af ma7 (measure 13), a position enabling the playing of a familiar, basic pattern to minor is approached. The pattern is thus performed without variation and resolved to the Gma7, which concludes the A section (and, thus, the previous, eight measure-long part of it).

Section B (measures 17-24): The B section of this jazz standard tune sometimes challenges players, since the chord rhythm suddenly seems to slow down (the section consists of two, four-

measures long II-V-I progressions) and a less popular key area for brass and wind instruments (E major) is briefly visited. In my example, these challenges are overcome by employing “Altered Patterns #2” and “#1.” After resolving the first pattern to G major, the ninth of the chord is quickly embellished (measure 19). In the case of the Ema7 chord, the (major) third is rhythmically emphasized, instead.

The rapid return from the barely established E major to the general key center of the tune happens through an augmented dominant chord (C7+). This location often challenges players as well. Here, the particular tonicization of the Fmi7 chord is accomplished with “Dominant Diminished Pattern #2.” This second appearance of the pattern is now conducted in double-time, in sixteenth notes (measure 24).

Section C (measures 25-36): The first eight measures of the C section do not spell out a single II-V-I progression (this, however, does not mean that this progression could not be superimposed) and therefore I have used the section to present how double-stops could be employed. Measures 27 to 29 show how interesting melodic tension can be promoted by including minor- and major-seconds. Stopping these intervals is somewhat challenging and perhaps for this reason they are too seldom heard in jazz violin improvisations.

Measures 33 to 35 include the final II-V-I progression of the tune (the big cadence, so to speak). As an example, the dominant chord is colored with the major triads derived from the altered scale. I presented this melodic device earlier as “Altered Pattern #5.” As soon as the Af ma7 is reached (and its ninth degree embellished as well), the structure returns to the relative minor (F minor). In typical jazz fashion, this is done quickly, implying just one dominant chord. On top of the tonicizing C7, the archetypical dominant diminished pattern that was popularized by John Coltrane is employed in double-time.

Section A (measures 37-52): At the beginning of the second solo chorus, shifting comes into focus for a while. Measure 38 includes a shift from second to fifth position. The fifth position is indicated with the Roman numeral below the staff. The Af ma7 in the measure 40 is tonicized with “Altered Pattern #1.” This second appearance of the pattern is, however, rhythmically varied (through rhythmic diminution). Through resolving the Ef 7 altered color to the Af ma7 (in the last eighth note of the measure 39), fourth position is eventually achieved. This position (indicated with a Roman numeral below the staff) is established and employed in measures 41 to 43 that follow. A basic, diatonic II-V-I pattern occurs in measure 42. The pattern and its resolution to Cma7 conclude the first part of the A section.

Measures 45 to 48 show again how double-stops can be effectively employed in voice-leading. A major-second double-stop appears shortly over Bf 7. During the Af ma7 the melody ascends in an arpeggio very typical of modern jazz. Another “Dominant Diminished Pattern #1”, this time in double-time, brings the melodic tension down to Gma7 and concludes the A section.

Section B (measures 53-60): The long II-V-I progression in G major is colored with a *Countdown* superimposition. For variation, the melody line here differs slightly from the line of the

Countdown patterns I presented in Chapter 6. All the notes, however, can be found and played without changing the pattern fingering I gave earlier (in the Example 6.9.1–2). One of the archetypal patterns of modern jazz, “Dominant Bebop Scale Pattern #1,” is employed in measure 58, over the B7 chord. In order to get back to the Fmi7 chord, “Whole-Tone Pattern #1” comes into play during the C7+ chord.

Section C (measures 61-72): At the beginning of the C section, the Fmi7 chord is spelled out carefully. Its minor third is rhythmically stressed. The II-V progression to Af ma7 is outlined as a pattern employing the dominant bebop scale. I presented this pattern earlier in Example 6.5–5. In measures 65 to 69, the important notes of these chords are outlined in the solo melody. In measures 65 and 66, this is done in an especially economical fashion; focusing on the most important difference in passing chords (i.e., the third of Df ma7 turns to the seventh of Gf 7). For the conclusion of the entire solo, “Altered Pattern #4” is employed over the Ef 7. Here the pattern is slightly varied rhythmically from the previous presentation. The pattern resolves to the Af ma7 chord. Instead of landing and finishing on the root, the melody curves up to the ninth of the chord and thus creates some motivic unity to the solo (i.e., the ninth of a chord was emphasized earlier in the solo in measures 1, 2, 7, 19, and 35).

Additional Markings: Within the 72 measures, the solo thus included a total of 17 appearances of idiomatic patterns or other, but similar, melody constructions. With the help of the schematically fingered patterns, a valid solo that closely follows the modern jazz idiom could be constructed. Simultaneously, challenging key areas and tonal centers were successfully covered.¹⁰ This should confirm that my fingering strategy at least has considerable potential as an alternative fingering approach for jazz violin improvisation.

The solo includes relatively short shifts. The longest shift appears at the beginning of the second chorus, in measure 38. Consequently, higher positions are employed most frequently during the first eight measures of the A section of the second chorus (measures 37-52). Since the solo does not climb any higher than fifth position, my Replacing approach does not need to be applied. However, finger replacing appears in shifting, for example, in measure 38.

Within the limits of this study I cannot provide more detail about how to create a similar solo or solos that include schematically fingered idiomatic patterns. I have targeted this study mainly towards professional level jazz violinists and expect that the majority of the readers representing that level should not have any problem in understanding how to proceed from here. In order to succeed in real time improvisation, which the preceding solo example only demonstrates, violinists should implement a logical, simple practice program. In short, the program would be: Learn to shift, learn patterns, choose a tune, and plan and undertake pattern performances.

¹⁰ The tune is in the key of Af major. For violin, this key is challenging because open strings can be employed (potentially) less often. The chord progression of the chorus includes key centers or chords based on Df, Ef, B, F#, and Gf, which can also be seen somewhat difficult on violin, since open strings cannot be frequently employed in several of the chord types based on these roots.

It is always more fun to practice the final step (i.e., the placing of pattern performances into a solo) with an accompaniment. Seldom, however, is an accompanist regularly available. Since the beginning of mass produced recorded music, jazz musicians have frequently jammed and practiced along with their idols and masters; they have played “over” their favourite albums. This approach is still valid, of course. Since the 1970s, Jamey Aebersold has published a series of play-along albums for pedagogical jazz purposes. The series can be of help if simpler and clearer background samples are sought.

7.2.3 Further Considerations

Naturally, in a real, improvised jazz violin solo, one would rarely employ schematic fingering and patterns as frequently as in the *Patterns in All the Things You Are* example presented above. The example should thus be seen as a concise and condensed demonstration. In order to communicate effectively how the idiomatic patterns could be employed within the limited space of this study, I necessarily had to exclude from the example such important jazz musical elements and devices as space (i.e., rests), motivic development of rhythmic or melodic material, and advanced melodic chromaticism. If valid modern jazz art is to be created, the aforementioned elements and devices should be carefully brought into balance with other elements and devices that are traditionally rather difficult to discuss on paper (e.g., phrasing, dynamics, timbre, timing, etc.).

When idiomatic patterns are applied in the context of real time improvisation, it also is essential to consider some higher aspects of the jazz tradition and art. Readers should invest time, both in technical and artistic terms, to studying and reaching their personal conclusions about melodic and rhythmical variation, interpretation, vocabulary, and repertoire, for instance. How can the idiomatic patterns be brought alive as variations? How can life be breathed into them through bowing and accentuation? Should these patterns be accepted as the only “vocabulary” to be drawn from, or should new ones be searched, found, fingered, and internalized?

The preceding questions are just examples of the first few serious considerations to be faced. Ultimately, readers should also try to reach their own opinions about formulaic improvisation and its relevance. They should personally decide how important employing the idiomatic patterns of modern jazz improvisation actually is for their artistic expression—and to what extent. Modern jazz expression includes ongoing discourse with tradition and history but, in my opinion, contemporary modern jazz should never solely focus on expressing that discourse.

Since this study is targeted towards professional level jazz violinists, I believe readers at that level should be able to independently answer the questions raised above and arrive at mature artistic conclusions. Therefore, I do not discuss these matters further between these covers. Readers who feel they need help in the form of technical or theoretical information and instruction can easily find study books, for example, on variation and rephrasing in jazz. Such matters can also be studied with

a competent teacher.¹¹ Traditionally, the response to some of the aesthetic decisions implied above was typically worked on and developed on the stage and on the road, in the master-apprentice arrangement of a working band. Unfortunately, the days are past when jazz issues could be chatted over in a tour bus with more experienced and advanced musicians. Present and future jazz students have to resolve these issues in classes and practice rooms. The subject is, however, luckily approached in some contemporary academic works as well.¹²

7.3 “Where It’s At” Application

Although schematic fingering is presumably more beneficial in violin playing that involves constant shifting, of course it can also be employed in playing longer periods in just one position. In this subchapter, I discuss this particular application through a presentation of a few choruses of a jazz blues in a major key. In this example (and exercise), no open strings are employed and, therefore, the entire solo example and all the patterns it includes can be transferred from the original key (A major) to others (A \flat major, B \flat major, B major, etc.) just through shifting to another position.¹³ Hence the name: *Blues in One Position, but in All Keys*.

7.3.1 *Blues in One Position, but in All Keys* Example

In the example below, I demonstrate how the schematic fingering approach works in connection with position playing. The example consists of a solo of six jazz blues choruses in the key of A major.¹⁴ Although the solo includes some stretching within a position, only one real shift occurs.

In the notation, chord symbols appearing above the staves are part of the melody line analysis and discussion. Consequently, the chords do not always represent the accompaniment for jazz blues. I have omitted the background harmony (i.e., the chord changes) from the notation in order to make it more readable. The A major jazz blues changes, which the solo reflects and can be employed for accompanying the solo, are as follows.

¹¹ It is, however, advisable to thoughtfully critique resources of such information. Jazz education and published research have only recently started to reach a reliably competent level. The amount of ambiguous communication, instruction and education produced, published, given, and marketed is still, unfortunately, quite disturbing.

¹² See, for instance, Paul F. Berliner, *Thinking in Jazz: The Infinite Art of Improvisation*, 184-191 and 558-568.

¹³ In this key, the open strings could be used, of course. According to my fingering guidelines, however, this is not allowed. I have taken this into consideration by adding fingerings in places where it would be tempting to use an open string.

¹⁴ Jazz musicians often distinguish between rock and jazz blues. The difference is perhaps articulated the best in harmony. While the rock blues often employs three basic dominant chords (I7, IV7, and V7), jazz blues usually employs more complex chords and chord relations. However, this is a rough generalization; exceptions naturally occur in both music genres.

Example 7.3.1–1: “Blues Changes in A major”

The solo begins and stays in the first position during the first four choruses. The last two choruses are in fourth position. All six choruses closely follow the modern jazz idiom. Its effect is seen, for example, in the presence of some idiomatic patterns over the II-V-I progressions. The solo thus employs some of the patterns identified earlier in this study, and they frequently color dominant chords. In addition, some new altered and dominant diminished scale patterns appear, for instance. The pattern appearances are indicated with dashed, horizontal lines below the staves.

The solo is, first of all, a demonstration of the schematic fingering approach. I had to reach some artistic compromises in order to accomplish the demonstrative and pedagogical intentions I had in mind. Thus, the solo may resemble a “jazz violin etude” more than an authentically improvised artistic product. For instance, I have constructed the solo so that it can be comfortably played without an accompaniment, if necessary. Therefore, in order to enable easier following of the chord progression, the roots of the chords sometimes appear in the solo melody line. I have also paid attention to very clear voice-leading and to outlining the chord progressions in elementary fashion. For this reason, some of the lines and their rhythmical character may appear slightly stiff.

Example 7.3.1–2: “Blues in One Position, but in All Keys”¹⁵ (next page)

¹⁵ An auditory demonstration of the example can be provided upon request. The demonstration is only available in digital format as an MP3 file.

1st Chorus

A7 D7 A7 A7(b9)

D7 A7 C#mi7(b5) F#7(b9)

Bmi7 E7alt A7 Bmi7 E7(#5)

2nd Chorus

A7 D7 A7

D7 D#7 A7 F#7alt

Bmi7 Bbma7 A7 Cma7 Fma7 Bbma7

3rd Chorus

A7 D7 A7

D7 A7 F#7

Bmi7 E7(b9) A7 Cmi7 F7 E7alt

4th Chorus

A7 D7 A7 Emi7 A7(b9)

37 1 1 4 3 4 4 1 2 4 4 3 3 3 3 4 3

D7 4 2 2 4 A7 4 3 4 4 3

Bmi7 E7 E7alt A7 Bmi7 E7 3 4 4 3 2 4 1 4 3

5th Chorus

A7 D7 A7 D7 1 1 3 1 3 2 3 2 4

D7 A7 53 Bmi7 E7 E7(b9) A7 1 1 1 2 1 1 2 4

Bmi7 E7 E7(b9) A7 1 2 3 3 4 1 2 4

6th Chorus

A7 D7 A7 Bb7 Eb7 1 2 3 3 4 1 2 4

D7 E7(b5) A7 4 3 1 3 1 3 2 4

Bmi7 C7 Fma7 G#7 C#ma7 E7 2 3 4 1 3 1 3 2 4

A7 A7 72 1 >

7.3.2 Discussion

Below, the idiomatic patterns included in the solo are listed in a table. After the table, I explain in more detail the construction of the solo. Although the focus is here on position playing, I want to stress that *all melodic material in the example is transposable to any key through shifting*.

In the table below, a pick-up measure is indicated with an ellipsis that appears directly in front of the particular measure number. If not otherwise indicated, the pattern names were given in Chapter 6.

Example 7.3.2–1: “The Pattern Appearances”

MEASURE(S)	PATTERN NAME OR TYPE	FUNCTION
First Chorus (measures 1-12)		
...8	The pattern appearing in the first two measures of the second staff in the Example 6.4–2 (“III-VI-II-V-I Progression Patterns”) ¹⁶	Tonicizes the Bmi7
9 to 10	Altered Pattern #2	Tonicizes the A7
12 to 13	A basic, diatonic II-V-I pattern	Turns the chorus back to the beginning through tonicizing the first chord of the structure (A7)
Second Chorus (measures 13-24)		
...21 to 22	A basic, diatonic II-V-I progression including a tritone substitution (Bf ma7 for E7)	Tonicizes the A7
...23 to 25	A basic, diatonic I-VI-II-V progression including tritone substitutions (often called as a “ <i>Half Nelson</i> turnaround”)	Turns the chorus back to the beginning through tonicizing the first chord of the structure (A7)
Third Chorus (measures 25-36)		
34 to 35	Dominant Diminished Pattern #1	Tonicizes the A7
36 to 37	Melodic material based on a half step stretch upwards and resulting as tritone substitutions and E7alt chord	Turns the chorus back to the beginning through tonicizing the first chord of the structure (A7)

¹⁶ The pattern was also discussed in Part II, subchapter 1.4.

Fourth Chorus (measures 37-48)		
...40 to 41	A basic II-V-I pattern in the fashion of the pattern appearing in the first two measures of the second staff in the Example 6.4-2 (“III-VI-II-V-I Progression Patterns”)	Tonicizes the D7
45 to 46	Basic melody construction implying some chromaticism and resulting in E7alt at the end	Tonicizes the A7
Fifth Chorus (measures 49-60)		
...57 to 58	Basic melody construction implying some chromaticism (a variation of the material in measures 45 to 46)	Tonicizes the A7
Sixth Chorus (measures 61-72)		
64 to 65	Melodic material based on tritone substitutions	Tonicizes the D7
...69 to 72	<i>Countdown</i> Superimposition	Draws first away from the A major center with a strong chromatic tension, then resolves back to it; turns the chorus back to the beginning through tonicizing the first chord of the structure (A7)

For a more detailed account, I want to expand on the above table and at the same time briefly discuss the appearances of the various idiomatic patterns involved. I also discuss some other relevant features of the solo.

First Chorus (measures 1-12): The solo begins in first position and the register consisting of the three lowest strings (G, D, and A) is employed. The first finger on A on the G string is the reference (or base) of the left-hand position and the particular tone is also the lowest pitch in use. Measure 8 includes the very familiar II-V-I pattern moving towards a minor chord; in this case, the pattern tonicizes the Bmi7 chord (which appears in measure 9). In measures 9 and 10, a pattern appears that I previously presented as “Altered Pattern #2.” The last measure of the first chorus and the first of the second chorus (measures 12 and 13) include a third II-V-I pattern.

Second Chorus (measures 13-24): In the second chorus, similarly, only the register of three lowest strings is employed and the first finger appears on A (on the G string) as the reference for the left-hand position. The last four measures of the chorus include melodic solutions typical to modern jazz. First, in measure 22, the Bf ma7 chord substitutes for the dominant E7 chord in the melody line. This is a simple example of a tritone substitution.

The tritone substitution is also employed in the turnaround of the chorus, in measures 23 and 24. The last three chords of the I-VI-II-V turnaround (the chords F#7, Bmi7, and E7) are substituted for by major seventh chords a tritone apart (Cma7, Fma7, and Bf ma7). This turnaround substitution

is often called a “*Half Nelson* turnaround” or “*Lady Bird* turnaround.” The harmonic and melodic device was first introduced in Tadd Dameron’s composition *Lady Bird*.¹⁷ It was later popularized by Miles Davis in his composition *Half Nelson*.¹⁸ Correspondingly, the melodic idea employed in the outlining of the aforementioned turnaround is based on the four-note patterns popularized by John Coltrane.¹⁹

Third Chorus (measures 25-36): The basis of this third chorus is the register consisting of the three highest strings (D, A, and E). However, the left-hand position is unchanged (i.e., the hand still remains in first position); the melodies just circle around the A stopped by the fourth finger on the D string. In measure 25, the dominant bebop scale (or bebop principle) briefly appears (in this case, the A dominant bebop scale).²⁰ That is; between the seventh note of the A7 chord (G) and the root of the chord (A), a chromatic passing note (G#) is introduced. In measures 28 to 32, the melody is based on major and minor sixth intervals, which are very practical and relatively easy to play on violin. As a melodic device, double-stops based on sixths are highly recommended in jazz violin improvisation: they are not as challenging to play in tune as other double-stops (e.g., thirds and fifths, not to mention fourths).

In measure 34, the scale used on top of the dominant chord is the E dominant diminished scale, and earlier I discussed this pattern as “Dominant Diminished Pattern #1.” Although it seems simple on paper, it sounds effective here in the midst of the other material. In measure 36, the notes can be easily found just by extending within the position, without moving the thumb on the neck of the violin (the extension actually begins in the previous measure). The fingers return to the normal position at the beginning of measure 37. Through this temporary extension a powerful melodic tension is created, especially in the second half of measure 36, where the notes follow the E altered scale.

Fourth Chorus (measures 37-48): The position of the left hand in the fourth chorus is the same as in the third. In measure 40, a variation of the II-V-I pattern that was already employed in measure 8 now appears. However, this time the chords outlined by the pattern are Emi7 and A7. Consequently, the pattern tonicizes the D7 chord, which follows in measure 41.

In measures 45 and 46, the two measures-long II-V-I pattern reflects chromaticism typical to modern jazz. Measure 48 includes a carefully (melodically and rhythmically) prepared position change; in order to employ a higher register, the first position is finally left behind.

Fifth Chorus (measures 49-60): The fourth position is now in effect in the first measure of the fifth chorus (measure 49). The fifth chorus mostly employs the three highest strings (the D, A, and E). Since the base of the left-hand position (the first finger on the A of the D string) is now a perfect fourth higher on the fingerboard than before, somewhat higher pitches can be employed. It

¹⁷ *Lady Bird* was given a copyright given in 1947.

¹⁸ *Half Nelson* was given a copyright given in 1948. For a critical discussion on Davis’ role as the composer of the tune, see Carl Woideck, *The Charlie Parker Companion: Six Decades of Commentary*, ed. by Carl Woideck (New York: Simon & Schuster Macmillan, 1998; imprint, New York: Schirmer Books, 1998), 221.

¹⁹ For a brief definition, see Glossary (Appendix 1) and for discussion see Part II, subchapter 4.3.

²⁰ See Part II, subchapter 6.5.

is very common to increase dramatic tension at the end of a jazz solo by moving from a lower register to a higher one. This solo takes advantage of this device through the particular shift.

Measures 49 to 55 introduce some basic melodic ideas based on the third interval double-stop. The small glissandos create a slight blues feeling at the beginning of the chorus and through these slides a bit more time is gained for adjusting to the new position and its octave frame and intonation.²¹ Such glissandos are very (jazz) violinistic; they are not challenging to play but are a comfortable expression of the mood and character typical of this compositional form.

In addition, the first part of this fifth chorus shows some effective, basic voice-leading on double-stops (measures 52 and 54). In measures 57 and 58 a simple, melodic II-V-I pattern typical to modern jazz occurs.

Sixth Chorus (measures 61-72): The last chorus of this jazz blues solo is still in fourth position. In measure 64, the following D7 (measure 65) is tonicized by a II-V-I progression employing tritone substitutions: Instead of the Emi7 and A7 chords, the melody outlines the Bf 7 and Ef 7 chords. Here, the substitution is again produced by a simple extension within fourth position. The thumb may not move at all on the neck during the extension since the fingers soon return to their normal positions in measure 65.

In measures 69 to 72, a chromatic but nonetheless very logical and melodic superimposition occurs. In these four measures, the melody follows the chord progression popularized in John Coltrane's *Countdown*. At some points, the melody may appear to be very dissonant in comparison to the jazz blues changes. However, the inner logic of the superimposition (the superimposition is constructed of V-I chord progressions moving by major thirds) resolves the dissonance effectively to the A7 chord in measure 72. The line in this particular superimposition is based on the four-note patterns.

Additional Markings: The solo rather frequently includes creeping fingering.²² This fingering appears mainly as short stretches or extensions in measures 22, 24, 34, 36, 52, 56-57, 64, and 69-71. Other, lesser stretches appear in measures 20, 26, 52, and 66.

In addition to the marked glissandos, audible finger glissandos may appear at the bar line between measures 24 and 25, in measure 26, at the end of measures 34 and 35, and in measures 37 and 42. In classical violin fingering, such gliding would often not come into question. However, in modern jazz, such glissandos are acceptable. Instead of trying to hide them, they can actually be emphasized; they can be made clearly audible and thus employed as an expressive, coloring device.

The fingering of the solo includes, however, certain places where finger glissandos are purposely avoided. This happens, for example, in measures 5, 16, 25, and 33. In these places, the glissando effect is avoided by timing it to the change of the bow direction. Again, many jazz violinists would probably employ a finger glide in these places and even emphasize it with an additional slur.

²¹ See Part I, subchapters 1.6.1 and 6.1.4.

²² Discussed in Part II, subchapter 5.3.

7.3.3 Employing the Example as an Exercise

After readers have become familiar with the solo and feel comfortable with it, it should be transposed to all keys. This is actually the main focus in the example, and it turns it into the exercise suggested in its title. The example can be used as an exercise in several ways.

The most obvious application is to start simply in the notated key of A major, then move chromatically upwards, half step by half step, until the solo is learned in all remaining keys.²³ In the higher positions, where there is less space for finger stopping, the solo becomes slightly more uncomfortable to play. It may be that maintaining good intonation then causes some challenges. If the quality of the intonation seems to diminish in the higher positions, slowing down the tempo is recommended.

When readers are familiar with all twelve keys, they can try another approach that is derived from the previous one. This time, improvisation should be included and the key can be changed after each chorus (i.e., a modulation occurs in every 12th or 13th measure). For example, this type of exercise could start from A major (either employing the example, variations based on it, or newly improvised lines). After the first chorus, the hand shifts a half step higher for the following 12 measures. Again, in the newly reached key area, the material in the example, its variations, or own improvised lines may be performed. Next, after a chorus, the hand shifts another half step higher into the next tonal center. This kind of ongoing transposition is similar to what is said to have happened in jam sessions in the 1940s, during the historical bebop era: The pioneers of bebop sometimes challenged themselves (and their colleagues and audiences as well) by changing the key after each chorus.

By learning all of the II-V and II-V-I patterns included in the solo, readers will be able to play lines which definitely reflect the modern jazz idiom and that can be employed in all keys. In this respect, I note that the previous example and the exercises based on it crystallize the benefits of the schematic fingering approach and my fingering strategy. This should also prove the potential my *Stringprovisation* fingering strategy has as an alternative fingering approach for contemporary jazz violin improvisation.

²³ Instead of the eighth position, the A_F major transposition can naturally begin in the half position.

CHAPTER 8

Second Ending

It is finally time to pull all the strands of this study together and modulate towards the second ending. This solo study performance has had its many twists and turns, however, all quite according to the original plan. What is left is a kind of theme recapitulation and the bow.

8.1 Summary

This study originated with the observation that modern jazz improvisation is demanding on the violin. Violin seems to be, in several ways, more challenging than more common jazz instruments. This applies, for example, to many aspects of its left-hand technique. In order to overcome certain of these technical challenges, my goal was to develop and design a fingering strategy for jazz violin improvisation. In this strategy, the open strings were excluded from fingering and the entire violin range was employed. Transposition of idiomatic patterns (i.e., melodic fragments) was thus done through shifting, while the fingerings were kept the same across all parts of the fingerboard.

I began the first part, *Setting the Frame*, with the assumption that schematic fingering could offer solutions to the technical challenges of modern jazz violin improvisation. I based my theoretical framework on the related contents found in Didier Lockwood and Francis Darizcuren's *Cordes & Âme*, and began with a detailed description of their schematic fingering approach, especially in the form of scale fingering schemes. Then I brought this framework and my own schematic fingering ideas into the discourse with representative and relevant examples of pedagogical bowed and plucked string instrument literature. The remainder of the first part was taken up with analyses and discussions of various schematic fingering approaches with the intention of advancing my original fingering strategy. It turned out that my strategy actually benefitted relatively little from other approaches, but I believed that it was very important to attempt to identify and carefully research this background and any potential relevance it might have for my strategy. I summarized this previous element of the study in my "First Ending" (Chapter 7 of Part I).

This second part, *Stringprovisation*, represented the presentation of my fingering strategy. I first introduced and explained my focus in Chapters 1 and 2. I centered my attention on idiomatic patterns of modern jazz and especially on patterns employed over dominant chords. I also set my scope to include some related chord progressions (e.g., II-V-I progressions), voice-leading, enclosures, and some more chromatic pattern devices. Given that focus, I could concentrate on expressing limited, but nonetheless sufficiently diverse details of my strategy.

In order to avoid unresearched and superficially stated technical results, I employed various guideline lists. With these (e.g., bowing, shifting, and fingering) guideline lists, I could state and explain the special technical preferences and delimitations of the strategy. I could simultaneously present some supporting research, thoughts, and arguments on essential technical matters. Through

these guideline lists it was also possible to control and approach these technical explorations, for instance, in a more transparent and formal academic manner.

I began the presentation of my strategy in Chapter 3 by discussing the most necessary, relevant aspects of jazz violin bow technique. I concentrated on syncopated slurring, which is a relatively rare bowing type in the classical violin tradition but a common and essential bowing technique in jazz violin. Syncopated slurring (or syncopated bowing) appears to be rarely discussed in contemporary jazz violin literature, and needed to be approached in some detail. Although the discussion of jazz bowing had to be rather concise, I believe I was able to describe some significant, basic matters.

Next in focus, in Chapter 4, was shifting, an issue which appears to be even less discussed in jazz violin literature than bowing. Applying my fingering strategy (e.g., transposing schematically fingered idiomatic patterns to any violin position) is directly dependent on a versatile shifting technique. In order to increase violinists' accuracy in shifting, I developed and introduced a systematized way of accurately gauging the distances on the violin fingerboard and of finding and moving to the first 15 positions, particularly, when the target pitch is to be stopped with the first and second fingers. This particular shifting approach, entitled as Replacing, seems to be a relatively fresh view of the matter.

In terms of functional, tonal modern jazz harmony, both idiomatic voice-leading and melody construction eventually lead to some chromaticism. When my fingering strategy is applied, the chromaticism typical of the modern jazz expression presumably requires violinists to redefine or readjust their perceptions of the limits of a violin position. Since my fingering strategy excludes all open strings and encourages playing over the entire extent of the fingerboard, also flexible position playing technique is elevated to greater importance than is typical. This and some other position playing issues I approached in detail in Chapter 5.

After discussing the previous, most essential technical aspects, I expressed the core of my fingering strategy via a selection of diverse idiomatic patterns. According to my focus (stated in Chapter 2), I connected the patterns to the scale colors most commonly employed in modifying a dominant chord. Subsequently, I presented different patterns for dominant bebop, dominant diminished, altered, and whole-tone scales. Furthermore, I presented patterns for enclosures, a selection of II-V-I and III-VI-II-V-I progressions, and introduced a few melodic devices with more chromaticism. All patterns were carefully fingered and slurred by following my stipulated guidelines and according to my best tactile and kinaesthetic knowledge and experience of jazz violin. This presentation of patterns took all of Chapter 6.

Finally, I put the fingering strategy into practice as two special applications in Chapter 7. In the first application, called "All Over," I showed how the patterns are employed in various positions within a notated solo based on a tune from the standard jazz repertoire. Consequently, my "All Over" application included constant shifting. In the second application, called "Where It's At," shifting was considerably less employed. In "Where It's At," I connected the schematically fingered

patterns to playing that employed just one position for longer periods. I introduced both applications via notated, exemplary violin solos and supported them with detailed explanations and discussion.

This entire second part of the study was thus an answer to the first research question stated in Part I, subchapter 2.3: “How may the playing of idiomatic patterns typical to modern jazz improvisation be effectively accomplished on the entire violin fingerboard?” In answering this question, I simultaneously attempted to pull together and communicate a fingering strategy that adheres, for instance, to the five rigid standards Hal Galper sets for good jazz instruction in his interesting *Forward Motion* publication.¹ In respect to Galper’s criteria, I believe that most of the concepts of my study can be historically validated (Galper’s standard 1). The concepts are also relatively universal (standard 2) and they are based on researched principles (standard 3). Furthermore, they are pragmatic (standard 4) and they can provide a sense of recognition (of tradition or history, for instance) when applied (standard 5).

In the end, I believe I succeeded in designing and formalizing a musical artifact (an object of practice-based, creative-production doctoral project), according to the model Steven Scrivener suggests in his article “Reflection in and on action and practice in creative-production doctoral projects in art and design.”² In this respect, I believe that my strategy is in many ways fresh and creative, it is a response to significant issues occupying the field, it is firmly set in a relevant cultural context, and it attempts to add something higher to human experience. Thus, the strategy closely reflects the four norms Scrivener suggests for this kind of research study and its object.³

8.2 Conclusions and Discussion

Nevertheless, at most, this study and my fingering strategy can only be a beginning for a change in jazz violin instrumental and improvisation technique. In the end, actual change is always made by a violinist fingering and bowing the violin. For those who take the initiative to respond to and apply my strategy, it should be of considerable benefit in learning to play in positions and in gaining a firm control of the entire fingerboard. Simultaneously, the strategy offers possibilities for studying, developing, and employing idiomatic patterns in modern jazz improvisation.

According to my second research task, “Attempt to employ the results of the textual component of the primary level analysis for the benefit of your own fingering strategy,” I tried to address many parts of the strategy in the light of the research reported in *Setting the Frame*.⁴ It happened, however, that the selected research material offered few aspects or elements that I could have directly applied in my strategy design. With the exception of a few examples of pedagogical

¹ Hal Galper, *Forward Motion: From Bach to Bebop – A Corrective Approach to Jazz Phrasing* (Petaluma: Sher Music Company, 2005), 10-11.

² Steven Scrivener, “Reflection in and on Action and Practice in Creative-Production Doctoral Projects in Art and Design,” *Working Papers in Art and Design 1*, 2000, http://sitem.herts.ac.uk/artdes_research/papers/wpades/vol1/scrivener2.html (accessed 31 January, 2008).

³ See discussion in Part I, subchapter 2.5.

⁴ The task was stated in Part I, subchapter 2.5.4. The discussion condensed into subchapters 4.1.2; 4.2.3; 5.1.2; 5.1.4; 5.1.6; 5.2.2; 5.3.2; 5.4.3; 6.1.2; 6.2.2; 6.3.3; and 6.4.2. of Part I.

classical violin literature (notably by Carl Flesch and Ivan Galamian), the connection between my schematic fingering goals and the selected literature represented mainly background research.⁵

According to my commitment to stay focused on the concise communication of the strategy, the discussion of some matters was relatively compressed. I believe, however, that I was able to express all the most important technical aspects, and to offer some fresh technical theories, and perhaps even identify (and hopefully correct) various biased perspectives that are often found in the pedagogical jazz violin literature. I see my fingering strategy as a researched, potential alternative to many common jazz violin fingering practices. Compared to popular publications in jazz violin pedagogy, my strategy is significantly more transparent, for instance, regarding its origins, influences, references, and premises. The most important solutions and applications are clearly stated and revealed for others to evaluate for themselves.

Many contemporary jazz musicians acknowledge that formulaic improvisation and the employment of idiomatic patterns may produce music that sounds predictable and unimaginative. Formulaic improvisation can easily lead to performances in which the focus departs from the ideal of free, personal expression and regresses, instead, towards attempts to echo a past jazz idiom. Performances of the latter kind are arguably closer to interpreting, miming, or conserving musical history than they are to creating contemporary, truly interesting and fresh jazz art. Derek Bailey, in his colorful *Improvisation: Its Nature and Practice in Music*, states that idiomatic improvisation “is mainly concerned with the expression of an idiom...and takes its identity and motivation from that idiom.”⁶ Although Bailey does not necessarily imply any criticism of idiomatic or formulaic improvisation, it is advisable to note the subtle warning that lurks behind his clever wording.

It may come as a surprise that I am genuinely concerned regarding the status that formulaic and idiomatic improvisation seems to have gained in contemporary jazz art, and I subscribe to criticism that addresses this issue. Although I presented my fingering strategy through idiomatic patterns, I do not believe that contemporary jazz violin improvisation of any artistic value can be made by playing such patterns too frequently (e.g., in the context of authentic improvisation). Quite to the contrary, I want to stress that idiomatic patterns are but one step in developing one’s jazz improvisation technique and improving one’s personal expression. Consequently, I leave it completely to the readers to judge in which ways and to what extent they wish to employ the pattern examples I have included in this study. I wholeheartedly hope that my fingering strategy will be seen as a starting step up a progression of stairs—not as a final stage of any kind.

8.2.1 General Application

With the exception of some minor pilot tests and occasional colleague feedback, I did not bring my fingering strategy into larger discourse with students or expert colleagues. This may at first surprise

⁵ The research materials are listed and discussed in Part I, subchapter 2.4.

⁶ Derek Bailey, *Improvisation: Its Nature and Practice in Music* (New York: Da Capo Press, 1993 supplemented edition with photographs of the 1980 edition), xi.

some more pedagogically oriented readers. I had several reasons for excluding larger pilot tests from this study, however.

First, time and space limitations suggested choosing either between piloting or the kind of research I reported in the first part. While I planned and prepared my studies, I soon realized that very few examples of pedagogical jazz violin literature include any references to relevant publications. Unfortunately, this frequently results in one-sided presentations and a sort of “reinventing of the wheel.” From this observation arose my keen interest to strictly avoid the same shortcoming by all possible means. In order to succeed in this regard, I found doing such research to be of more significance than pilot tests.

Second, at the early steps of developing the fingering strategy I familiarized myself more with some of the most relevant literature of classical violin and other string instruments. I was soon convinced that more research of such literature would benefit the project to a great extent. Subsequently, extensive literature studies soon became a part of my research design planning. Although the literature did not offer as many solutions or applicable models as I hoped, it did serve as a significant source of inspiration, motivation, and food for thought. Since the literature studies appeared to become so meaningful, I thought it was important to present them in this document.

Third, from the beginning stages of the project I realized that teaching my strategy, which had not yet manifested in written form or as a clear concept, could produce biased results among students.⁷ As a devoted teacher I did not see any point in taking such a risk, even if the teaching had been mutually agreed to be just “strategy developing and piloting” with a willing student. I did not want to risk accidentally ruining a student’s violin technique by experimenting with what were at the time only exploratory findings. I know from personal experience that building violin technique is a delicate and subtle undertaking; even small misconceptions and errors in technique can steal away the pleasure of playing for a long time, and it is very hard work to eliminate poor playing technique and technical errors. I therefore decided that before I would teach my strategy to anyone, it had to be largely finished and effectively expressed in words and through musical examples. When further contemplating my preferences for such literal communication, I saw that my priorities were to be both accurate and clear. These priorities required that, in respect to completing my research, I could not immediately begin teaching the strategy.

Fourth, I spent a considerable amount of time in analyzing diverse aspects of technique on the violin fingerboard (including those which would not be included in the strategy). By depending on many years of experience as a jazz violin teacher, I could strike a good balance between subjectivity and objectivity. I believe I was able to stay objective concerning the many issues of approaching and making progress with violin technique. Furthermore, through first-hand feedback I gained from

⁷ See my discussion in Part I, subchapter 2.1.

discussions with some expert colleagues and researchers on details of the strategy, I became assured that I could avoid designing a strategy that worked only for me and no one else.⁸

However, there is no denying that my fingering strategy will benefit from more testing. Such tests could reveal the most challenging or problematic aspects of my strategy. Then, more targeted supplementary exercises could be created and designed to maximize progress in internalizing and applying the strategy. In this respect, such testing is a highly important initiative for further studies. I naturally hope to undertake this initiative myself, very soon. Any volunteers for students?

8.2.2 Initiatives for Further Studies

This study cannot be seen as a comprehensive discussion of its various topics. The many subjects and issues appearing in these pages can and should be developed further through ongoing research. For instance, my discussion of jazz violin bowing technique was deliberately short. Since jazz violin bowing significantly differs from classical violin bowing, it deserves specific and more detailed focus. String crossing, slurring of other time values than eighth notes, employing longer slurs, employing separate bow strokes, and employing bow strokes other than legato in jazz violin playing—just to mention a few potential subjects—are all issues worthy of special investigation.

In addition, regarding jazz violin improvisation shifting, position playing, and the creeping fingering technique could be submitted to more comprehensive study. In my understanding, these issues seem to be formally discussed, with supporting references and arguments, for the first time in connection with my strategy. Since my discussion seems to be a pioneering effort, I hope it will be taken as an introduction and initiative for more in-depth studies. Connecting the many aspects of shifting and position playing technique into a more thorough and versatile approach (perhaps even into a formal method) ought to be possible. This would, however, take some more years of rigorous, difficult, and visionary practice-based research.

At its current stage of development, my fingering strategy can already be applied to subjects and areas that unfortunately had to be excluded from this study. The strategy is easily applicable to other perhaps less common but interesting jazz scales (e.g., augmented scale). The extensive potential of pentatonic scales should be thoroughly investigated as well. Pentatonic scales have proven to be effective, for example, in chromatic jazz melody construction. Through them, the strategy can be quickly applied to more contemporary improvisation. This could be a “lead” worth considering for violinists who are not particularly fascinated with using idiomatic patterns or who favor modal jazz improvisation.

In addition, melody construction that includes or implies chord arpeggios could be an interesting subject for further applications. Although I excluded the discussion of arpeggios from this study (by stating that they can be easily derived from the scale fingering schemes), I know that

⁸ I also brought parts of the strategy into academic discourse and presented key elements of it as “Stringprovisation – A Fingering Strategy for Jazz Violin Improvisation: Demonstration of a Practice-Based Research of Fingering Schemes Approach” at the MIDAS conference in London (20 April, 2007).

arpeggios are still worth giving more focus. Through sophisticated arpeggio applications, attention could be paid, for instance, to the melody construction of historically earlier sub-idioms of modern jazz, such as bebop and hard bop in particular.

Arpeggios can be seen as one of the most important elements of modern jazz melody. Approaching the matter purely from a schematic fingering point of view could result, for example, in exercises for intermediate-level jazz violin pedagogy. Through more detailed arpeggio study, arpeggios could be categorized in terms of how many strings they cover and on which string the root appears. When the discussion of arpeggios is extended to, for instance, various II-V-I progressions, it is worth examining what meaning the fingering of the first chord (II) has for the continuation of the progression.⁹ Moreover, the linking of independent II-V-I or just II-V progressions through shifting is another relevant issue worth studying.

Perhaps there is also a need for a serious and in-depth examination of schematic fingering for modal jazz improvisation. In my understanding, modal applications should not be of special concern to jazz violinists. When more scalar melody construction is the focus, violin suddenly becomes a handy, fast, and rather easy instrument. I believe that many beginning-level pedagogical solutions could be based on schematic applications in a modal jazz context. These applications could focus on teaching the basics of violin improvisation, shifting, and position playing, for instance. It appears that improvisation is also becoming a more and more popular pedagogical tool for beginning-level violin pedagogy of classical music. Jazz violinists may thus have the greatest potential for initiating pedagogical inventions targeted for this purpose and student group as well.

It seems, then, that my introductory study of schematic fingering for jazz violin improvisation suggests a wealth of other subjects and ideas for relevant future research. Violinists who have found inspiration from what is sketched here should bear in mind that future research should be practice-based. Further studies of schematic fingering cannot merely be conducted on paper as mere theory. Thus they can (and most presumably will) provide frequent, exciting, and thus highly satisfying moments of exploration—and also promote progress within the art of jazz violin improvisation.

8.3 Ideal Jazz Violin Fingering

Carl Flesch, whose publications frequently inspired me while working on this study, introduces an interesting concept that he calls *ideal fingering*. The concept is worth discussing in light of jazz violin improvisation, and I employ it in delivering my final thoughts on schematic fingering and jazz violin improvisation.

According to Flesch, the concept of ideal fingering answers the technical and musical requirements of a given musical passage. Ideal fingering “represents a bridge, linking the personal taste of the performer with the intentions of the composer.” Flesch elaborates: “A particular fingering conforms to the laws of *musical expression* only if it avoids everything that is not in

⁹ My experience suggests this to be a key issue in schematic chord arpeggio fingering.

harmony with the intentions of the composer and if, on the other hand, it does everything possible to translate the spirit of the composition into pure sound.”¹⁰ Flesch adds a bit later: “Fingering can be *universally valid* or *individual*. In the first instance, it follows definite physiological or musical rules, which have *general validity*. In the second, it takes into consideration the personal characteristics of the *individual performer*, the peculiarity of his technical equipment.”¹¹

Fingering is undoubtedly one of the most important areas of violin technique: fingering choices have a direct effect on the quality of musical violin expression. In the classical violin realm, ideal fingering enables violinists to perform pieces of music exactly according to a composer’s indications and in terms of the violinist’s personal interpretation. Violin fingering thus entails finding a balance between the intentions of the performer (a subjective agent) and those of the composer (an objective agent).

In jazz violin, ideal fingering helps in producing a desired improvisation.¹² However, according to the ideal of personal expression in jazz, performers themselves are mainly responsible for the performance of improvised musical contents. In jazz, the performer is simultaneously the composer (a subjective agent) and the interpreter (a subjective agent), and thus practically any kind of artistic result can be claimed as satisfactory and intended.¹³ Consequently, any fingering, no matter how clumsy or impractical for the violin it might occur, can be regarded as acceptable, functional, and successful.

Still, fingering technique does have a significant influence on improvised musical material. If violinists want to achieve tactile and kinesthetic comfort and smoothness and thus avoid, for example, physical exhaustion, pain, and biomechanical damage, and if violinists want to enjoy a flow of ideas and attempt to express on their instrument all those melodies their creative minds conceive, then they presumably also want to apply fingering that responds best to their imaginative ideas and creative spirit.

Thus, in a jazz context, ideal fingering could indicate, for instance, relying on prepared and reliable fingering for a larger selection of notes. This selection (perhaps approached through schematic fingering) then serves as the basis or latent source for fingering the desired improvisation. The clearest examples of such note selections are recognizable as scales. Consequently, among scale fingerings that most approximate technical excellence must be scale fingering *schemes*; at best, they convey and manifest a wealth of tactile and kinesthetic knowledge and experience. Through such schemes, violinists should easily be able to dive into a flow of ideas.

¹⁰ Carl Flesch, *Violin Fingering: Its Theory and Practice*, English adaptation by Boris Schwarz (London: Barrie and Rockliff, 1966), 5. Italics in the original.

¹¹ *Ibid.*, 6. Italics in the original.

¹² In jazz, ideal fingering also indicates finding the best fingering for a written musical passage or a passage that is supposed to be repeated without intentional variation (e.g., finding the best fingering for a theme, a second voice, an orchestral part, a pattern, etc.). In such instances, there is little difference from ideal fingering in classical violin music.

¹³ In order to stress my point, I accept that improvisation can be same as an *instant composition*, although this short, descriptive use of words is far from being satisfactory. The particular wording is rightfully criticized, for instance, by Derek Bailey. See his *Improvisation: Its Nature and Practice in Music*, ix.

Consequently, with respect to Flesch's position quoted above, in jazz improvisation schematic fingering can be both universally valid and individual. That is, schematic fingering may follow physiological or musical requirements and rules, while simultaneously taking into consideration the performer's personal needs and characteristics.

Thus, schematic fingering offers a fascinating opportunity for bringing together both the jazz art and violin craft, both of which are essential—but also offer new potential—for higher jazz creation. In other words; *regarding jazz violin improvisation, schematic fingering can be ideal fingering.*

8.4 Bow

I started this project a long time ago in order to overcome some technical barriers involving positions and shifting and learning to play modern jazz better. The project then became a study that offered a chance to step further away from the frameworks and contexts I already knew. It was a reach towards something new. Consequently, the study often came to remind me of fronting a pick-up group of tough professionals without too much rehearsing and taking a solo in a really hot spot. When signing up for this particular gig, I suspected that the performance would be somewhat difficult. There certainly were several fast and hard changes to play through—eventually, of course, several more than could ever have been expected.

Looking back, I now can see that while I managed to show that I have paid at least some dues, I simultaneously might have left a part of the audience wondering what it actually was that I have accomplished. I regard this particular performance as just an opening of some kind and hope it soon leads to exciting new performances. Although the piece may have been a bit tricky at times, I found it simultaneously amusing and serious. By its end, the undertaking was nothing less than rewarding: I gained new experience, points of view, and have a better idea of what lies ahead in the groove. The gig is still on. Definitely.

My turn in the form of this particular study performance is now over, however, and I have no more tricks to play in the present performance. I hereby take a deep bow and step off the stage for a moment to make room for alternative voices. I humbly hope my work will stimulate the creative efforts of others.

That means you there, on the other side of the page. It is now your turn to step onto the stage. Please, flex your fingers, set your bow on a string, and...

Stay Creative!

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APPENDIX 1

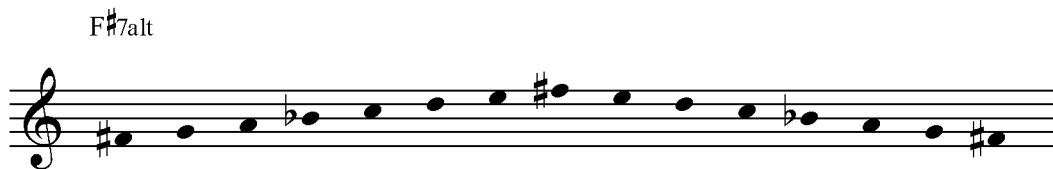
Glossary

In the following glossary, some of the special terms that are repeatedly employed in this study appear for readers' quick reference.

Altered scale

When the dominant seventh chord includes a diminished fifth (f 5), an augmented fifth (#5), a minor ninth (f 9), and an augmented ninth (#9), it is often just called an *altered dominant chord*.

Consequently, the abbreviation *alt* is frequently employed with altered dominant chords. A scale that includes all of these altered tones (and that thus best reflects the particular chord color) is frequently called the *altered scale*. The example below shows the F# altered scale and the related chord abbreviation.



The altered scale can also be seen as the seventh mode of a melodic minor scale (i.e., in the above example, the F# altered scale is the seventh mode of the G melodic minor scale). In distinction to classical music theory, in jazz the ascending and descending melodic minor scales are the same.

Blues Changes

Blues Changes refers to a 12-measure musical form where the tonic, subdominant, and dominant chords typically appear as dominant seventh chords. In the modern jazz context, *Blues Changes* often include more chords than is usual, for instance, in traditional blues and in rock music. In jazz, *Blues Changes* may also include four-note chord types (and their variants) other than just dominant chords.

Countdown superimposition

The type of chord progression Coltrane employed (for the first time) in his composition *Countdown* has become popular in modern jazz. In Coltrane's original example, the progression appeared as a reharmonization of a conventional II-V-I progression. The example below illustrates the practice with two chord progressions on separate staves. Both progressions resolve to E_f major. The

progression on the first staff shows the conventional II-V-I progression in E \flat major while the second staff shows the chord progression Coltrane used in *Countdown*.

The image displays two musical staves. The first staff shows a conventional II-V-I progression in E \flat major: F \flat mi7, B \flat 7, E \flat ma7, E \flat ma7. The second staff shows the Countdown chord progression: Fmi7, G \flat 7, B \flat ma7, D7, Gma7, B \flat 7, E \flat ma7.

It has become common more recently to employ the *Countdown* chord progression on top of II-V-I progressions. Thus, the original reharmonization idea has been enhanced into an effective (melodic) superimposition device for coloring II-V-I progressions.

When a *Countdown* superimposition is performed, the accompanying performers (e.g., a bass player and a pianist) play the II-V-I progression (e.g., the upper staff of the above example), while the soloist's (e.g., a jazz violinist's) improvisation outlines the *Countdown* chord progression (i.e., the lower staff of the example above). The superimposition is not tied to any particular chord rhythm or time signature. Therefore, in the example above a popular version of the chord rhythm is only implied with the bar lines and the time signature remains unspecified.

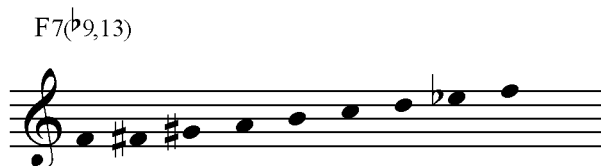
Diminished scale

Diminished scales are symmetric, eight-note scales constructed of alternating whole and half steps. In jazz theory, the scale employed on top of a diminished chord begins (when ascending) with a whole step. (The diminished scale employed on top of a dominant seventh chord begins with a half step; see below for more details.) A diminished scale appearing on a diminished chord has a different function than a diminished scale that appears on a dominant seventh chord. The example below shows the F diminished scale and the related chord abbreviation.

The image shows a musical staff with the chord abbreviation F $^{\circ}7$ above it. The scale is written as a sequence of notes: F, G, A, B \flat , B, C, D, E \flat .

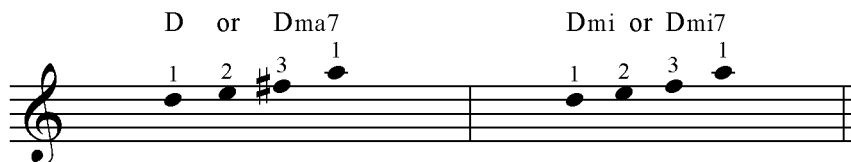
Dominant diminished scale

In jazz theory, the ascending diminished eight-note scale beginning with a half step is called the *dominant diminished scale*. This type of scale is typically employed on top of a dominant seventh chord, hence its name. The closest chord color for a dominant diminished scale is a dominant seventh chord with the minor ninth and natural thirteenth. As an example, in the case of the F dominant diminished scale, the precise chord abbreviation would be F7(b9,13). The scale and chord symbol are notated below.



Four-note patterns

Four-note patterns are a melodic device popularized by John Coltrane in his legendary *Giant Steps* solo, in 1959. (The performance was released on an album bearing the same name.) In that solo, Coltrane frequently based his improvisation on a pattern composed of the first (i.e., the tonic), second, third, and fifth scale degrees of the underlying harmony. This form is the most popular in jazz, although others exist. The example below shows the basic form of a major and a minor four-note pattern. In the example, the chord symbols for the patterns are also indicated. The patterns can be also employed in outlining a major seventh and a minor seventh chord respectively, although they do not include all the characteristic chord tones.



Functional modern jazz harmony

Functional, modern jazz harmony is tonal harmony. It includes clear tonal tensions and releases. These appear often as dominant-tonic relations and other prolonged cadences. In modern jazz, major cadential movements may frequently appear; the key centers may (and often do) change every few measures. Typically, cadences occur as very short chord progressions that often (however, not necessarily) include common tonal chord functions; the subdominant, dominant, and tonic. These progressions frequently follow the cycle of fifths and rely on the degrees of the key or tonality in question. Consequently, for example, II-V-I or III-VI-II-V-I are progressions that appear repeatedly.

Modern jazz

In this study, *modern jazz* refers to idiomatic jazz expression associated with the jazz styles of the 1940s, 1950s, and 1960s. The particular styles in question are bebop, hard bop, cool, and modal jazz. This study focuses especially on the rhythmic, harmonic, and melodic practices typical to bebop and hard bop. However, since the study also discusses some harmonic elements of jazz popularized in the 1960s, it is necessary to apply the more general term as an umbrella term providing a superset of related concepts.

Pattern and Idiomatic pattern

In jazz, a *pattern* usually indicates a melodic fragment. In common jazz language, a pattern is often equated with an *idiomatic pattern*. Idiomatic patterns are melodic fragments that form a significant part of the so-called “public domain,” “things that every jazz musician plays,” or “the grammar and syntax” of modern jazz.

Idiomatic patterns have several general artistic functions. For example, they connect jazz improvisers and their solos to jazz history and tradition. Through them improvisers can signify a particular jazz idiom and acknowledge it or its representative performers. Subtle artistic implications (in the form of quotations, for instance) can be based on idiomatic patterns. Moreover, idiomatic patterns offer a chance to study jazz improvisation in small components (as melodic cells, for instance).

Idiomatic patterns are important building blocks of improvisations as well. One of the most popular ways of employing them is to play them when outlining certain chord colors (such as the altered dominant chord), chord progressions (such as a II-V, II-V-I, or V-I progressions), or superimposed harmonic structures (such as the *Countdown* superimposition).

Idiomatic patterns have been referred to by many other names as well: for example, as *formulas*, *clichés*, *licks*, *tricks*, or *pet patterns*. No consensus seems to appear about which is best. Often jazz musicians are recognized through the selection of patterns they employ in their improvisations. Hence, it is also relevant to understand such patterns as *signature phrases* or *mannerisms*.

Position playing

In short, *position playing* means playing in (or within) one position for a period of time. In the jazz context, position playing can mean, for instance, that players rely on their improvisation only on the pitches available in a particular position. Frequent shifting is thus not necessary, since the focus is on the melodic potential the position already includes. Consequently, while position playing can be interesting and inspiring, it can also be a limitation: it functions as an artificial frame for improvised melody construction and pre-modifies or pre-determines the melodic possibilities. The amount of such pre-modification naturally depends on the instrument in question and the player’s skills.

Rhythm Changes

Rhythm Changes or *I Got Rhythm Changes* refers to a 32-measure AABA musical form that follows the chord structure introduced by George Gershwin in his composition *I Got Rhythm* (copyright given in 1930). While the original *I Got Rhythm* chorus is actually 34 measures long, in modern jazz practice and in modern jazz tunes that follow *Rhythm Changes*, the last two measures of the original Gershwin composition are frequently omitted.

Superimposition

In jazz, superimposition means placing a second musical element over the indicated or expected one. The superimposed and the original (or already established) elements are heard together. Thus, a superimposition is not a “substitution” (a term that refers to a replacement of the original element). Superimpositions are by nature temporary and they usually last for relatively short time periods (e.g., a few measures or seconds). Typically, superimpositions are accomplished harmonically, when two or more key centers appear simultaneously. However, superimposing applies to rhythm and melody as well.

In solo improvisation, superimposing characteristically occurs when the melody construction follows a different chord progression than the original set of chords. While the original chord changes remain the same and are played (or implied) in the accompaniment, the superimposed melody can result in strong melodic dissonance against the background harmony, depending of course on the difference between the superimposed and original chord progressions.

Sometimes the superimposed melody can be easily identified as a chord progression; as conveying harmonic functions (e.g., tensions and releases). For instance, a superimposed melody can follow or outline the chord progressions jazz musicians identify as *Countdown* and *Giant Steps*.

Tonicization

In harmony, *tonicization* means the treatment of some other scale degree than that of the overall tonic as a temporary tonic, usually by means of an applied dominant or a leading-tone relationship. In jazz, tonicization can be quite transient. For example, just a single chord or a scale (or a mode) can be tonicized. The tonicization may be applied in the improvised melody as well and it does not need to be supported by the chordal accompaniment. *Enclosure* (i.e., the target (or object) note and a combination of its chromatic leading and upper leading notes) is an example of a melodic device of the latter kind.

Turnaround

Turnaround is a cadential chord progression that often appears at the end of a chorus or in another harmonically significant place of a jazz standard tune (or a composition of similar type). Typically, turnarounds are III-VI-II-V-I or I-VI-II-V-I progressions. Variants, however, occur. Such variants employ, for instance, a range of chord substitutions and chord alterations.

APPENDIX 2

Comparison of Violin and More Common Jazz Instruments

As a supplement to the subject in focus in this study, I now discuss in more detail the status of the violin in jazz. I approach the matter through a comparison.¹ The comparison stresses a selection of important instrumental matters. These matters elaborate certain differences between violin and more common jazz instruments. These differences may explain the present, marginal position of violin in jazz (i.e., why jazz violin is not well known by otherwise knowledgeable jazz audiences).

Simultaneously, the comparison calls attention to several important technical characteristics of jazz violin playing. In addition, it challenges popular views about jazz violin.

I illustrate this discussion of the status of violin in jazz through four tables. In these tables, I compare violin to the instruments of a standard jazz big band (i.e., saxophone, trumpet, trombone, guitar, piano, plucked string bass, and a drum set).² These instruments represent a selection of more common jazz instruments. I have added voice (vocals) into the selection, since the human voice obviously is one of the most popular jazz instruments.

In the comparison, I treat these matters as short arguments. I indicate the status of all instruments concerning a particular argument with four symbols. I employ the symbol “+” if the argument applies to the instrument in question and the symbol “-” if the argument does not apply. If it is difficult to determine if a particular aspect does or does not apply to the instrument in question, I indicate this with symbol “+/-”. The symbol “0” appears when the argument has no relevance regarding the particular instrument.

The abbreviations employed in the tables follow the common jazz standard: “sax” stands for saxophone, “trp” for trumpet, “trb” for trombone, “gtr” for guitar, “pn” for piano, “dr” for drum set, and “voc” for human voice. The three exceptions are “bs pizz.” for string bass plucked with fingers, “vl arco” for violin played with the bow, and “vl pizz.” for violin plucked with fingers. String bass played with the bow is not included in the comparison; it is relatively rarely heard for very long in jazz performances and it would frequently share the same remarks as “vl arco.”

I do not specify any differences between instruments within instrument families (e.g., I do not differentiate the alto saxophone from the tenor) since this will not have a significant effect on the results and since it would only make the tables more complex. I include “vl pizz.” in the comparison in order to emphasize the interesting fact that the plucking of the violin strings as a way of producing sound can reduce the difference between violin and more common jazz instruments.

¹ This comparison is a more encompassing version of a part of my paper “So far or so close? Discussing the position of violin in jazz history.” I presented the paper at the International Symposium for Histories of Popular Music, Jazz & Folk Music, held at the Sibelius Academy (Helsinki, Finland), November 29–December 1, 2007. The paper referred to interviews and informal discussions with some 40 jazz string professionals. The references employed in this appendix are included in the Part I list of references.

² A drum set (or a drum kit) and its different components began to take form in the second part of the 1920s. Jazz drummer Gene Krupa is often acknowledged as a significant influence in popularizing it. In the following comparison, there are two places where percussion instruments must be referred to instead of a drum set. These exceptions are indicated.

The comparison is divided in four subchapters, each corresponding to its own argument category. In each subchapter, I briefly explain and discuss the arguments in regard to violin and violin playing.

1 Instrument Status in the Historical Eras of Blues and Jazz

I begin by comparing the status of the respective instruments within the historical blues and jazz eras. Precise definitions of the musical eras do not play a significant role here since the purpose of this particular comparison is to illustrate how the status of violin changed around the swing era.³

Argument/Instrument	sax	trp	trb	gr	pn	bs pizz.	dr	voc	vl arco	vl pizz.
1. The instrument was part of the early blues era. ⁴	-	-	-	+	-	-	+	+	+	+
2. The instrument was part of the early jazz era. ⁵	-	+	+	+	+	-	+	+	+	+
3. The instrument was part of the swing jazz era.	+	+	+	+	+	+	+	+	+	+
4. The instrument was part of the big band era.	+	+	+	+	+	+	+	+	-	-
5. The instrument was part of the bebop era.	+	+	+	+	+	+	+	+	-	-

Violin had an important role in the early blues era at the end of the 19th century and at the beginning of the 20th century. This is verified by many researchers. For instance, in Paul Oliver's *The Story of the Blues* and *Savannah Syncopators* and Eileen Southern's *Readings in Black American Music*, violin is regularly mentioned in discussions of the early development of African-American music, especially the blues (Argument 1).⁶

³ Around the turn of 20th century, violin was naturally largely associated with European classical and dance music. The special influence this connection to dance music had in the perception of violin in blues and early jazz would be an interesting matter to discuss further. This, however, falls outside the scope of this comparison.

⁴ A note on the comparison concerning the early blues: Here the abbreviation "dr" exceptionally indicates "percussion instruments." Different percussion instruments (such as washboard) were undeniably part of the early blues era. Drum set, as we know it today, did not yet exist.

⁵ A note on the comparison concerning the early jazz: Here, the abbreviation "dr" also indicates "percussion instruments." Different percussion instruments had an important role in the early jazz. Drum set, as we know it today, was not yet an established component. It was not frequently employed in the recordings of the era because it was difficult to record with the equipment available at that time.

⁶ Paul Oliver, *The Story of the Blues*, new, updated edition (London: Random House, 1997; Boston: Northeastern University Press, 1998), 11, 21, 29, 54-55, and 57. Fiddlers appear frequently in the picture selection between pages 84 and 85 (the pages of the picture section are unnumbered). Paul Oliver, *Savannah Syncopators: African Retentions in the Blues* (London: Studio Vista, 1970), 20-21, 25, and 37. Eileen Southern, ed., *Readings in Black American Music*, 2nd ed. (New York: W. W. Norton & Company, 1983). Violin is mentioned in several places in this publication; in the

Violin was also frequently employed in early jazz orchestras and groups; it especially had a prominent role in ragtime ensembles (Argument 2).⁷ Violinist Joe Venuti was a very popular musician in the 1920s. His recordings with guitarist Eddie Lang were influential and widely respected among musicians.⁸

Jazz historians often neglect violin when discussing the swing era. If the historical emphasis is only on its general popularity in the USA and the instrumentation of the most influential (big) bands, it may seem appropriate to exclude violin from consideration. If smaller jazz bands and the history of jazz in Europe are taken in account as well, such exclusion of violin from jazz history may appear somewhat biased: It is difficult to ignore the significance of Stephane Grappelli's contributions to swing jazz as a member of the widely popular Quintette du Hot Club de France. I maintain that the artistic and instrumental development of violinists of the swing era was as rapid as the progress among players of more common jazz instruments and singers. The recorded achievements of other great violinists of the era (by, for example, Ray Nance, Stuff Smith, Eddie South, and Joe Venuti) support this conclusion (Argument 3).

However, when the big band era is examined, violin can naturally be excluded (Argument 4).⁹ A common assumption is that violin (or a string section) became ineffective in the big band context since it could not be heard over the rest of the ensemble.

During the bebop era the number of violinists who followed the rapid development of that style declined significantly (Argument 5). There naturally were some who made serious attempts to adapt and update to bebop expression and who strived to build a career with the "hype" given this new jazz style by the media and public.¹⁰ However, these attempts were relatively unsuccessful in terms of the recognition gained by jazz violinists. The lack of bebop-influenced violinists or the lack of their recognition (or both), are certainly among the important reasons why violin began its drift towards the marginal position it still occupies today. Still, it is inappropriate to assume that violinists' efforts in pursuing bebop were any less than other instrumentalists' or that they did not "practice hard enough."¹¹ There are more relevant factors which originate, for example, with significant differences in instrumental technique.

readings on slave advertisements (pp. 31-35) and a blues history according to William Christopher Handy (pp. 212-226), for instance.

⁷ An illustrating reference in the form of Georg Morrison's biography can be found in Gunther Schuller, *Early Jazz: Its Roots and Musical Development*, paperback ed. (New York: Oxford University Press, 1986), 67-69. See also Christopher Washburne, "Miscellaneous instruments in jazz," in *The Oxford Companion to Jazz*, ed. Bill Kirchner (New York: Oxford University Press, 2000), 653-667.

⁸ See Joe Venuti and Eddie Lang, *The Classic Columbia and Okeh Joe Venuti and Eddie Lang Sessions*, Mosaic Records, MD8-213.

⁹ Big band was the dominating orchestral style of swing and it is often referred to as a subcategory of jazz history. See Gunther Schuller, *The Swing Era: The Development of Jazz, 1930-1945*, paperback edition (New York: Oxford University Press, 1991), 806. Exceptions occurred, of course. For example Artie Shaw often employed a string section on his recordings during the swing era (see *ibid.*, 694-695). However, the experiments of Shaw or other band leaders with strings were few if compared to the mainstream.

¹⁰ Some recent research has been published about this. See, for instance, Anthony Barnett, *I Like Be I Like Bop: Odds & Svends of Early Bebop Violin & Contemporary Violin Curiosities*, AB Fable, ABCD2-011/12. This double CD compilation from 2005 includes enlightening musical examples and an essay by Barnett.

¹¹ Surprisingly, professional jazz musicians (sometimes even violinists) often offer such an explanation.

2 Matters of Instrumental Technique

A final explanation for the marginal position of violin in modern jazz does not exist. However, some interesting perspectives can be gained through comparing details of instrumental technique. The following technical matters refer to certain musical features that are essential to success in modern jazz improvisation.

Argument/Instrument	sax	trp	trb	gtr	pn	bs pizz.	dr	voc	vl arco	vl pizz.
1. Percussive attack is easily available.	+	+	+	+	+	+	+	+	-	+
2. "Palpable attack" is easily available.	-	-	-	+	+	+	+/-	-	-	+
3. Attack produces a clear and strong physical sensation.	+	+	+	+	+	+	+	+	-	+
4. There are keys, frets, or other aids available for maintaining good intonation.	+	+/-	+/-	+	+	-	0	-	-	-
5. The possibilities for producing a chosen pitch are relatively limited.	+	+	+	-	+	-	0	+	-	-
6. Four-note arpeggios are easy to visualize.	-	-	-	+	+	-	0	-	-	-
7. Four-note arpeggios are easy to "feel" (in tactile and kinesthetic memory).	+	+/-	+/-	+	+	+/-	0	-	+/-	+/-

Many agree that the attack of violin is less percussive than the attack of more common jazz instruments. Such qualities as "singing," "lyrical," and "soft" are more likely used to describe the violin attack than the "striking," "edgy," and "hard" effects that are characteristic of, for instance, saxophone, piano, and drums.¹² A percussive attack is essential for the rhythmic sense of jazz, especially its syncopation. This percussive attack can easily be produced with voice and on wind instruments. It is also available on guitar (through hitting, picking, or plucking the strings), piano (which can be seen as a mechanical percussion instrument), and drums. A sufficient, functional percussive attack can also be produced through plucking the strings of a string bass or violin.¹³

¹² This aspect is also briefly discussed in Gunther Schuller, *Early Jazz: Its Roots and Musical Development*, paperback ed. (New York: Oxford University Press, 1986), 8 and 56.

¹³ The difference between the violin attack produced by plucking the strings or playing with the bow can be easily heard on recordings where jazz violinists are playing pizzicato (i.e., plucking the strings). One of the earliest examples of a pizzicato jazz violin solo appears on the recording *My Syncopated Melody Man* (recorded in 1927). The soloist is Joe Venuti, and the recording appears, for instance, in Joe Venuti and Eddie Lang, *The Classic Columbia and Okeh Joe Venuti and Eddie Lang Sessions*, Mosaic Records, MD8-213. This boxed set offers some opportunities for making comparisons between the swing feeling Venuti could produce with his bow or through plucking the strings with his fingers. In my opinion, the latter approach frequently swings more. I have also noticed in my own artistic work that it is

However, with a bow it is more natural to sustain a note than to hit it. It could be said that the bow is “designed to play legato” and that with the traditional bow technique it is somewhat challenging to produce the percussive attack typically needed in jazz (Argument 1).

When sound is produced with the bow, the violin string is actually touched with a flexible, resilient tool that is relatively difficult to control.¹⁴ The sound is not produced with the fingers or hands directly. Consequently, the violin attack is not very *palpable*. Producing an accent with a bow cannot be considered to be an activity that gives a strong tactile sensation (of using the bow hand). Even if the strings are struck with the bow (or more precisely, with the hair of the bow) the bouncing qualities of the bow on the violin strings still significantly lessens the tactile sensation of producing the accent directly with fingers or hands. With some common jazz instruments (e.g., guitar, piano, drums) a sensation of a “palpable attack” is more easily available (Argument 2).¹⁵

I also maintain that even the most physical bow attack (i.e. a strike with the bow) does not give as clear a physical sensation as the diverse attacks of other common jazz instruments can offer. At least the physicality is considerably lessened by the elasticity of the bow. I argue that employing air pressure (and consequently employing, for example, lungs, mouth, tongue, and lips) or the different striking, plucking, or picking actions the playing of other common jazz instruments involve give a stronger physical sensation than causing a string to vibrate with a bow stroke (Argument 3).

Regarding the violin fingerboard, maintaining good intonation can be a question of millimetres. In the higher positions, just rolling the finger tip can change the pitch a half step. Since finger movements are small and there are no frets, good intonation is one of the main concerns in violin playing. In this respect, the instrument differs significantly from certain more common jazz instruments (Argument 4).

The design and the tuning system of violin often enable at least two ways for producing a particular pitch.¹⁶ This wealth of possibilities may also add to the challenge of maintaining good intonation; for instance, as an oversupply of fingering options (Argument 5).

Since the fingerboard does not offer any significant visual aids, a four-note arpeggio (the foundation of melody construction in modern jazz) cannot be visualized. At least not in the way it is possible to visualize arpeggios on guitar and piano (Argument 6). Visualization is not essential to

significantly easier to achieve a good swing or groove when I pluck the violin strings instead of playing with the bow. Professional musicians who have heard me playing both ways have noted this difference as well. A limited survey of some string playing jazz colleagues revealed that they have had similar experiences in this respect.

¹⁴ The bow grip is very subtle since the bow is held by the fingers. The grip can easily become ineffective, for instance, by small muscle tension.

¹⁵ I believe that it is also easy to reach a sensation of “palpable attack” with drum sticks, as they are hard, not flexible; and through the piano’s hammer mechanism as well.

¹⁶ The seven lowest pitches on the G string (from open G to C# or Df) and the highest pitches on the E string (approximately the last octave) can only be produced on one string (if artificial harmonics are excluded regarding the highest pitches on the E string). The remaining pitches can be produced at least in two different ways (i.e., the same pitch can be played on the adjacent lower string). For some pitches there are as many as four different options! In addition, most of the pitches can be stopped by any of the four fingers. Thus, it should be no surprise that a major part of violin practicing focuses on fingering.

succeed in modern jazz improvisation, but it certainly helps. The majority of jazz guitarists and pianists constantly look at their hands and fingers while they play. This can naturally be “just a bad habit.” However, I doubt if it is only that. Nevertheless, the four-note arpeggios that are a central part of modern jazz “language” can almost be “spelled out” on the guitar fingerboard and piano keyboard.¹⁷ This is especially the case for the piano which is, in effect, a “color-coded” instrument as well (i.e., the keyboard is arranged in black and white keys).¹⁸

While playing, the saxophone player cannot usually see the keys. However, I would argue that the keys still may help saxophonists to some extent in gaining a “feel” of the four-note arpeggios in their tactile and kinesthetic memory.¹⁹ In comparison to violin (and some other instruments), the key mechanism of saxophone contributes at least a small advantage (Argument 7).

3 Matters in Physiology and Coordination

Some particularly interesting matters can be noted when the instruments are compared in terms of physiology and coordination.

Argument/Instrument	sax	trp	trb	gtr	pn	bs pizz.	dr	voc	vl arco	vl pizz.
1. The instrument is at least partly supported by its body or a device.	+	-	-	+	+	+	+	+	-	-
2. Both hands do not need to be above the heart level when the instrument is played.	+	-	-	+	+	+	+	+	-	-
3. Hands do not frequently need to cross the (vertical) body midline when the instrument is played.	+	+	+	+	+	+/-	+/-	+	-	-
4. Motor independence of the limbs is not highly essential in playing.	+	+	+	-	-	-	-	+	-	-
5. Limbs execute rather similar movements or just one limb is constantly active.	+	+	+	-	-	-	-	+	-	-

While some of the more common jazz instruments stand or are supported by their body or a device, some have to be carried. Although the body of the violin rests on the shoulder of the player, most of the weight of the instrument in normal playing position is carried by the hand that holds the instrument (Argument 1). Furthermore, the hand holding the bow has to carry it as well. Actually,

¹⁷ For instance David Sudnow’s *Ways of the Hand: The Organization of Improvised Conduct* (Cambridge: The MIT Press, 1993) illustrates well the central contribution of the visual sense in piano playing.

¹⁸ Mark Levine, *The Jazz Theory Book* (Petaluma: Sher Music Co., 1995), 249.

¹⁹ On kinesthetic memory and how it can be employed in music see, for instance, Jennifer Mishra, “A theoretical model of musical memorization,” in *Psychomusicology* 19 (spring 2005): 75-89 and Alicia Kopstein-Penk, “Memorization for string players,” in *American String Teacher* 47, no. 4 (fall 1997): pp. 51, 53-57.

much of the work the bow hand does is carrying the weight of the hand and supporting the bow; frequently only a tiny amount of the weight of the bow or bow hand may be carried by the strings. The need to produce sound and simultaneously carry or support the limb and instrument (or its parts) is presumably more challenging than producing sound without similar requirements.

It should also be noted that violinists must employ both hands rather continuously on or around their shoulder level (i.e., above the heart) when they play. Yehudi Menuhin emphasizes this interesting fact in *Six Lessons with Yehudi Menuhin* when he discusses some physical challenges the violin presents to violinists. According to Menuhin, violin differs from many instruments in the way the hands are held, and for this reason such aspects as heart condition, blood circulation, relaxation, and correct reflexes have a crucial impact on performance.²⁰ A thorough study by competent specialists should be undertaken to verify Menuhin's argument. Nevertheless, regarding the way the hands are held in violin playing, the instrument is different than more common jazz instruments (Argument 2).

According to Andreas P. Baader, Oleg Kazennikov, and Mario Wiesendanger, advanced violin playing mostly requires intricate, fast finger and bow movements, all of which are organized in ordinal and temporal sequence. String instrument playing requires combinatorial actions of both limbs. Unfortunately, motor control studies in music are rare, and the interesting issue regarding bimanual synchronization in string instruments has not been often approached.²¹ Lajos Garam, however, states that the synchronization of the movements of the arms, which at the same time move completely independently of each other, is one of the most significant challenges in producing good intonation on violin.²² Violin playing involves compound acyclical movements of both hands. The movements are often continuously adjusted as well. Ottó Szende and Mihály Nemessuri imply that the structure of the violin and the bow and the specific movements and focus their control demand are the hidden source of many difficulties in instrumental technique. Movements that cross the (vertical) body midline need more care and are somewhat more difficult than movements that do not cross the midline.²³ The midline is seldom crossed in normal performances on the more common jazz instruments, but on violin the bow hand crosses the midline repeatedly (Argument 3).²⁴

According to Szende and Nemessuri, "the trend for bilateral symmetry in motor co-ordination constitutes one of the basic difficulties of instrumental playing. This applies above all to string

²⁰ Yehudi Menuhin, *Six Lessons with Yehudi Menuhin*, paperback ed. (London: Faber Music Ltd., 1981), 13.

²¹ Andreas P. Baader, Oleg Kazennikov, and Mario Wiesendanger, "Coordination of bowing and fingering in violin playing," in *Cognitive Brain Research*, vol. 23, no. 2-3: pp. 436-437, and 441.

²² Lajos Garam, *The Influence of the Spatial-Temporal Structure of Movement on Intonation during Changes of Position in Violin Playing* (Helsinki: Sibelius-Akatemia, 1990), 58.

²³ Ottó Szende and Mihály Nemessuri, *The Physiology of Violin Playing*, translated by I. Szmodis (London: Collet's Ltd., 1971), 16.

²⁴ It seems that there is a growing interest in studying how instrumentalists acquire sophisticated motor skills. Alan H. D. Watson, for example, has made interesting observations about motor control and higher sensory processing. See his "What can studying musicians tell us about motor control of the hand?" in *Journal of Anatomy*, vol. 208, no. 4: 527-542.

instruments.”²⁵ Naturally, the independence of limbs is essential to performing on several other instruments as well, especially drums. However, for many instruments (such as trumpet and trombone), most of the playing is conducted by just one limb, while the other limb either supports the instrument or is otherwise considerably less active (or both) (Argument 4).

Elsewhere in *Physiology of Violin Playing*, Szende and Nemessuri examine in detail the mechanics of both left- and right-hand violin technique. While discussing the former, the authors point out that, because of the structure of the violin and the manner in which it is held, a strong supination of the left forearm is indispensable. Such extra muscular work is not necessary, for example, in playing the guitar or cello.²⁶ Later, when reporting their motor analysis, Szende and Nemessuri emphasize that “[t]he intricacy of polyrhythmic movements in bi-manual note production is one of the main reasons for technical problems in playing the violin. The well-known tendency of strings to play rhythmless is, at least in part, certainly due to this fact.”²⁷ These two special facts add to the other motor challenges of playing violin (Arguments 4 and 5).

4 General Matters

Finally, I want to bring two more general arguments into the comparison. Although they first may appear to be small matters, both certainly have had a significant, negative influence on the development of jazz violin and on the popularity of the instrument.

Argument/Instrument	sax	trp	trb	gtr	pn	bs pizz.	dr	voc	vl arco	vl pizz.
1. There is no essential need for amplification in a club environment.	+	+	+	-	+/-	-	+	-	-	-
2. There is an abundance of solo recordings and models available.	+	+	+	+	+	+	+	+	-	-

Violin is not a particularly quiet instrument. In a suitable acoustic environment, its tone (which is rich with partials) carries well and far.²⁸ However, a typical jazz club does not usually represent such an environment, and in a typical small jazz group (including drums, bass, a harmony instrument, and a brass instrument, for instance), the violin cannot be heard well without

²⁵ *The Physiology of Violin Playing*, 142-143. See also Ottó Szende, *Handbuch des Geigenunterrichts* (Handbook of violin teaching) (Düsseldorf: Musikverlag Friedrich Karl Sandvoss, 1977), 213. Published only in German. The translation of the title is mine.

²⁶ *Ibid.*, 17-18.

²⁷ *Ibid.*, 21.

²⁸ It is frequently said that a single violin can be very loud, since its sound can carry over a symphony orchestra. There are numerous (classical music) violin concertos where the violin soloist can be easily heard over the ensemble. However, in most cases this is possible because of the well-considered professional balancing of instrumentation, orchestration, and arranging. There is no way one violin could be heard over a symphony orchestra playing at full volume.

amplification. Several of the more common jazz instruments, however, can easily be heard in a club environment (Argument 1). The electric amplification of acoustic instruments developed rather slowly, and the first purpose-built electric violins appeared only around 1930.²⁹ For a long time, however, their timbral qualities were poor. It is easy to conclude that the fact that a violin could simply not be heard in most of the jazz band formats or that the amplified violin sound quality was far from ideal both had a significant, negative effect on the popularity of the instrument in jazz.

Violin has also been treated as a marginal instrument by recording companies and jazz media. There is no simple or satisfactory explanation why this has been the case, but the effects are clear and evident: Since recordings of jazz violinists were few, very little jazz violin could be heard from discs. Since these few recordings were often done on small labels, the distribution, promotion, and media recognition were small as well.³⁰ Who could become interested in jazz violin if the recordings could not be heard anywhere or if they were not reviewed or discussed in the media? How could, for instance, talented violinists interested in jazz improvisation improve their skills if they had few or no models to follow? The lack of jazz violin “idols” has certainly had a negative effect on the status of the instrument in jazz circles. Without leaders there cannot be followers. Even today it takes some effort to find representative recordings of jazz violinists. The amount of recordings of other, more common jazz instrument is, of course, overwhelming in comparison (Argument 2).

5 Discussion

The previous comparison is rather concise. It might raise further questions and thoughts. Below, I try to anticipate and respond to some of the most obvious ones.

For example, the differences between string bass plucked with fingers and violin played with the bow could be discussed much further. It would be of great interest to examine more closely why string bass, although sharing many of the same inherent technical challenges as the violin, has achieved a central position in jazz while violin has not. Within these space limitations I can only make two general notes. First, bass quickly achieved a fundamental function in jazz concept: it has an important role in creating and supporting the rhythm and harmony. Violin (as a high pitched melody instrument) could not attain a similar status regarding the particular tasks and features of jazz. Second, there is a small difference in maintaining intonation on string bass and violin. Although, in principle, intonation is maintained the same way on both instruments, its larger size can work to the benefit of string bass. In lower positions, the physical distances between the notes are large on the bass fingerboard while on the violin fingerboard the distances in lower positions are

²⁹ Anthony Barnett, “Electric violins and jazz violinists 1930s-1950s, part 1,” in *Fiddle Sessions*, February 2006, <http://www.fiddlesessions.com/feb06/electric.html> (accessed 28 January, 2008).

³⁰ Alain Delot argues that until 1942 there had been a hundred or so violinists recording using their own name. If the estimate is correct, these violinists have surely been forgotten by jazz media and historians. Or can readers list a hundred or even fifty jazz violinists from that era? Delot refers to Brian Rust’s discography. See Alain Delot, “The Background-The Artists,” liner notes in *Violon Jazz: Hollywood-Chicago-New York-Londres-Paris-Bruxelles-Berlin-Copenhagen 1927-1944*, adapted from the French text by Don Waterhouse (Frémeaux & Associés, FA 052, 1996).

still very small. On the latter instrument, just rolling the fingertip has a significant effect on the pitch. The size of the violin fingerboard thus demands subtle, extreme accuracy while the size of the bass fingerboard potentially allows minor errors in accuracy that more often go unnoticed.

Besides playing the violin with a bow, I included the concept of producing sound by plucking the strings of violin (“vl pizz.”) in the comparison. The main reason for this was to illustrate how the challenges of violin seem to be connected to its most common way of sound production (viz., bowing). I want to note that, regarding the three arguments about attack (subchapter 2), “vl pizz.” and “vl arco” had contradictory markings. It would be very interesting to discuss further what this implies. Unfortunately, I must leave that for future studies.

The preceding comparison sets violin and the other instruments as polar opposites and there is a natural danger that the image drawn is thus too black and white. Therefore, it should be remembered that categorizing and comparing instruments in the above manner can be only suggestive in accounting for the marginal status of violin in jazz. However, in my personal opinion, the comparison succeeds in taking note of matters that show that violin, as an instrument, challenges its players in multiple ways in jazz. This was one of the primary goals of the comparison.

The comparison also stresses aspects in which the violin only seems to appear in a negative light. Since the comparison does not include arguments presenting the possible advantages the violin has over more common jazz instruments, the comparison could at first appear to be biased. It is true that arguments based on the advantages of violin are omitted. However, would they have had an effect on the comparison? Are there any matters or aspects that, in respect to jazz, give violin a significant advantage compared to the other instruments? The first few arguments of an advantage I could find are the following.

1. The dynamic range of violin is large. On several of the more common jazz instruments it is more difficult to play, for instance, as softly.
2. The sound of violin is subtle and soft. Violin could be more suitable than the other instruments for elegant expression or, for instance, ballad-style interpretations.
3. Glissandos, even longer ones, are easier to play on violin than on several of the other instruments. Glissandos are frequently employed in jazz (although they are usually associated with earlier jazz).
4. Fast, especially scalar runs are easy to play on violin. Expressing “high energy” through such fast playing is easier on violin than on other instruments.
5. Fast pitch repetition is easy on violin. On some other instruments, pitch repetition is challenging or difficult.
6. It is possible to play long, almost ever-lasting sustained notes on violin. On some instruments such sustaining of a note is necessarily short or at least limited.
7. Violin can play a single melody line or two, three, or four voices simultaneously; on most common jazz instruments two simultaneous voices can be difficult to produce.

It is true that such arguments might have brought some balance to the comparison. However, the balance would have been illusory. None of the above aspects can significantly promote the status of the violin as a jazz instrument since none of them are essential in jazz. Since few aspects in jazz really work for the benefit of violin, I did not include them in the comparison. They would have only made the tables and discussion unnecessarily complicated.³¹

The comparison suggests many observations. In summary, it clearly indicates that violin played with a bow seems to differ significantly from more common jazz instruments in respect to several aspects that are central in modern jazz. This does not mean, however, that the violin is technically more difficult or challenging than any other instruments in the comparison. Such conclusions cannot be made on the basis of the comparison.

6 Conclusions

Since violin appears to be different than more common jazz instruments in several key ways, there is no denying that, in jazz, violin can be challenging and even difficult. The comparison suggests reasons why the development of jazz violin skills can be different than that what is experienced by players of more common jazz instruments. My experience with guitar, bass guitar, and piano, for example, and as a jazz violin teacher all suggest that the matters presented and discussed in the comparison partly explain why jazz violinists' appear to make slower progress in their instrument studies than do the players of more common jazz instruments.³²

Fundamental classical violin technique does not adequately prepare violinists for the challenges of modern jazz improvisation. When a classical violinist changes to jazz the technique has to be applied, modified, or "rebuilt" to some extent. The path to becoming a professional level jazz violinist often appears to be longer than is the case for becoming a professional player of any other common jazz instrument. I believe that this is one of the most important reasons why the number of violinists at the professional level has been (and will possibly continue to be) comparatively minor. Since there have been only a few representative, artistically significant jazz violinists who have enjoyed wider recognition, jazz violin has not become popular but has drifted to and stayed in a marginal position instead. The jazz media appears to favor more common jazz instruments; the continuing lack of media recognition of jazz violinists has maintained the lesser status of the instrument.

I still often hear statements which suggest that jazz violinists may have been (or, more strongly put, that they are) too heavily trained in classical music. It is true that the technical foundation of many jazz violinists has been gained from studying classical music. In some cases, it

³¹ Similarly, including the flute and accordion (both of which also have relatively marginal positions in jazz) in the comparison might have enhanced the discussion to some extent. Unfortunately, the inclusion of other special instruments would have multiplied the amount of references needed. Since my research interest focuses on the status of violin in jazz, I excluded such additional comparisons.

³² I play guitar, bass guitar, and piano well and have personally noticed how certain details of jazz are considerably easier on these instruments than on violin.

can be that a classical background has actually become a burden for jazz music since the sound ideals of jazz differ considerably from those of classical music, for example. Also, the essence of improvisation certainly makes a big difference. Still, I find it quite hard to believe that classical music training could be a significant obstacle. It may appear as an obstacle only if violinists fail to accept that their classical training alone does not suffice for jazz and that they must modify their technical approach accordingly. It is naturally true that in some few cases this realization has not been reached.

Other statements suggest that jazz violinists could be less talented, less skilled, or less ambitious than representatives of other, more common jazz instruments. Such views are superficial. The above comparison implies that modern jazz does challenge violinists in several ways. These challenges could be so large that it is perhaps more appropriate to discuss if an exceptionally strong conviction or calling is necessary to overcome them.

The marginal position of violin cannot be disputed, nor can it be changed—at least not quickly or easily. Jazz violinists and their contributions seem to remain relatively unknown. They regrettably escape the eyes and ears of the jazz media. However, today jazz violin is no longer as rare as it may seem. Interest in the instrument has been steadily increasing over the last two decades. Therefore, a wider knowledge of its marginal position, one that especially focuses on analyzing the background conditions for this status, will be of great significance and help in gaining greater recognition and appreciation of jazz violin. Since its status in jazz is still minor, the risk is that fresh research or other new information may remain unrecognized, even by professional violinists and that many misconceptions will live on for a long time.

APPENDIX 3

Secondary Research Material

Below appears the reference details of the works of classical violin, viola, and cello repertoire included in the selection of secondary research material.

Music Editions

Bach, Johann Sebastian. 1953. *Sechs Sonaten (Sonaten und Partiten) für Violine*. Edited by Bram-Eldering. Mainz: B. Schott's Söhne. Reprint of 1925 edition.

Bach, Johann Sebastian. 2000. *Sechs Suiten Violoncello Solo*. Edited by Egon Voss. Fingerings and bowings by Reiner Ginzl. München: G. Henle Verlag.

Baklanowa, Natalja. n.d. *Intonationsetüden*. Leipzig: Edition Peters.

Dont, Jakob. 1968. *24 Etudes and Caprices for Violin Solo, Opus 35*. Edited by Ivan Galamian. New York: International Music Company.

Dont, Jakob. n.d. *Vorübungen zu Kreutzer- und Rode-Etüden, Opus 37*. Revised by Hans Stitt. Leipzig: Edition Peters.

Fiorillo, Federico. 1930. *36 Etüden (Capricen) für Violine Solo*. Edited by Walther Davisson. Leipzig: C. F. Peters.

Gaviniès, Pierre. n.d. *24 Etüden (Matinéés) für Violine Solo*. Edited by Walther Davisson. Leipzig: Edition Peters. Undated reprint of 1930 edition.

Hansen, Terje Moe. 1997. *A Modern Approach to Violin Virtuosity: The First Complete Method for the Intervals & Shifts, Part I*. Norway: Warner/Chappell Music Norway A/S.

Hindemith, Paul. 1969. *Sonate für Bratsche allein, Opus 25, No. 1*. Mainz: B. Schott's Söhne.

Kreutzer, Rodolphe. 1958. *42 Etüden (Capricen) für Violine Solo*. Edited by Walther Davisson. Frankfurt: Edition Peters.

Locatelli, Pietro. 2000. *L'arte del violino, 25 capricci*. Edited by Romeo Franzoni. Milano: Casa Ricordi. Reprint of 1920 edition.

Paganini, Niccolò. n.d. *24 Capricen für Violine Solo, Opus 1*. Edited by Carl Flesch. New York: Edition Peters.

Reger, Max. 1900. *Vier Sonaten für Violine allein, Opus 42: Heft 1, No. 1 und 2*. München: Jos. Aibl Verlag.

Reger, Max. 1900. *Vier Sonaten für Violine allein, Opus 42: Heft 2, No. 3 und 4*. München: Jos. Aibl Verlag.

Reger, Max. n.d. *Sieben Sonaten für Violine solo, Opus 91: 2. Heft, Nr. 5-7*. Berlin: Boosey & Hawkes - Bote & Bock. Undated reprint of 1968 edition.

Rode, Pierre. n.d. *24 Caprices en forme d'études pour violon seul dans les 24 tons de la gamme*. Revised by Ferdinand David. Leipzig: C. F. Peters.

Wieniawski, Henryk. 1939. *Etudes – caprices pour Violon seul, Opus 10*. Revised by A. Lefort. Paris: Durand & Compagnie Éditeurs.

Ysaÿe, Eugène. 1952. *Six sonates pour violon seul, Opus 27*. Brussels: Schott Frères.

Ysaÿe, Eugène. 1952. *10 Preludes pour violon solo, Opus 35: Essai sur le mécanisme moderne du violon*. Musical reconstruction according to the original manuscripts by Charles Radoux Rogier. Revised fingering on basis of the master's postulates by Henri Koch. Brussels: Schott Frères.

Ysaÿe, Eugène. 1967. *Exercices et gammes*. Edited by Joseph Szigeti. Brussels: Schott Frères.

Audio Material

Naegele, Philipp. n.d. *Max Reger: Kammermusik Gesamtaufnahme, Vol. 13: Sonaten Opus 91, Nr. 1-4 für die Violine allein*. Da Camera Magna, 77 513. Undated CD print of 1972 recording.

Naegele, Philipp. n.d. *Max Reger: Kammermusik Gesamtaufnahme, Vol. 14: Sonaten Opus 91, Nr. 5-7 für die Violine allein*. Da Camera Magna, 77 514. Undated CD print of 1972 recording.

Nobuko, Imai. 1992. *Paul Hindemith: The Four Sonatas for Solo Viola*. Gramofon AB BIS, CD-571.

Weiner, Stanley. n.d. *Max Reger: Kammermusik Gesamtaufnahme, Vol. 10: Vier Sonaten Opus 42 für Violine allein*. Da Camera Magna, 77 510. Undated CD print of 1970-71 recor

APPENDIX 4

Pedagogical Jazz Violin Literature

Below appears the reference details of the selection of pedagogical jazz violin literature studied for this study.

Abell, Usher. 1983. *Jazz Violin Studies*. Pacific: Mel Bay Publications.

Abell, Usher. 1993. *Jazz Violin Solos*. Pacific: Mel Bay Publications.

Baker, David. 1995. *Jazz Treble Clef Expressions & Explorations: A New and Innovative System for Learning to Improvise for Treble Clef Instruments & Jazz Violin*. New Albany: Jamey Aebersold, Inc.

Bardfeld, Sam. 2001. *Latin Violin: How to Play Salsa, Charanga and Latin Jazz Violin*. New York: Gerard and Sarzin Publishing Co.

Bisharat, Charlie. 1998. *Beyond Classical Violin: An Introduction to the World of Improvisation*. New York: Cherry Lane Music Company.

Blake, John Jr. and Jody Harmon. 1993. *Jazz Improvisation Made Easy, Volume 1: Beginning to Improvise*. Westford: Jody Harmon, John Blake, Paul Harmon.

Blanchard, Pierre. 2003. *Le Jazz au violon: Méthode pour jouer et accompagner, volume 1*. Paris: Editions Henry Lemoine.

Blanchard, Pierre. 2007. *Le Jazz au violon: Méthode volume 2, L'Improvisation et ses développements*. Paris: Editions Henry Lemoine.

Glaser, Matt and Stephane Grappelli. 1981. *Jazz Violin*. New York: Oak Publications.

Glaser, Matt and Joseph Viola. 1984. *Jazz Chord Studies for Violin*. Boston: Berklee Press Publications.

Gräßer, Hanno. 1991. *Jazz Violin: Sound, Improvisation, Solospiel, Phrasierung, Technik*. Bonn: Voggenreiter Verlag.

Liebermann, Julie Lyonn. 1986. *Blues Fiddle*. New York: Oak Publications.

- Lieberman, Julie Lyonn. 1995. *Improvising Violin*. Revised edition of 1984 edition. New York: Huiksi Music.
- Lieberman, Julie Lyonn. 2004. *Alternative Strings: The New Curriculum*. Pompton Plains: Amadeus Press.
- Lipsius, Fred. 1997. *Reading Key Jazz Rhythms: Violin*. Tübingen: Advance Music.
- Lockwood, Didier and Francis Darizcuren. 1998. *Cordes & Âme: Méthode d'improvisation et de violon jazz*. Paris: Éditions Salabert.
- Massey, Aidan. 2005. *Joe Venuti: Never Before...Never Again*. Edited by Richard Niles Romano. Pacific: Mel Bay Publications, Inc.
- Nero, Paul. 1945. *Fiddler's Handbook: "Hot Tips" for the Commercial Fiddler*. New York: Carl Fischer, Inc.
- Norgaard, Martin. 2000. *Jazz Fiddle Wizard: A Practical Guide to Jazz Improvising for Strings*. Pacific: Mel Bay Publications, Inc.
- Reiner, Dave and Glenn Asch. 1982. *Anthology of Jazz Styles*. Pacific: Mel Bay Publications.
- Venuti, Joe. 1937. *Violin Rhythm: A School of Modern Rhythmic Violin Playing*. Edited by Eddy Noordijk. New York: Robbins Music Corporation.
- Venuti, Joe. 1927. *50 Hot Breaks for the Violin*. New York: Robbins Music Corporation.
- Zacharias, Helmut. 1951. *Die Jazz-Violine: Eine praktische Anleitung*. Mainz: B. Schott's Söhne.